NICEST2 Consortium meeting 2020 Oct 15-16

Agenda:

1st day: **13:00 - 15:00 CEST**

- Welcome and presence
- Approval of the agenda
- NeIC announcements and project steering
- Presentation of [NICEST2 Project plan](#)
- Project status and changes to original proposal
- Communication channels

2nd day: **10:00 - 12:00 CEST**

- [Business case](#) and [benefit realisation](#)
- Reference group
- Acceptance of NICEST2 Project plan
- How to best contribute on a European level (discussion)
- [DecisionPoint checklist](#)
- Next meeting
- AOB

Welcome and presence

Invited:
- Aarne Männik, TalTech, EE
- Alok Kumar Gupta, NORCE, SG Norway
- Anne Claire Fouilloux, Secretary
- Arto Aniluoto, CSC, FI
- Francesca Iozzi, Sigma2, NO, Apologies received
- Hamish Struthers, NSC, SG Sweden
- Klaus Zimmermann, SMHI, SE
- Mats Bentsen, NORCE, NO
- Markku Kulmala, University of Helsinki/INAR, FI
- Michaela Barth, NeIC, Chair
- Risto Makkonen, FMI, SG Finland, on vacation, all replacements sick.
- Shuting Yang, DMI, DK
- Øyvind Seland, METNO, NO,
- Yanchun He, NERSC, NO

Presence: Aarne, Alok, Anne, Arto, Hamish, Mats, Michaela, Shuting, Øyvind, Yanchun, Klaus (as of 14:00)
Presence second day: Aarne, Alok, Anne, Arto, Hamish, Klaus, Mats, Michaela, Shuting, Øyvind, Yanchun

Decision: We have quorum.

Approval of the Agenda

Decision: The agenda is approved.

NeIC announcements and project steering

- RCN funding proposal
- New PaRI project
- Promotional video on https://neic.no/
- Lessons learned Director leave of absence
- Zenodo API usage
  - https://zenodo.org/communities/neic/
  - https://wiki.neic.no/wiki/Zenodo_howto#Links

https://docs.google.com/presentation/d/174D4nLfAtESxzhawBJfEjnz1auBMk9MmEhGNOjVFrLE/edit#

Presentation of NICEST2 Project plan

Slides:
https://docs.google.com/presentation/d/1tMO1jWTvSOWjRmXgkWOXPnNjnBKs-dAqM8vw6geevYU/edit?usp=sharing

The project started on June 1st. According to 6.1 in the Collaboration Agreement, a project plan shall be adopted by the steering group within 6 months of project start-up. The project plan stipulates the obligations of the various partners. The annually revised project plan also forms the basis for reports to be submitted to the project owner.
Project plan still needs to be formally approved, as scheduled for the second day of this meeting.

Due to an already very good project directive a complete draft was provided early on and posted publicly on the website. The first draft was presented in the Constituting Steering Group meeting in May. Also other community feedback was encouraged. After that feedback all major revisions were done so it was considered in an approval ready state around the start of the project, at the beginning of June. It was intentionally kept open for further

improvement by the staff, to ensure engagement, ownership, feasibility and fine-tuning with actual competencies and local synergies.

The project manager presents the latest version of the project plan:

https://nordicesmhub.github.io/nicest2/2020/05/04/plan.html

Project status and changes to original proposal

The project manager gives a report on the project status.

D1.2: Glossary for Nordic Climate (M6) missing in the slide list, but in the project plan. (Editor's mark: It was missing in the slide list since there is no task associated to D1.2 Glossary for Nordic Climate (M6))

Summary: The consortium members received the report on the project status.

Communication channels

The Project Manager summarizes which channels are currently used to communicate within the project, with the community, as well as with the interested public.

