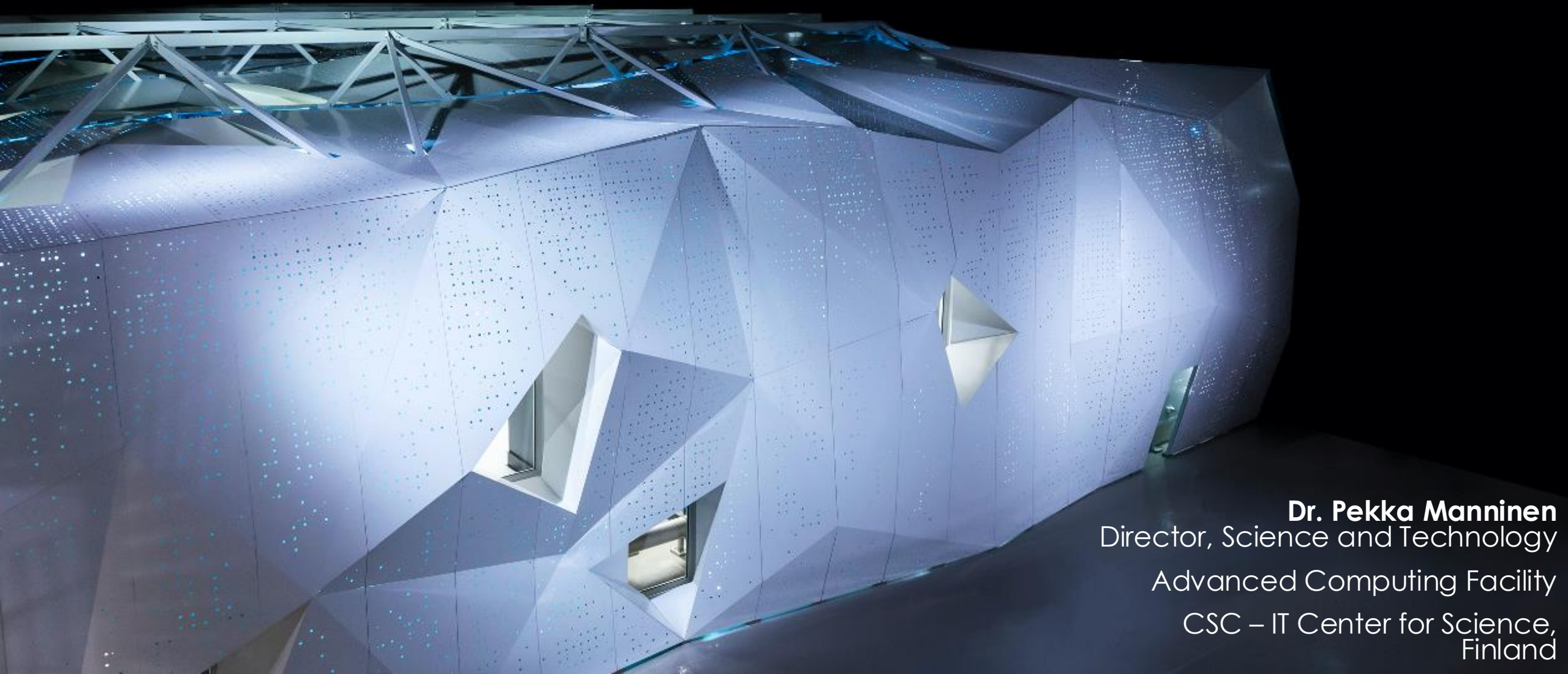


CSC Finland: overview and plans



Dr. Pekka Manninen
Director, Science and Technology
Advanced Computing Facility
CSC – IT Center for Science,
Finland

EuroHPC Lumi supercomputer

LUMI: one of the fastest supercomputers in the world

- LUMI is an **HPE Cray EX** supercomputer manufactured by **Hewlett Packard Enterprise**
- HPL performance of **380 petaflop/s** makes the system one of the world's fastest
 - #8 in Top500 (#3 in Europe)
 - #4 HPCG, #3 HPL-MxP



