

SiVeGCS – The Future of German Supercomputing

WSSP Stuttgart, Germany, October 10, 2017

Michael M. Resch, University of Stuttgart

High Performance Computing Center / Höchstleistungsrechenzentrum Stuttgart (HLRS)



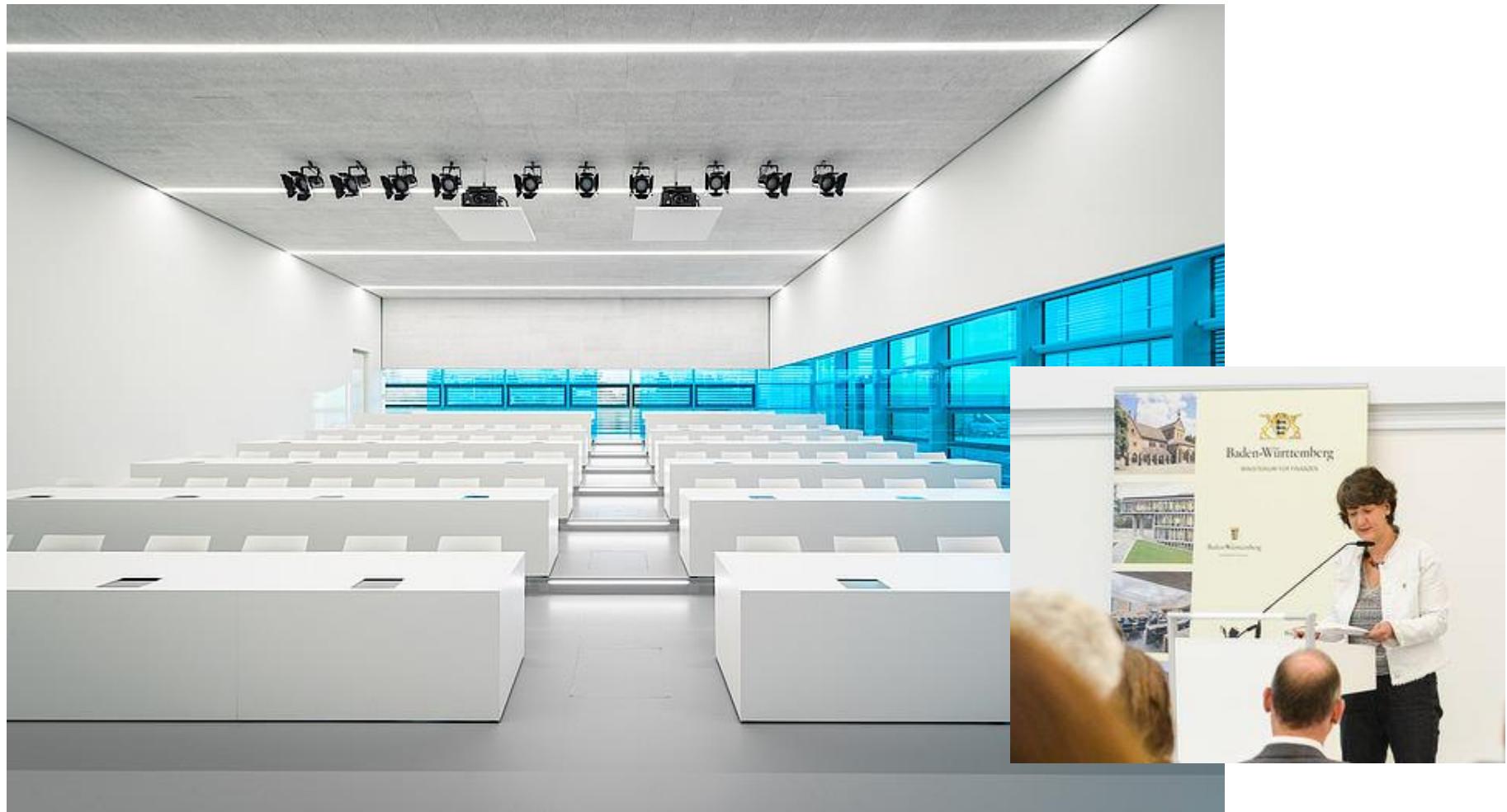
Contents

- Situation of HLRS
- SiVEGCS
- Smart Scale Strategy
- Summary

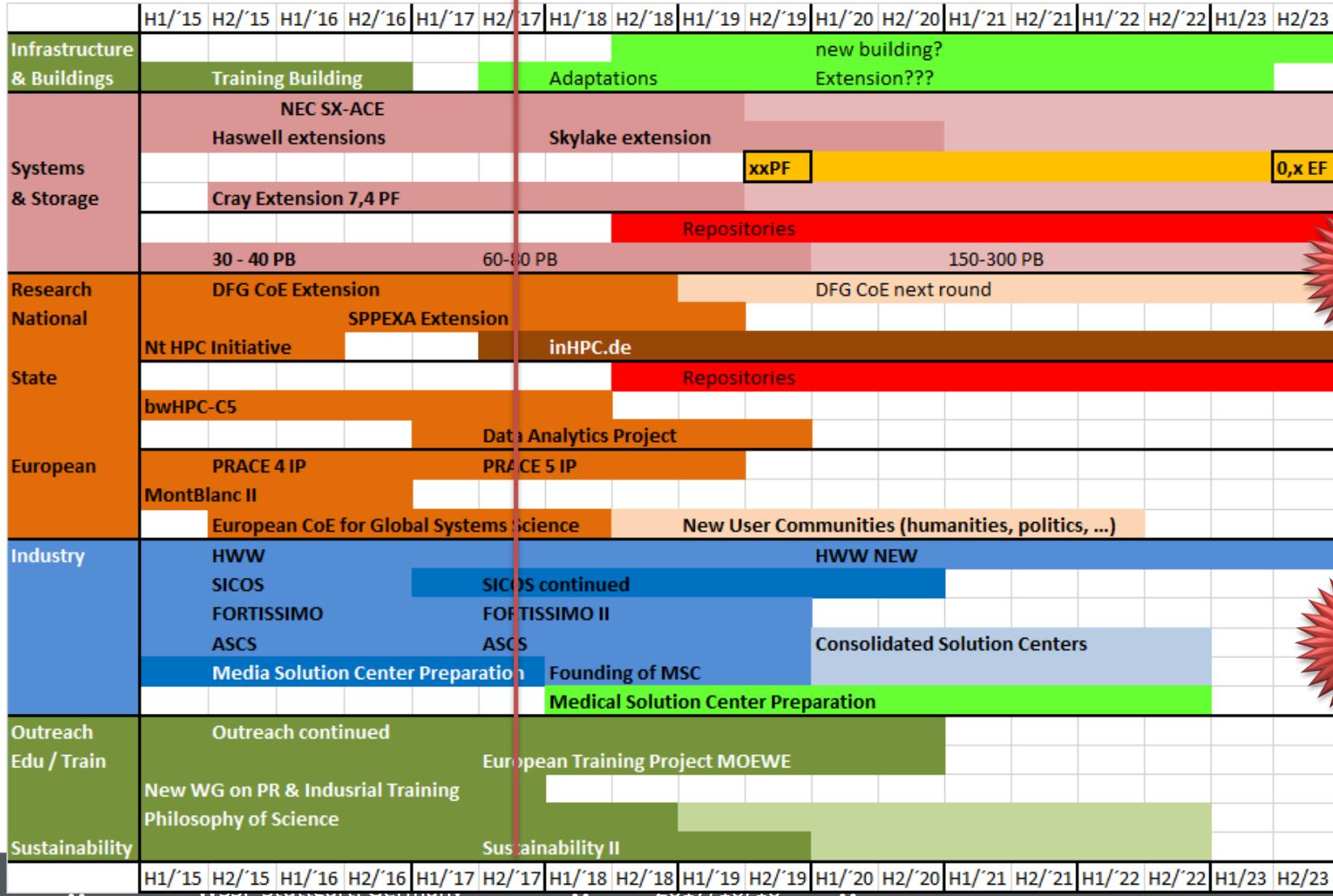


