

# NCMAS 2020 Call for Applications

## Information for Applicants

Revision 17 Sept 2019

### Key Dates

<b>5 August 2019</b>	Applications open
<b>20 September 2019</b>	Applications close (5:00pm AEST)
<b>25-26 November 2019</b>	Allocation Committee meeting
<b>4 December 2019</b>	Allocations announced



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## New for the 2020 Call for Applications

- A new NCI peak HPC system, *Gadi*, will be operational from 1 January 2020. All NCMAS 2020 allocations at NCI will be on Gadi. Raijin will be decommissioned in 2019 Q4.
- The NCI NCMAS 2020 compute resource share on Gadi will be 200 MSU or greater (in Raijin equivalent SU), offering a significant increase in computing capability for researchers. The final NCI share is currently pending final approval by the NCI Board.
- Applicants have an option to use ORCID to manage research publications for personal career profiles in their NCMAS applications. ORCID capability is available as of the 5<sup>th</sup> of September. Instructions for using ORCID in your NCMAS application will be provided in a supporting document when this new feature is available. Free text entry of publications in the online application form remains an option for all applicants.
- The opening date for applications has been moved forward approximately one month, to 5 August 2019.
- ***New applicants to NCMAS 2020 must complete the online information course about NCMAS at <https://learning.hpc-australia.org.au>.***

Please read the relevant subsections of this document for complete details. The [Frequently Asked Questions](#) section of this document has been updated to reflect experience from previous NCMAS calls.

## Introduction

The National Computational Merit Allocation Scheme (NCMAS) 2020 Call for Applications will be open from Monday 5 August to Friday 20 September 2019. Applications close at 17:00 (5pm) AEST on Friday 20 September.

All applicants (Lead CIs) and members of their research groups should read the following application guidelines and reference information in full before preparing an application.

This NCMAS information for applicants may be updated during the 2020 Call for Applications to clarify rules and processes as determined by the Committee Chair, participating HPC facilities and the Secretariat.

Please see the [FAQ page](#) if you have queries regarding the application process. If you have further questions about the NCMAS 2020 Call for Applications, they can be submitted by email to [ncmas@nci.org.au](mailto:ncmas@nci.org.au). Emails to this address will create an issue ticket in the NCMAS Secretariat help system.

The NCMAS Secretariat wishes all applicants success in the 2020 call.

## Important Dates – NCMAS 2020 Call for Applications

Key dates	NCMAS Milestone
5 Aug 2019	Applications open
20 Sep 2019	Applications close (5:00pm AEST)
4 Oct 2019	Technical Assessments close
22 Nov 2019	Merit Assessments close
25-26 Nov 2019	Allocation Committee meeting
4 Dec 2019	Outcomes announced

## HPC Facilities

NCMAS 2020 computing resources are summarised in the following table.

System	Computing Time (KSU)
<a href="#">NCI: Gadi (Fujitsu)</a>	200,000 (TBC)
<a href="#">Pawsey Centre: Magnus (Cray)</a>	100,000
<a href="#">Monash: MASSIVE</a>	2,060
<a href="#">UQ: FlashLite (Xenon)</a>	1,930

All references to computational resources in NCMAS supporting documentation will be in units of kilo-service-units; 1 KSU = 1000 service units (SU). Service units, or nominal cpu-hours, are scaled to be approximately equivalent across all facilities.

Capsule summaries of facility capabilities are provided below.

