EURO²

NCC Poland - services and achievements

The Polish National Competence Centre in HPC

The Polish National Competence Centre in HPC includes the resources of six Polish computing centres in the first phase of the project and five in the second phase:

- **CI TASK** – Centre of Informatics – Tricity Academic Supercomputer & Network

- **Cyfronet** – Academic Computer Centre Cyfronet AGH – project leader

- **ICM** – Interdisciplinary Centre for Mathematical and Computational Modelling UW (supporting partner)

- **NCBJ** – National Centre for Nuclear Research

- **PCSS** – Poznan Supercomputing and Networking Center

- **WCSS** – Wrocław Centre for Networking and Supercomputing

https://cc.eurohpc.pl/

The Polish NCC Team

- WPL: Marek Magrys
- deputy WPL: Marta Maj
- Task Leaders:
  - Training and Skills Development - Cyfronet
  - Services to and Interaction with Industry - PSNC
  - Services to and Interaction with Academia and Public Administration - Cyfronet
  - Service Portfolio and Competence Management, Additional Services - NCBJ
  - Collaboration - CI TASK
  - Awareness Creation and Communication - WCSS

The Polish National Competence Centre in HPC

- A centre of expertise and a point of contact that enables users to benefit from the national and European computing infrastructure
- For business entities (especially SMEs), universities, research institutes, public administration
- Expertise in all areas of HPC+ (HPC, HPDA, AI, Big Data, Data Analytics)
- Services:
  - Access to computing resources
  - PoC
  - Technological support and consultations
  - Training
  - Support in applying for access to European resources
  - Commercial services: training, access to computing resources

Resources for scientific community

HPC / AI Resources

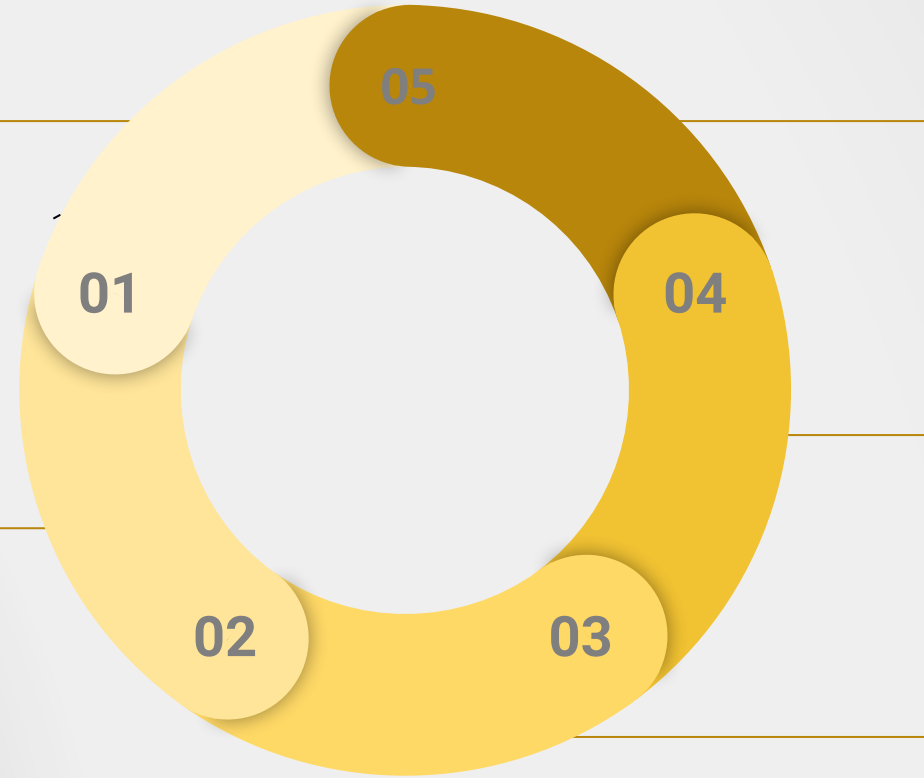Cloud Computing

Cooperation Tools

Scientific Applications

Storage

01

02

03

04

05

PLGrid Consortium projects

2009 — **2011** — **2014** — **2020** — **2021** — **2023**

PL-Grid

Polish infrastructure for supporting Computational Science in the European Research Space