SITUATION AT HLRS

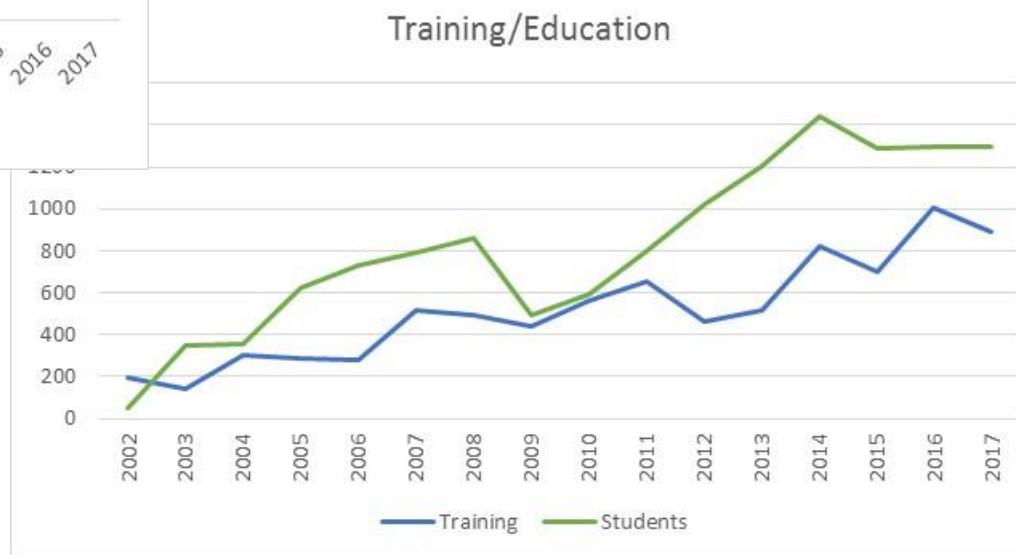
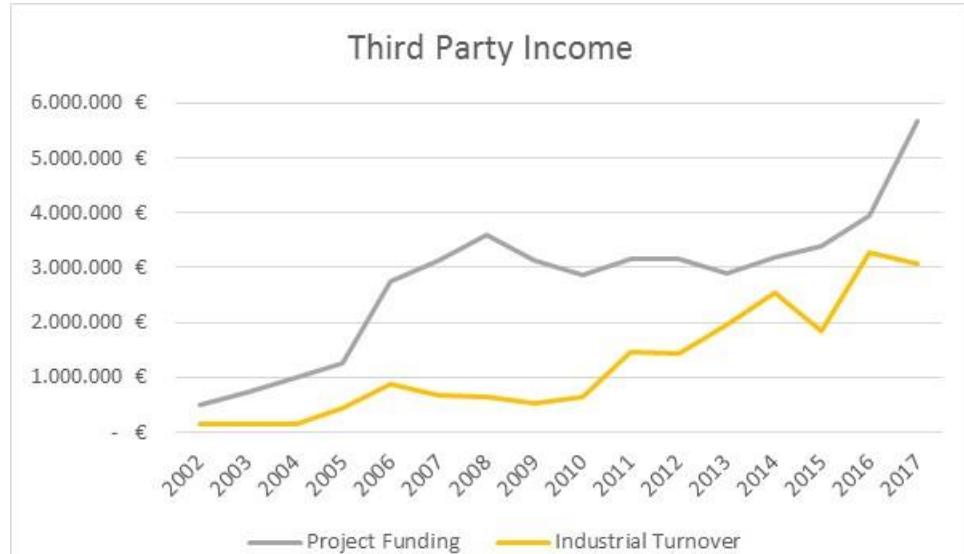
Opening of training center (Juli 18 2017)



HLRS Roadmap



Key Performance Indicators





SIVEGCS



Project SiVeGCS

- Coordination and securing of availability of HPC resources for the Gauss Centre for Supercomputing (GCS) in the framework of the national HPC-infrastructure
