

Access Policy

NeSI provides access to New Zealand's national services for High Performance Computing (HPC) Compute and Analytics, Consultancy and Training, supported by research data sharing and transfer services. This policy applies to HPC Compute and Analytics, and Consultancy services.

HPC Compute and Analytics provides access to four <u>HPC platforms</u> that host a broad range of high performance software applications and libraries, supported by an Advisor assigned to each research project.

The Consultancy and Training services provide access to <u>expert scientific software programmers</u> and <u>training workshops</u> respectively, while high throughput data transfer services enable the rapid movement of data on and off the HPC platforms and between institutions.

Allocation Classes for HPC Compute and Analytics, and Consultancy

To access HPC Compute and Analytics, users apply online for an "Allocation", of which there are four classes: Merit, Proposal Development, Post-graduate and Institution – each of which has a particular focus. Researchers can hold multiple allocations across classes. The characteristics of each Allocation Class, and the services they offer are detailed below with classes listed in order of priority.

1) Merit:

- a) NeSI's highest priority allocations, awards in this class are given priority access to HPC Compute and Analytics, and Consultancy.
- b) A national call for proposals to this Class will be made every three months.
- c) Project allocations are made free of charge.
- d) Projects are required to provide evidence of an existing peer-reviewed national or institutional level research project award, which ensures the research supported is of high quality, investigator driven, is focused, and has clear goals.
- e) Successful awards will contribute to achievement of the Government's Science Goals¹.
- f) Proposals will be allocated to particular HPC platforms by the NeSI team based on a technical assessment.
- g) Applicants should have experience in the use of HPC systems.
- h) Scientific programming Consultancy may applied to successful projects depending on availability.

 Access may be granted for a period of up to one year. Multi-year research projects are supported by a series of yearlong allocations, reviewed with the user on an annual basis.

2) Institution:

- a) Research Institutions (organisations or consortia) and commercial organisations can acquire access to a block allocation of HPC Compute and Analytics, and Consultancy, which they may apply to projects of importance to their Institution.
- b) To do so, institutions either become an investor in NeSI or pay an annual subscription.
- c) Investigators at the institution can then make an application for access at any time.

¹ See Draft National Statement of Science Investment 2014 – 2024. http://www.msi.govt.nz/update-me/major-projects/national-statement-of-science-investment/



3) Proposal Development:

- a) The primary purpose of this access class is to allow new (or experienced) users to test out new ideas, or investigate the application of new science codes in their research domain. Accordingly resources allocated to these projects are small and time bound.
- b) Investigators may make an application for access at any time.
- c) Project allocations are made free of charge.
- d) Merit Class users will, in general, have carried out one or more Proposal Development projects in order to test their ideas and gain experience on the different HPC platforms available in NeSI before making a Merit application.

4) Post-graduate:

- a) Available to post-graduate students enrolled at a degree granting institution and working on a research programme approved by that institution.
- b) Investigators may make an application for access at any time.
- c) Project allocations are made free of charge.
- d) Access may be granted for a period up to one year.

Application Process

Proposals for all allocations follow an application process outlined below:

- Applicants need to <u>complete a proposal</u> that covers their research goals, technical requirements including CPU core hours and storage, scientific programming needs, and team experience.
- New proposals (except for those to the Merit Allocation Class which operates on a three month cycle) will be reviewed weekly and outcomes reported to applicants.
- Applicants should consider and indicate training requirements, as this aids the NeSI team in prioritising and scheduling training workshops.
- Each allocation has project reporting requirements, which aids NeSI in sustaining investment into its specialised capabilities and infrastructure.

For institutions seeking allocations contact NeSI's Director who will guide you on next steps.

Operational Considerations

The following may impact researchers accessing NeSI's services:

- NeSI will allocate researchers to specific HPC platforms, based on a technical assessment of requirements and any operational needs for capacity management. In all cases, users will be consulted prior to implementing any such decision.
- Allocations are aged, as the platform and people resources allocated are scarce and under constant demand. Ageing ensures that NeSI can meet allocations promised and maintain service levels for all researchers².

² All resource allocations are granted for a given time period, and are automatically decremented monthly if not used.



- Each project is allocated storage resources for the duration, for both high performance data access and for archiving of output data during computing. However NeSI does not guarantee that data required as input to a project, or generated by the project, are backed up.
- Any Security requirements specific to a proposal should be listed during the application process. This includes instructions for how to deal with processing proprietary or sensitive data.

Terms and Conditions

- Users must conform to NeSI's Acceptable Use Policy: http://www.nesi.org.nz/acceptable-use/
- · NeSI must be acknowledged in all publications arising from any allocation, specifically

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- Users must notify NeSI by email (publications in which an acknowledgment is made.
- NeSI may publicly publish project summaries.
- All resources are allocated according to this policy, including requirements for ageing and expiration of allocations over time.