

Computing Time on National Computer Facilities



Call for proposals Contents

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1 Introduction

This Call for proposals provides information about the application process for access to national computing facilities and expertise in the application round 'Computing Time on National Computer Facilities'. This Call for Proposals falls under the responsibility of the Dutch Research Council (NWO).

In this Call for proposals you will find information about the aim of this programme (Section 2), the conditions for the application for computing time (Section 3), and how your proposal will be assessed (Section 4). This information is what you need in order to submit an application for computing time. Section 5 outlines the obligations that apply in case of allocation. Section 6 contains the contact details.

1.1 Background

NWO Science (domain 'Exacte en Natuurwetenschappen') is responsible for providing access rights (computing time) to the National Computing Facilities, managed and performed by SURF. This call for proposals invites applications for access to national computing facilities and associated data services and expertise for the purpose of research computations for which the computer facilities and expertise of individual institutions are inadequate for which the computer facilities provided by the individual institutes themselves are inadequate. Through this call for proposals NWO Science domain provides access to the national computer systems: Supercomputer Snellius, Data Processing (Grid/Spider), Cloud Research Consultancy en HPC Cloud (via SURF Research Cloud). In addition, the Dutch allocation of the pre-exascale supercomputer LUMI is also part of this call¹. This brochure provides information on the process and options for requesting access to these national computing facilities.

This call applies to <u>applications for large amounts of computing time</u> on the National Computer Facilities. These include requests of more than 1,000,000 SBU (System Billing Units, Section 3.2.1) on supercomputer Snellius, more than 1,000,000 CPU core hours or 10,000 GPU hours on Data Processing (Grid/Spider), more than 100,000 CPU core hours on Cloud Research Consultancy, and more than 50,000 CPU core hours or 5,000 GPU hours on HPC Cloud (via SURF Research Cloud). There are also limits for storage and support. More information can be found under section 3.2.1.

An allocation for access to the national computer systems for large applications runs for two years.

For <u>small compute time requests</u> that are less than or equal to 1,000,000 SBU on supercomputer Snellius, 1,000,000 CPU core hours or 10,000 GPU hours Data Processing (Grid/Spider), 100,000 CPU core hours on Cloud Research Consultancy and 50,000 CPU core hours or 5,000 GPU hours on HPC Cloud (via SURF Research Cloud), you can request access directly **at SURF**, via: <u>surf.nl/en/services</u> (see Compute). There are also limits for storage and support. More information can be found under section 3.2.1.

An allocation for access to the national computing systems for small applications runs for one year.

For large requests where the Snellius system is no longer sufficient, capacity can also be requested on the pre-exascale supercomputer LUMI in consultation with SURF. With an allocation for large applications, one gets access to the pre-exascale supercomputer LUMI for one year. Applicants for computing time on LUMI are requested to first build experience in working on LUMI and then have the project ready for a large application through NWO. This can be done through a pilot application through SURF or any of the EuroHPC JU calls. Pilot applications on LUMI are limited to 500,000 CPU core hours, 14,000 GPU hours and 100,000 TB-hours of storage². Pilot applications will also be granted one-year access to the pre-exascale supercomputer LUMI.

¹ The pre-exascale supercomputer LUMI is a European Tier-0 system and is owned by the European High Performance Computing Joint Undertaking (EuroHPC JU). The system is operated by CSC - IT Center for Science and the LUMI consortium and is located in Kajaani, Finland. The Netherlands has an allocation on the system, which is covered by this call. In addition to the Dutch allocation, access to the allocation of EuroHPC JU on the pre-exascale supercomputer LUMI can be requested through the Access Calls of EuroHPC JU.

² On the pre-exascale supercomputer LUMI, data storage is measured using TB-hours. Storing 1 TB of data for 1 hour uses 1 TB-hour. With 100,000 TB-hours, 11.4 TB of data can be stored for a year, but it is also possible to store more data for a shorter period. For more information, see the LUMI billing policy: https://docs.lumi-supercomputer.eu/runjobs/lumi_env/billing/

1.2 Available computing time and data storage

The total available computing time and data storage for 2024 is (covering both large and small applications):

- Supercomputer Snellius: 1805 million SBU on Snellius (1286 million SBU CPU thin nodes, 325 million SBU
 GPU nodes, 185 million SBU CPU fat nodes, 9 million SBU CPU high-memory nodes), with 9,896 TB
 Snellius project space and 15,000 TB Data Archive (offline tape storage).
- Pre-exascale supercomputer LUMI: 22.24 million CPU core-hours, 1.41 million GPU-hours, 10.30 million TB-hours of storage.
- Data Processing (Grid and/or Spider): 141.50 million CPU core-hours and 0.3 million GPU hours, with
 28,712 TB online storage and 13,000 TB Grid storage tape (offline tape storage).
- HPC Cloud (via SURF Research Cloud): 26.28 million CPU core-hours and 1.33 million GPU hours, with 700
 TB online storage.
- Cloud Research Consultancy: 5.2 million CPU core-hours, with 263 TB online storage.
- 200 TB storage Research Drive.

