



National Academic Infrastructure
for Supercomputing in Sweden

NAISS User Forum
NAISS All-hands meeting
Linköping 5-6 dec 2023

Outline

- Program
- NAISS User Forum - Purpose, tasks for this meeting
- NAISS All-hands meeting - Purpose, tasks for this meeting
- Status of NAISS after one year of existence
 - Priorities and milestones for year one
 - People
 - Operations
 - Organization
- Arrhenius, the Sweden - EuroHPC collaboration system
 - A doubling of computational resources for Swedish researchers in 2025
- The partnership of Swedish universities for NAISS user support
 - A unified support organization delocalized over Sweden
- The User Support Advisory Committee (USAC)
 - The users voice in NAISS support organization



Tue 5 December

12:00-13:00 Lunch

13:00-13:15 [Welcome](#)

13:15-14:00 [The current status of NAISS, existing services and ongoing developments](#)

Jan-Eric Sundgren, NAISS Chairman

Björn Alling, Acting NAISS Director

14:00-15:00 [The Arrhenius NAISS-EuroHPC system](#)

Gert Svensson and Niclas Andersson, NAISS Technical Directors

15:00-16:00 Coffee (cake and sandwiches)

15:15-16:45 Group and plenary discussions, users perspectives on services and priorities for the future

16:45-17:30 [The NAISS way for user support and NAISS branches](#)

Torben Rasmussen and Henrik Zazzi, NAISS User Support Managers

Visit of Visualization Centre, Norrköping, and Dinner

17:30-18:15 Bus transport to Visualization Centre in Norrköping

18:15-21:00 Visualization show and dinner (Buffet):

Please note the length of the queue to the buffet and, if necessary, please start by visiting the early dome show:

- 18:30 VAST - A cosmic journey through space and time (35 minutes)
- 20:00 CHEMISTRY OF LIFE - The invisible inside (32 minutes)

21:00-21:45 Bus back to Linköping

Wed 6 December

08:30-09:00 [National Allocations Committee \(NAC\), presenting trends in applications and currently allocation policy issues](#)

Paul Erhardt, NAC Chairman

Peter Münger, NAC Secretary

09:00-10:30 Coffee

09:00-10:30 Group and plenary discussion on user support and allocation policies. Nomination to the User Support Advisory Committee (USAC).

[Online stream starts 10:00.](#)

10:30-11:50 [Panel discussion about current and future trends within scientific HPC, storage and big data, consequences for Swedish research](#)

Branislav Jansík, IT4Innovations, Czech Republic

Erik Lindahl, NAISS Steering Group, Sweden

More participants TBC

11:50-12:00 [Closing remarks for NUF](#)

12:00-13:00 Lunch

TOUR OF COMPUTER HALL FOR NUF

NAISS All Hands staff meeting continues

13:00 - 13:30 Welcome to NAISS staff from Björn Alling

Afterwards there will be two parallel sections to choose between:

13:30 – 17:00 **Track 1**, Support across all NAISS services

13:30 – 17:00 **Track 2**, Arrhenius procurement startup

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NAISS User Forum

- NAISS User Forum is the forum where all >5000 users of NAISS resources can make their voice heard and provide their view on NAISS strategies, priorities and services.
- We aim at organizing NUF on a yearly basis
- NUF is an opportunity to give feedback on all aspects on NAISS operations and activities.
- This year, focus is on feedback on the upstart of NAISS, the NAISS-way of user support, and the planning for the NAISS - EuroHPC system Arrhenius, and resource allocation policies and procedures.
- NUF can nominate candidates to the standing User Support Advisory Committee (USAC)

NAISS All-hands meeting

- NAISS is welcoming all people working in the academic HPC field of Sweden to take part in the all-hands meeting during this start-up process of NAISS
- The all-hands meeting follows in parallel with the NUF until lunch Wednesday. Allowing for exchange of views between users and staff.
- After lunch Wednesday, when NUF ends, the all-hands meeting continue with two intense tracks:
Planning of the NAISS User support organization (Torben Rasmussen and Henric Zazzi)
Arrhenius procurement startup (Gert Svensson, Niclas Andersson)

Background NAISS

- The Swedish Research Council (VR) decided in 2021 to not continue SNIC and open a call for a new national organization
- NAISS was the suggested new organization worked out in agreement between all the large universities of Sweden, Linköping University applied as host organization.
- VR decided on the funding and principles for NAISS in agreement with Linköping University in December 2022
- NAISS start of operations: 1 Jan 2023
- Steering committee under the leadership of Jan-Eric Sundgren appointed by LiU vice-chancellor after nomination from other Universities.
- Acting Director, Björn Alling, appointed Februari 2023
- International recruitment of Director for NAISS underway. See announcement on LiU homepage.

