

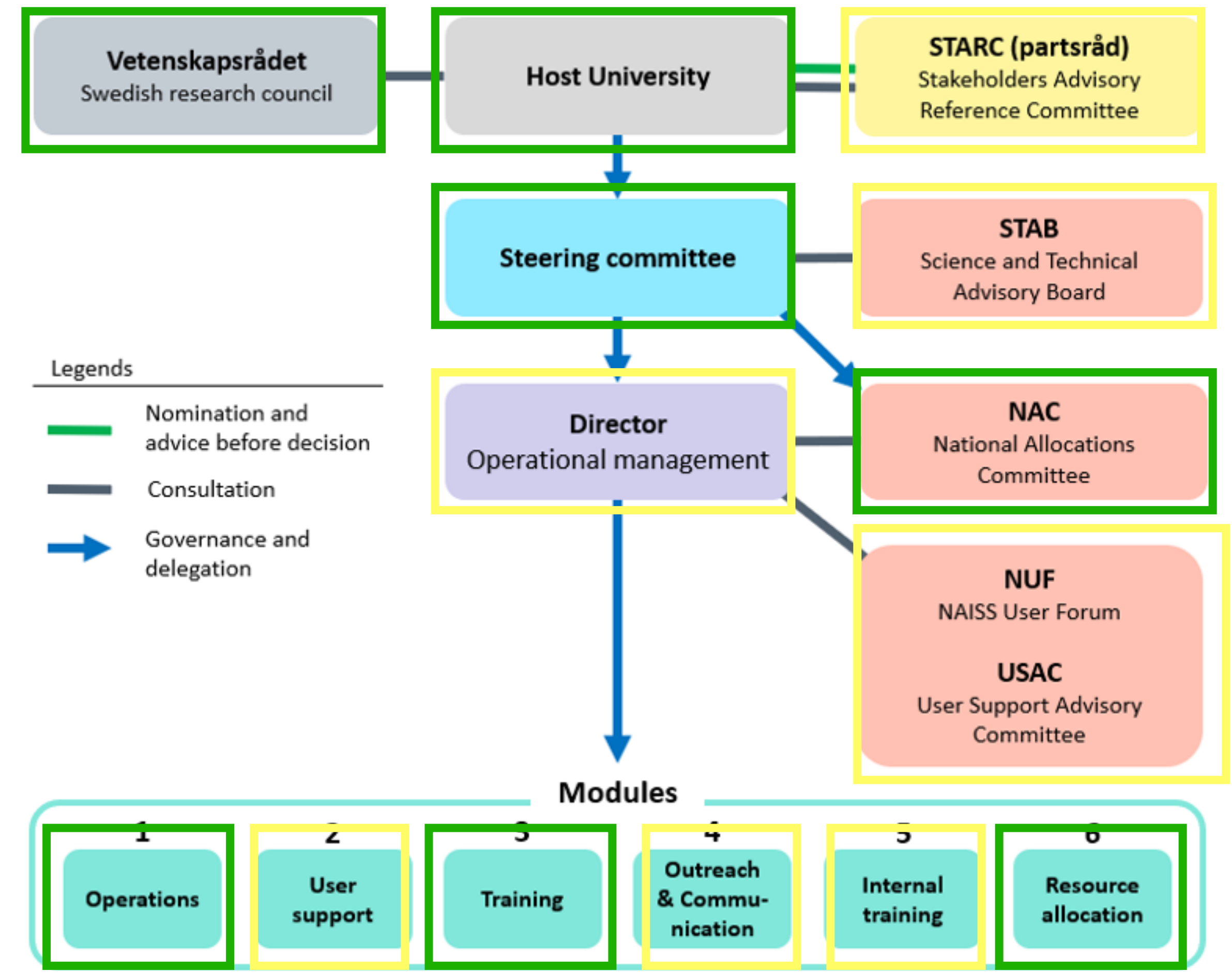


National Academic Infrastructure
for Supercomputing in Sweden

NAISS-2023-11-21

Status NAISS

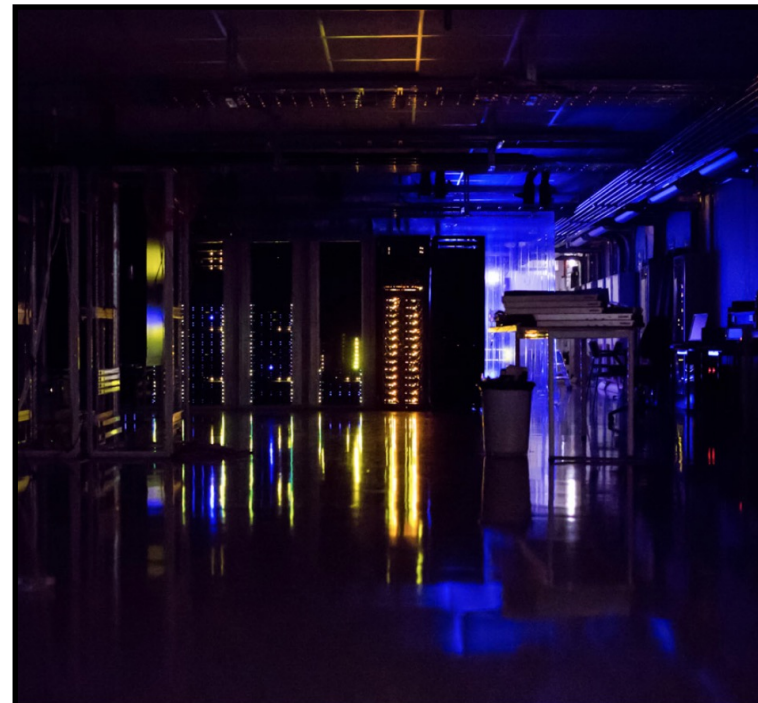
- Stakeholders Advisory Reference Committee (STARC) first meeting beginning of 2024
- Nominations to Science and Technology Advisory Board (STAB) on-going
- NAISS User Forum (NUF) Linköping 5-6 December
- User Support Advisory Committee (USAC), Will be nominated at the first NUF meeting
- NAC. Has been operational without any "hick-ups" since January 1 2023



>5500

>1500

Existing NAISS-systems



[READ MORE ABOUT BIANCA](#)

COMPUTE RESOURCE

Bianca

Host Data Centre

UPPMAX, Uppsala University

Purpose

