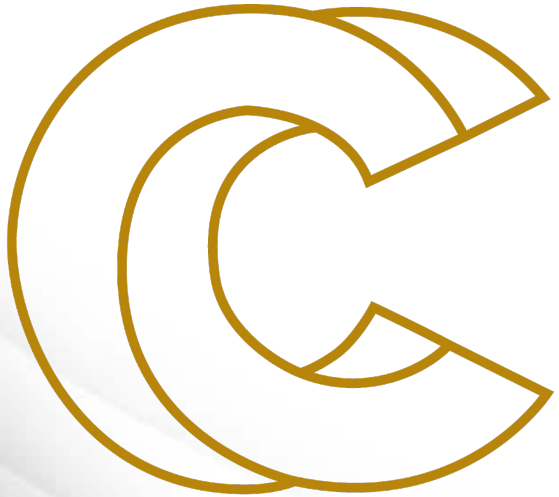


EURO^2

Marek Magrys
Deputy Director for HPC, Cyfronet
Leader of NCC Poland

LUMI Day Poland 2024
February 29th 2024

EuroHPC Joint Undertaiking

EURO²

32 Participating countries

European Union (represented by the European Commission)

Private partners

EuroHPC JU Goals

- deploy top-of-the-range supercomputing infrastructures across Europe to support European HPC users wherever they are in Europe
- implement an ambitious research and innovation agenda to develop a competitive HPC ecosystem and supply chain in Europe, which includes hardware, software, applications but also training and skills

https://eurohpc-ju.europa.eu/

EuroCC and EuroCC2 Project

- In Poland co-financed by the National Centre for Research and Development
- Goal: enhancing and equalising the level of advanced computing capabilities (HPC) for the needs of science, industry and public administration in Europe
- Actions: development of the HPC ecosystem: infrastructure and support system for specialised knowledge, skills and experience

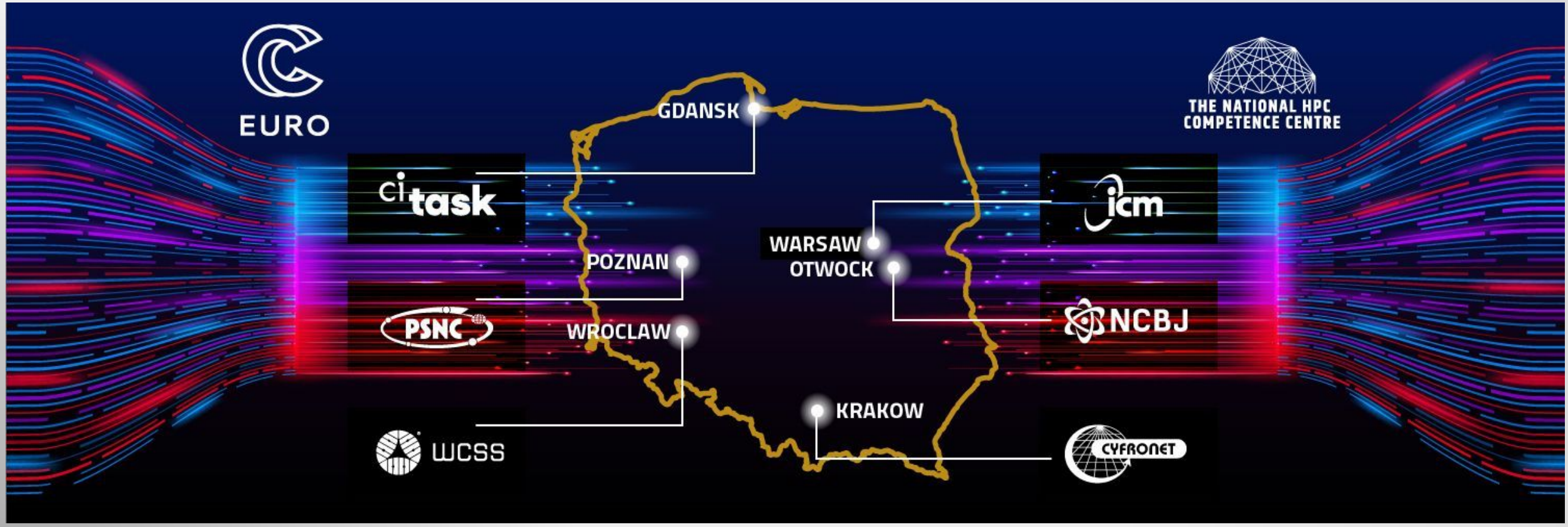
The Polish National Competence Centre in HPC

