ACC Cyfronet AGH-UST
Computing center for CREDO collaboration

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ACC Cyfronet AGH-UST

- established in **1973**
- part of **AGH University of Science and Technology** in Krakow, Poland
- provides **free** computing resources for scientific institutions
- centre of competence in **HPC** and **Grid** Computing
- member of **PIONIER NREN** and operator of **Krakow MAN** for research and education

Projects

Resources

- **Top500** ranked supercomputers/clusters
  - **Prometheus** (2.4 PFLOPS)
  - **Zeus** (375 TFLOPS)
- Storage
  - **Disk**: 20+ PB
  - **Tape**: 30+ PB
- **Cloud** (IaaS, PaaS) for scientific resources
- High-bandwidth national and regional **network**
- **Disaster recovery center**
- **PLGrid** infrastructure

2140 TFLOPS in CPUs + 256 TFLOPS in GPUs
2232 nodes, 53568 CPU cores, 279 TB RAM
10 PB usable disk space @ 180 GB/s

2.4 PFLOPS, #77 ON TOP500

Know-how

- Distributed infrastructures
    - PLGrid
    - EGI, PRACE
    - Scientific infrastructures
        - WLCG (500 TB)
        - CTA (600 TB)
        - Belle, Nedm, Gaussian VO
- Code modernization and optimization
- Scientific gateways and portals
- Data management tools

CREDO participation

- Main resource center for unique CREDO data
  - Online (disk) and nearline (tape) storage of experimental data
  - Data ingestion and sharing
  - Local data processing and analysis
    - Supercomputers
    - Productivity tools (i.e. hosted Jupyter notebooks)
- Design support for
  - data management
  - simulation/analysis software
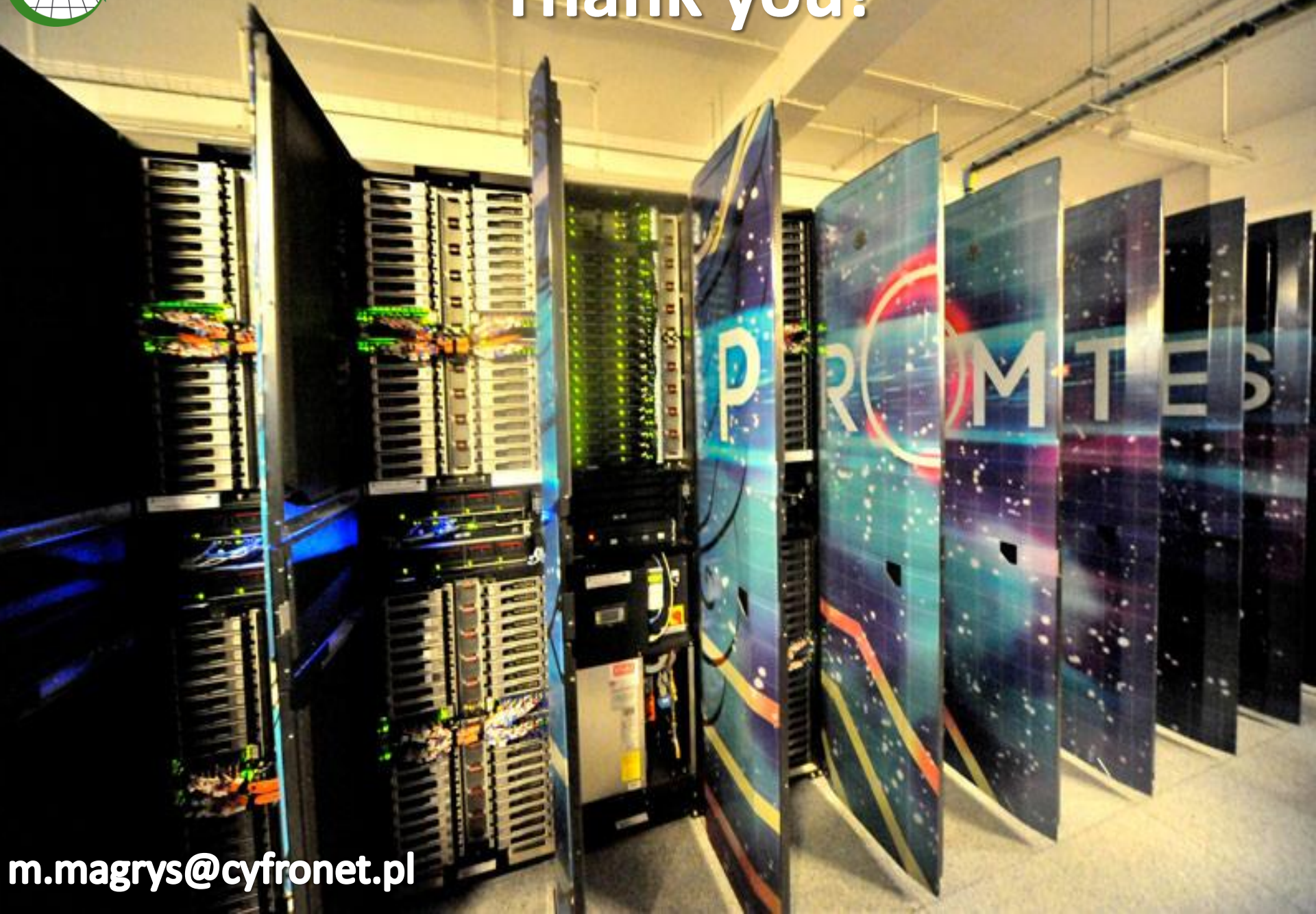 - project IT infrastructure

Cyfronet CREDO goals

- Reliable, secure Data Center
  - Data never lost, always accesible
- Productive computing resources
  - Easy-to-use but high performance
- Open data
- Open protocols
- Utilize industry and community standards
  - Learn from the best, don't follow mistakes

Thank you!

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PROMTES

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