NAISS priorities for first year

- Safeguard that users could continue research seamless during SNIC-NAISS transition. Secure continued operation of existing systems and interimistic users support.
- Establish and build up the new organization
- Negotiate an agreement with all large Universities about partnership for a delocalized solution for User Support through NAISS branches
- Apply for and secure increased funding to meet researchers increasing computational and storage demand
- Build trust in NAISS among the users of our resources.
- Build trust in a common way forward among people working across Sweden.

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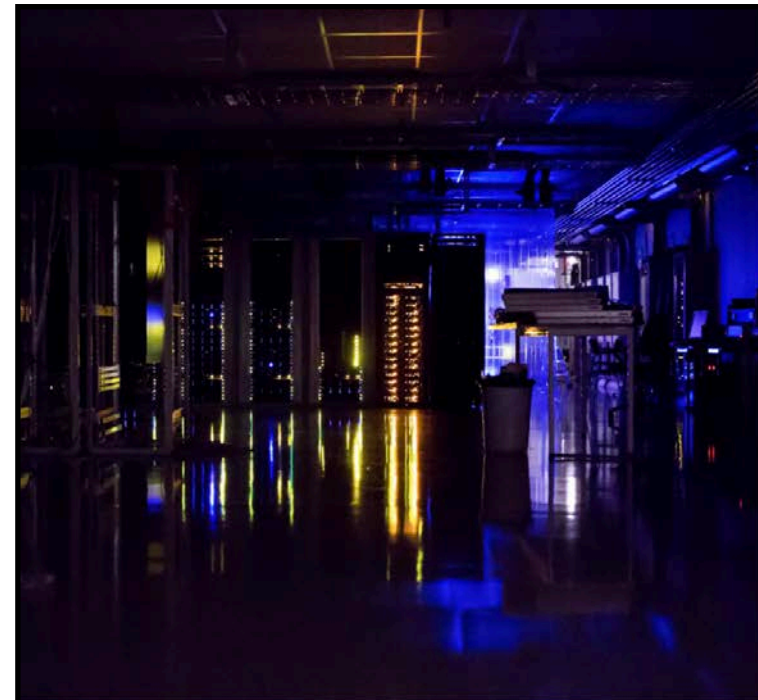
NAISS Steering Committee

- Jan-Eric Sundgren, Chairman, the Association of Swedish Engineering Industries (to 2024)
- Marianne Sommarin, Umeå University, (to 2024)
- Erik Lindahl, deputy Chairman, KTH (to 2026)
- Susanne Aalto, Chalmers (to 2026)
- Bengt Persson, Uppsala University (to 2026)
- Anders Ynnerman, Linköping University (to 2026)
- Thorsten Mauritsen, Stockholms University (to 2024)

NAISS Management

- Björn Alling, LiU, Acting Director
- Anna Jänis, LiU, Economy- and HR-director
- Niclas Andersson, LiU, Technical Director
- Gert Svensson, KTH, Deputy Technical Director
- Joachim Hein, Lund University. NAISS-Training-manager
- Torben Rasmussen, LiU, NAISS User-support manager
- Henric Zazzi, KTH, Deputy NAISS User-support manager