1.3 Submission deadlines

The deadline for submitting proposals is 31 December 2024, before 14:00:00 hours CET. You can submit your proposal at any time. There are no advance deadlines.

2 Aim

This section describes the aim of the programme and the societal impact.

2.1 Aim of the programme

The aim of this programme is to make the national computer facilities accessible to researchers who want to carry out high-quality scientific research that would significantly benefit from using the advanced national computer systems and expertise for accomplishing their research objectives.

Researchers are invited to submit proposals for computing time using the national computer systems, including the dedicated data services and expertise.

The Board of the NWO Science domain is explicitly seeking to stimulate a number of aspects:

- Efficient scientific use of the national computer facilities;
- Support for high-level scientific research using the national computer facilities;
- Optimal access to the national computer facilities for researchers.

2.2 Societal impact

New knowledge and insights from scientific research can make an important contribution to developing solutions for the various issues society faces, including, amongst other things, the energy transition, health and care, or climate change. By facilitating greater interaction and alignment between researchers and potential knowledge users, the chance of knowledge utilisation increases, as well as the likelihood of generating societal impact. Through its policy on impact, NWO promotes the potential contribution that research can make to societal issues by encouraging productive interactions with societal stakeholders, both during the development stage and the subsequent implementation of research. It does so in a manner that is in accordance with the aim of the particular funding instrument.

2.2.1 Tailor-made impact

The primary aim of the funding instrument determines the method that NWO will deploy to facilitate knowledge utilisation in various phases of the project (proposal, realisation, project completion) as well as the effort required from applicants and partners.

In this programme, the Impact Outlook approach is applied. Here, researchers can choose which type of impact they want to specifically focus on, while proportional consideration is also given to what can be done for the remaining impact.

NWO offers an e-learning module that can help interested parties via <u>NWO Impact - Online workshops</u>. For more information on our policy on impact, please visit the website: <u>Knowledge utilisation | NWO</u>.

3 Conditions for applicants

This section contains the conditions that are applicable to your computing time application. It first describes who can apply for computing time (section 3.1) and what you can request for computing time (section 3.2). Subsequently, you will find the conditions for preparing and submitting the application (sections 3.3 and 3.4) and allocation criteria (section 3.5).

3.1 Who can apply

Full, associate and assistant professors and other researchers with a comparable position* may submit an application if they have a tenured position (and therefore a paid position for an indefinite period) or a tenure track agreement at one of the following organisations:

- universities located in the Kingdom of the Netherlands.
- university medical centres.
- institutes affiliated to the Royal Netherlands Academy of Arts and Sciences (KNAW) or NWO.
- Universities of applied sciences, as referred to in Section 1.8 of the Higher Education and Scientific Research Act (WHW).
- Netherlands Cancer Institute.
- the Max Planck Institute for Psycholinguistics in Nijmegen.
- Naturalis Biodiversity Center.
- Advanced Research Centre for NanoLithography (ARCNL).
- Princess Máxima Center.

The State Aid regulations apply to this call. This means that researchers from the following institutions are allowed to apply, as long as the institution meets the cumulative criteria described below.

- The TO2-federation (Deltares, Marin, NLR, TNO and WUR/DLO)
- o IHE Delft Institute for Water Education.
- The following SURF Cooperative participating institutions: KNMI, RIVM, National Archive, National Library of the Netherlands (KB), University of Humanistic Studies, Police academy and IKNL

For this, it is required that the organisation in question:

- is established in the Netherlands (unless paragraph 4 applies).
- has a public task and is independent in the performance of research.
- receives at least 50% public funding.
- has no profit motive other than for the purpose of conducting further research.

If you are in doubt whether these State Aid regulations apply to your application, please contact the office at: rekentijd@nwo.nl.

*A comparable position refers to a researcher that has a demonstrable and comparable number of years of experience in carrying out scientific research and supervising other researchers as a full, associate or assistant professor.

Both researchers with a permanent employment contract as well as those with a temporary or tenure track appointment are eligible to submit a proposal as the lead applicant. Additional conditions apply to researchers with a temporary appointment. Those with zero-hours contracts are excluded from submitting proposals.

It could be the case that the applicant's tenure track agreement ends before the intended completion date of the project for which funding is applied for, or that before that date, the applicant's tenured contract ends due to the applicant reaching retirement age. In that case, the applicant needs to include a statement from their employer in which the organisation concerned guarantees that the project and all project members for whom funding has been requested will receive adequate supervision for the full duration of the project.

Additional conditions (applicable to both main applicant and co-applicant):

 If the main applicant does not have a permanent employment contract, his/her appointment must be at least as long as the duration of the project for which an application is submitted.

The requested computing time should be used by researchers affiliated with one of the above institutions.

The representation and advancement of women in science lags far behind that of men. Women are therefore explicitly invited to submit proposals.

