CSC Fact Sheet

Non-profit company owned by Finnish state (70%) and HEI (30%)

Volume 2023: ~89 M€ Employees: 676 (Oct 2024)

CSC's solutions



Computing and software



Data management and analytics for research



Support and training for research



Research administration



Solutions for managing and organizing education

Solutions for learners and teachers



Solutions for educational and teaching cooperation



Hosting services tailored to customers' needs



Identity and authorisation



Management and use of data



ICT platforms, Funet network and data center functions



- Europe's #1 supercomputer
- Hosted by CSC
- Consortium of EC (EuroHPC JU) and 11 EU countries
- Resource for whole ERA including industry



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With High-Performance Computing we can Simulate and Understand Natural Phenomena

LUMI



Implemented by CECMWF Cesa CEUMETSAT

About Energy and HPC

- Strive to minimize CO₂ emissions
 - Scientists should not be scared of doing science because of the related CO₂ emissions
 - Operate HPC data centre with renewable energy
 - Reduce environmental impact in data centre construction
- Vendors need to ensure sustainable solutions in their supply chains
 - "Embedded carbon" need to be in the equation
- The CO₂ emission should be the headache of the HPC facility, not the end user
 - We will need to mind how and where the systems are being operated
 - This does not mean just Nordics. There is an abundance of solar power in the southern latitudes, and wind power in multiple areas. It will impose some new factors how to operate the systems and where they actually are being placed
 - Reuse waste heat
- For the first time in history we will see a decline in (fp64) flops/Watt!
 - The science community should be ready to adapt their workloads to better match with the upcoming hardware

With AI, will the lab move into the supercomputer?

Lab run by science foundation models?

