
LUMI AS A NATIONAL RESOURCE

HANS KARLSSON
DIRECTOR SNIC

PROFESSOR IN THEORETICAL CHEMISTRY
DEPARTMENT OF INFORMATION TECHNOLOGY
UPPSALA UNIVERSITY



Swedish National Infrastructure for Computing SNIC

The *Swedish National Infrastructure for Computing* is a science enabling e-infrastructure for Swedish academic research.

SNIC supports research of the highest quality in all areas of science that have needs of large-scale computing and/or large-scale data storage/management of active data sets.

SNIC is a consortium consisting of the ten largest Swedish Universities, with funding from the Universities and the Swedish Research Council.

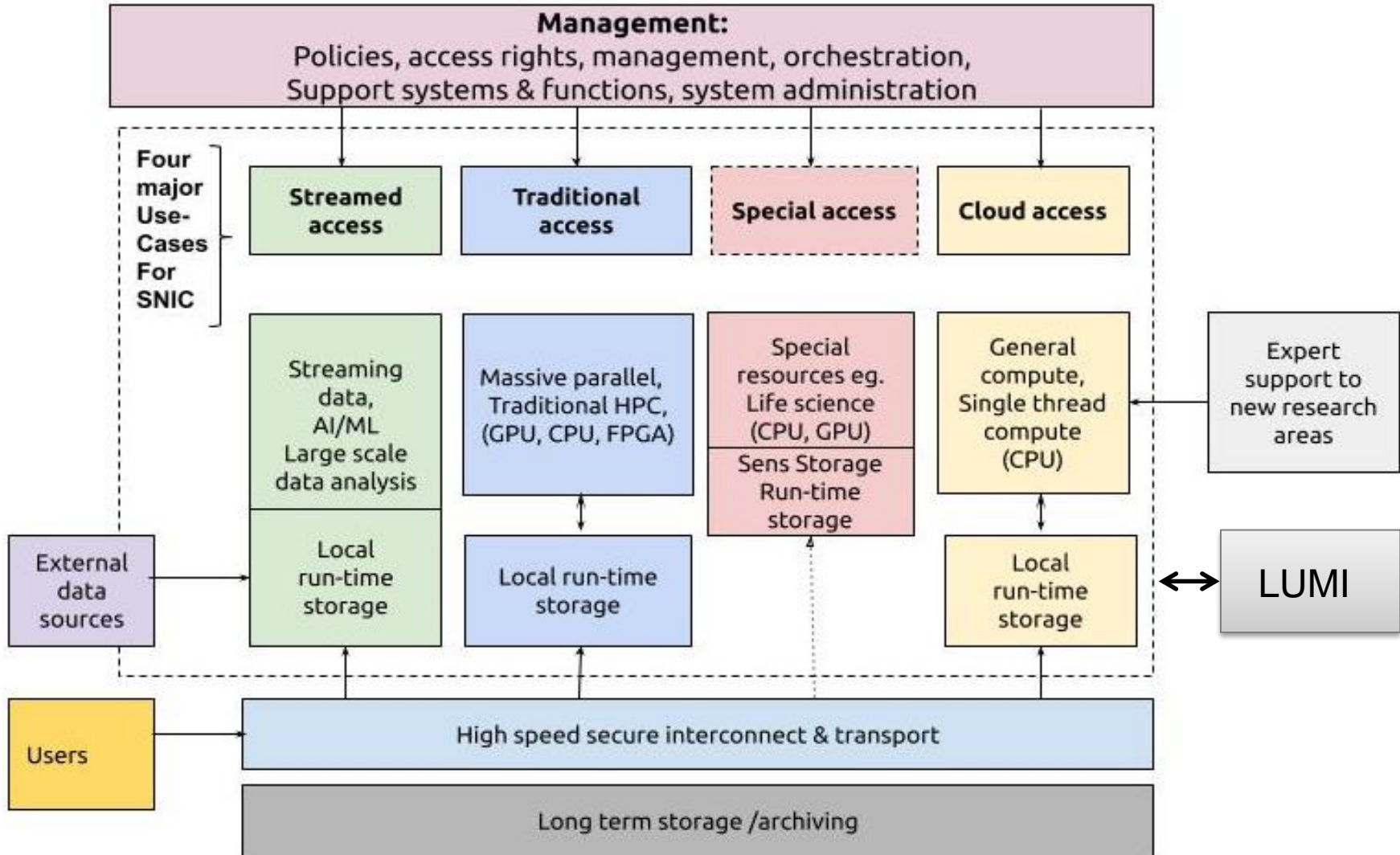
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SNIC provides resources for large scale computing, and large scale storage.

