Future of NT1: Norwegian infrastructure application

May 13 2025

Timeline (as seen from Bergen, i.e. from behind mountains)

- **January 2024:** Neic is entering its final year and the question how to continue with NT1 is gaining more importance
- **September 2024:** Norwegian CERN groups are approaching Research Council of Norway (RCN) to prepare NorLHC III application and ask about the future of NT1
- **October 2024:** RCN is also wondering about future of NT1, we quickly agree on a face-to-face meeting
- **November 2024:** meeting with RCN (Research data and infrastructure), Norwegian NLCG members, and Grid activity managers
- **January 2025:** Neic is not existing in its original form anymore and NT1 got an intermediate home with NordForsk
- **February 2025:** informative meeting with RCN, in the meanwhile the research councils and NordForsk have been discussing the matter on a different level
- **March 2025:** a new model for financing the Norwegian contribution to NT1 core operation is emerging

Infrastructure Application Model for NT1 in Norway

Until end of 2024:

- NT1 core part was funded through Neic
- NT1 hardware was funded through infrastructure applications, 5 years duration: NorLHC I (2017-2022), NorLHC II (2022-2027)

After end of Neic as host, NordForsk is positive to host NT1 - but the application procedure in 4 different countries with different time lines is tedious

Also its difficult for RCN as a direct Funding Party for NT1@NordForsk because there is need for a contract $\Rightarrow$ a model similar to NorCC becomes attractive for RCN

$$\text{RCN (Funding Party)} \quad \rightarrow \quad \text{Funder} \quad \rightarrow \quad \text{NT1@NordForsk}$$

But:

- NorCC is research money and NorLHC is infrastructure money
- cannot mix the two different posts of the Treasury

Operating NT1 after 2025

There is consensus among the Nordic funding partners and NordForsk on the importance of keeping the NT1 activity, and that there is no room for big changes at the moment.

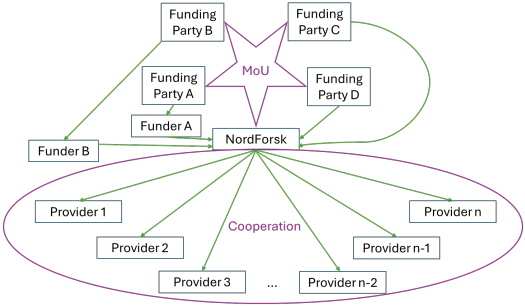
- Goal is to secure the funding for central NT1 activity (staff, central services, central infrastructure) after January 2026
- Application needs to be prioritized, not appropriate to be part of the NorLHC III application covering a much wider spread of activity

New MoU has been drafted.

Our infrastructure applications in autumn 2025 (call will be out in June 2025), will be split in two, to allow for a dedicated application covering Norwegian part of NT1 central operation ($\sim$4 MNOK/year), which will be prioritized to get funding in place by Jan 1st 2026.

The new MoU

- **Duration:** 1 January 2026 to 31 December 2030
- **Funding Parties:**
  - Sweden: The Swedish Research Council
  - Finland: The Research Council of Finland
  - Norway: The Research Council of Norway
  - Denmark: The Danish e-Infrastructure Consortium (DeiC)
  - NordForsk



Green arrows: contracts and funding flow

- **Funding level and Distribution Key:** total amount MNOK to be specified, Funding Parties contribute with equal share
- **Funding Period:** The Funding Parties' intention is to fund NT-1 for the duration of the WLCG MoU, i.e. until LHC closes and 15 years thereafter
- **Evaluation of NT-1:** NordForsk will initiate an external evaluation of NT-1 in 2026

Response to RCN

We can really be grateful to Pål Sørgaard for taking this challenging topic to a higher level and giving it so much positive momentum.

- For the moment there is continuous operation at the shift from Neic to NordForsk is secured and no disruptive changes are applied
- Can we actively contribute to this avaluation? Is it important that (some of) external reviewers are familiar with specialities of CERN/HEP computing, like long term storage, tape requirement, the ecosystem of Grid middleware and other software
- The concrete funding level still needs to be added, this should be done together with the different providers
- Funding period: lifetime of WLCG is probably more than 15 years after closing LHC
- Diagram is not part of the MoU text, if it is used somewhere else, the probably needs to be simplified