

Structural Funds for e-Infrastructures and Projects related to Future Internet in Poland

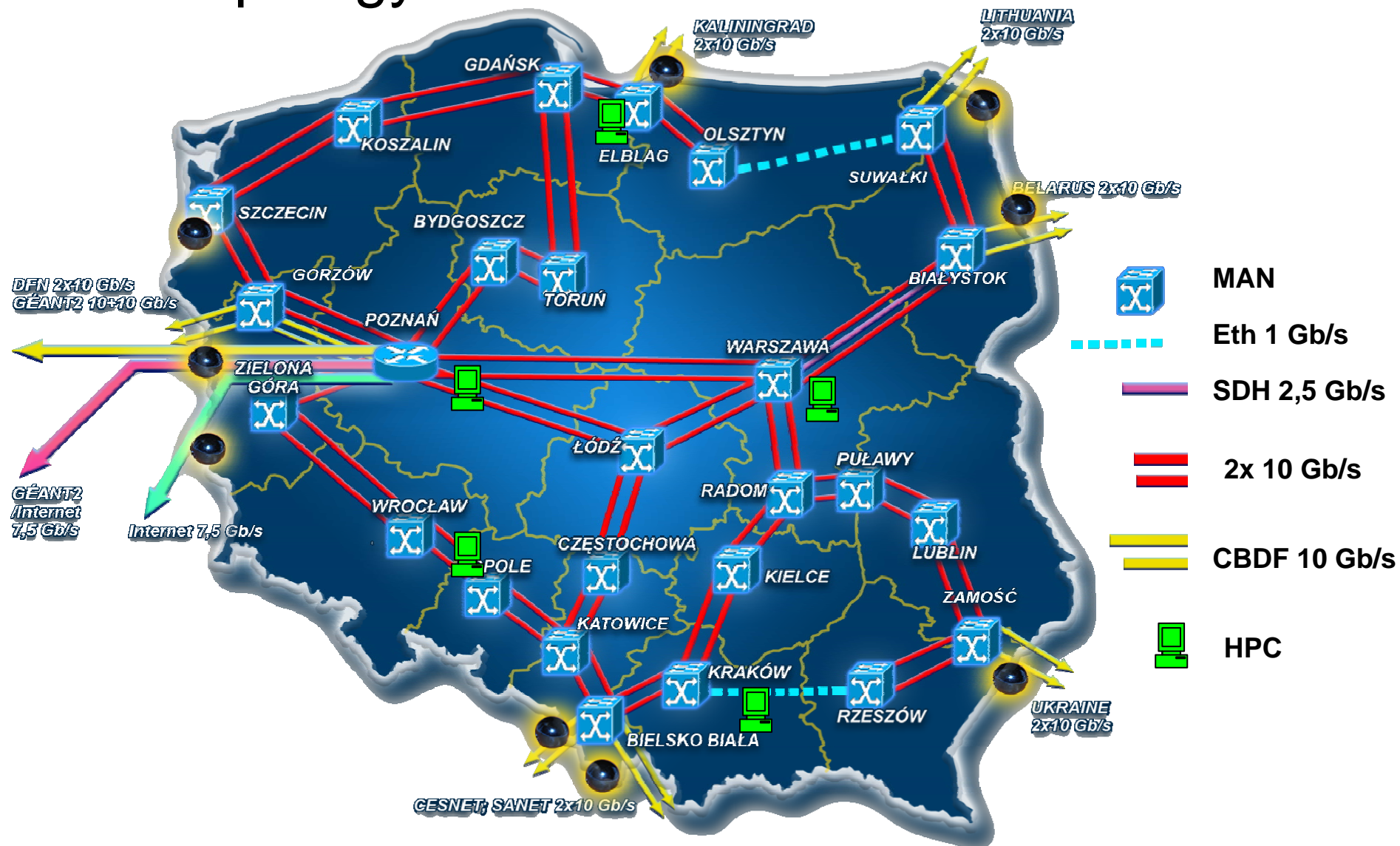
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Network Infrastructure as basis for FI