3.1.1 Main and co-applicants

The main applicant submits the proposal via the NWO web application ISAAC. During the assessment process, NWO will communicate with the main applicant.

After a proposal has been awarded funding, the main applicant will become the project leader and point of contact for NWO. The knowledge institution of the main applicant is the main beneficiary and will become the official secretary.

Co-applicants have an active role in realising the project. The (sub)project leaders and beneficiary/beneficiaries are jointly responsible for realising the entire project.

3.2 What can be applied for

For an application in this Call for proposals, computing time can be requested at NWO Science domain to the advanced national computing systems.

Within this call, these are applications for large amounts of computing time:

- More than 1,000,000 SBU on supercomputer Snellius (CPU and/or GPU) and/or more than 10 TB of project space and/or more than 50 TB of Data Archive (offline tape storage).
- More than 500,000 CPU core hours and/or 14,000 GPU hours and/or 100,000 TB-hours of storage on the pre-exascale supercomputer LUMI.
- More than 1,000,000 CPU core hours or 10,000 GPU hours of Data Processing (Grid and/or Spider) and/or more than 200 TB of online data storage and/or more than 300 TB of Grid storage tape (offline tape storage).
- More than 100,000 CPU core hours or 10,000 GPU hours on Cloud Research Consultancy and/or more than 2TB of online storage.
- More than 50,000 CPU core hours or 5,000 GPU hours on HPC Cloud (via SURF Research Cloud) and/or more than 2 TB of online storage.

3.2.1 Accounting units

Supercomputer Snellius

Applications must include a specification of the required resources according to the type, particularly the number of core hours or *System Billing Units* (SBU). Using one core of a thin node for the duration of one hour costs 1 SBU.

- For all types of nodes, the number of SBU will be calculated based on the number of CPU cores or GPUs and the duration of use, multiplied by a weighting factor for thin nodes.
- Snellius AMD Rome CPU-only nodes (thin, fat, high-memory) have 128 cores. The difference between the type of nodes is the available memory per core. Thin nodes offer 2 GB/core, fat nodes 8 GB/core and high-memory nodes 32 GB/core and 64 GB/core.
- Snellius AMD Genoa CPU-only nodes (thin, fat) have 192 cores. The difference between the type of nodes is the available memory per core. Thin nodes offer 2 GB/core and fat nodes 8 GB/core.
- Snellius Nvidia A100 GPU nodes have 72 CPU cores; there are 4 GPU's in each GPU-enabled node. For Snellius Nvidia A100 GPU nodes, the number of GPU's is multiplied by a factor 128, to calculate the number of SBU.
- Snellius Nvidia H100 GPU nodes have 64 CPU cores; there are 4 GPU's in each GPU-enabled node. For Snellius Nvidia H100 GPU nodes, the number of GPU's is multiplied by a factor 192, to calculate the number of SBU.
- Nodes can be used exclusively entirety- or shared; the 'atomic allocation' unit is one GPU for GPU nodes and 16 cores for one CPU node.

This means that for supercomputer Snellius:

- Using one CPU thin node for one hour costs 128 SBU (AMD Rome nodes) or 192 SBU (AMD Genoa nodes). Using an atomic unit of 16 cores on a CPU thin node costs 16 SBU per hour.
- Using Using one CPU fat node for one hour costs 192 SBU (AMD Rome node) or 288 SBU (AMD Genoa nodes). Using an atomic unit of 16 cores on a CPU fat node costs 24 SBU per hour.
- Using one CPU high-memory node (32 GB/core) for one hour costs 256 SBU. Using an atomic unit of 16 cores on a CPU high-memory node (32 GB/core) costs 32 SBU per hour.
- Using one CPU high-memory node (64 GB/core) for one hour costs 384 SBU. Using an atomic unit of 16 cores on a CPU high-memory node (64 GB/core) costs 48 SBU per hour.
- Using one GPU node for one hour costs 512 SBU (Nvidia A100 GPU) or 768 SBU (Nvidia H100 GPU).
 Using a quarter GPU node (single Nvidia A100 GPU + 18 cores) costs 128 SBU per hour or (single Nvidia H100 GPU + 16 cores) costs 192 SBU per hour.

In the application form, various data storage services can be requested together with computing time. This concerns only those data services that are directly necessary for the computing work during the granting period of the project. The maximum amount of storage that can be granted takes place in consultation with SURF and depends on the capacity available at that time.

Pre-exascale supercomputer LUMI

Allocations done for LUMI are based on CPU core hours and GPU hours for compute time. TB-hours are used for storage.

(For more information see: https://docs.lumi-supercomputer.eu/runjobs/lumi env/billing/)

Grid Data Processing

Allocations for CPU core hours and GPU core hours on Grid will be converted into a priority configuration, using a fairshare mechanism. These priority configurations will ensure a continuously available amount of cores for a continuous supply of new computational tasks (for more information on the fairshare mechanism used, see: https://servicedesk.surf.nl/wiki/display/WIKI/Usage+and+Service+Model.