PLGrid Plus

Domain-oriented services and resources of Polish Infrastructure for Supporting Computational Science in the European Research Space

PLGrid NG

New generation domain-specific services in the PL-Grid infrastructure for Polish Science

EuroCC

THe National Competence Centres (NCCs) in the framework of EuroHPC

EuroHPC PL

National Supercomputing Infrastructure for EuroHPC

EuroCC2

The National Competence Centres (NCCs) in the framework of EuroHPC - phase 2

HPC/AI resources integrated with PLGrid infrastructure

EURO²

CYFRONET

- Prometheus
  2.4 PFlops
- Ares
  4.0 PFlops
- Athena
  7.7 PFlops
- Helios
  XX PFlops
- Quantum
  Annealer

icm
- Topola
  0.26 PFlops

PCSS
- Optical QC

WCSS
- BEM
  0.86 PFlops
- TBD
  XX PFlops

ci task
- Tryton
  1.41 PFlops

LUMI
- LUMI
  550 PFlops

PLGrid Portal Tools

- IdP service
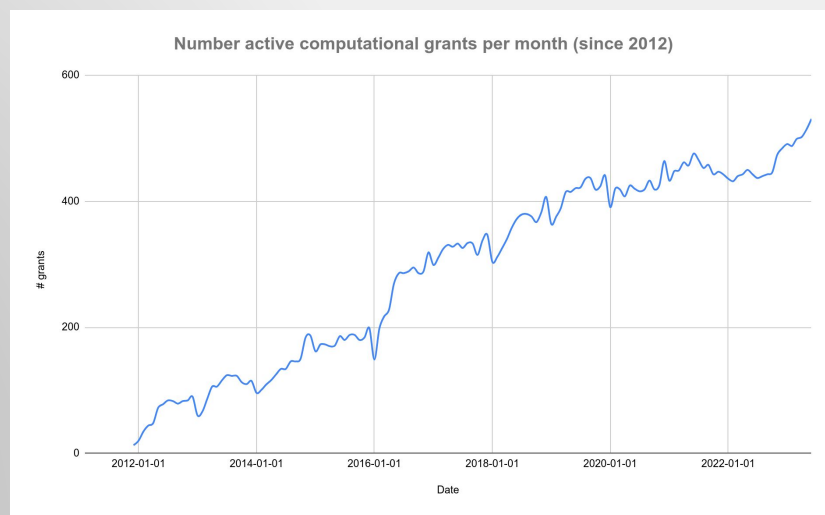- User portal
- Resource allocation platform
- User support
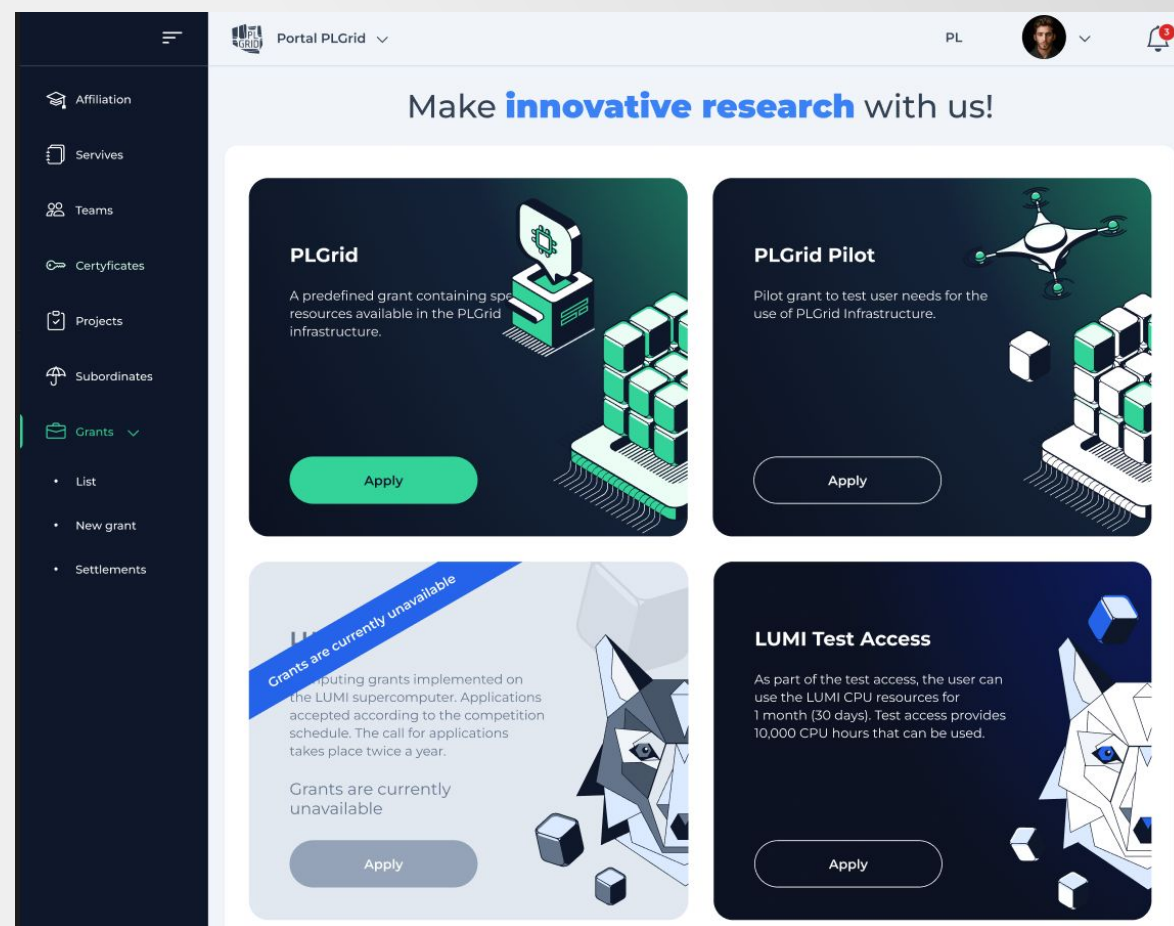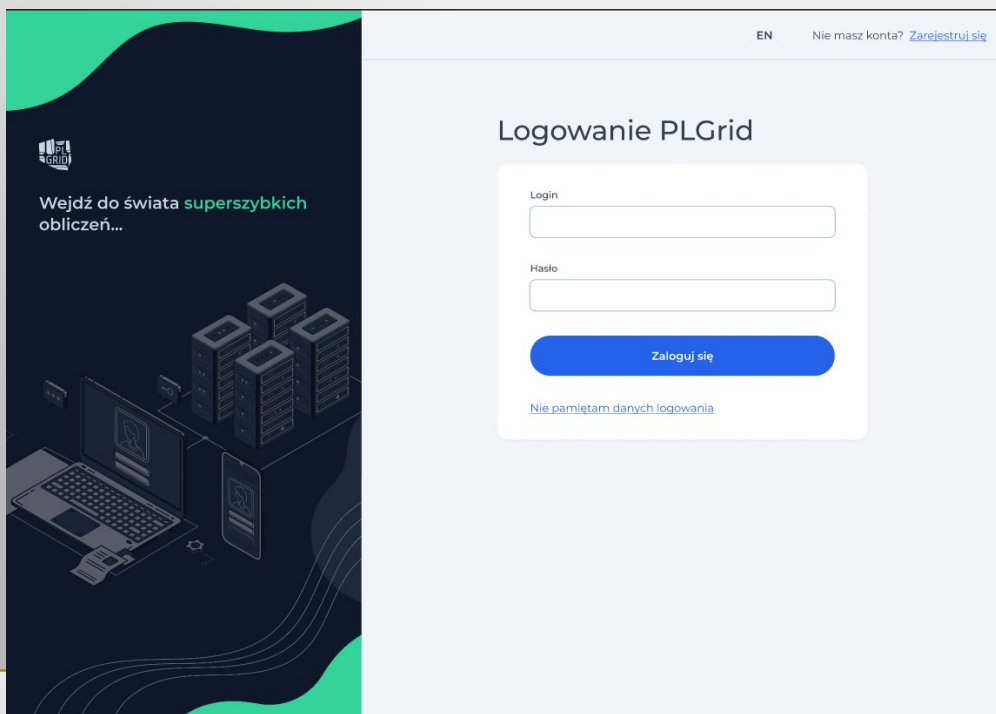
PlGrid Portal statistics