- e-Infrastructure programmes in Poland since 1993
 - development of 21 MANs in biggest academic cities
 - development of 5 HPC national centers
- PIONIER Programme 2000-2005
 - optical network infrastructure
 - test environment for advanced applications and services \Rightarrow *steps toward Future Internet infrastructure & research*
- PIONIER Educational and Research Network
 - 5375 km of optical fibers covering the whole country
 - access to PIONIER and European GÉANT for the whole research community in Poland

Topology of PIONIER Network. 4Q2009



EU Structural Funds: New Opportunities

- Operational Programme „Innovative Economy“ 2007-2013
- Operational Programme „Human Capital” 2007-2013
- Operational Programme „Infrastructure & Environment” 2007-2013

**over €3 billion for research projects,
R&D infrastructures and researchers**

e-Infrastructure and Future Internet

- Thematic scope of projects:
 - Development of e-Infrastructures
 - Digital content, scientific repositories and databases
 - Advanced ICT applications and services

Infrastructures and applications for Future Internet

- Budget: ~ € 260 M
 - 85% EU resources
 - 15% co-funding by Polish budget
- Additional funds available for ICT R&D projects

Relevant projects (*examples*)

- PLATON
- PL-GRID
- Engineering of Future Internet

PLATON

- National platform of common e-Science services:
 - Videoconferences
 - Eduroam
 - Campus services
 - Common archivisation services
 - Interactive TV HD and visualisation services
- Budget: ~ € 19 M
- Duration: 2009-2012
- Number of project participants: 22
- Coordinator: Poznan Networking & Supercomputing Centre (www.man.poznan.pl)

PLATFORMA OBSŁUGI NAUKI **PLATON**

www.platon.pionier.net.pl



COMMON e-SCIENCE SERVICES



**INNOWACYJNA
GOSPODARKA**
NARODOWA STRATEGIA SPÓJNOŚCI



UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ
ROZWOJU REGIONALNEGO



Projekt nr. POIG.02.03.00-00-028/08

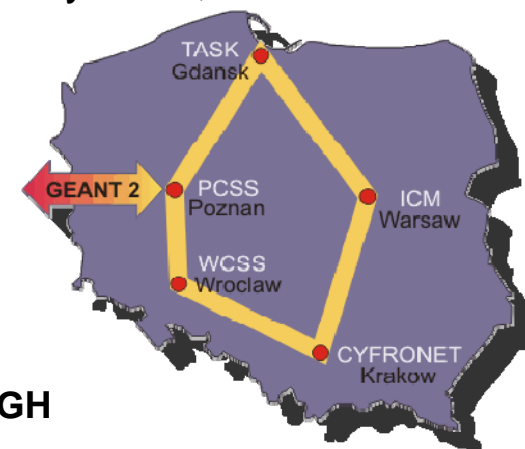
DOTACJE NA INNOWACJE

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PL-GRID

- Polish Infrastructure for Information Science Support in the European Research Area (Polish NGI):
 - Integration of PL grids with pan-European infrastructure (EGI)
 - Grid access to cluster/supercomputing services and digital resources
 - Tools for creation of VO and VL
 - Tools for end-users (simulation & visualisation, systems for application management, data & resource management, security tools, software libraries)
 - Training and support for end-users
- Budget: ~ € 19,7 M
- Duration: 2009-2012
- Participants: 5 Supercomputing Centers
 - **Coordinator: Academic Computer Centre CYFRONET AGH**
 - Poznań Supercomputing and Networking Center (PCSS), Wrocław Centre for Networking & Supercomputing (WCSS), Academic Computer Center in Gdańsk (TASK), Interdisciplinary Center for Mathematical and Computational Modelling, Warsaw University (ICM)



PL-GRID

Project Workpackages

- WP1 - Project management
- WP2 - Hardware infrastructure
- WP3 - Operations center
- WP4 - Development of e-Infrastructure software & users' tools
- WP5 - Training and users' support
- WP6 - Security of the infrastructure