<b>National Computational Infrastructure (NCI)</b>	
<b>Facility overview</b>	<p>NCI is Australia's national research computing service. Home to Raijin, the nation's most highly integrated and highest performance supercomputer, NCI provides innovative, world-class services to Australian researchers. NCI operates a formal collaboration between Australia's national university - ANU; the national research agency - the Commonwealth Scientific and Industrial Research Organisation; the national meteorological agency - the Australian Bureau of Meteorology; and the national geosciences agency - Geoscience Australia. Since 2007, NCI's partnership has expanded to include a further 22 Australian universities. NCI's infrastructure was established through Commonwealth Government funding.</p> <p>NCMAS allocations for 2020 will be on NCI's new petaflop-scale supercomputer – Gadi. This new system comprises ~3000 Intel Xeon Cascade Lake compute nodes, with 24 x 2 cores/node, configured with 192 GB RAM per node. Gadi also provides 50 Cascade Lake nodes with 1.5TB of memory, utilising Intel Optane DC Persistent memory, and 640 NVIDIA V100 GPUs in 160 nodes. Gadi's data interconnect is the latest generation Mellanox HDR InfiniBand, capable of data transfers at 200 Gb/sec. NCI also offers persistent data storage in excess of 50 petabytes. Data holdings include significant national and international data collections. NCI also operates a compute cloud for ancillary computing and data services.</p>
<b>NCMAS computing resources</b>	<p>200 M core hours (minimum, Raijin equivalent) on Gadi. Allocations will be determined against the final resource share determined by the NCI Board in 2019 Q4.</p> <p>The NCI NCMAS 2020 compute share offers a substantial increase from the share offered on Raijin in previous NCMAS calls. The final NCI share will be approved by the NCI Board, and will be announced in October 2019, in advance of the NCMAS 2020 allocation meeting. <i>Applications for NCI/Gadi should be framed against a share of at least 200 million core-hours to take full advantage of the new capability.</i></p>
<b>NCMAS storage resources</b>	<p>1070 TB Lustre disk (/g/data) is available to NCMAS scheme. The Allocation Committee will allocate this capacity according to project requirements. Allocations are limited to the duration of compute allocation – the 2020 calendar year.</p>

<b>Software</b>	NCI maintains more than 170 application software packages for use on its systems. The NCI application software catalogue is available online at <a href="https://opus.nci.org.au/display/Help/Software">https://opus.nci.org.au/display/Help/Software</a> .
<b>User support</b>	NCI operates an expert Service Desk for users during normal business hours, Mon-Fri between 9:00 am and 5:00 pm AEST. NCI Academic Consultants can provide assistance with user and project registration and operational issues, and can provide advice on code development and performance, and the use of scientific software in HPC environments. The User Services team aims to resolve help requests within four working hours.

<b>Pawsey Supercomputing Centre</b>	
<b>Facility overview</b>	<p>The Pawsey Supercomputing Centre (Pawsey) is one of the two tier-1 national supercomputing centres. Pawsey provides services available to all Australian computational researchers through meritorious allocation schemes including NCMAS.</p> <p>Pawsey has an array of scientific computing instruments available for researchers, including the petascale Cray XC-40 system called Magnus, a machine for operational radio astronomy (Cray XC-30 called Galaxy), the commodity cluster Zeus, remote visualisation and the cloud platform Nimbus.</p> <p>NCMAS applicants can request time on the Cray XC-40 system Magnus, which has 35,572 Intel E5-2690v3 cores. The processors are arranged in nodes of 24 cores, with 64 gigabytes of memory per node, and there is a scratch file system capable of a sustained I/O bandwidth of approximately 70 gigabytes per second. Magnus has a very high performance Cray network with a dragonfly topology, and Cray's tuned Linux environment and software stack.</p> <p>Magnus is particularly suited for compute problems (i.e. application codes and datasets) that have high network bandwidth requirements, and/or scalable problems that would benefit from the Cray interconnect.</p>
<b>NCMAS computing resources</b>	100 M core hours on Magnus.
<b>NCMAS storage resources</b>	Storage is available on a group filesystem which currently has a total of 750 terabytes available for all Pawsey projects. Each project is allocated 1 terabyte by default, and up to 10 terabytes can normally be accommodated. Requests for more than 10 terabytes of storage need to be justified with reference to the files and data to be stored, a capacity plan over the project duration, and any compression techniques and data lifetime purge policies employed.
<b>Software</b>	<p>Most supercomputing-class software that runs on Linux may be installed, with popular packages centrally installed and supported.</p> <p>Licensed software (e.g. Fluent) may be used, with your own licences. Pawsey does not purchase licences for user applications. It is up to you to ensure your licence permits your use of the software at Pawsey.</p> <p>Researchers should clearly articulate their actual requirements in NCMAS submissions. If applying for multiple resources (such as Pawsey and NCI), it should be clearly stated what software will be run at each centre.</p>

<b>User support</b>	The Pawsey Help Desk is available by email between 9am and 5pm AWST daily except for Western Australian public holidays and the extended Christmas closure period. In addition to the general helpdesk, additional application and optimisation support is available, as well as training courses in the use of the Pawsey systems.
<b>Additional notes</b>	Applications for time on Magnus must demonstrate the ability to make effective use of the architecture by running scalable applications and research problems.