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 National Competence Centre in HPC



https://cc.eurohpc.pl/

The Polish National Competence Centre in HPC

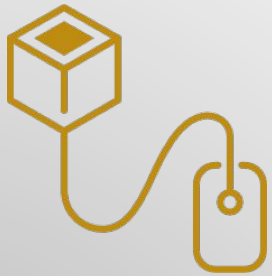
EURO²

- 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)

The Polish National Competence Centre in HPC

EURO²

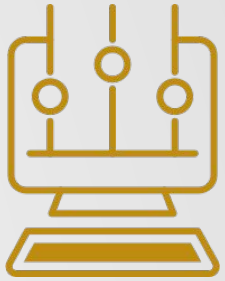
Services:



Support in applying for access to European resources

Proof of Concept

Training and consultations



Commercial services: training, access to computing resources

NCC Poland and LUMI

- LUMI Day Poland (once per year)
- Comprehensive general LUMI course (Oct 2023, Warsaw)
- Hackathon: Optimizing for AMD GPUs (Nov 2023, Krakow)
- planned: LUMI training in Warsaw, Jun 2024

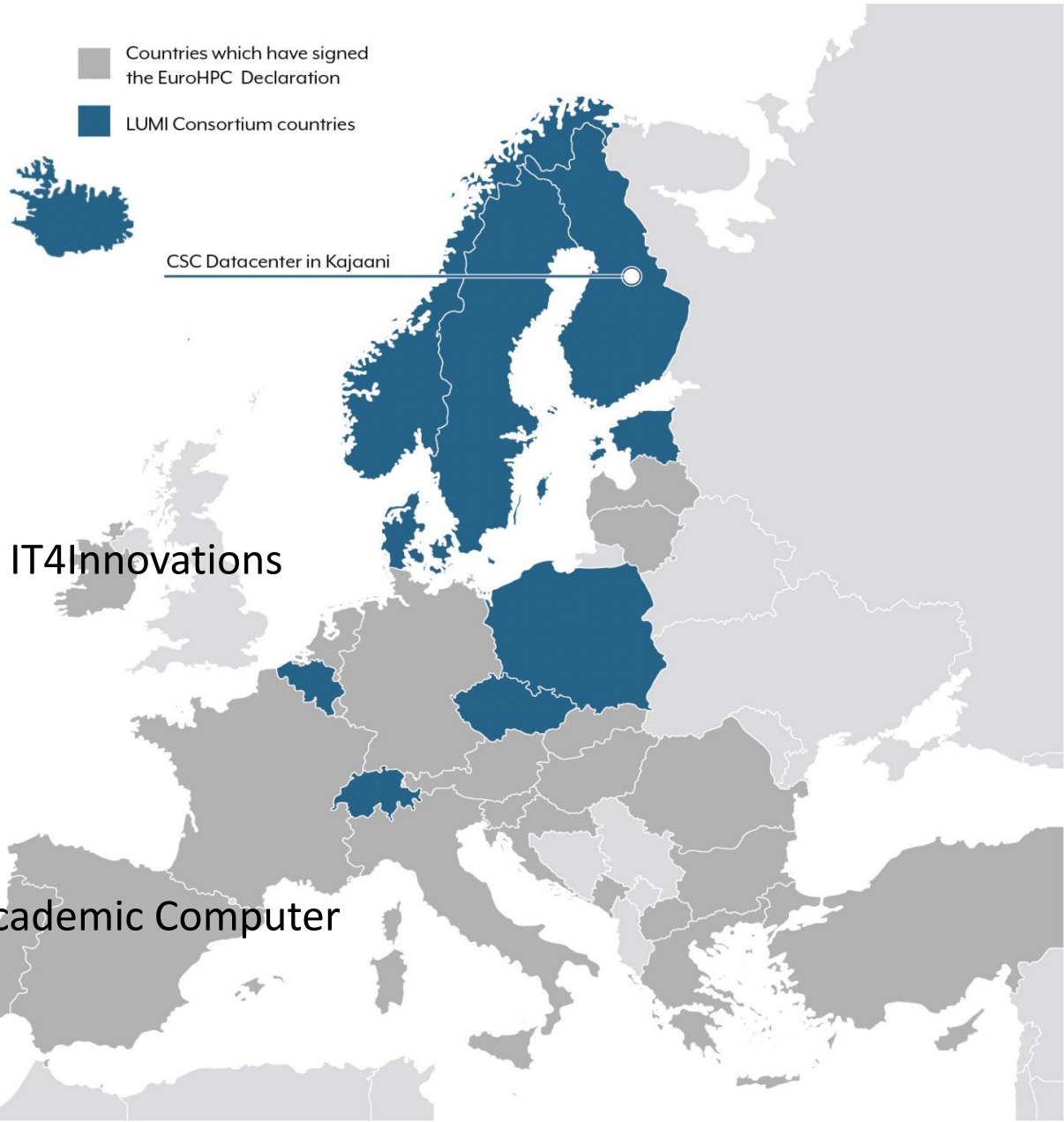
Our Social Media

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

LUMI

LUMI consortium partners

- Estonia: Estonian Scientific Computing Infrastructure
- Finland: CSC – IT Center for Science Ltd.
- Belgium: Belgian Science Policy Office