Resource dedicated to research on sensitive data

COMPUTE RESOURCE

Rackham

Host Data Centre

UPPMAX, Uppsala University

Purpose

General computational resource



[READ MORE ABOUT RACKHAM](#)

COMPUTE RESOURCE

Dardel

Host Data Centre

PDC, KTH Royal Institute of Technology

Purpose

General computational resource



[READ MORE ABOUT DARDEL](#)

COMPUTE RESOURCE

Tetralith

Host Data Centre

NSC, Linköping University

Purpose

General computational resource



[READ MORE ABOUT TETRALITH](#)

COMPUTE RESOURCE

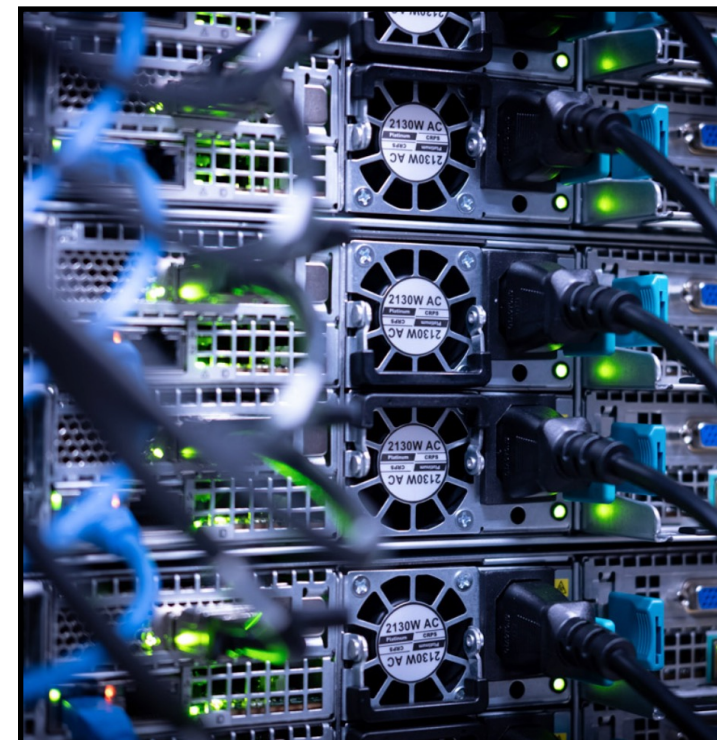
Swedish Science Cloud (SSC)

Host Data Centre

Several data centres

Purpose

Cloud-based computational resource



[READ MORE ABOUT SSC](#)