Operational 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

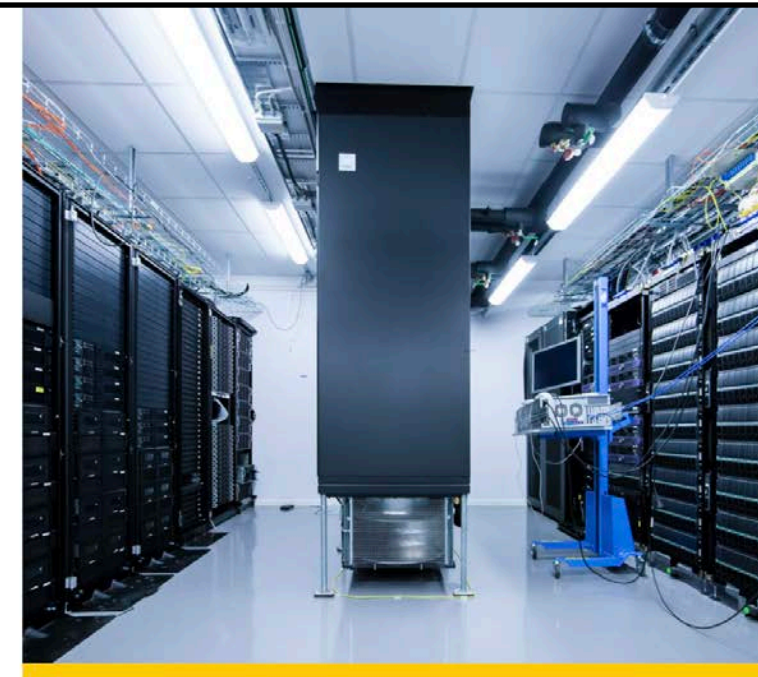
Rackham

Host Data Centre

UPPMAX, Uppsala University

Purpose

General computational resource



[READ MORE ABOUT RACKHAM](#)

COMPUTE RESOURCE

Dardel

Host Data Centre

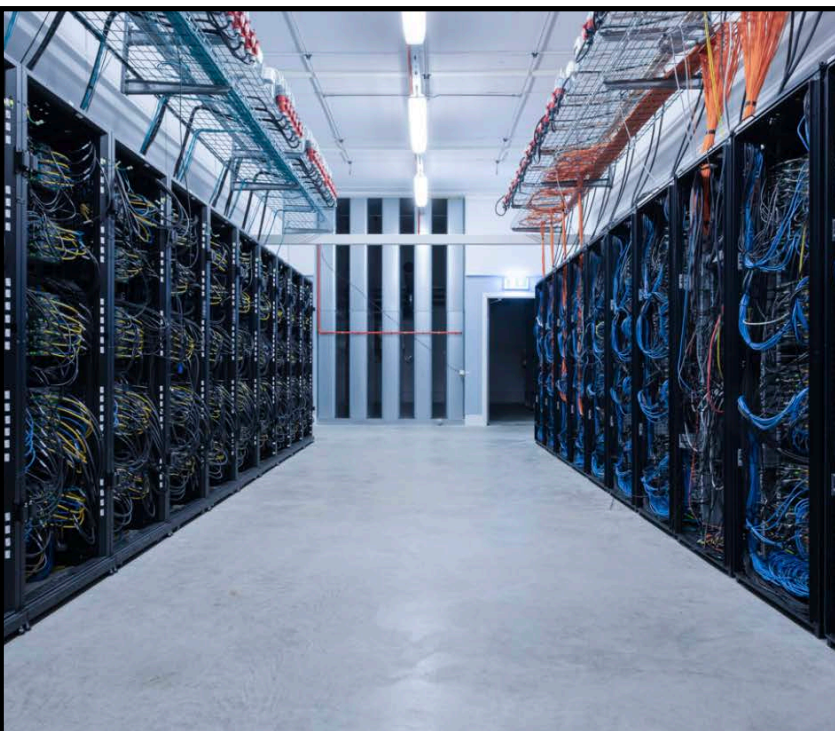
PDC, KTH Royal Institute of Technology

Purpose

General computational resource



[READ MORE ABOUT DARDEL](#)



[READ MORE ABOUT TETRALITH](#)