Because these cores are available to the project at all times, the allocated size will automatically be reached at the end of the allocated project period. During the project, if underutilised by other projects, a higher number of cores may be reached, but this will not affect the configured fairshare. To ensure continuity in case of repeated applications for Grid, the applicant should ensure that the start date of the new application matches the end date of the previous allocation.

Datafacilities

For storage, both the unit TiB/PiB and TB/PB are used in practice, depending on each system. 1 TiB (tebibyte) is 2⁴⁰ bytes, 1 TB (terabyte) is 10¹² bytes. 1 tebibyte is about 10% larger than 1 terabyte, this difference increases with larger units.

Expertise

In addition to computing and data facilities, additional hours of technical expertise may be required. In the application form the required amount of expertise hours can be indicated. The allocation of expertise hours takes place in consultation with SURF and depends on available capacity.

3.2.2 Types of applications

The Computing Time on National Computer Facilities programme distinguishes between the following types of application:

Individual applications

Individual applications are applications submitted for the use of one or more of these computer facilities for a single project.

Group applications

Group applications are applications for multiple projects bundled as a single application by a research group for the use of one or more of the computer facilities. The advantage of a group application is for applicants that it requires less effort than a number of separate applications. In addition, it provides better insight to the Scientific Use of Supercomputers (WGS) review committee about the relationship between the various projects carried out within one research group. Finally, it gives the research group the flexibility to shift computing time within the same computer system between subprojects during the project duration, should this prove necessary.

Follow-up applications

Follow-up applications are applications to continue an existing or previous project under the same name. These can be individual or group applications. Follow-up applications should always include a report from the previously allocated project. Reports of projects for which the computing time was allocated by NWO must be submitted to the relevant project in ISAAC within three months of the expiration date of the project. Reports of projects for which the computing time was not allocated by NWO, for example if access was obtained via SURF for a previous small project, must be included as an appendix when submitting a follow-up application. Reports of previous projects serve as extra information for the assessment committee for a better assessment of the follow-up application.

3.3 Preparing and submitting the application

To prepare your application, please go through the following steps:

- download the application form available on the NWO website (on the website for this programme); you are expressly requested to use the most recent 2024 application form; application forms from previous years are outdated and will not be considered. The application form for 2024 can be found on the funding page for this programme on the NWO website.
- complete the application form.
- save the form as a pdf file and submit it with any required annexe(s) in ISAAC.
- complete the information requested online in ISAAC.

Mandatory attachment(s):

- If the application is a follow-up application, also submit a report from the previous project. Reports from previous projects are taken to the evaluation committee as additional information in the evaluation of the follow-up application. The report form can be found on the funding page for this program on the NWO website.
- No other information in the form of attachments may be added to the application (i.e. no manuscripts, publications, support letters, etc.).

You must write your application in English.

Applications may only be submitted via the ISAAC web application. Applications that are not submitted via ISAAC will not be considered.

As the main applicant, you are required to submit the application via your own personal ISAAC account.

It is important to start your application in ISAAC on time:

- if you do not yet have an ISAAC account, then you should create one in good time to prevent any possible registration problems.
- any new organisations must also be added to ISAAC by NWO.
- you also need to submit other details online.

Applications submitted after the deadline will not be taken into consideration by NWO. For technical questions, please contact the ISAAC helpdesk, see contact Section 6).

Applicants are expected to have informed the organisation where they work about submitting the application and that the organisation accepts the grant conditions of this Call for proposals.

3.4 Conditions for submission

3.4.1 Formal conditions for submission

NWO will assess your application against the conditions listed below. Your application will only be admitted to the assessment procedure if it meets these conditions. After submitting your application, you are asked by NWO to be available to carry out any administrative corrections that may be needed to enable to meet the conditions for submission.

These conditions are:

- the main applicant and co-applicant(s) meet the conditions stated in Section 3.1;
- the application complies with the DORA guidelines as described in Section 4.1;
- the application form is, after a possible request to make additions or changes, complete and filled out according to the instructions;
- the application is submitted via the main applicant's ISAAC account;
- the application is received before the deadline;
- the application is written in English;
- the proposed project is for the duration of up to two years;
- the proposed project on the pre-exascale supercomputer LUMI is for the duration of up to one year;
- all of the required annexes are, after a possible request to make additions or changes, complete and filled out according to the instructions.

3.5 Allocation conditions

The NWO Grant Rules 2017 and the Agreement on Funding Scientific Research apply to all applications, with the exception that under this Call for proposals no grants will be provided, rather scarce rights (computing time) will be distributed. This means that wherever the NWO Grant Rules 2017 state 'grant(s)', it should read as 'computing time' instead.

3.5.1 Compliance with the National Knowledge Security Guidelines

World-class science can benefit from international cooperation. The National Knowledge Security Guidelines (hereafter: the Guidelines) helps knowledge institutions to ensure that international cooperation can take place securely. Knowledge security concerns the undesirable transfer of sensitive knowledge and technology that compromises national security; the covert influence of state actors on education and research, which jeopardises academic freedom and social safety; and ethical issues that may arise in cooperation with countries that do not respect fundamental rights.