- Funding of HPC systems, their operation and support for users
- Project data
 - Duration: 2017 - 2025
 - Budget: 460 Mio Euro

Project Goals

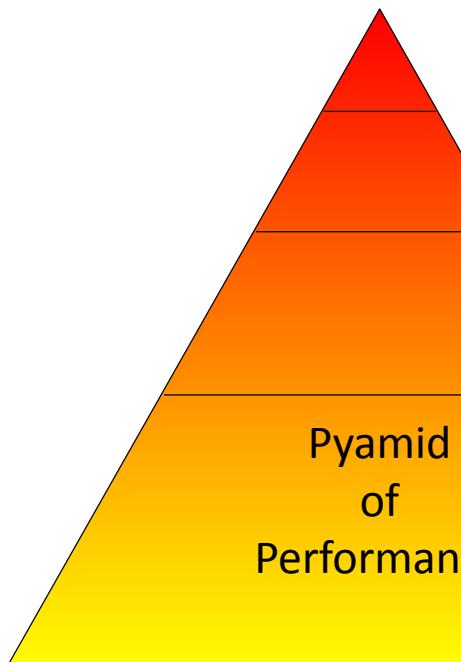
- Availability of world class systems for
 - German science
 - German economy
 - German society and politics
- Exploitation and transfer of results and achievements
- Increased outreach to the general public