COMPUTE RESOURCE

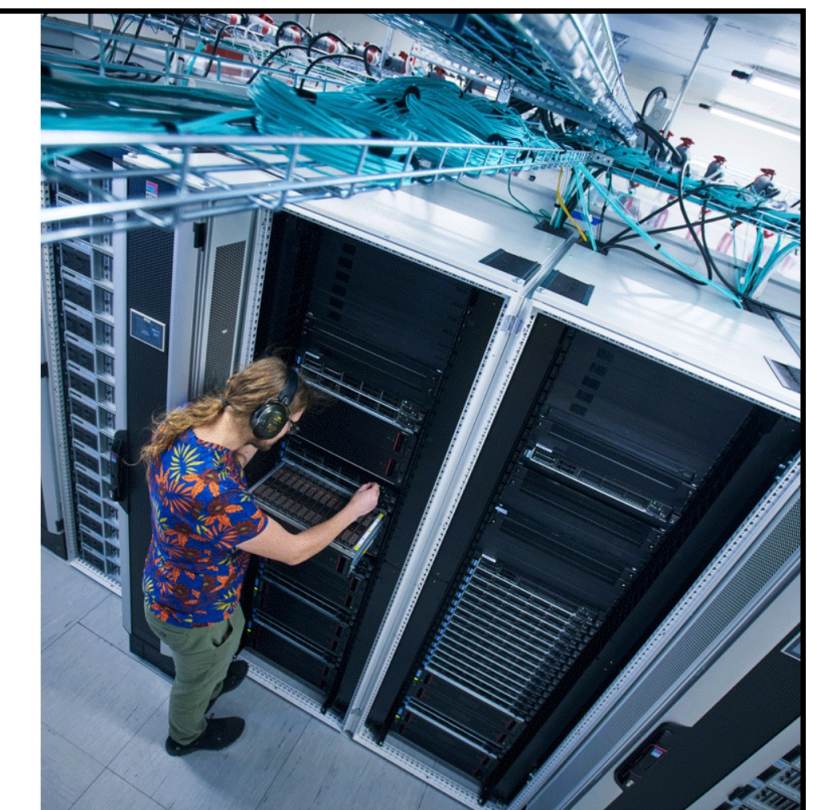
Alvis

Host Data Centre

C3SE, Chalmers University of Technology

Purpose

Accelerator-based resource dedicated to research using AI techniques



[READ MORE ABOUT ALVIS](#)

Associated systems



[READ MORE ABOUT LUMI](#)