Applicants are responsible for ensuring that their project complies and will continue to comply with the Guidelines. By submitting an application, the applicant commits to the recommendations stipulated in these Guidelines. In the event of a suspected breach of the Guidelines in an application submitted to NWO for project funding, or in a project funded by NWO, NWO may ask the applicant to provide a risk assessment demonstrating that the recommendations in the Guidelines have been taken into consideration. If the applicant fails to comply with NWO's request, or if the risk assessment is in apparent breach of the Guidelines, this may affect NWO's allocation of computing time. NWO may also include further conditions in the allocation letter if appropriate.

The National Knowledge Security Guidelines can be found on the central government website at: Home | National Contact Point for Knowledge Security (loketkennisveiligheid.nl).

3.5.2 Data management

The results of scientific research must be replicable, verifiable and falsifiable. In the digital age this means that, in addition to publications, research data must also be publicly accessible insofar as this is possible. NWO expects that research data resulting from NWO-funded projects will be made publicly available, as much as possible, for reuse by other researchers. 'As open as possible, as closed as necessary' is the applicable principle in this respect. Researchers, at very least, are expected to make the data and/or non-numerical results that underlie the conclusions of the published work resulting from the project publicly available at the same time as the work's publication. Researchers should explain how data emerging from the project will be dealt with based on the data management section in the proposal and the data management plan that is drawn up after allocation of computing time.

Data management Section

The data management section is part of the proposal. Researchers are asked before the start of the research to consider how the data collected will be ordered and categorised so that this can be made publicly available. Measures will often already need to be taken, both during data generation and as part of analysing the data, to make its subsequent storage and dissemination possible. If it is not possible to make all data from the project publicly available, for example due to reasons of privacy, ethics or valorisation, then the applicant is obliged to list the reasons for this in the data management section.

The data management section in the proposal is not evaluated and will therefore not be weighed in the decision whether to award funding. However, both the referees and the committee can issue advice with respect to the data management section.

3.5.3 Scientific integrity

In accordance with the NWO Grant Rules 2017, the project that NWO funds must be carried out in accordance with the nationally and internationally accepted standards for scientific conduct as stated in the Netherlands Code of Conduct for Research Integrity (2018). By submitting the proposal, the applicant commits to this code. In the event any violation of these standards during a project funded by NWO, the applicant should immediately inform NWO and should submit all relevant documents to NWO. More information about the code of conduct and the policy regarding research integrity can be found on the website: Scientific integrity | NWO.

3.5.4 Ethical statement or licence

The applicant is responsible for determining whether an ethical statement or licence is needed for the realisation of the proposed project. The applicant should ensure that this is obtained from the relevant institution or ethics committee on time. The absence or presence of an ethical statement or licence at the time of the application process has no effect on the assessment of the application. If the project is awarded funding, then the grant is issued under the condition that the necessary ethical statement or licence is obtained before the latest start date for the project. The project cannot start until NWO has received a copy of the ethical statement or licence.

3.5.5 Nagoya Protocol

The Nagoya Protocol ensures an honest and reasonable distribution of benefits emerging from the use of genetic resources (Access and Benefit Sharing; ABS). Researchers who make use of genetic sources from the Netherlands or abroad for their research should familiarise themselves with the Nagoya Protocol (<u>ABS Focal Point - ABS Focal Point</u>). NWO assumes that researchers will take all necessary actions with respect to the Nagoya Protocol.

3.5.6 Specific conditions

The specific conditions that apply to the allocation of access to the National Computer Facilities at SURF are the following:

Starting time and duration

If an application is approved, the research concerned must have begun within two months of this approval.

An allocation for access to the National Computer Facilities is for a period of two years. An allocation for access to the pre-exascale supercomputer LUMI is for a period of one year.

Definitions

The following definitions apply to any approval of an application:

By 'system' is meant the computer system to which access is provided, including any related front-end machines, peripheral equipment, data communication equipment and the related software, front-line support, etc.

By 'user' is meant the person to whom the computing time has been allocated, as well as those to whom this person allows access to the system under his or her own responsibility.

The user must accept the terms of use applicable to the system used, which contain rules on the correct use of the system, by signing a user agreement with SURF. This user agreement includes, among other things:

- The user will not use the system for any purposes other than the project for which access has been given.
- The user will make no attempt to obtain access to, or make use of, programs or files owned by others or to which no access has been expressly given.
- The user will adhere to the requirements and procedures of the computer centre providing the system services.
- The user will immediately inform the computer centre involved of any faults detected in system software, compilers, data communications, etc., as well as any observed malfunctions.
- The user is responsible for any misuse of his or her username and account by third parties, and will
 therefore protect his or her passwords to the best of their ability against such misuse.
- The user is responsible for the consequences of any overrun in the allocated computing time.
- NWO Science and the involved computer centre can accept no liability for any loss or damages resulting from the use of the system or from any faults therein.