<b>MASSIVE</b>	
<b>Facility overview</b>	<p>MASSIVE is an Australian HPC facility for data processing, analysis and visualisation.</p> <p>MASSIVE provide researchers with the computing resources and tools to apply high-throughput parallel processing and deep learning techniques to solve a broader variety of difficult research questions, and allow researchers to more effectively extract knowledge from scientific data. The impact of the science performed using MASSIVE is broad, and includes basic discoveries in the biological, medical computational, engineering and environmental areas.</p> <p>MASSIVE operates an integrative HPC facility that sits at the nexus of instruments, experiments, new users communities, and data science techniques.</p> <p>MASSIVE is primarily a data processing and analysis facility, and the types of research that are particularly well aligned with its goals include:</p> <ul style="list-style-type: none"> <li>• Researchers processing, analysing and viewing data generated by advanced instruments, such as new generation Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Cryo-Electron Microscopy (CryoEM), genomic sequencing, or new-generation light microscopy.</li> <li>• Scientists developing or applying new data processing, analysis or visualisation techniques, including machine learning and deep learning techniques.</li> <li>• Researchers undertaking cohort studies and longitudinal studies using techniques such as genomic sequencing or MR imaging.</li> <li>• Scientists who generate, analyse and visualise large multidimensional datasets, including those that are produced by imaging or simulation;</li> <li>• Researchers who are applying advanced image processing, image analysis, or visualisation techniques, or undertaking research in these fields, and scientists who analyse, process and visualise multi-spectral, hyperspectral data or multi-modal data.</li> </ul> <p>MASSIVE provides easy access through a dedicated remote desktop environment and supports a wide range of users new to HPC.</p> <p>MASSIVE is ISO9001 quality accredited to ensure quality, fairness and consistency in operations.</p> <p>Further technical information:</p>

	<ul style="list-style-type: none"> <li>• MASSIVE website: <a href="http://www.massive.org.au">http://www.massive.org.au</a></li> <li>• <a href="http://docs.massive.org.au">M3 documentation website: http://docs.massive.org.au</a></li> </ul>
<b>NCMAS computing resources</b>	<p>2.06 M core hours on MASSIVE are available through NCMAS.</p> <p>M3 is composed of 5,000 CPU cores, 272 GPU co-processors and a 3PB fast parallel Lustre file system. M3 provides a combination of GPU coprocessors, including the NVIDIA K1 and P4 (for remote scientific desktops), K80, P100, V100, and 10 x DGX1-V.</p>
<b>NCMAS storage resources</b>	<p>(Detailed information about M3 compute resources is available here: <a href="http://docs.massive.org.au/M3/m3users.html#about-m3">http://docs.massive.org.au/M3/m3users.html#about-m3</a>)</p> <p>M3 runs a Lustre parallel file system which is configured into project and scratch partitions.</p> <p>By default, quotas for projects directory will be applied as below:</p> <ul style="list-style-type: none"> <li>• Default projects for Cryo-Electron Microscopy: 5TB</li> <li>• Default project for MX2 data: 5TB</li> <li>• Other projects: 500GB</li> </ul> <p>Increased project quotas may be provided by request.</p> <p>Default quota for scratch directory is 3TB.</p>
<b>Software</b>	<p>A list of software available on MASSIVE is available at: <a href="http://docs.massive.org.au/M3/software/software.html">http://docs.massive.org.au/M3/software/software.html</a></p>
<b>User support</b>	<p>MASSIVE provides extensive user support, with particular focus on:</p> <ul style="list-style-type: none"> <li>• New HPC communities;</li> <li>• Instrument users - strong capability in developing near-realtime analysis workflows for instruments and experiments;</li> <li>• Data processing and data science techniques including machine learning and deep learning;</li> <li>• Strong experience in data processing, in-particular large cohort data studies, volumetric data and imaging data;</li> <li>• Visualisation: support for a range of visualisation tools accessible through the MASSIVE Desktop, and large-scale multi-node visualisation;</li> <li>• Molecular science: processing workflows for structural biology data, including MX and CryoEM;</li> <li>• Brain research: supports a large selection of brain (both psychological and fundamental) science projects, with a particular emphasis on MRI data processing. MASSIVE is the host of an Australian mirror of the Human Connectome Project; and</li> <li>• General HPC support.</li> </ul>