COMPUTE RESOURCE

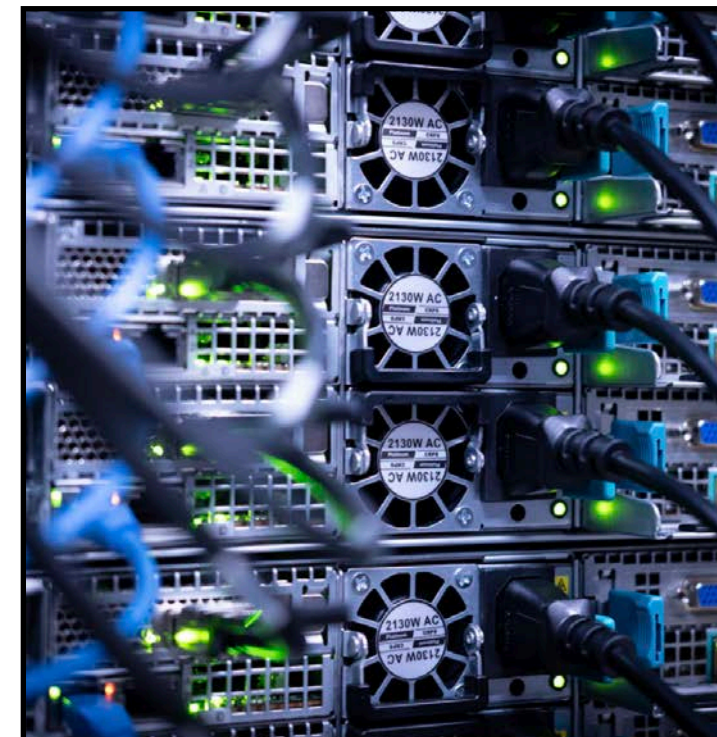
Tetralith

Host Data Centre

NSC, Linköping University

Purpose

General computational resource



[READ MORE ABOUT SSC](#)

COMPUTE RESOURCE

Swedish Science Cloud (SSC)

Host Data Centre

Several data centres

Purpose

Cloud-based computational resource

COMPUTE RESOURCE

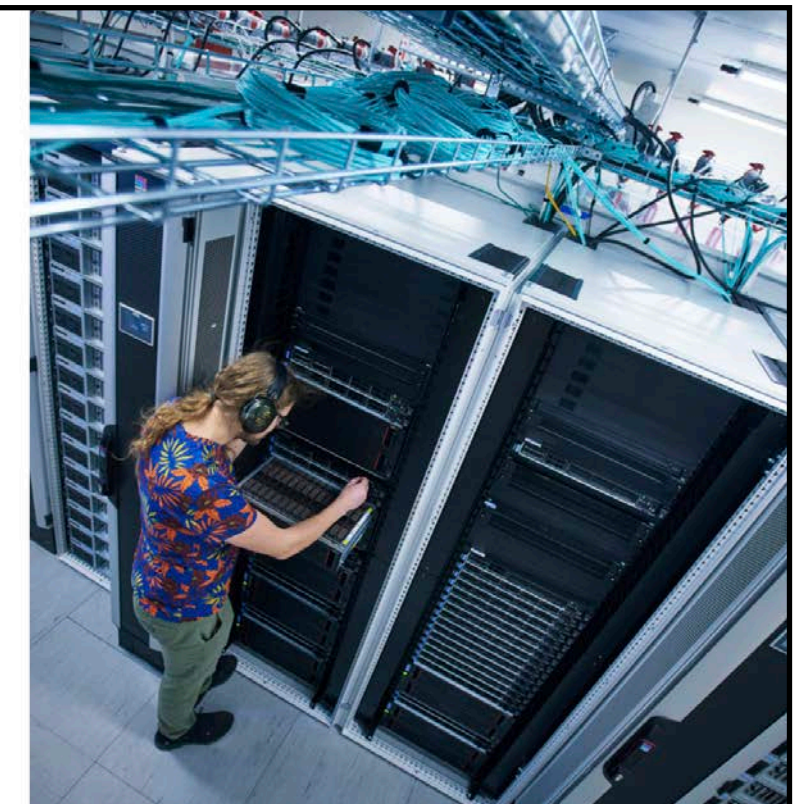
Alvis

Host Data Centre

C3SE, Chalmers University of Technology

Purpose

Accelerator-based resource dedicated to research using AI techniques



[READ MORE ABOUT ALVIS](#)