COMPUTE RESOURCE

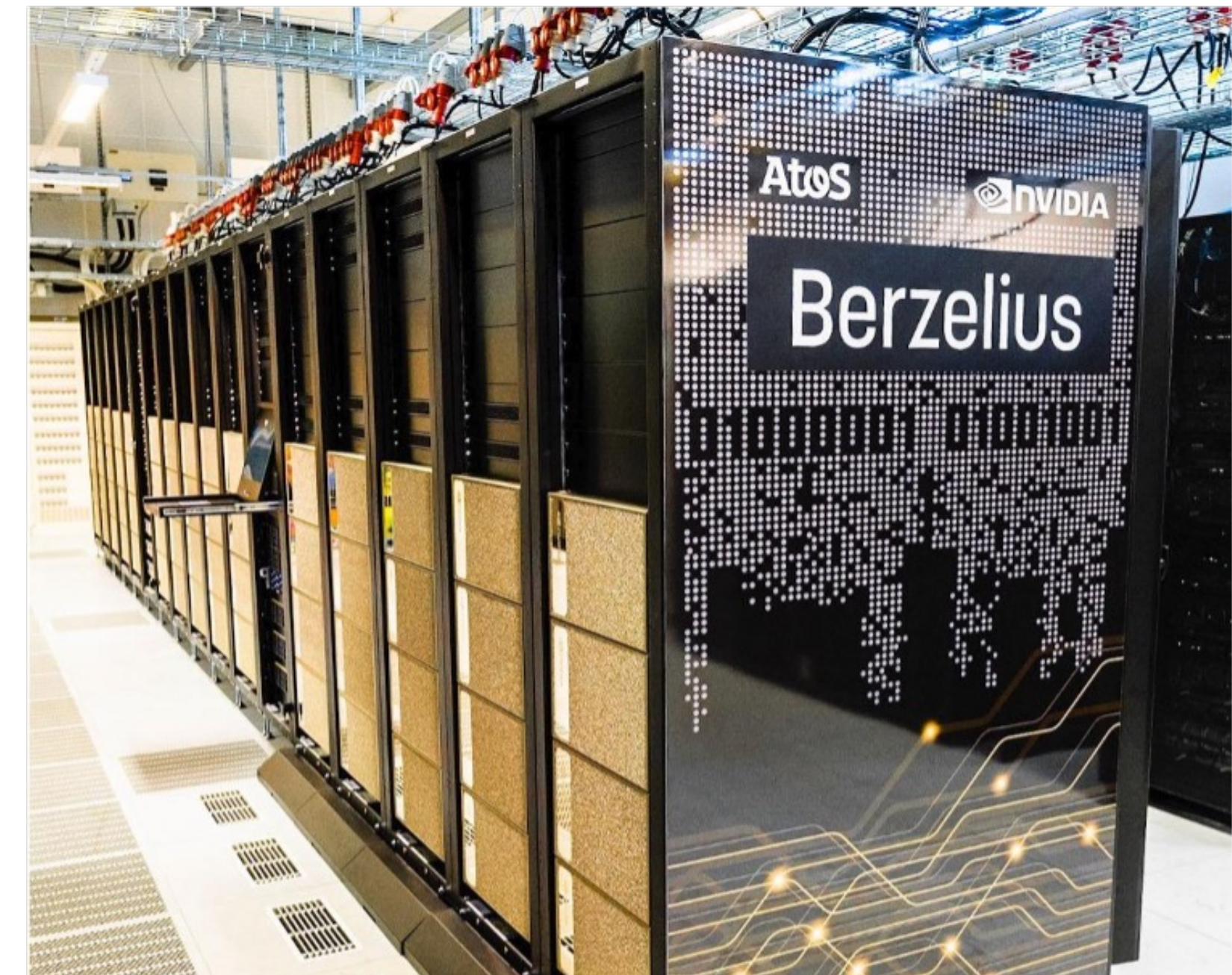
LUMI

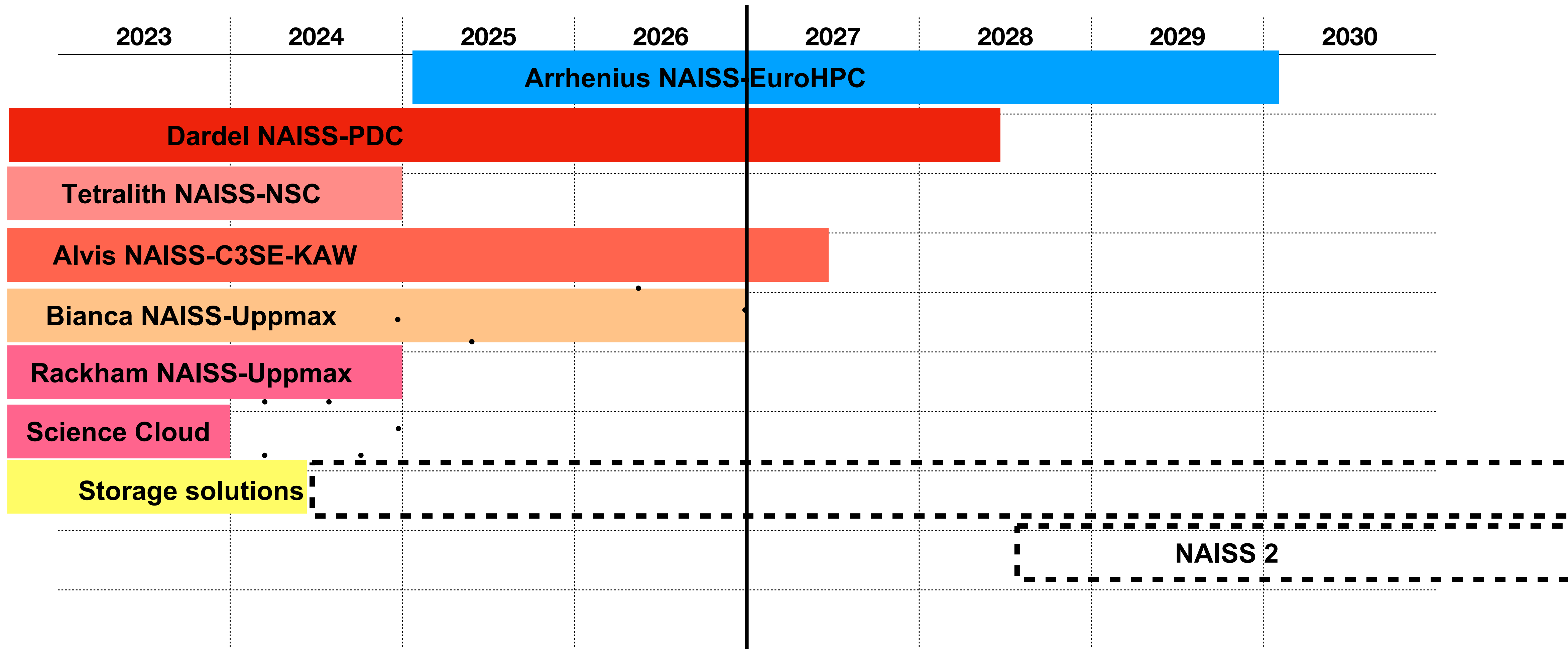
Host Data Centre

CSC, Finland

Purpose

General computational resource