For the pre-exascale supercomputer LUMI, the applicant also needs to agree to the terms of use, see: https://www.lumi-supercomputer.eu/lumi-general-terms-of-use_1-0/

The user shall mention, in all publications and public deliveries, the fact that the research was supported by NWO Science for the allocation of computing time on the National Computer Facilities, hosted by SURF or the pre-exascale supercomputer LUMI. The correct method of referral can be found on the NWO website: https://www.nwo.nl/en/funding/funding+process+explained/acknowledgement.

For the pre-exascale supercomputer LUMI is the correct way of referral (based on https://lumi-supercomputer.eu/acknowledgement/):

"We acknowledge the Dutch Research Council (NWO) in The Netherlands for awarding this project access to the LUMI supercomputer, owned by the EuroHPC Joint Undertaking, hosted by CSC (Finland) and the LUMI consortium through the 'Computing Time on National Computer Facilities' call."

Information

The information you provide with this application will be shared with SURF to ensure that SURF can provide the requested service in the best possible way.

4 Assessment procedure

This section first describes the assessment according to the DORA principles (Section 4.1) and the course of the assessment procedure (Section 4.2). Second, it states the criteria that the assessment committee will use to assess your application (Section 4.3).

The NWO Code for Dealing with Personal Interests applies to all persons and NWO employees involved in the assessment and/or decision-making process (Code for Dealing with Personal Interests | NWO).

NWO strives to achieve an inclusive culture where there is no place for conscious or unconscious barriers due to cultural, ethnic or religious background, gender, sexual orientation, health or age (<u>Diversity and inclusion | NWO</u>). NWO encourages referees and members of the assessment committee to be actively aware of implicit associations and to try to minimise these. NWO will provide them with information about concrete ways of improving the assessment of an application.

4.1 The San Francisco Declaration (DORA)

NWO is a signatory to the San Francisco Declaration on Research Assessment (DORA). DORA is a worldwide initiative that aims to improve the way research and researchers are assessed. DORA contains recommendations for research funders, research institutions, scientific journals and other parties.

DORA aims to reduce the uncritical use of bibliometric indicators and obviate unconscious bias in the assessment of research and researchers. DORA's overarching philosophy is that research should be evaluated on its own merits rather than on the basis of surrogate measures, such as the journal in which the research is published.

When assessing the scientific track record of applicants, NWO makes use of a broad definition of scientific output.

NWO requests committee members and referees not to rely on indicators such as the Journal Impact Factor or the h-index when assessing applications. Applicants are not allowed to mention these in their applications. You are, however, allowed to list other scientific products besides publications, such as datasets, patents, software and code, et cetera.

For more information on how NWO is implementing the principles of DORA, see DORA | NWO.

4.2 Procedure

The application procedure consists of the following steps:

- submission of the application;
- consideration of the application;
- advising provisional (partial) allocation by assessment committee and technical advisor SURF
- initial advice from the assessment committee
- rebuttal:
- assessment committee meeting;
- decision-making;
- Timeline.

Due to the expertise of large-scale computational work present in the WGS committee, NWO decided to use the option given in Article 2.2.4(2) of the NWO Grant Rules 2017 to conduct the assessment procedure without engaging referees, when evaluating applications.

4.2.1 Submission of the application

A standard form for submitting proposals is available on the funding page of this Call for proposals on the NWO website. When writing your proposal, you must adhere to the questions stated on this form and the procedure given in the explanatory notes. You must also adhere to the guidelines for the maximum number of words and pages.

Your complete proposal form must have been uploaded in ISAAC before the deadline (see section 1.3). No proposals can be submitted after this time. After submitting the proposal, the main applicant will receive a confirmation of receipt.

4.2.2 Review of proposals

As soon as possible after you have submitted your proposal, you will hear from NWO whether or not your proposal is processed. NWO will determine this on the basis of a number of administrative and technical criteria (see the formal conditions for submission, section 3.4). NWO can only consider your proposal if it meets these conditions.

Please bear in mind that NWO may contact you up to two weeks after the submission deadline to ask you to make administrative corrections, if your submission does not yet meet all the relevant conditions for submission. You will be given one opportunity to make these corrections, and you will be given five working days to do this.

4.2.3 Advising on provisional (partial) allocations by the assessment committee and SURF technical adviser

Proposals submitted for the Call for papers 'Computing Time at National Computer Facilities' will be assessed by the WGS assessment committee. The WGS committee is composed of experienced users of the national computer facilities and includes representation of the most important user groups of the national computer facilities. The composition of the WGS committee is posted on the NWO website:

https://www.nwo.nl/en/researchprogrammes/computing-time-on-national-computer-facilities.