Operational NAISS systems



COMPUTE RESOURCE

LUMI -Sweden

Host Data Centre
CSC, Finland

Purpose
General computational resource

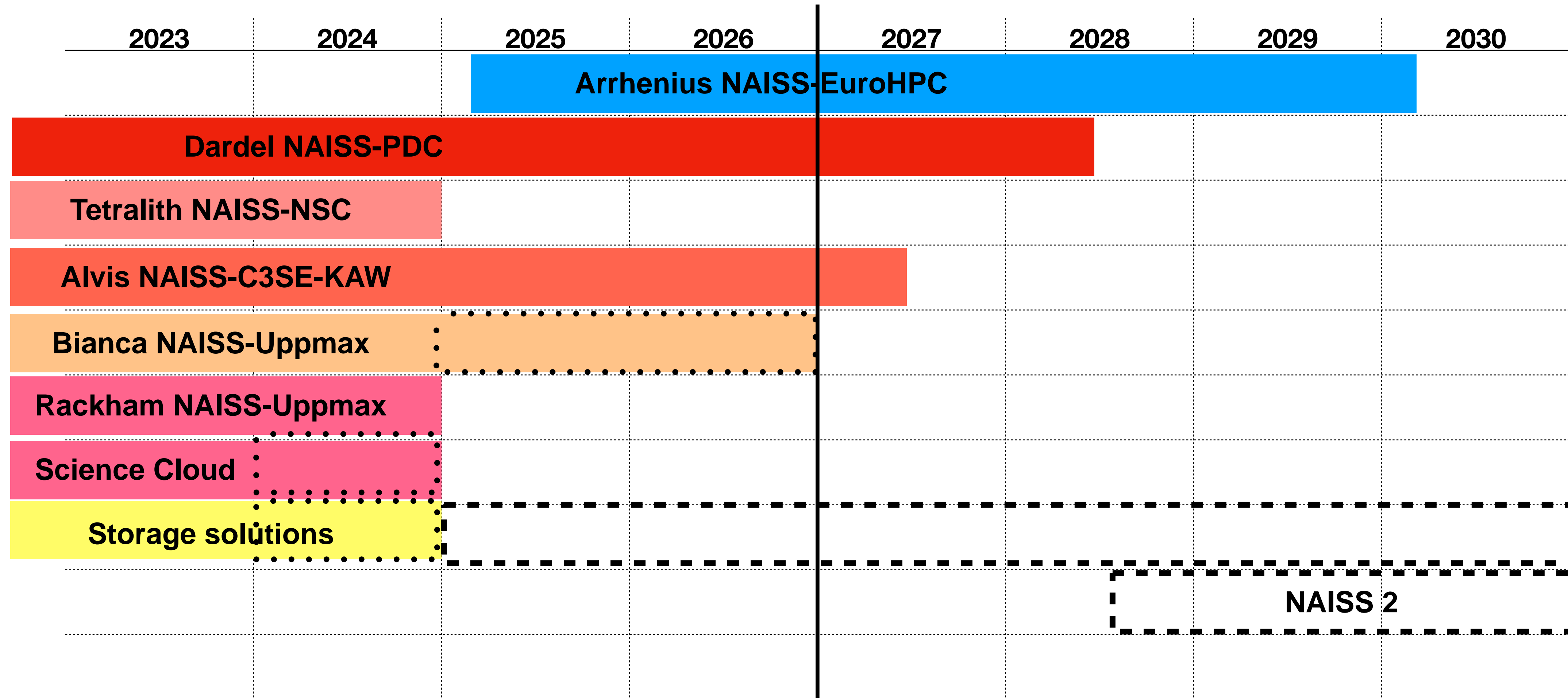
[READ MORE ABOUT LUMI](#)