1 system

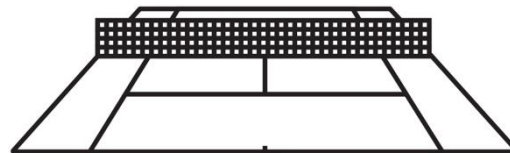
380
Pflop/s

Sustained performance

Computing power
equivalent to

1 500 000

Modern laptop computers



Size of two tennis
courts

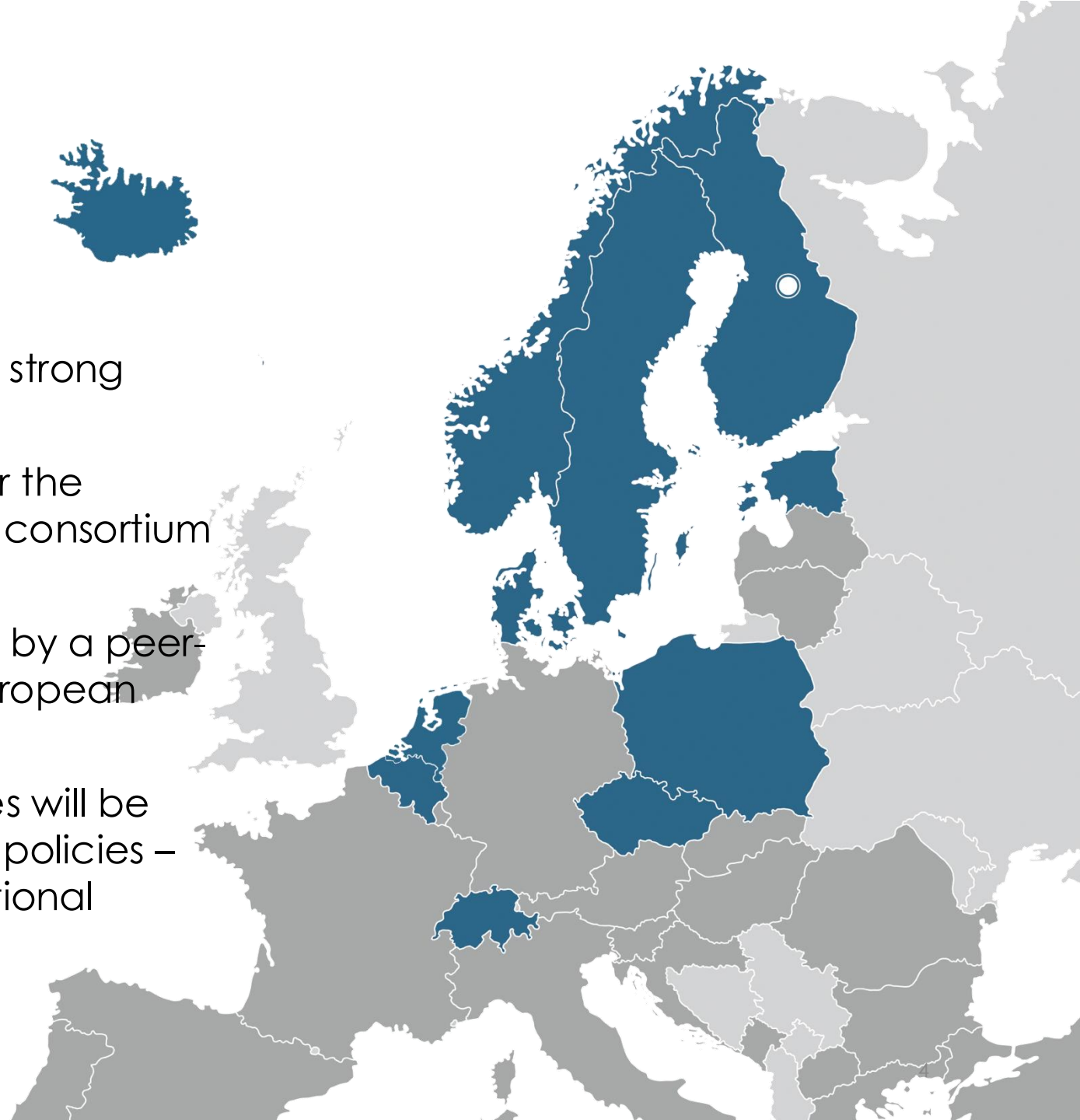
Modern platform for

High-performance
computing,
Artificial intelligence,
Data analytics

Based on GPU technology

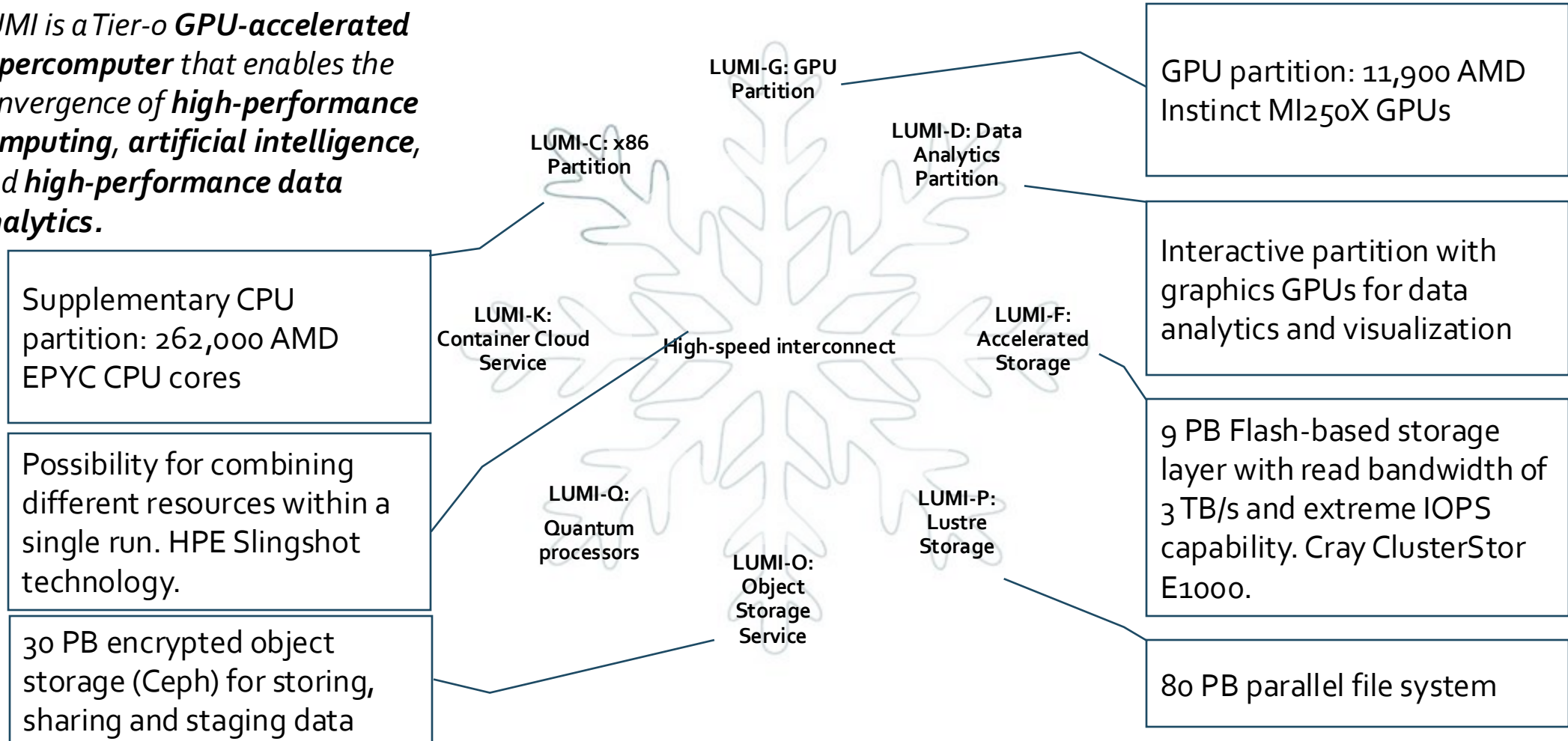
LUMI Consortium

- Unique consortium of 11 countries with strong national HPC centers
- The resources of LUMI be allocated per the investments (EU 50%, FI 25%, rest of the consortium 25%)
- The share of the EuroHPC JU allocated by a peer-review process and available for all European researchers
- The shares of the LUMI partner countries will be allocated by local considerations and policies – seen and handled as extensions to national resources



LUMI, the Queen of the North

LUMI is a Tier-0 GPU-accelerated supercomputer that enables the convergence of high-performance computing, artificial intelligence, and high-performance data analytics.



LUMI AI Factory

LUMI AI Factory

- **LUMI AI Factory – one of the most performant combined HPC + AI+ QC platform in the world**
 - AI-optimised supercomputer **LUMI-AI**
 - AI Factory **service center**
 - Experimental QC-AI platform **LUMI-IQ**
- CSC (Finland) coordinated consortium with participation from Czechia, **Denmark, Estonia, Norway and Poland** - with **Finnish partners FCAI** (Aalto University, University of Helsinki) and **AI Finland** (Technology industries)
- Total budget over 600 million euros – largest public computing ecosystem investment in Finland, among the largest in Europe – largest AI Factory investment
- Significant investment in **talent and competence development**
- Services (computing, consultation) free of charge for startups, SME's, research and public sector
- Big step from serving Research to **Research, Development and Innovation (RDI)**

Timeline for the LUMI AI Factory ecosystem