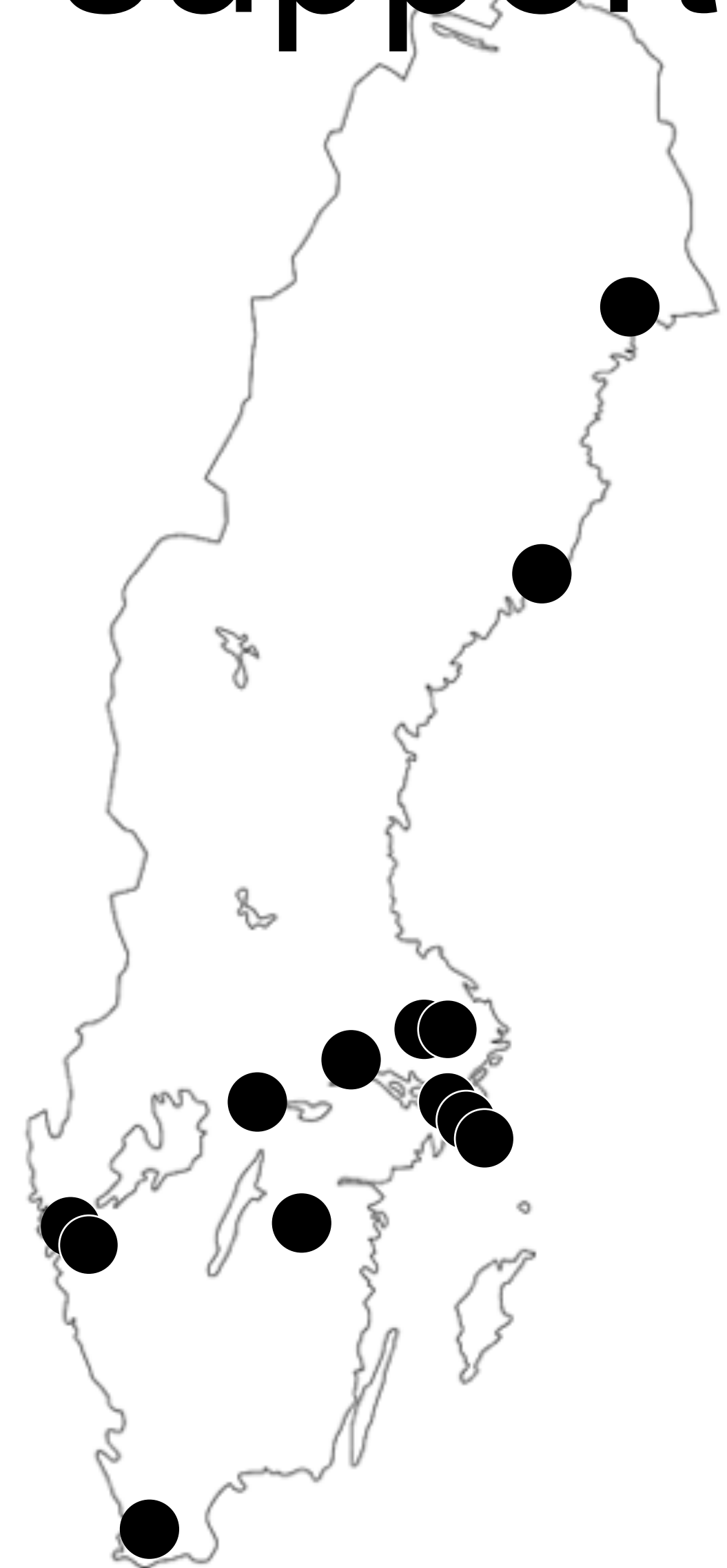
National Academic Infrastructure
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Nuvarande VR-beslut