Website:
https://nordicesmhub.github.io/nicest2/
For the rest of the links, we refer to the last slide in the Project Manager's presentation.

esm-nordic@googlegroups.com
   ● **AP A-C to ask NICEST2 staff to sign up**

Yanchun is no longer able to log in to the internal wiki.
   ● **AP A-C to follow-up on eventual login problems and inform all on how to get access to the internal wiki.**
     https://wiki.neic.no/wiki/Getting_access_to_the_Internal_Wiki

Business case and benefit realisation

The project manager presents the business case and benefit realization documents. Those documents are linked since the benefits and the business changes listed in the business case, live on and get updated by the Steering Group in the benefit realization document together with the help of the Reference Group. The business case in its current form was already presented to NeIC XT and got appraised.

Business case document:

https://docs.google.com/document/d/1pQm5_VC5Mtjaw8yN4BH0bpqZTcf8DrsN_D-VMM_a5cs/edit?usp=sharing

Benefit realisation document:

https://drive.google.com/file/d/1pqlGu_7PKGjgXKxzj0DpxwjC3wlT5o4o/view?usp=sharing

Discussion:

Summary graph: colours should be explained or left out.
Mention ESTICC community relation? ESTICC has finished, though.
https://www.esiwace.eu/ might be relevant though.

EuroHPC's LUMI supercomputer in Finland is under construction, at the moment it is on schedule, but it is a very large undertaking.

- **AP Michaela: Check whether the answers of these questions are known within Puhuri already:**
    - **Will there be a test system for LUMI to test the software?**
    - **When will the project application process open?**

Complying to FAIR principles: Local data managers are also very important to help researchers at their institutes to comply with FAIR principles. On the other hand, raising awareness of the FAIR principles is also very important, so the contribution could even be larger than only 1-2. The value for this benefit was adjusted to 2.

Framework for collaboration: Involve Research Software Engineers in meetings and provide a platform for them. RSEs represent an important middle layer within the community. RSEs often are invisible compared to more technical or more research oriented people. RSEs are now mentioned in the benefit list under this benefit.

ESMValTool We are confident that ESMValTool is the tool for the future: it is clear it will be developed in the future, it has IS-INES support and more projects are upcoming. Organisation and outlook has been improved, with a release plan for next year out and a clear roadmap. Last release was only a few days ago, and 150 people have contributed to ESMValTool so far. There are a number of tools out there that could be interesting as well, e.g. GCMeval developed in Norway. https://gcmeval.met.no/ or Freva (MiKlip) developed in Germany with the focus on web services, but it is maybe not as straightforward to integrate your own diagnostics in it. ESMValTool is fully open and strong at the European level, so we expect it to stay. It was chosen for its flexibility to expand and its European usage.

IS-INES: In the future more computational benchmarks (CPMIP) are considered to be provided by IS-INES. This might be an interesting direction to investigate.
It is important to have a common framework between EC-Earth and NorESM, to have a common benchmark. This is what NICEST2 is aiming for within WP4.

Article from CPMIP about computational metrics:
https://gmd.copernicus.org/articles/10/19/2017/

In general ESM takes a longer time to run on new HPC systems, it has to be tuned with historical data to be able to give meaningful results.

Valuation: In Sweden allocations are not paid in money like in Norway. Also in Norway you don't pay the full cost, only a small fraction. Should the valuation rather reflect the full cost to represent the value, instead of the actual community cost, meaning our savings would be even higher?
Also the Norwegian price-model is about to get changed (CPU getting cheaper, community paid fraction even lower, total cost even higher), with new numbers likely valid for the whole NICEST2 project period.
   ● **AP A-C: Add a note on the difference between total cost of ownership and community paid fraction of it into the business case.**
Costs in other countries are more opaque.
25-30% performance gain is expected when going from an old system to a new system, how is the project contributing to that? A: Metrics for the benchmarks make it easier for National e-infrastructure providers to target machines that really give us this gain, so it is closely related to really being able to provide these benchmarks to get more tailormade, suitable systems.

Saving in energy and cost by moving to a more energy efficient system is very relevant.

Workflow management system: SMHI has worked on a new script-based system that can be used together with EC-EARTH' cylc (https://cylc.github.io/).

