



National Academic Infrastructure
for Supercomputing in Sweden

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Fall is here, the university semesters are running at full pace, and so is NAISS!

Over summer, we signed the final contract for the new Arrhenius system with HPE. The new system will provide over 1,500 next-generation Nvidia GPU superchips, each paired with an Arm CPU, and a separate CPU partition that will support both cloud and sensitive data users. The first partition will be delivered to NAISS before the end of the year, and it will be available to users in spring 2026. This will be a transformative resource to help Swedish researchers tackle everything from climate modeling to drug discovery and the first phase of the new EuroHPC collaborations in Sweden – so it's important that users also apply to the EuroHPC quota.

We have also completed and submitted the proposal to Vetenskapsrådet for the future NAISS base funding covering 2027-2030. The proposal is based on our long-term strategic plan, and the first funding period will also mark the end of the transition to the new national organization. From January 2027 all hardware will be operated nationally by NAISS as the two EuroHPC co-funded systems for HPC and AI, respectively. Based on the positive evaluation, Vetenskapsrådet has offered NAISS to increase the base funding to 143.5 MSEK annually to support a more ambitious user support program, which fully aligns with NAISS' vision. We are already starting to prepare the work to organize user support in separate efforts for outreach & engagement, a formal training program, and domain research support – and in the next period we intend to complement this with some resources for advanced research software engineering. We are particularly interested in hearing more about user and partner needs for this process.

For the outreach & engagement we envision a more systematic program of NAISS staff having regular roadshows and scheduling visits to departments, while the formal training should deliver a range of classes starting from how to apply for resources, tutorials to using NAISS resources and introductions e.g. to parallel programming, but increasingly also advanced concepts such as GPU programming, AI method development, software engineering, and domain-specific classes that we are planning to organize in collaboration with other centers in Europe. The normal research support will be user-driven where PIs can get help up to a few weeks, while we expect the long-term software engineering efforts to be based on strategic discussions with partners and research initiatives where joint engagement could have impact for many users in Sweden and abroad.

New leadership in the AI factory – and co-funding mostly secured

We are delighted to announce that [Dr. Rossen Apostolov](#) has joined NAISS as Director of the AI factory. Rossen has a background from KTH, with extensive experience from EU projects, and he is currently focused on building the new AI service hub together with RISE and university partners. He will be visiting all sites involved in the AI factory as well as numerous events, so don't hesitate to get in touch with him. The AI factory team has also been expanded with Dr. Joel Hedlund assuming the role as Data Science Director; he has previously built the AIIDA data hub facility in SciLifeLab, and he brings extensive experience in handling data in general, and sensitive data in particular. Both will help strengthen Sweden's position in AI research and support users across disciplines and work with partners to recruit additional experts all over Sweden. We also want to take the opportunity to stress the AI factory can provide support letters for any EU proposals with Swedish participation.

In the Swedish budget bill just announced, Vetenskapsrådet and Vinnova both get additional funding to help cover the national co-funding required for the AI factory. We deeply appreciate the constructive support both from our partners, Vetenskapsrådet, RISE, other agencies, industry and

the government. While there are some details remaining, this means most of the necessary funding both for the upcoming AI-specific hardware as well as the distributed AI factory service hub jointly operated by NAISS and RISE are secured, just as for the Arrhenius system.

NAISS User Forum in Gothenburg October 21-22

We are looking forward to hosting our annual big user meeting together with Chalmers next month, with a particular focus on AI. Prof. Paul Erhart will give a keynote on his voyage to move from traditional simulations to increasingly use AI, and we will also have several users present their work. This will also serve as a kick-off for the coming NAISS Arrhenius HPC resources; we expect it will be a highly popular system both for HPC and AI workloads due to the latest-generation Nvidia GPUs, but it is equally important to help new users exploit the system including the large CPU partition and new storage. We will also use it as an opportunity to describe the AI factory and how users will be able to get additional help, as well as new collaborations with WASP and KAW that will provide additional advanced staff to help researchers in their AI projects. During the user meeting, we will also organize multiple booths staffed by NAISS experts both to assist users with specific issues and to collect feedback how we can improve outreach and support.

New large-scale allocation round open – with some simplifications for users

The bi-annual call for large allocations opened last week; don't miss the deadline: October 16 at 15:00. To make their life a bit easier, the allocations committee will now award limited storage as part of the normal proposals, so most users will no longer need to write a separate storage proposal; this will only be required for projects where the storage is the largest part of the cost. NAISS has also clarified that the normal project storage is only working storage (without backups), and to ensure there are good data management plans in place we now ask users to describe in their proposals how data will continuously be moved to long-term storage where it is safeguarded, not to mention stress the importance of having backup copies of important data sets.

Future NAISS long-term storage & potential new systems for partners

As the Arrhenius system is being installed and the AI factory is being procured, we are also starting the work on two new phases. First, NAISS will establish a new service for storing large research datasets more cost-effectively, and this will also be made available to users for medium- to long-term storage of data at cost. While NAISS cannot legally take over anybody else's archival responsibility, partners and researchers can use this storage as one part of their archival process. In the future, we will expand this storage to also cover sensitive data through encryption, and hopefully also an even more cost-efficient tier based on migration to offline tape storage.

Finally, several partners and infrastructures have expressed needs for additional resources that do not fall in the main NAISS-provided categories of research and SME usage – for instance needs for AI-capable GPUs in undergraduate education or storage and computing for infrastructures. To streamline this process, NAISS will offer all such organizations to co-invest in standardized CPU or GPU nodes as well as storage as part of a separate smaller cluster than can be expanded continuously as needs grow. Depending on the use cases, this can be configured as anything from a separate partition with fully independent control to shared resources that allow higher peak usage with fluctuating average workloads. We will bring this up in partner discussions this fall, but interested partners are also welcome to contact the NAISS management directly.

With Arrhenius, Mimer, and expanded user support, NAISS is entering an exciting new phase. We are grateful for your continued support and look forward to working with you to ensure Sweden remains at the forefront of scientific computing. We welcome your feedback and ideas — together we can make NAISS even stronger.

Jan-Eric Sundgren

NAISS Steering Committee Chair

Erik Lindahl

NAISS Director

Björn Alling

NAISS Deputy director