PLGrid users active accounts
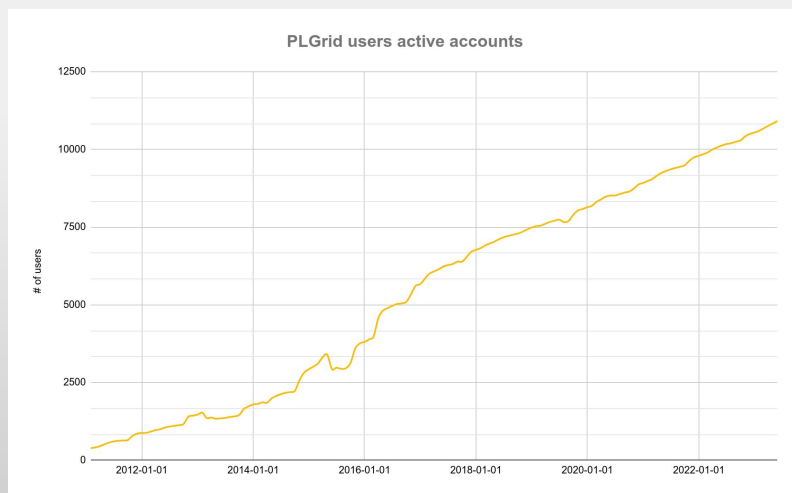
> 11 k Active users
> 80 Universities
> 30 PAS Members and Institutes

Number active computational grants per month (since 2012)

> 4 k Completed Computational Grants
> 4 k Publications

The Polish National Competence Centre in HPC - Planned activities

- Organization of national user forum
- Door 2 Door with SME
- Market research for HPC/HPDA/AI needs in Poland target group SME and public
- Cooperation with EDIHs and other institutions
- Closer cooperation with national trade associations

The Polish National Competence Centre in HPC - Planned activities
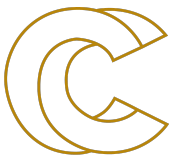
- Common service catalogue for HPC services
- Training for existing and new coming users
- Series of short movies about NCC (What is NCC, what is HPC, services for business, academia, public entities)
- Articles in trade press and trade portals
- Social media campaigns
- New use cases

NCC Events

- International:
  - HPC Summit (Goteborg, Sweden)
  - ISC High Performance (Hamburg, Germany)
  - ASHPC (Maribor, Slovenia)
- National:
  - KUKDM (Zakopane)
  - Internet Governance Forum (Wroclaw)
  - CLARIN-PL (Wroclaw)
  - Symkom (Warsaw)