For all proposals forwarded for consideration, the WGS committee will be requested to issue preliminary advice to the director of the NWO Science domain. This means previewing the proposal on the basis of the criteria given in section 4.3, with the aim of determining whether the proposal would be eligible for provisional (partial) allocation. Provisional (partial) allocation refers to allocation up to a maximum of 10% of the total computing capacity requested. For grid data processing, this is the full computing capacity requested. Provisional (partial) allocation precedes the decision regarding acceptance or rejection of the entire proposal. NWO strives to issue (partial) allocations within one month of submission of the proposal in the case of positive recommendation from the WGS committee.

The proposal will be forwarded to a technical adviser from SURF for an assessment of the remaining capacity requested. The technical adviser will evaluate, among other things, whether the computer facility for which computing time has been requested is the best system for the computational problem concerned.

If there is any doubt or in the case of very large requests, the WGS committee reserves the right to have the proposal reviewed by one or more independent referees. For proposals above 30 million SBUs, one or more independent referees will always be invited to review the proposal. The WGS committee has the opportunity of formulating its own questions in a referee's report.

NWO will rate all full proposals. Only proposals that are rated 'excellent' or 'very good' will be eligible for computing time. For more information about the ratings, see 'qualification system' at: https://www.nwo.nl/en/apply-funding-how-does-it-work.

4.2.4 Rebuttal

The main applicant subsequently receives the anonymised referee reports. You then have the opportunity to formulate a rebuttal. You will be given 5 working days to submit your rebuttal via ISAAC. If you decide to withdraw the proposal, then you should do this as quickly as possible by sending an email stating this to the office and withdrawing the proposal in ISAAC. If NWO receives your rebuttal after the deadline, then it will not be included in the rest of the procedure.

4.2.5 Meeting of the assessment committee

The preliminary recommendations function as the starting point for the WGS assessment committee's discussions of the proposals at the next committee meeting. The WGS committee comes to its own decision based on the proposal, the technical advice from SURF, any referee reports and the written response. The final assessment will be guided to an important degree by the recommendations and the referee reports, which, however, will not be adopted uncritically by the WGS committee. The committee will consider the arguments of the referees, weigh them against one another and examine whether the written response contains a well-formulated rebuttal to the critical comments in the referee reports.

Following their deliberations, the committee will prepare written recommendations for the director of the NWO Science domain with regard to the quality and prioritisation of the proposals. These recommendations will be based on the assessment criteria. Only proposals that have been rated 'very good' or 'excellent' will be eligible for allocation. Proposals of insufficient quality will not be eligible for allocation.

4.2.6 Decision-making

Finally, the Director of NWO Science domain assesses the followed procedure and the advice from the assessment committee. Subsequently, the director decides on the approval and rejection of the applications.

4.2.7 Timeline

NWO strives to issue any partial allocation within one month of the date of receipt of the proposal, and to complete the assessment procedure within four months of that date. Should the procedure encounter any delays, it is possible to apply for a second partial allocation.

Proposals with completed files, including the technical advice from SURF, any referee reports and the written response, will be reviewed at the next upcoming WGS committee meeting. To be eligible for review at the upcoming meeting, however, the fully completed file for the proposal must have been received by NWO at least one week before the date of the meeting. Proposals with files that are only complete and ready for the WGS committee to review after this time will be submitted for review at the following committee meeting.

WGS committee meetings for 2024 are scheduled on the following dates:

- 205th WGS committee meeting mid-February 2024
- 206th WGS committee meeting mid-April 2024
- 207th WGS committee meeting mid-June 2024
- 208th WGS committee meeting early September 2024
- 209th WGS committee meeting mid-October 2024
- 210th WGS committee meeting mid-December 2024

NWO strives to issue a final decision to applicants about whether a proposal has been accepted or rejected within two weeks of the WGS committee meeting at which the proposal is reviewed.

4.3 Criteria

4.3.1 Substantive assessment criteria

The WGS committee will first decide whether the computing work proposed could be performed at locally available facilities. If in the WGS committee's opinion that is the case, the WGS committee will issue a recommendation to the director of the NWO Science domain to reject the proposal. If the director of the NWO Science domain decides to reject the proposal based on the WGS committee's recommendation, the proposal will not go through the rest of the assessment procedure.

Proposals submitted under this computing time Call will be assessed according to the following three criteria, each weighted equally:

Project organisation

- The feasibility of the research, given the available human research capacity.
- The expertise of the research group in using computer facilities is in line with the scope of the proposal.

Scientific aspects of the project

- The scientific quality of the project, whether fundamental or applied, to which use of computer infrastructure can make a contribution.
- Assessment of the applicability of the numerical methods and implementation aspects in relation to the scientific objectives of the project.

Need to access computer facilities

 Given the objectives of the project, the request for computing time and the accompanying services, such as storage and expertise, is justified.

The amount of computing time, storage and expertise requested is proportional to the described volume of work for the project.

5 Obligations

This section details the various obligations which, in addition to the allocation conditions stated in section 3.5, apply to recipients following allocation.