Decision: The Business Case document gets approved by the Steering Group and recommended by the rest of the Consortium members pending the changes listed above.

Reference Group

Currently NICEST2 has no reference group yet, there has been no reference group for NICEST1. Ideally the reference group has a customer perspective and can provide input to the benefit realization follow-up within NeIC even after the project ends. A reference group can be very small, and doesn't need to meet that often.

The project manager presents her ideas for an ideal reference group composition.

   ● **AP A-C to follow up to invite for a NICEST2 reference group.**

Acceptance of NICEST2 Project plan

The project plan was presented and discussed on the first day.

Decision: The project plan gets approved unanimously by the Steering Group and recommended by the rest of the Consortium members.

How to best contribute on a European level (discussion)

Discussion:

One of the main objectives is to be in a better position after NICEST2 to contribute on the European level.

Funding opportunities. A network with a group from different countries are often successful forming in a structured formalized organization, this is very promising.

FAIR opportunities: Demonstrate the opportunities as a community e.g. with our Hackathon and show this outside the Nordics. Research Data Alliance (RDA) is an organization to be in contact with, they are very open. Not much on this is going on within the climate community in Europe otherwise. There are national RDA's.

ESGF tool set is very good in respect to FAIR use (Editor's note: not interopble yet, but working on it). It is mostly used for CMIP, but at other ESGF nodes they use it for many more projects. It is expensive, though, because the platform is dated and requires a lot of manual work. Could we streamline this and have **a shared Nordic ESGF** node with the same automated procedures that would make publications on ESGF much cheaper and also accessible to projects outside of CMIP. This can also increase visibility of Nordic research community. There are efforts to improve ESGF (e.g. within IS-INES), but overall there is only insufficient funding. This is strongly related (and mentioned) in T3.2 already.

Avoiding the duplication of a lot of data within Europe: Have a good data centre at Nordic level for Nordic researchers and coordinate with Copernicus Climate (see Copernicus Climate data store at https://cds.climate.copernicus.eu/#!/home) for authoritative climate data sets (such as CMIPs). Not only store data, but tools to reuse and access them, support for that and development on those tools should happen. DKRZ(Mistral), CEDA(Jasmin) are some of those platforms that are visible as Analysis Platforms in IS-ENES (Analysis Platforms for CMIP6 and CORDEX — vERC). (Editor's note: This is outside of the scope of NICEST2.)

How will we work with the data in the future? Data will be forced to stay closer to where it gets produced. Who is paying for that, how will that be organised? LUMI has to provide a mechanism how the international community can access data produced without downloading so much. At the European level some efforts are underway to support this way of working. (Editor's note: NICEST2 has to find out how to handle data for and on LUMI as part of T4.1)

Notable is [bird-house · GitHub](...) that is based on Web Processing Services. People to talk to could be Carsten Ehbrecht (DKRZ) and Ag Stephens (Met Office).

Destination Earth (https://ec.europa.eu/digital-single-market/en/destination-earth-destine): Project with opportunity that NICEST2 also contributes. A stakeholder group for contributions exists. Todo: find out what we could contribute on a Nordic level.

- ***AP A-C Check with Destination Earth if there's an opportunity to contribute to it from within NICEST2/ our EOSC-Nordic use case**

EC-EARTH and NorESM: NorESM is different because it is based on a US model (CESM), which limits collaboration on a European level on joint modules. But this is also a strength! There is the possibility to inform about Nordic communities within the IS-ENES community.

DecisionPoint checklist

https://docs.google.com/document/d/18G197vIgX68k69cx8_iDjXbvq7zuT8mZX5d8tDuas8Y/edit#

The DecisionPoint checklist has been updated but will be discussed in closer detail at the next steering group meeting.

Next meeting

The chair suggests to have Consortium meetings once a year?

Reservation of preliminary dates:

- Next SG meeting:
    - **AP A-C make a doodle poll for the next SG meeting**
- Next Consortium meeting: Preliminary reserve Oct 15th 2021

AOB

The online format was perceived as efficient.