NCC Training in 2023
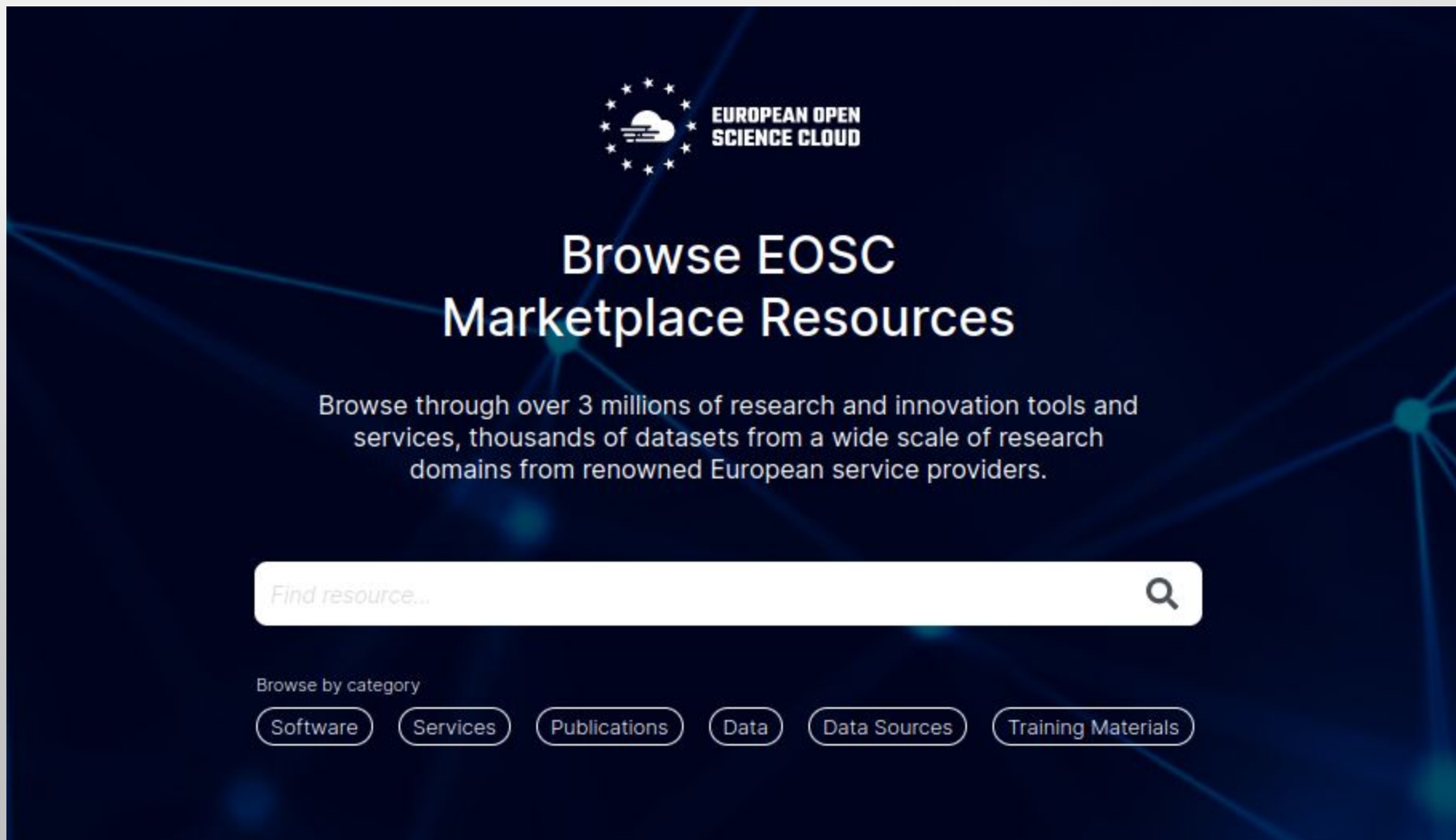
- Introduction to the EuroHPC computing infrastructure
- Introduction to the command line of Linux systems and the Bash shell
- High-performance scientific computing in C++
- Introduction to scientific High-Performance Computing
- Efficient usage of HPC systems in scientific computing
- Lumi Day Poland 2023
- Vector computing on the NEC SX-Aurora Tsubasa platform
- GNU/Linux system: Bash shell, utility programs
- Cyfronet AI for Science Bootcamp
- Introduction to MPI programming
- Comprehensive general LUMI course
- Cyfronet - Intel oneAPI workshop
- Hackathon: Optimizing for AMD GPUs

EuroCC2 current cooperations

- Central European Working Group (dissemination and communication, industry cooperation, training)
- NCC Slovakia (training)
- LUMI partners (training)
- NCC Lithuania and NCC Spain (Sustainable Development Goals in HPC)
- Task forces:
  - LinkHPC platform - test of the French Marketplace solution
  - new Competence Map task force

Marketplace

Our Social Media

Facebook: /EuroccPoland
Twitter/X: /EuroCC_Poland
Linkedin: /eurocc-poland
YouTube: /@narodowecentrumkompetencjiHPC

Thank you!

marta.maj@cyfronet.pl

**Funded by
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EuroHPC
Joint Undertaking