Cloud service:
Swedish Science Cloud

Storage service:
SweStore

The dedicated Swedish share of LUMI in Finland is allocated through NAISS

Overview NAISS systems



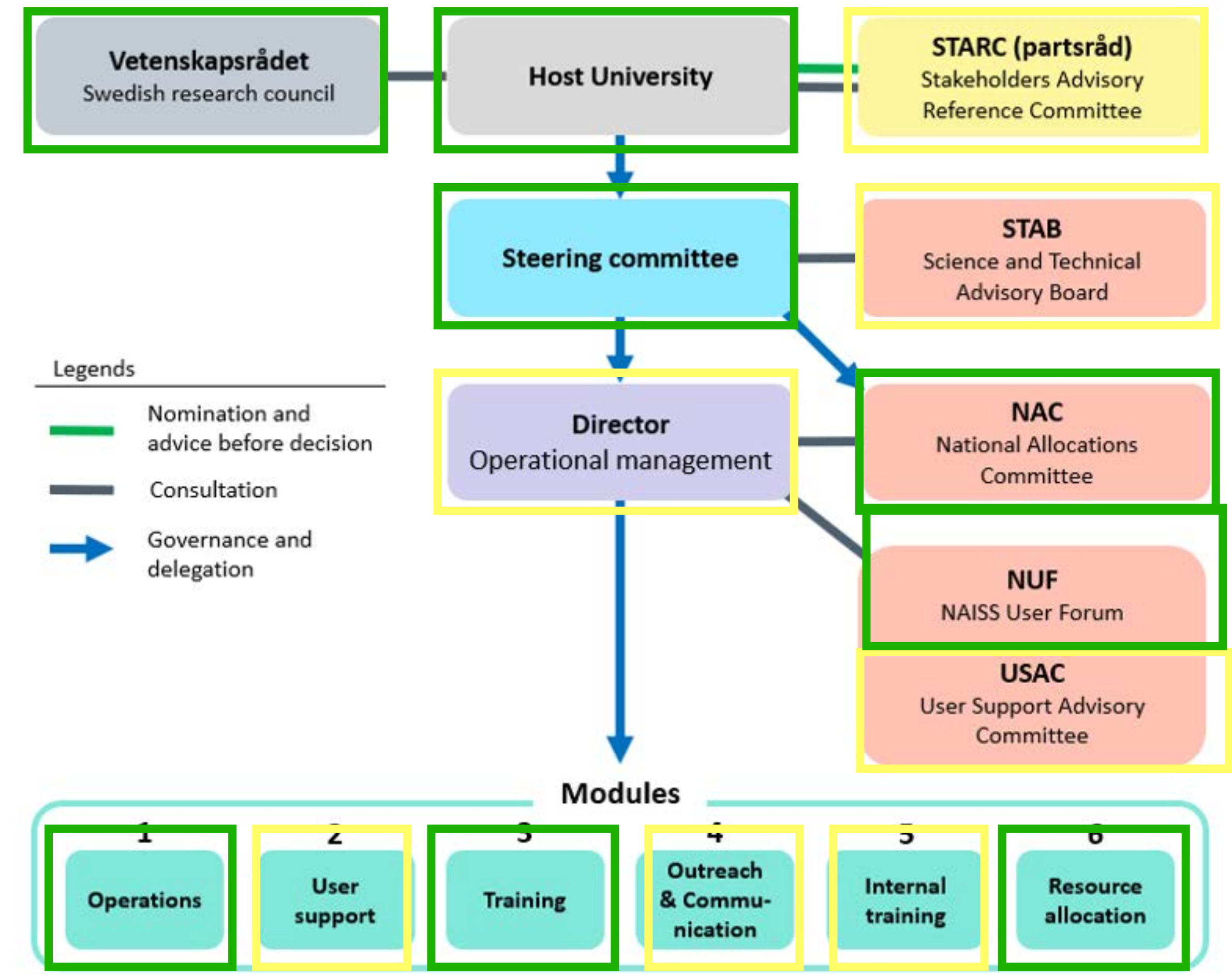
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Existing NAISS term



Status NAISS

- Stakeholders Advisory Reference Committee (STARC) will be summoned when collaboration agreement between universities is signed
- Nomination to Science and Technology Advisory Board (STAB) is ongoing
- NAISS User Forum (NUF) NOW!
- User Support Advisory Committee (USAC), to be nominated now.
- Allocation work is ongoing. (NAC)



Status Arrhenius

- LiU was given the assignment from VR and the Swedish government to apply for a Mid-range EuroHPC-system to Sweden. Application sent Feb. 2023.
- Application for a 40 Petaflops system. Planned start of operations first part of 2025.
Doubling of the computational resources for research in Sweden. Needed due to fast growing demand. Sweden to become a part of the EuroHPC-family.
- EuroHPC granted the application June 15 with the highest score ever awarded. 24 M€ from EuroHPC (35%).
- Swedish financing of 44 M€ (65%). VRs is guaranteeing the Swedish part of the finance with support from the Government.
- Negotiations about hosting agreements etc with the EuroHPC team headed by Lilit Axner ongoing. Gert Svensson is NAISS project leader for Arrhenius.

