### Background

A Nordic Research Infrastructure (RI) Hub is a long-term partnership between Nordic universities, universities of applied sciences, university colleges and research institutes in a consortium that provides a framework for enhancing and/or expanding RI cooperation in the Nordic region. The overall objective of a Nordic RI Hub is to strengthen international competitiveness and facilitate the development of world-leading Nordic RI environments based on relevant research and research infrastructure priorities. Funding will be provided for high-quality activities that will increase Nordic cooperation on RI by building long-term institutional capacity, promoting excellence, and creating Nordic added value.

A Nordic research infrastructure hub should strengthen Nordic cooperation on a specific, large-scale research infrastructure project with the aim of building and expanding Nordic competence within its area. The hub should include activities to increase joint Nordic use of and cross-border access to the RI. Access programmes for young researchers are of particular interest. Activities within a hub should generate added value through, for example, exchange of experience with regard to best practice; efficient use of technologies and procedures, resources and services and cooperation with industry; and RI management. Potential harmonisation processes at the Nordic level are anticipated. Finally, a Nordic hub could facilitate more coordinated Nordic participation in international research infrastructure activities, such as the new European Strategy Forum for Research Infrastructures (ESFRI) roadmap initiatives.

### Who can apply?

Nordic universities, universities of applied sciences, university colleges and research institutes are eligible to apply for funding.

#### Nordic added value of the Call

Nordic collaboration will create outcomes and impact of greater value for the countries involved than could be achieved through national activities alone. Examples of such added value could be building critical mass, networking, sharing data, infrastructures and resources, and enhancing scientific excellence as well as creating societal impact and contributing to research-based policymaking.

#### Communication and knowledge exchange

The projects funded under the call must have a detailed communication and knowledge exchange strategy. Where appropriate, the strategy should describe the processes by which research-based knowledge can feed into practice and policy in collaboration with stakeholders.

### Financial framework

- NordForsk funding will be available for the period 2020-2022.
- The NordForsk funding allocated to the call is NOK 17 million in total.
- Each consortium may receive maximum NOK 3 million in NordForsk funding in total. Funding is expected to be provided for five or six consortia.
- The participating universities, universities of applied sciences, university colleges and research institutes must contribute resources equalling twice the amount of funding sought from NordForsk from 2020 through 2022.
- Expenses for coordination of the hub should not exceed 20 per cent of total costs.
- Non-Nordic consortium partners must fund their own participation; however, expenses related to mobility for international partners may be covered.

Funding may be used for the research infrastructure cooperational framework necessary for implementation of the hub, including:

- user programmes;
- workshops, training, seminars and conferences;
- technical tutorials;
- data management;
- RI management;
- mobility including guest researchers;
- communication and dissemination activities;
- other expenses that promote the cooperative framework and are necessary for implementation of the hub.

## Max applied amount

NOK 3 million for the period 2020-2022.

Far more research than education.

# Research infrastructure

- A large scale research infrastructure program
  - LHC, HL-LHC
  - Grid
  - ?
  - More radical Future collider program at CERN ?
  - Need to make a natural coherent picture and not make a contrived project where unrelated things are shoved into a box.
  - What do we do that we otherwise wouldn't do ?
  - Tick all of the boxes- extra value, coordination of a nordic approach to ESFR, etc.

# Some basic costs

- Two workshops per year (60 participants, ~2000 SEK per person)
  - 240000 SEK
- Detector school
  - 200000
- Physics school ?
  - 200000
- Two exchange students per year (will it happen)
  - 50000 SEK per person
  - 100000 SEK
- Guest researchers ?
- Coordination costs : % of salary ~15000 SEK
- Grid ?
- Conferences 50000 SEK
- Need to keep ~1MSEK per year
- o/h