<b>University of Queensland Research Computing Centre (FlashLite)</b>	
<b>Facility overview</b>	FlashLite is a research computer that has been designed explicitly for Australian research to conduct data intensive science and innovation. FlashLite is optimised for data intensive computation and has 1632 cores, 34.8 TB of RAM, 326.4 TB of NVMe storage and 65.28 TFLOP/s (Rpeak) Compute nodes in FlashLite can be flexibly aggregated together into larger "supernodes" using ScaleMP's vSMP software. Given the network topology, a supernode of 22 physical compute nodes with 528 cores and 11TB of shared memory is a likely practical limit but larger supernodes are also possible.
<b>NCMAS computing resources</b>	1.93 M core hours for NCMAS on FlashLite.
<b>NCMAS storage resources</b>	There is a limited amount of network attached GPFS filesystem storage available within FlashLite. FlashLite is co-located with the QRIScloud research data storage. It is envisaged that NCMAS projects would make an application for a research data collection based at QRIScloud.
<b>Software</b>	Details of software available on FlashLite will be published on RCC website and elsewhere as the information becomes available.
<b>User support</b>	Only basic user support will be available for applications and external groups using FlashLite.
<b>Additional notes</b>	The workloads for FlashLite must be demonstrated to be data intensive or very large memory in character.

## Application Categories

NCMAS applications are accepted in three categories: Open, Early Career Researcher, and Special Consideration.

### Open

Resource requests are not restricted. Applicants are expected to demonstrate successful utilisation of national HPC facilities at scale and have a track record of research outcomes and independent funding.

### Early Career Researcher (ECR)

The ECR category provides an opportunity for researchers who have been awarded a PhD within the last five (5) years. Early Career Researcher applications are highly competitive. Applicants are expected to demonstrate a record of independent research funding, such as an ARC DECRA, NHMRC CDA, or similar award. *The ECR allocation is 250 KSU/year at one HPC facility.*

### Special Consideration

A limited number of special allocations are available to other applicants who may otherwise not be competitive in the NCMAS, for example, an individual who has returned to a research role following a significant career interruption. The Special Consideration allocation is 250 KSU/year at one HPC facility.

Eligibility criteria for each of these categories are listed in the section Eligibility and Project Roles.

## Application Instructions

***The NCMAS application process is slightly different for new projects (and applicants) versus established projects. Please read the following sections carefully.***

The NCMAS online application system is managed by the NCMAS Secretariat and is hosted on NCI web infrastructure. All applicants need to register for an NCI user account before starting an application.

### New Applicants/Projects

1. An applicant without an NCI account should first register for an NCI user account at <https://my.nci.org.au>.
2. All applicants should update their personal and career profiles at <https://my.nci.org.au>.
3. Start the application process – use the "Propose a project" link on your <https://my.nci.org.au> home page to submit a brief proposal and register the project for NCMAS. Select "NCMAS" as the resourcing scheme. These steps will register your new project.
4. Complete and submit the merit proposal for your project at <https://ncmas.nci.org.au>. ***(Important: this step must be completed to finalise your application.)***

Note that the same login credentials are used for [my.nci.org.au](https://my.nci.org.au) and [ncmas.nci.org.au](https://ncmas.nci.org.au).