- Czech Republic: VSB –Technical University of Ostrava, IT4Innovations National Supercomputing Centre
- Denmark: Universities Denmark
- Iceland: University of Iceland
- Norway: UNINETT Sigma2 AS
- Poland: AGH University of Science and Technology, Academic Computer Centre Cyfronet AGH
- Sweden: Swedish Research Council, Vetenskapsrådet
- Switzerland: ETH Zürich



LUMI system share

- 50% of LUMI resources allocated to EuroHPC JU
  - access available through EuroHPC open calls
- 50% of resources allocated to consortium members
  - Poland has 2,3% share
  - access to Polish resources available via PLGrid

EuroHPC JU Calls for access

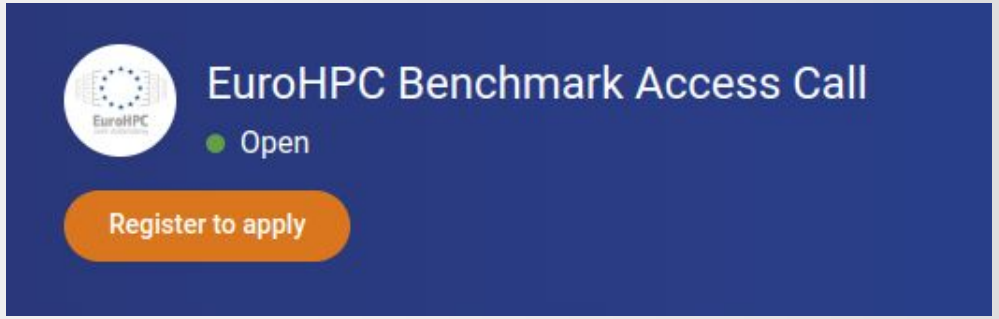
- Development
  - code and algorithm development and optimization
- Benchmark
  - code scalability tests or test of AI applications, the outcome to be included in future Extreme Scale and Regular Access call
- Regular access
  - large-scale projects
  - enabling progress and innovation in their domains
- Extreme Scale
  - extremely large allocations (compute time, storage, support)
  - high-impact and high-gain innovative research