SNIC also provides advanced user support for an efficient use of the computing and storage resources.

The SNIC advanced user support will collaborate with the LUMI user support team (LUST) and with ENCCS to support Swedish researchers use of LUMI.

The SNIC computational resources



International collaborations.

National collaborations.

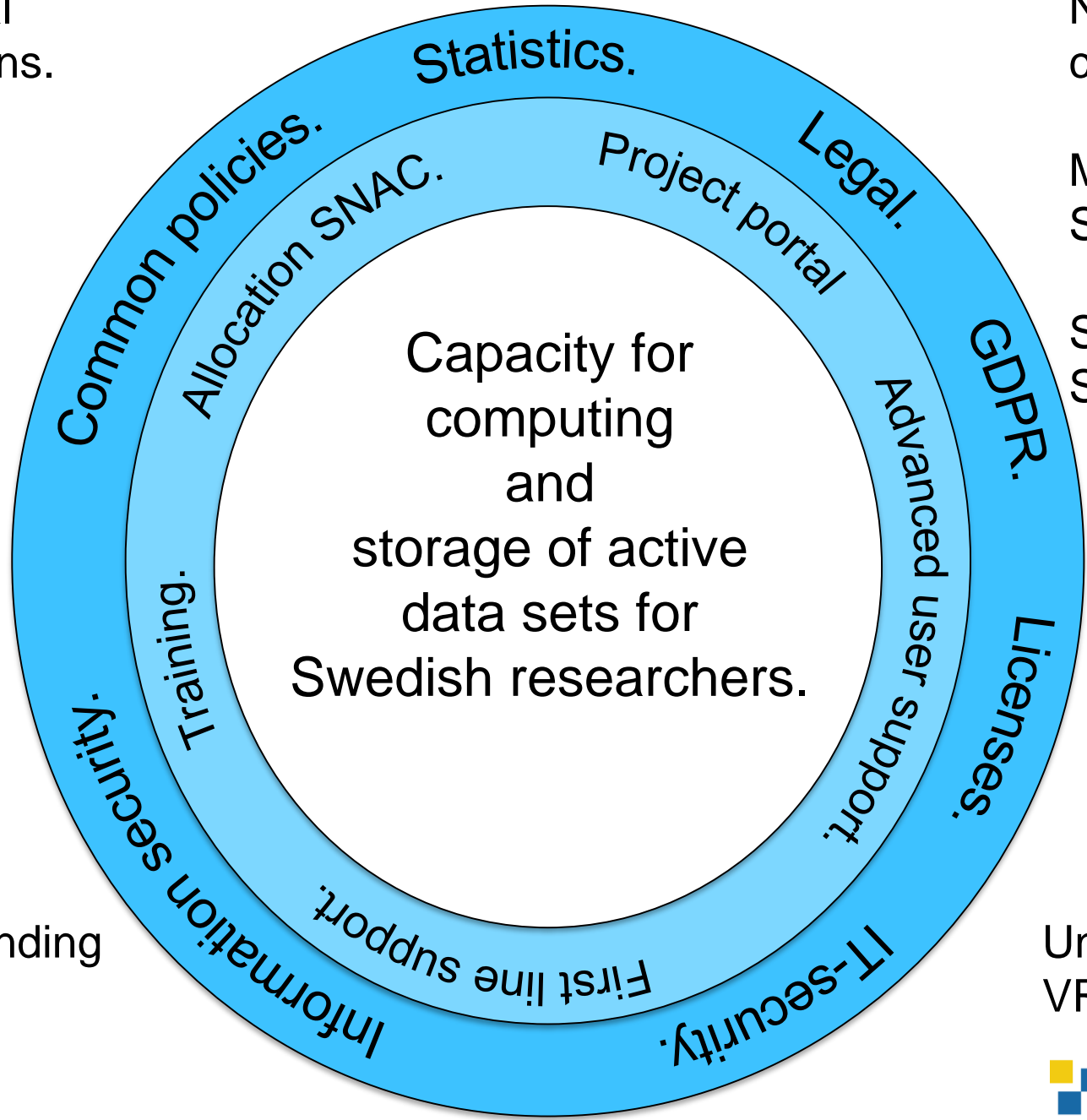
EOSC
EuroHPC
LUMI
PRACE
NeIC

Max IV
SciLifeLab

SUNET
SND

External funding
KAW

Universities
VR



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The SNIC computing and storage resources are allocated by SNAC and SNAC wg.