***The Lead CI of a new NCMAS application must complete the online, self-guided information course on NCMAS at:***

<https://learning.hpc-australia.org.au>

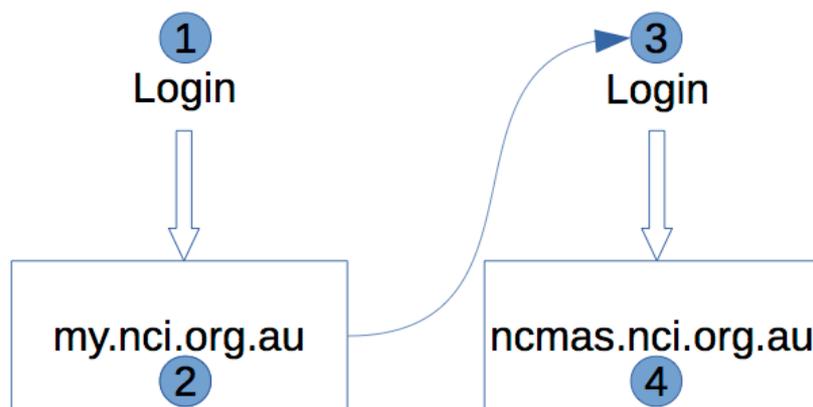
This course provides information about NCMAS governance and processes, and also best practices and recommendations for applicants.

### Existing Projects

Applicants who wish to resource an existing project should:

1. Update their personal and career profiles and project memberships at <https://my.nci.org.au>; and then,
2. Complete the full merit application for the project at <https://ncmas.nci.org.au>.

If you currently lead a project created under a Partner scheme that has not been previously considered for NCMAS, the initial registration steps are not required.



**Figure 1:** NCMAS application steps:

1. New user registers and updates details, or current user updates personal and career profile information at <https://my.nci.org.au>,
2. For new projects, enter a project proposal summary at <https://my.nci.org.au> (select NCMAS as the resource scheme,
3. Login to <https://ncmas.nci.org.au>,
4. Complete and submit your NCMAS project proposal.

The NCMAS Allocation Committee will assess complete applications only. The applicant (Lead CI) is responsible for completion of the project registration (for new projects) and staff profile updates at <https://my.nci.org.au>, and completion of the full NCMAS proposal web form at <https://ncmas.nci.org.au>.

In cases where an applicant completes only step 1 of the process (registration at <https://my.nci.org.au>), the application is considered incomplete and noncompliant. Such applications will be rejected by the Secretariat on administrative grounds and will not be assessed.

**When to use <https://my.nci.org.au>**

- To register for a new user account
- To reset your password
- To update personal details
- To update your research track record
- To register a new project for NCMAS
- To approve requests to join a project (Lead CI or Delegate Lead CI only)
- To remove a member of the project team (Lead CI or Delegate Lead CI only)

**When to use <https://ncmas.nci.org.au>**

- To complete your NCMAS merit proposal
- To submit your NCMAS proposal
- To view your NCMAS outcome (Lead CI only)

**Application Deadline**

The application deadline for the NCMAS 2020 call is **17:00 (5pm) AEST Friday 20 September 2019**.

## Getting Help

Read supporting documentation including FAQs if you have questions. Contact [ncmas@nci.org.au](mailto:ncmas@nci.org.au) if you require support with your application.

## Proposal Length

The length and rigour of a proposal should be proportional to the requested allocation. Guidelines for the length of proposals are listed in the table below. Note that 500 words is approximately one page of single-spaced, 12-point type, with 2 cm margins.

Compute Request (KSU)	Recommended Proposal Length (words)
Greater than 4000	3000
1000 - 4000	2000
250 - 1000	1000

## Acknowledging NCMAS and the National Facilities

A condition of accepting an NCMAS allocation is that applicants acknowledge both NCMAS and the high-performance computing facilities that they have used in all publications and presentations of the associated work. The following is a standard acknowledgement template:

This work was supported by computational resources provided by the Australian Government through <facility name> under the National Computational Merit Allocation Scheme.

## Recommendations for Applicants

The NCMAS 2020 Call for Applications is expected to be highly competitive. For the NCMAS 2019 call:

- ~220 million CPU-hours in total were available to applicants at the four HPC facilities: NCI, the Pawsey Supercomputing Centre, MASSIVE and UQ/RCS.
- Demand for computing time exceeded available supply by a factor of 3.
- 163 of 213 applications (74%) received allocations on one or more of the HPC facilities.

