Cross-border resource allocations: *challenges and opportunities*

Tomasz Malkiewicz
Executive Manager at NeIC
NeIC Puhuri Project Owner

NORDIC E-INFRASTRUCTURE COLLABORATION

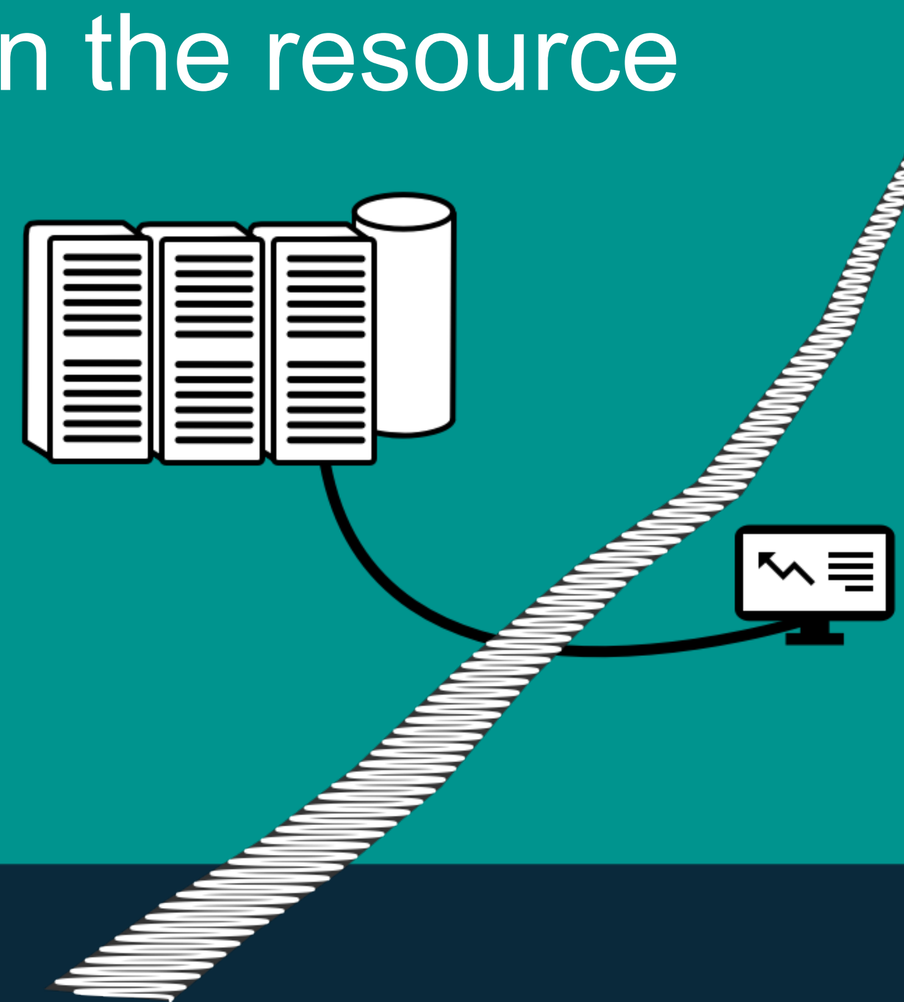
Puhuri

Project named after the spirit of cold and winter

Kalevala (Finnish mythology): Puhuri, the north-wind, the father of Pakkanen (frost) is sometimes personified as a gigantic eagle.