5.1.1 Reporting

Allocation of computing time at a computer facility carries the condition that the applicant submits a report on the project to the NWO Science domain within three months of the end of the project. Reports must be submitted using the form 'Report Template for Granted Computing Time', which may be found on the funding page for this programme on the NWO website. This report and the publications resulting from the allocated research time can only be submitted for the project using the NWO electronic application system ISAAC.

5.1.2 Data management

After a proposal has been awarded funding, the researcher should elaborate the data management section into a data management plan. For this, applicants can make use of the advice from the referees and committee. The applicant must describe in the plan whether existing data will be used, or whether new data will be collected or generated, and how this data will be made FAIR: Findable, Accessible, Interoperable, Reusable. Before submission, the data management plan should be checked by a data steward or similar officer of the organisation where the project will be realised. The plan should be submitted to NWO via ISAAC within four months after the proposal has been awarded funding. NWO will check the plan as quickly as possible. Approval of the data management plan by NWO is a condition for disbursement of the funding. The plan can be adjusted during the research.

More information about the data management protocol of NWO can be found at: Research data management | NWO.

5.1.3 Intellectual property

With respect to intellectual property (IP), the NWO IP policy applies. This can be found in Section 4 of the NWO Grant Rules 2017.

Applicants must carry out a project funded by NWO during the time that they work for the knowledge institution. If an applicant or a researcher funded by NWO is appointed by more than one employer, then the other employer should relinquish any possible IP rights that emerge from the project of the applicant.

5.1.4 Socially responsible licensing

The knowledge that emerges from the project could be suitable for use in society. When agreements about licensing and/or the transfer of research results developed under this Call for proposals are made, due consideration should be given to the ten principles for socially responsible licensing, as stated in the NFU factsheet '19.4511 Ten principles for Socially Responsible Licensing v19-12-2019.pdf (nfu.nl)'.

5.1.5 Open Access

As a signatory to the Berlin Declaration (2003) and a member of cOAlition S (2018), NWO is committed to making the results of the research it funds openly accessible via the internet (Open Access). By doing this, NWO gives substance to the ambitions of the Dutch government to make all publicly funded research available in Open Access form. Scientific publications arising from projects awarded on the basis of this Call for proposals must therefore be made available in Open Access form in accordance with the Open Access Policy.

Scientific articles

Scientific articles must be made available in Open Access form immediately at the time of publication (without embargo) via one of the following routes:

publication in a fully Open Access journal or platform registered in the DOAJ;

- publication in a subscription journal and the immediate deposition of at least the author accepted manuscript of the article in an Open Access repository registered in Open DOAR;
- publication in a journal for which a transformative Open Access agreement exists between UNL and a publisher. For further information, see <u>Open Access</u> |.

Books

Different requirements apply to scholarly books, book chapters, and edited collections. See the Open Access Policy Framework at Open Science | NWO.

CC BY licence

To ensure the widest possible dissemination of publications, at least a Creative Commons (CC BY) licence must be applied. Alternatively – in case of substantial interest – the author may request to publish under a CC BY-ND licence. For books, book chapters, and collected volumes, all CC BY licence options are allowed.

For more detailed information about NWO's Open Access policy, see Open Science | NWO.

6 Contact and other information

6.1 Contact

6.1.1 Specific questions

For specific questions about this Call for Proposals, please contact: Naomi Messing-Klopstra, tel. +31 (0)70 34 40 526 e-mail: rekentijd@nwo.nl

6.1.2 Technical questions about the web application ISAAC

For technical questions about the use of ISAAC, please contact the ISAAC helpdesk. Please read the manual first before consulting the helpdesk. The ISAAC helpdesk can be contacted from Monday to Friday between 10:00 and 17:00 hours on +31 (0)70 34 40 600. However, you can also submit your question by email to isaac.helpdesk@nwo.nl. You will then receive an answer within two working days.

6.2 Other information

NWO processes data from applicants received in the context of this Call in accordance with the NWO Privacy Statement, <u>Privacy Statement | NWO</u>. NWO might approach applicants for an evaluation of the procedure and/or research programme.

Links to partner websites

Website SURF: https://surf.nl/

Small computing time requests can be made directly to SURF:

https://surf.nl/en/research (see compute services)

Technische (gebruikers)informatie:

https://servicedesk.surf.nl/wiki/

Informatie over Snellius:

https://www.surf.nl/en/services/snellius-the-national-supercomputer

Informatie over LUMI:

https://www.lumi-supercomputer.eu/

Informatie over Data Processing (Grid/Spider):

https://www.surf.nl/en/services/high-performance-data-processing

Informatie over HPC Cloud (via SURF Research Cloud):

https://www.surf.nl/en/services/hpc-cloud

Informatie over Cloud Research Consultancy:

https://servicedesk.surf.nl/wiki/pages/viewpage.action?pageId=9797642

Informatie over EuroHPC:

https://eurohpc-ju.europa.eu/index en

Publication: July 2024 Dutch Research Council

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