SNIC allocations comes in three flavours: Large, Medium and Small projects.

Applications for Large projects are reviewed by two scientific and one technical reviewer. Large calls are issued twice a year.

Medium and Small allocations are handled by SNAC wg and are based on a technical review. The calls are open continuously.

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SNIC projects - proposals, applications, decisions, statistics
- are handled via the SUPR-portal (supr.snic.se)



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Rounds

Resources are made available through rounds, in which projects proposals are made. First, you need to select the type of round to use:

Compute Rounds Access to resources for high performance computing. Go to Compute Rounds	Storage Rounds Access to storage resources at centres and nation-wide. Go to Storage Rounds	SNIC SENS Access to HPC resources specifically for analyzing sensitive data. Go to SNIC SENS	SNIC Science Cloud Access to SNIC cloud resources. Go to SNIC Science Cloud
SNIC AI/ML Access to SNIC AI and Machine Learning resources. Go to SNIC AI/ML	SNIC Dedicated User Support Dedicated user support for users of ongoing SNIC compute, cloud, and storage projects. Go to SNIC Dedicated User Support		

You can also view all rounds (including closed and decided).



LUMI as a national resource

LUMI as a national resource

Sweden participates in the LUMI collaboration via the Swedish Research Council (SRC). The dedicated Swedish part corresponds to 3.5 % of the LUMI resource.

SRC has asked SNIC to handle the projects for the Swedish part of LUMI: calls, reviews, allocation, statistics ...

The SUPR portal will be used for the application process.

An interface is being developed in the Puhuri project so that LUMI can exchange information regarding e.g. allocations and user statistics, with the national allocation systems, e.g. SUPR.

LUMI as a national resource

The national allocations will be handled by SNAC, complemented by international reviewers to get an international input to Swedish research, and to avoid conflicts of interest.

The assessments and opinions should help the researchers so that they will be able to compete for resources on e.g. the JU part of the EuroHPC resources.

LUMI as a national resource

The allocations for the Swedish part of LUMI will mainly be divided in two kinds (similar to projects used for the JU part of LUMI).

- **General access** (Tier-1 Project Access)
- **Extreme scale** (Tier-0 Project Access)
- From the LUMI Resource Allocation Plan
The national Extreme Scale (Tier-0) projects are applied and granted basing on the same proposal templates as PRACE is using for distributing the EC share of the access. This is to foster the transferability of the projects between LUMI and the other EuroHPC systems and encourages researchers to apply also via the international allocation.
- The division of the national resources between *General access* and *Extreme scale access* projects is not decided yet.

LUMI as a national resource

- In the spring 2021 there will be a call for *General access* projects. The call will be simultaneously as the SNIC Large call.

This call will only concern the CPU-part of LUMI and will correspond to ca 7000 cores (ca 4 800 kch/month).

We aim to use international reviewers.

- In the autumn 2021 the call will include both *General access* and *Extreme scale* projects.
Details regarding the call will be finalized during the spring 2021.

Pilot use of LUMI

Proposal for pilot use of LUMI

The four-week pilot use periods (which coincide with the 28-day availability tests that are a part of the acceptance of the installations) should start in the beginning of June 2021 for the phase 1 (everything besides LUMI-G) and in mid-December 2021 for the phase 2 (LUMI-G).

The proposal is to **select max. 2 pilot projects from each LUMI consortium country**. The selected pilot projects can (and should) compute as much as they can during the pilot phase, no accounting will take place. The selected users/user groups are expected to have the **sufficient technical capability** to be able to execute the pilots independently and right from the beginning of the pilot phase. The pilot users are expected to **report findings and feedback** about the system performance, performance variations, computing environment etc.

The pilots would have the following profiles

- data-intensive computing, high-throughput computing and high-performance data analytics (bioinformatics, digital humanities, materials science, astronomy etc) for the phase 1
- highly scalable GPU applications (Tier-0) for the phase 2.

In the first phase (LUMI-C, LUMI-D and storage) we want to generate stress especially to the storage systems. In the second phase, which is only the LUMI-G, we want to keep the GPU partition under full load. LUMI will facilitate the pilot users with common chat platforms and virtual hackathons (with LUST people attending).

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