The recommendations below are provided as general advice to help you improve your NCMAS application. These recommendations address questions received and the experiences of applicants, the Secretariat and the Allocation Committee in previous NCMAS calls. The NCMAS 2020 [FAQ page](#) may also provide information to help you complete your application.

## All Applicants

- Read all NCMAS announcements and supporting documentation in full. Watch for updates from the NCMAS Secretariat throughout the Call for Applications period.
- You must provide the year of award for your highest degree (PhD) in your applicant profile.
- Ensure that personal profiles and research track records of the Lead CI and all CIs on your application are fully up to date.
- Respect the length guidelines (for word count and degree of detail) for each question in the application form.
- Provide a comprehensive justification of your request for HPC resources.
- Successful proposals will demonstrate an ability to use the HPC facilities at scale, and leverage efficient multi-CPU jobs, data interconnects and high-performance storage.

- Cite publications which acknowledge NCMAS and the participating HPC facilities.
- Cite only those research grants that are directly attributed to the Lead CI or CIs on the application. *Citing a grant on which the Lead CI or a (regular) CI from the project is not directly named is a breach of the rules. This will disqualify your application.*
- Submit your application before the final submission deadline. Late submissions will not be accepted.

### **New Applicants - New Projects**

- Describe your previous experiences with HPC in as much detail as possible. Assessors expect to see:
  - a summary of your previous HPC experience,
  - systems and facilities used,
  - experience with other resourcing/allocation schemes, e.g. facility Startup or Partner schemes,
  - details of application codes, algorithms and workflows.
- Describe your experiences using a Startup or Partner allocation on the facilities to develop HPC expertise and capability.
- Align your resource request with the scope of work and your track record of HPC experience. An application with very large requests, for example 10,000 KSU/year, should clearly demonstrate sustained, expert utilisation of HPC at scale.
- Applicants for Early Career Researcher awards must cite evidence of independent research funding.
- The minimum compute allocation available from the NCMAS is 250 KSU/year. If you require less than 250 KSU for your project, consider making an application to facility startup or partner schemes. See the following section - HPC Resourcing Alternatives – for more information. Partner schemes generally have more flexibility to provide smaller allocations and have less onerous proposal requirements than NCMAS. A partner scheme allocation is an ideal vehicle for gaining experience and growing a project to a level where it can be competitive in the NCMAS.

### **Returning Applicants - Existing Projects**

- Assessors will expect to see a detailed justification of your resource request. Requests for increased allocations in 2020 should provide as much detail as possible justifying the additional resources.
- Update all scientific and technical components of the proposal to reflect the current scope of work and methods. The Committee will recognise cases where proposal components are copied and pasted verbatim from previous applications.
- Provide compelling evidence for code performance and scaling in your application.
- If your project has used less than 90% of your 2019 allocation at 2019 Q3 (pro rata), you should provide an explanation for under-utilisation of your current allocation. Applications that do not address under-utilisation of a current allocation have a low probability of success.
- Provide a status update on your experiences and outcomes in 2019 (to date). Describe notable outcomes and changes to the project.
- If your 2019 NCMAS application was not successful, you are welcome to apply again. A demonstration of lessons learned and advancement of your experience and capability will work in your favour.

## Eligibility Criteria

In accordance with guidelines for access to Commonwealth-funded research infrastructure and relevant Australian Government legislation, Chief Investigators (CI) and Lead Chief Investigators (Lead CI) of NCMAS projects must hold at least a 0.2 FTE research position at an Australian higher-education institution, research institute or publicly-funded research agency, and be based in Australia. If an applicant (Lead CI) holds a fixed duration contract for at least 0.2 FTE for the calendar year 2020 he/she is eligible to apply to NCMAS.

Lead Chief Investigators and Chief investigators on a NCMAS application must provide evidence of independent research funding, for example, grants from the ARC or NHMRC. Any grants referenced by a Lead CI or CI must name that applicant as a primary recipient. Applications citing grants on which the applicants are not primary (named) grant recipients will be disqualified for non-compliance.

