

# Opening the 11th CEF networks workshop

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*CESNET executive chief*

# About CESNET

## Czech Education and Research Network

- Established in 1996 - 26 Public universities and Academy of sciences
- Research institution
- National Research and Education Network -> e-Infrastructure -> integrated e-INFRA CZ

## Roadmap of Large Research Infrastructures of the Czech Republic



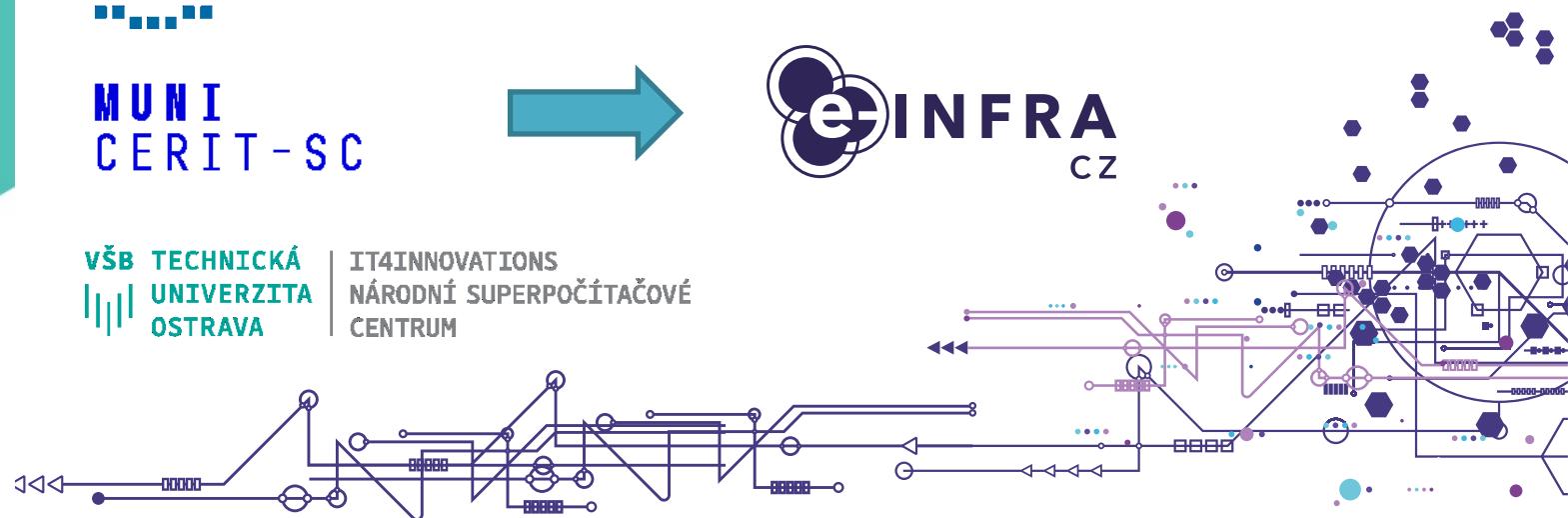
**cesnet**  
■■■■■

**MUNI  
CERIT-SC**



**e-INFRA**  
CZ

**VŠB TECHNICKÁ  
UNIVERZITA  
OSTRAVA** | **IT4INNOVATIONS  
NÁRODNÍ SUPERPOČÍTAČOVÉ  
CENTRUM**



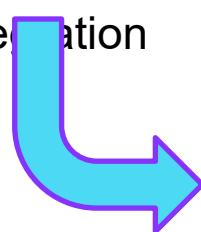
Provide complex of ICT services to support research and education

Build environment, capacities and resources for the transmission, storage and processing of scientific data

Support communities of users with specific ICT needs

## Services

- Fast and secure network
- Scientific computing
- Data storages and Data management
- Seamless integration