Project Work Packages

- System replacements 2017 – 2023
- Operation of systems / User access and support
- Public relations and communication
- Cooperation with industry
- National and international collaborations

National and International Strategy



European Tier-0 and
National Tier-1 infrastructure

National Tier-2 Infrastructure
Regional and topical centers

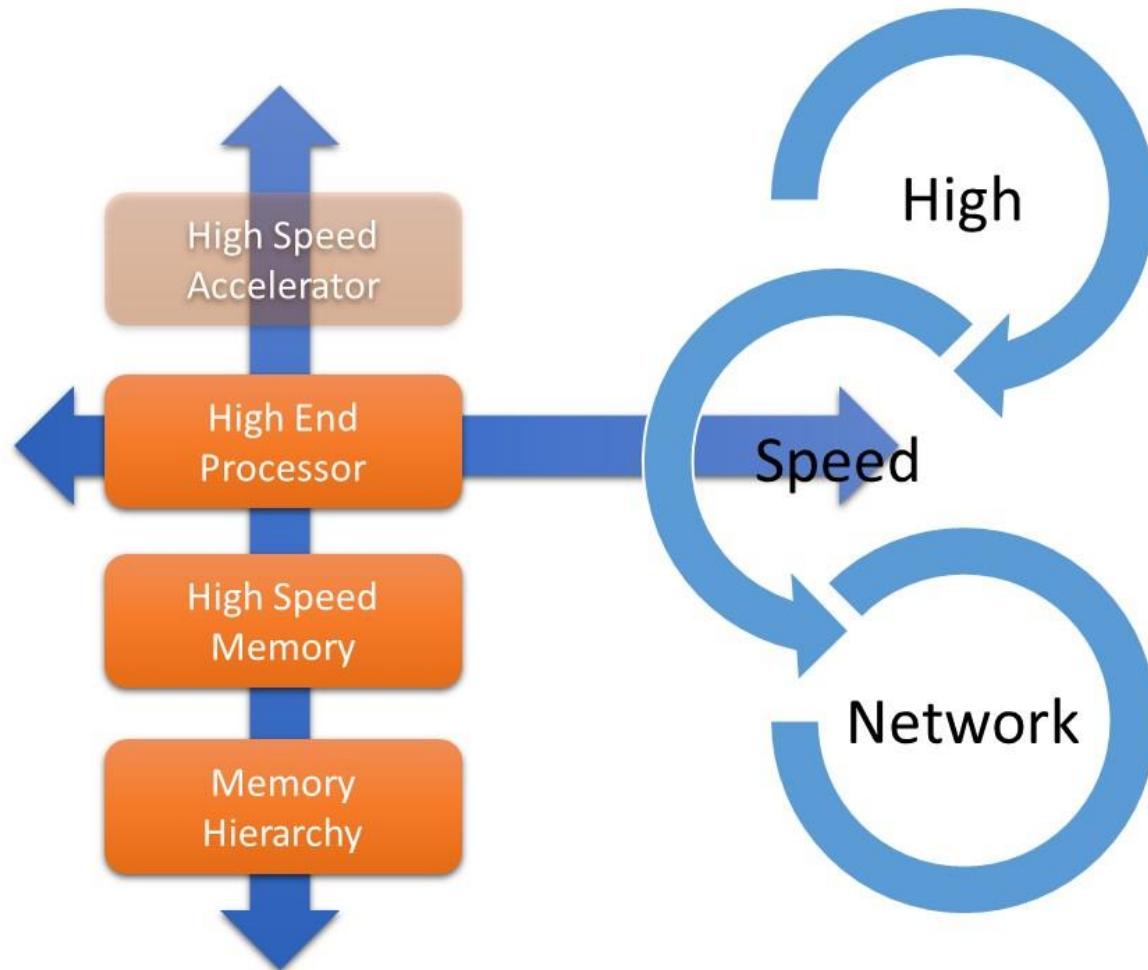
Local Tier-3 centers

New German Systems

- JSC: neuroscience, fundamental research
- LRZ: geoscience, general purpose
- HLRS: engineering



HLRS System 2019





H L R S 

SMART SCALE STRATEGY

Smart Scale Strategy

- Announced by Prof. Lukas from BMBF
- Key points
 - National Strategy / European Integration
 - Three national centers (GCS)
 - Sustained performance not peak
 - Real world problems
 - Invest in people



Summary

- Funding for HPC in Germany through SiVEGCS allows to be competitive in the coming 8 years
- Smart Scale Strategy can help to further improve the international position of German HPC
- HLRS is well prepared for the future

Thank you - Questions