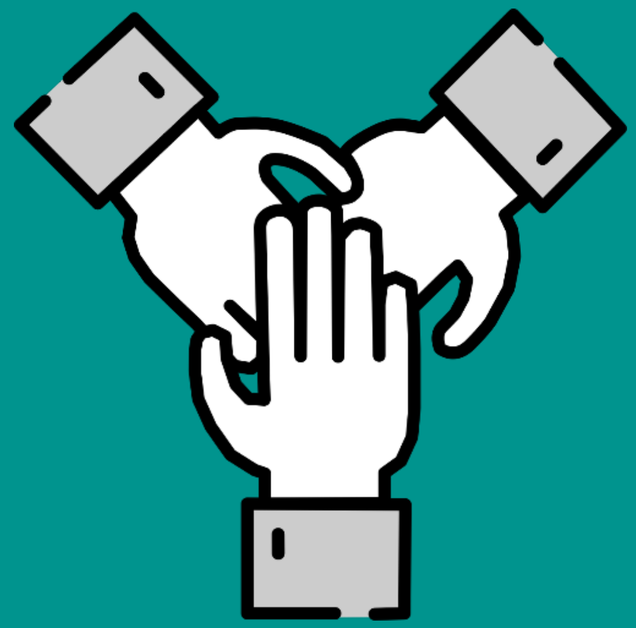
Questions to be solved

- Who is accessing the resource
- Can the data be moved across borders
- Are non-nationals allowed on the resource
- Who will pay and how



Example: NeIC Dellingr 2017-2020

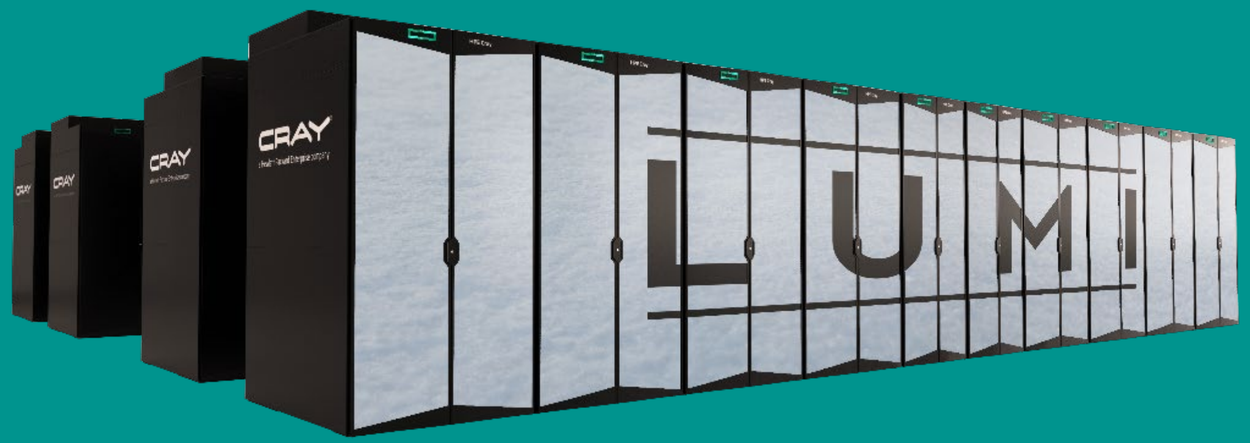
A lightweight framework for sharing High Performance Computing (HPC) resources implemented between countries



- The technical solutions are available
- Legal, economic, and policy issues remain

Experiences from Dellingr transferred to Puhuri

LUMI: the fastest supercomputers in Europe, third in the world



LUMI will be an **HPE Cray EX** supercomputer manufactured by **Hewlett Packard Enterprise**

Peak performance over **550 petaflop/s** makes the system one of the world's fastest

1 system

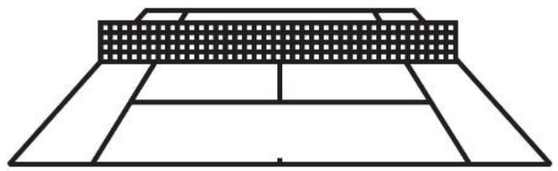
550 Pflop/s

Peak Performance

Computing power equivalent to

1 500 000

Modern laptop computers



Size of a tennis court

Modern platform for

High-performance computing, Artificial intelligence, Data analytics

Based on GPU technology

NeIC Puhuri 1 & 2 2020-2025

- Seamless access to HPC resources
- Services for:
  - Resource allocation
  - Usage tracking
  - Federated group management
- *Exemplary collaboration with EOSC-Nordic*

Thank you for your attention!