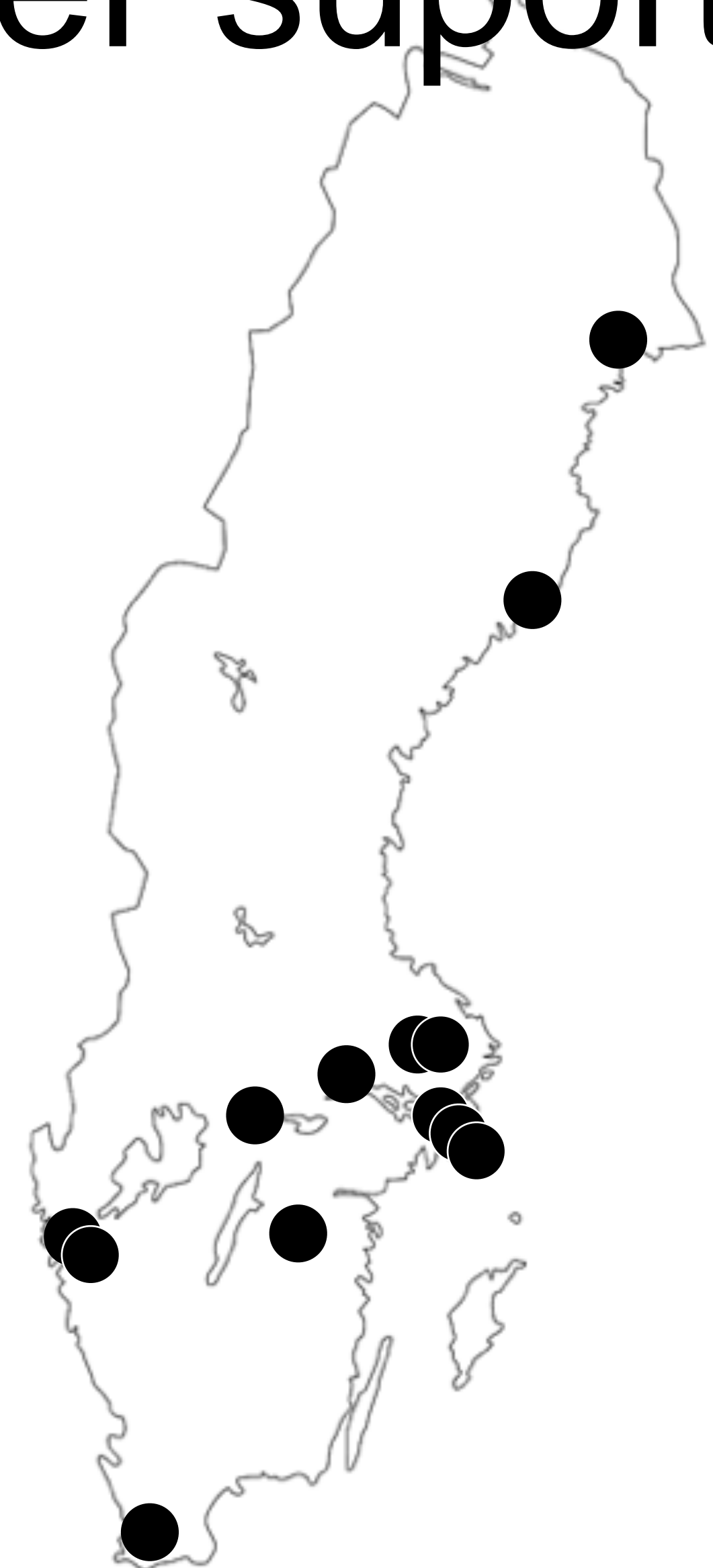


EuroHPC
Joint Undertaking

NAISS

NAISS organization for user support

- NAISS will support first and mid-level user support for all users
- The user support will be provided through a unified but delocalized organization of NAISS-branches
- The user support will be mainly funded through a partnership agreement between several large universities:
- 2023: Umeå, Uppsala, Linköping, KTH, Stockholm University, Karolinska Institutet, Chalmers, Göteborgs university, Lund University, SLU.
- 2024: Luleå, Mälardalen university, Örebro University.
- Branches in Umeå, Uppsala, KTH, Linköping, Chalmers, Lund
- Planning for a total of 30-40 people
- Collaboration agreement to be signed in December.





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