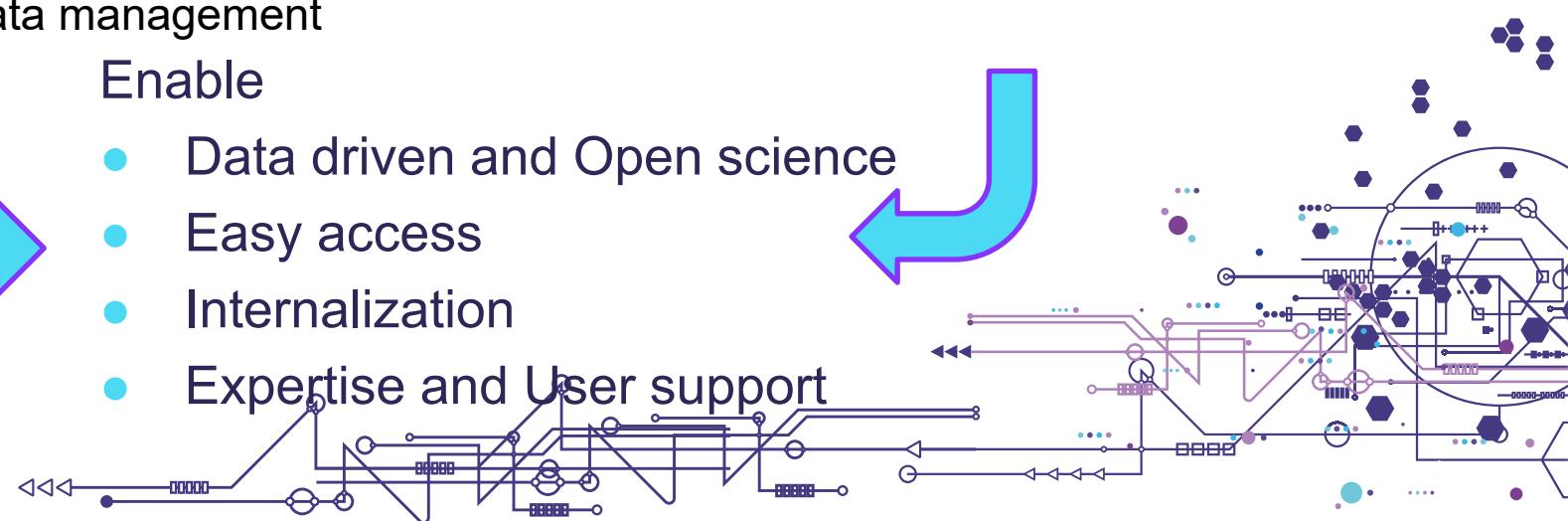
## Enable

- Data driven and Open science
- Easy access
- Internalization
- Expertise and User support



## Research and Development

- Supporting and fostering innovation
- Partnership
- International projects



# Research and Development

## Research towards improving the quality of infrastructure and services

- Optical networking
- Cybersecurity and monitoring ~ 55+ ongoing projects
- Network applications, low-latency and high-quality network transmissions
- Scientific computing, data management
- Middleware, AAI, user and resource management
  
- Laboratories
- Scholarships
- CESNET's Research and innovation fund
  
- CESNET: 24 prototypes, 24 registered patterns, 22 patents (11 CZ, 7 USA, 4 EU), 4 spin-offs



# Research and Development



## Supporting specific user needs and communities - finding partnerships

International memberships and cooperation

Future key projects

- GÉ (GN5 – Horizon Europe)
- Euro HPC (PRACE)
- Quantum Networking and Computing
- European open science cloud (EOSC)



# e-Infrastructure architecture

Cybersecurity, monitoring, helpdesk, Multimedia, Collaboration,

AAI - Access control and user management

Grid and cloud computing

Data storages

Supercomputers

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Community  
resources

CESNET

Community  
resources

IT4Innovations

Network infrastructure and Services

# Above the Network - Services