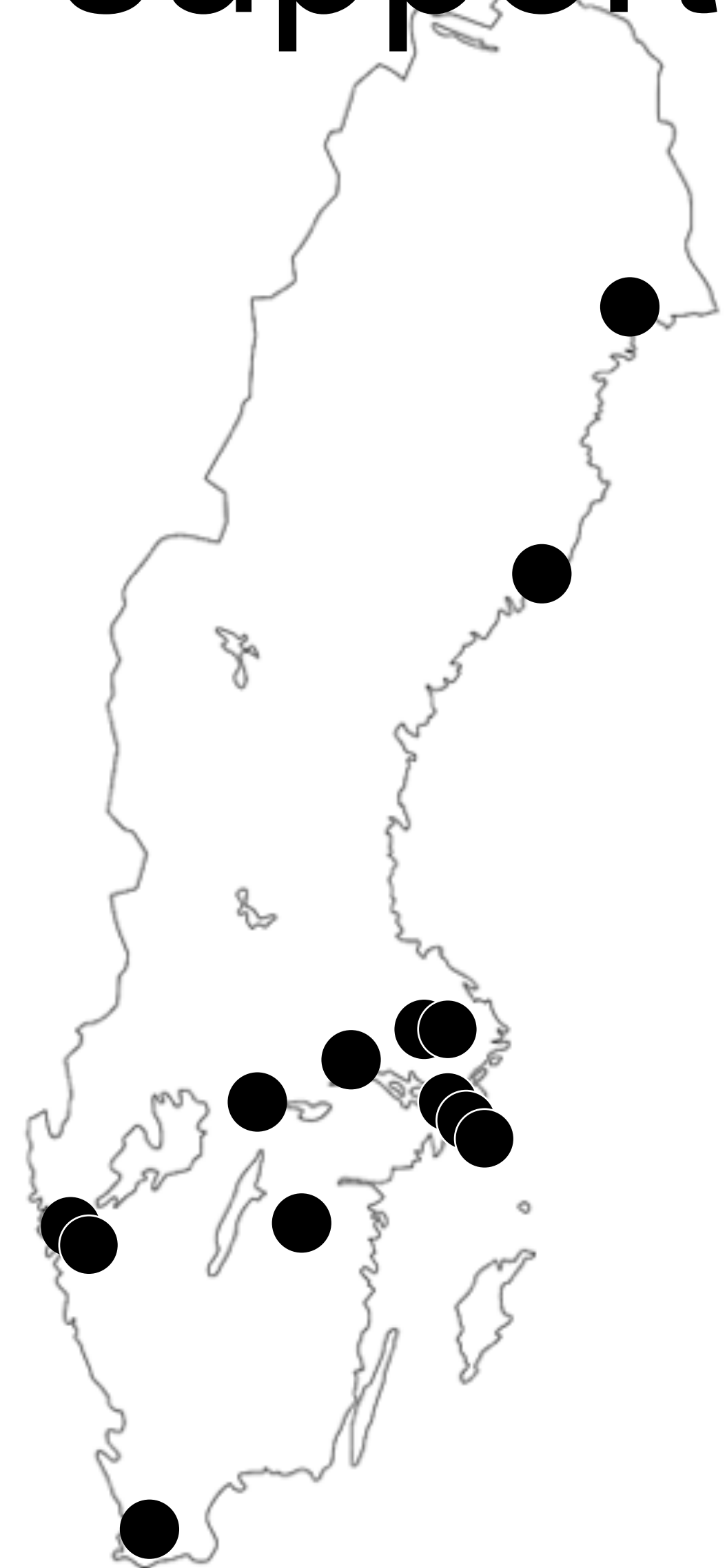
NAISS branches for User support

- Decentralised organisation for user support at basic and intermediate level.
- Branches planned in Umeå, Uppsala, KTH, Linköping, Gothenburg, Lund and hopefully Västerås.
- Partner universities contribute 4 MSEK/year or 1 MSEK/year at the entry level (tot ~40 MSEK/year cmp 115 MSEK/year from VR)
- Umeå, Uppsala, SLU, KTH, SU, KI, LiU, CHT, GU, Lund joins from 2023-01-01
- Luleå, Mälardalen, Örebro, continued dialogue.
- In total, we are planning for a user support organization with 30-40 people.
- Comprehensive cooperation



NAISS branches for User support

- The focus is on user support at basic and intermediate level as well as training. Coordination of the universities' own advanced user support.
- NAISS user support should act and be perceived as a cohesive organization.
- The best expert should be able to help the user no matter where in the country the two are located.
- Opportunity for NAISS to benefit from expertise around the country.
- Led by Torben Rasmussen LiU and Henric Zazzi KTH with the support of the Head of Scientific and Technological Fields



NAISS Training

JOACHIM HEIN, NAISS TRAINING COORDINATOR



Project participation

- Builds upon SNIC coordinated training
 - SNIC coordinate training started in 2014
- Institutions currently participating in training