EuroHPC Development Access Call

- multiple cut-off dates (1st day of every month)
- projects from academia, industry or part of large public or private funded initiatives (NCCs, CoEs)
- small number of node hours
- allocation period: one year
- renewable up to 2 times

EuroHPC Benchmark Access Call

- multiple cut-off dates (1st day of every month)
- limited number of node hours
- maximum allocation period: 3 months

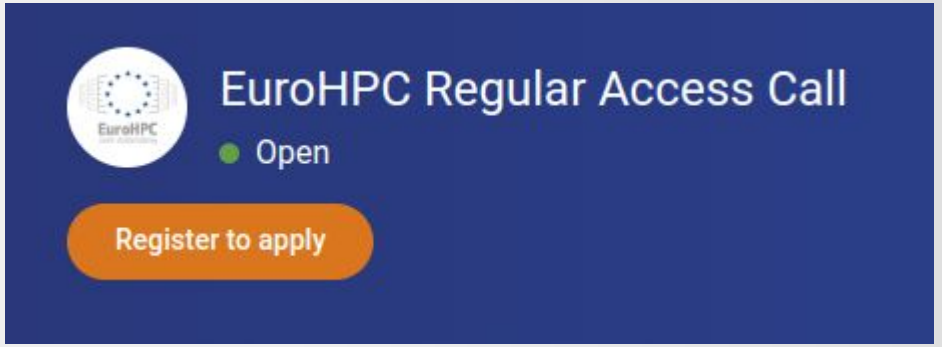


EuroHPC Benchmark and Development Access Call

- submissions through portal: https://pracecalls.eu/
  - systems provided:
    - Vega (Slovenia) - CPU and GPU
    - Karolina (Czech Republic) - CPU and GPU
    - MeluXina (Luxembourg) - CPU, GPU, FPGA
    - Discoverer (Bulgaria) - CPU
    - LUMI (Finland) - CPU and GPU
    - Leonardo (Italy) - GPU

EuroHPC Regular Access

- multiple cut-off:
  - 25th March 2024
  - 6th September 2024
- development of innovative solutions tackling societal and/or technological challenges
- application tracks for:
  - Scientific
  - Industry
  - Public Administration
- allocations for one year
- option to apply for one additional year



EuroHPC Regular Access

- submissions through portal: https://pracecalls.eu/
- systems provided:
  - Vega (Slovenia) - CPU and GPU
  - Karolina (Czech Republic) - CPU and GPU
  - MeluXina (Luxembourg) - CPU and GPU
  - Discoverer (Bulgaria) - CPU
  - LUMI (Finland) - CPU and GPU
  - Leonardo (Italy) - CPU and GPU
  - MareNostrum 5 (Spain) - CPU

EuroHPC JU Call for Proposals for Extreme Scale access mode

- multiple cut-off
  - 5th April 2024
  - 4th October 2024
- systems provided:
  - LUMI (Finland) - 5th on the TOP500 list, CPU and GPU
  - Leonardo (Italy) - 6th on the TOP500 list, CPU and GPU
  - MareNostrum 5 (Spain) - 8th on the TOP500 list, CPU and GPU
- allocations for one year

EuroHPC JU Call for Proposals for Extreme Scale access mode

- submissions through portal: https://pracecalls.eu/
- open for all categories (scientific, industry, public sector)
- evaluation based on technical review and scientific peer-review
- ranking criteria: excellence, innovation, impact, quality of implementation

Thanks!

Facebook: EuroccPoland

X: EuroCC_Poland

LinkedIn: eurocc-poland

Co-funded by the European Union

EuroHPC Joint Undertaking

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