A person holding a Postdoctoral appointment at an Australian institution or publicly-funded agency is eligible to apply as a Lead CI. A postdoctoral fellow applying in the Open category is expected to demonstrate competitiveness with more experienced, senior researchers in his/her field, as well as a track record of independent research funding. The Committee recommends that postdoctoral fellows first consider applying in the Early Career Researcher category.

A person undertaking a higher degree by research is not eligible to be a Chief Investigator or Lead Chief Investigator on a NCMAS proposal.

***An individual may be named as a Chief Investigator or Lead Chief investigator on only one NCMAS 2020 application.***

The responsibilities for Lead Chief Investigator and Chief Investigator roles are listed at the bottom of this page.

## Early Career Researcher

The Early Career Researcher (ECR) category provides an opportunity for researchers who have been awarded a PhD within the last five (5) years. Early Career Researcher applications are highly competitive. Applicants are expected to demonstrate a record of independent research funding, such as an ARC DECRA, NHMRC CDA, or similar award.

Early Career Researcher conditions:

- The applicant (Lead CI) must have been awarded a PhD within the previous five (5) years.
- The applicant should not be nominated as a Researcher, CI or Lead CI on another NCMAS application.
- The body of an ECR proposal should be no longer than 1000 words, or approximately two pages in length.
- ***The Early Career Researcher award is 250 KSU/year at one HPC facility only.***
- An individual may apply for Early Career Researcher allocation for a maximum of three (3) consecutive years.

## Special Consideration

A limited number of special allocations will be made available to other applicants who may otherwise not be competitive in the NCMAS, for example, an individual who has returned to a research role following a significant career interruption.

Special Consideration conditions:

- The applicant (Lead CI) must have been awarded a PhD within the previous nine (9) years.
- The applicant should not be nominated as a Researcher, CI or Lead CI on another NCMAS application.
- The body of a Special Consideration proposal should be no longer than 1000 words, or approximately two pages in length.
- ***The Special Consideration award is 250 KSU/year at one HPC facility only.***
- An individual may apply for Special Consideration allocation for a maximum of three (3) consecutive years.

## Project Roles and Responsibilities

### Lead Chief Investigator (Lead CI)

- Leads and manages the project research team.
- Approves or rejects project team membership requests. At each NCMAS call, the Lead Chief Investigator must remove persons from the project who are no longer active participants.
- Provides a track record of research output and funding support in the NCMAS application.
- Approves and submits the final NCMAS application for the project.
- Acts as the official point of contact between the project, the NCMAS Secretariat and the Allocation Committee.

### Chief Investigator:

- Supports the Lead Chief Investigator in preparing the NCMAS application and managing the project.
- Provides a track record of research output and funding support for the NCMAS application.
- Can be promoted to a Delegate Lead CI role in cases where the Lead CI wishes to delegate project management responsibilities.

### Delegate Lead Chief Investigator

- Appointed by Lead Chief Investigator to actively manage a project and NCMAS application.
- Responsibilities are those of the Lead Chief Investigator.
- Expectation that the Lead Chief Investigator will appoint a Chief Investigator as Delegate.
- Research track record is not included for consideration in the NCMAS application.

### Researcher

- Member of the project research team.
- Research track record is not included for consideration in the NCMAS application.

## Assessment Criteria and Scoring

NCMAS applications will be scored on the following criteria.

### Project

- Quality and innovation
- Significance of the research

- Originality and innovative nature of the computational framework
- Advancement of knowledge through the goals of the proposed research
- Potential for the research to contribute to [Australian Science and Research Priorities](#)

#### **Investigators**

- Research record and performance relative to opportunity (publications, research funding, recognition and esteem metrics)

#### **Feasibility**

- Adequacy of the time commitment of investigators to undertake the research and utilise the resources successfully
- Capacity to realise the goals of the project within the resources request
- Appropriate track record in the use of high-performance computing systems, relative to the scale of the resources requested
- Suitability of the system to support the research, and an appropriate and efficient use of the system

#### **Benefit and impact**

- Ability of the project to generate impactful outcomes and produce innovative economic, environmental and social benefits to Australia and the international community.