University / Centre	Current Local Contact
Umeå / HPC2N	Birgitte Brydsö
Uppsala / UPPMAX	Diana Iusan
KTH / PDC	Henric Zazzi
Linköping / NSC	Weine Olovsson
Chalmers / C3SE	Victor Rehnberg
Lund / LUNARC	Joachim Hein



Key numbers for 2023

- Until 30 June 2023
 - 16 Training events delivered (2 in collaboration)
 - 2 CodeRefinery events supported
 - 1 Zoom-in interactive support and discussion forum
 - Ca 890 staff hours
- Since Summer 2023
 - 10 Training events delivered (1 collaboration)
 - 1 CodeRefinery event supported
 - 1 Zoom-in



Conclusions

NAISS is operational and provides infrastructure services for Sweden's researchers in areas such as HPC, storage, data management

NAISS has a central organization and works to consolidate the hardware into one location.

NAISS is building a delocalized user support structure with NAISS branches.

NAISS needs the Arrhenius initiative to be able to meet the increasing needs of users and enable an increased access to European infrastructure.



Back UP

Arrhenius is needed

For a long time, use could increase even with unchanged financial investments. This is changing now!

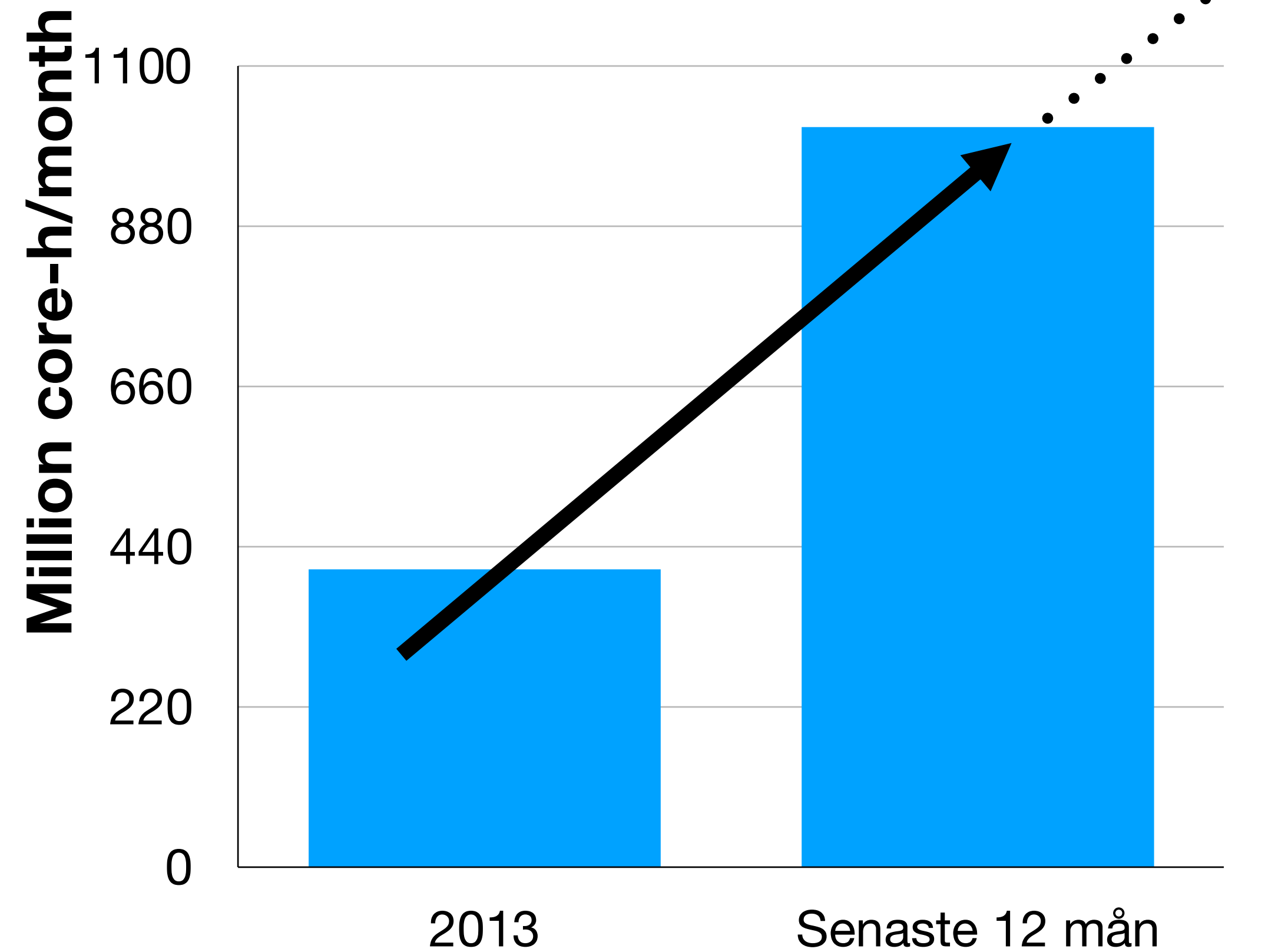
Significant price increase for, among other things, GPU power.