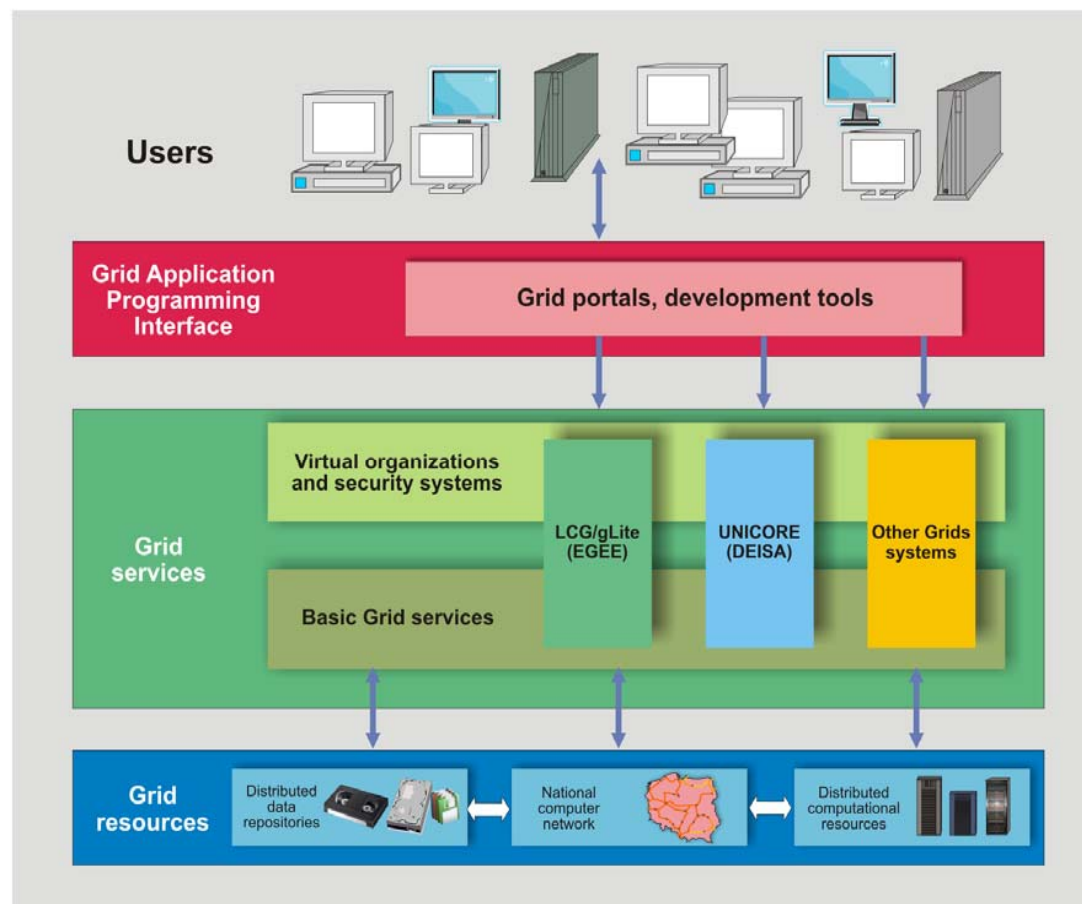
Main Project Indicators

- Peak Perf.: 215 Tflops
- Disk Storage: 2500 TB



www.plgrid.pl

Project Structure



Research project: Engineering of Future Internet (1)

- Objectives:

- To specify, design, research, implement and test solutions for Future Internet
- Actively participate in EU research on Future Internet

- Main topics:

- From IPv4 towards IPv6 (to accelerate IPv6 implementation process)
- Architecture, mechanisms and algorithms for Future Internet
- Applications for Future Internet (home and car networks, Internet 3D, e-health, education and social networks)
- Implement open test infrastructure
- Dissemination of results (conferences, books, papers...)

Research project: Engineering of Future Internet (2)

- Budget: ~ € 10 M
- Duration: 2010-2012
- Project participants: about 100 researchers, 18 teams from 9 organizations (Technical Universities, National Institute of Telecommunications and PIONIER)
- Interest of results from:
 - Telcos (Polish Telecom, Mobile Telecom), Industry, Administration
 - EU projects as Federica
 - US projects as GENI
- Coordinator: Warsaw University of Technology (Politechnika Warszawska)

Thank you for your attention

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