## **Application**

- Offline discussions to target specifications of the call.
- Plan
  - Nordic Particle Physics Portal (N3P)
  - A sustained and dynamic Open Science Knowledge center providing access to computational, research & education, training and analysis resources, as well as expertise.
  - Training courses, Nordic LHC workshops, lab visits, exchanges, joint analyses.
  - Draft is ok but needs rebalancing to account for 50% portal, 50% activities (more from Farid for portal, Dave to slim down text on other activities).
  - Draft
    - https://docs.google.com/document/d/1P8Iyv4qUK8ymT\_U8tg50BszYZN6GMTiY2wtdMlXhknY/edit?usp=sharing

#### The N3P portal will:

- Store all relevant training material used in (to prepare for) Hackathons, Hands-on Camps, online tutorial, lecture material, ...
- Provide enhanced and easy-to-use access to data (collision and simulated), including Open CERN data for research and education
- Provide access to computing infrastructure: storage and CPU to process data and store results -Set up a "Virtual Nordic Tier-3" infrastructure
- Provide access to laboratory and other research infrastructures
- Contain data analysis and statistical tools to analyse data and interpret results.
- Provide a platform for development and adaptation of novel algorithms and software
  optimisation, including modern data analysis tools and techniques to be used for education,
  exploiting the publically available data and corresponding simulations released by the ATLAS
  and CMS experiments at the LHC. Example of tools: Jupyter notebooks, the SciPy suite,
  Pandas, SciKitLearn, Keras, TensorFlow as well as HEP software such as ROOT, workbooks,
- Set up a local Nordic instance of the SWAN service. SWAN, developed at CERN, provides in a single service a suite of tools commonly needed for data analysis, including the standard Python data analysis tools as well as physics software. User interactions are via web-based notebooks, for Python (Jupyter) and C++. User instances are run on server-side virtual machines (VMs) launched with the OpenStack system or others. Only tool a researcher or student needs is a laptop and a web browser and can get started in minutes. Reduce overhead in setting students up to begin data science projects, simplify distribution of datasets, and also allow assessments to be done more straightforwardly. We also envisage that this system might be useful to other groups in the university, both for research and teaching, who do not have access to CERN computing resources.

## Nordforsk app

- Budget
- https://docs.google.com/spreadsheets/d/13T 1KNo2ThrUa3A0sy3BPsOMvrujqqw1qVL3tsCh ydiY/edit?usp=sharing
- Oslo/Lund one postdoc for development of portal with equivalent x2 in-kind contribution from that institution.
- Other in-kind 10 seniors at 10% of their time (or ~20 seniors with 10%) for contributions.

Courses	4
Teacher costs	10000
Board and lodging	7500
No. students	4
Board and lod	7500
Total	190000
Nordic LHC workshop	3
No. invited participants	10
Cost per participant	7500
Room	20000
Total	190000
Mobility	
External guest 3 months	
Cost per month	20000
no months	2
Total	40000
Exchange	
Visit - week	8000
No. visits	10
	80000
Nordugrid confs	3
No. invited guests	5
Cost per guest	7500
total cost	112500
Hackathons	3
No. invited guest	5
Cost per guest	7500
Total cost	112500

Technical tutorials	3
No. invited guest	5
Cost per guest	7500
Total cost	112500
Dissemination	100000
Future events	2
No. invited guests	5
Cost per guest	7500
total cost	75000
Instrumentation	
No. shipping	6
Cost per item	50000
Total	300000
	1312500

Total budget in NOK - specified by source of funding	Total budget
Nordic Research Infrastructure Hub costs	
User programmes	
NordForsk funding	300000
Other funding	
Own resources (cash and in-kind)	
Total	300000
Workshops, training, seminars and conferences	
NordForsk funding	680000
Other funding	
Own resources (cash and in-kind)	
Total	680000
Technical tutorials	
NordForsk funding	112500
Other funding	
Own resources (cash and in-kind)	
Total	112500
Data management	
NordForsk funding	
Other funding	
Own resources (cash and in-kind)	
Total	0
RI management	
NordForsk funding	
Other funding	
Own resources (cash and in-kind)	
Total	0
Mobility, including guest researchers	
NordForsk funding	120000
Other funding	
Own resources (cash and in-kind)	
Total	120000

Communication and dissemination activities	
NordForsk funding	100000
Other funding	
Own resources (cash and in-kind)	
Total	100000
Coordination of the hub (max 20% of total costs)	
NordForsk funding	
Other funding	
Own resources (cash and in-kind)	280800
Total	280800
Other expenses (please specify costs in Justification for resources)	
NordForsk funding	1500000
Other funding	
Own resources (cash and in-kind)	4800000
Total	6300000
Indirect costs (administration, infrastructure, etc.)	
NordForsk funding	
Other funding	
Own resources (cash and in-kind)	540000
Total	540000
Total budget	8433300
Total requested NordForsk funding	2812500
Total other funding	0
Total own resources (cash and in-kind)	5620800

### Total contributions from partners

Own contribution in NOK - specified by source of funding	2020	2021	2022	Period total	
Nordic Research Infrastructure Hub costs					
User programmes				0	
Workshops, training, seminars and conferences		Ĭ		0	
Technical tutorials				0	
Data management				0	
RI management				0	
Mobility, including guest researchers				0	
Communication and dissemination activities				0	
Coordination of the hub (max 20% of total costs)				0	
Other expenses (Please specify below)				0	
Indirect costs (administration, infrastructure, etc.)				0	
Total	0	0	0	0	

### Individual contributions from partners

Partner Institution	Country	Requested funding (NOK)	%	Other funding - External (NOK)	Other funding - Own resources (NOK)	Total funding (requested + own contribution)	% of Own contribution of Total funding
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# Required today

- Seniors from each institute who can take part in network
- Separate
- 5% of salary costs
- OH cost

### Required this week

#### Letters of Commitment

The consortium partners are obligated to contribute twice the amount sought from NordForsk.

The contribution must be guaranteed through a letter of commitment signed by a high-level administrator with the authority to assume obligations on behalf of the university, university of applied sciences, university college or research institute.

Upload in pdf format, max 1 page per letter. Multiple files allowed \*

Upload file

Our deadline – Friday. Real deadline 13:00 22nd October