SEK drop of 20%.

Higher electricity prices.

Government funding of SNIC-NAISS was unchanged for a long time.

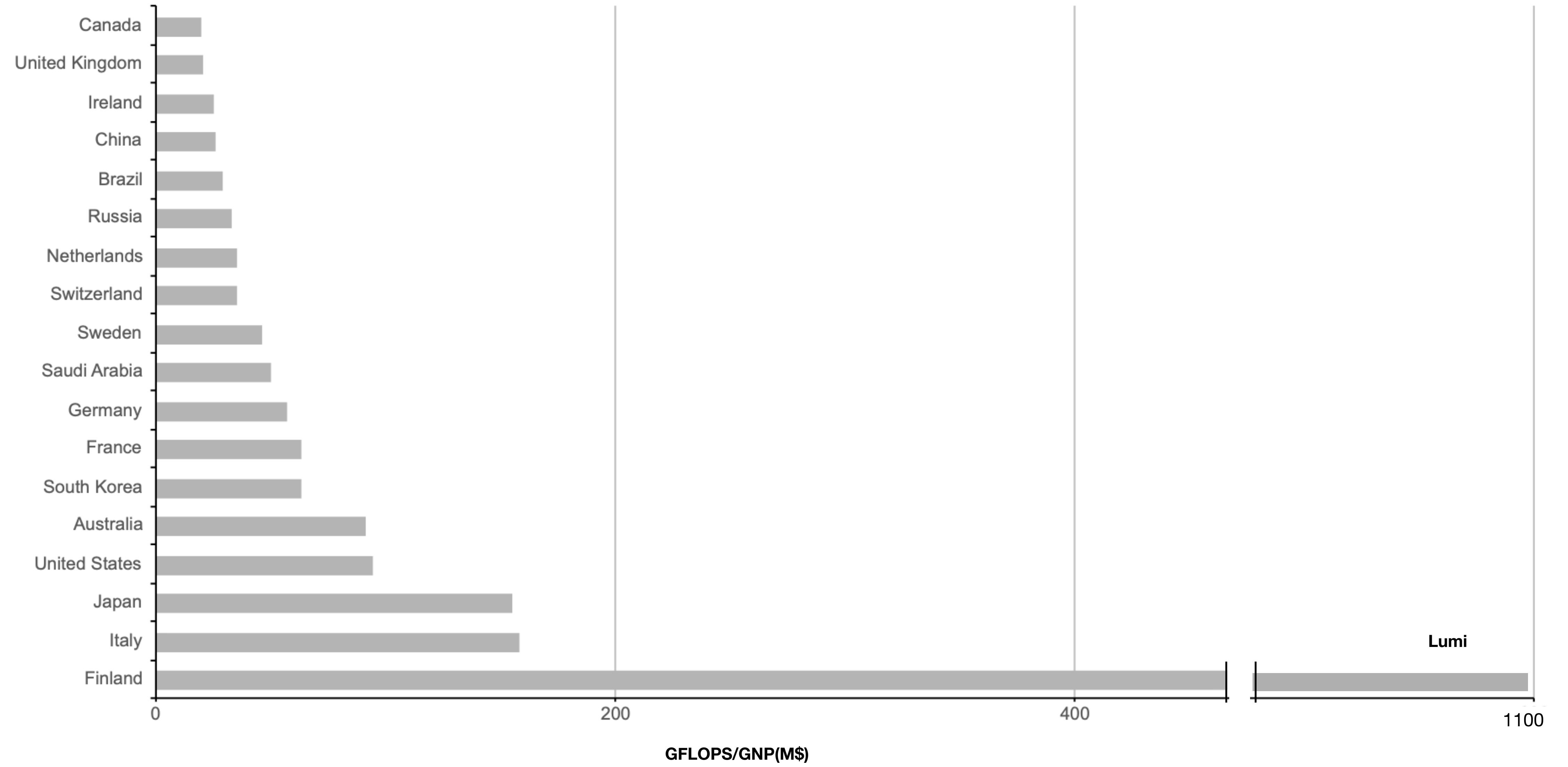
Total use NAISS/SNIC



?

Computational Capacity

GFLOPS/GNP(M\$)



Computational Capacity

GFLOPS/GNP(M\$)