#### **Application, Assessment and Allocation Process**

The NCMAS allocation process comprises the following stages:

1. Call for applications announced (Secretariat)
2. Applications accepted (Secretariat)
3. Eligibility and compliance verification (Secretariat)
4. Technical assessment (by nominated Facilities and Secretariat)
5. Merit assessment (Committee)
6. Allocation Committee meeting (Committee, supported by Secretariat and Facilities)
7. Notification of outcomes (Secretariat).

The Secretariat will review all applications for compliance as soon as possible following the application deadline. Potentially non-compliant applications will be referred to the Committee Chair for a final decision. The Secretariat will notify the Lead CIs of all applications confirmed as non-compliant within seven (7) days of the application deadline.

Nominated HPC facilities will assess each application for suitability/fit for its HPC systems in the technical assessment. A facility may contact an applicant for further information as part of the technical assessment. Technical assessments are provided by the facilities as advice to the Allocation Committee. The Committee may also recommend that an applicant consult a nominated facility for further technical advice during merit assessment or after an allocation is awarded.

#### **Assessment and Allocation Protocol**

Assessment of proposals will be based on a combination of technical and scientific merit (see selection criteria section) based on material provided in the proposal. All applicants are expected to provide a detailed justification of the resources requested and are expected to demonstrate the

capacity to utilise the requested HPC resources effectively. All requests must be proportional to the scientific merit of the proposal. The NCMAS Committee reserves the right to allocate all or part of the resources available, and all or part of any specific request.

Assessment and allocation decisions are made by the Allocation Committee only. The NCMAS Secretariat and HPC facilities provide advice or supporting information to the Allocation Committee but are not otherwise involved in determining allocations.

### Minimum Computing Request and Allocation

Each facility will set a minimum threshold (cpu-hours per year) for resource requests. The minimum request value for each facility is listed in the application form. Applicants requiring less than the NCMAS minimum allocation are encouraged to approach their home institution, regional or state-based HPC consortia (i.e. Intersect, QCIF, eRSA, TPAC), or [partner schemes](#) on the national facilities held by their institution with their resource request.

### Minimum Allocation

Each facility has set a minimum value for NCMAS 2020 allocations, as listed in the table below. Proposals assessed as not requiring the minimum allocation at a selected facility will not be awarded NCMAS resources at that facility.

Facility-System	Minimum Allocation (KSU/year)
NCI-Gadi	250
Pawsey-Magnus	250
MASSIVE	50
UQ-FlashLite	20

### Maximum Computing Request and Allocation

Resource requests for NCMAS are not subject to a maximum limit (cap). Unbounded resource requests allow researchers to prepare a single proposal that can be considered by multiple allocation schemes, and which reflects their actual demand for HPC resources. A request for more than 4000 KSU per year on any one facility would normally be associated with a team of experienced researchers who clearly demonstrate a track record of efficient and productive use of HPC resources. Note that any proposal deemed not to have fully justified the resources requested will be rejected by the Committee.

### Quantised Allocations

Computing resources will be allocated in specific increments (quanta) as indicated on the NCMAS application form. Allocations are quantised to simplify the work of the allocation committee.

### Administrative Rejoinders

A Lead Chief Investigator who submits an NCMAS application more than five (5) days in advance of the submission deadline will have an opportunity to address any completeness and compliance issues with the application through an administrative rejoinder process.

Lead Chief Investigators on applications submitted before 16 September 2019 which are incomplete or otherwise non-compliant with NCMAS guidelines will be contacted by the Secretariat and given

five (5) days to provide missing information, update details or otherwise bring their applications into compliance prior to the final deadline.

The administrative rejoinder process is intended to minimise cases of outright rejection due to completeness and compliance issues. The NCMAS Secretariat manages the administrative rejoinder process, with oversight from the NCMAS Committee Chair. *The process does not provide feedback or advice on scientific or technical components of an application.*

***The administrative rejoinder process is not available for applications submitted on or after 16 September 2019. All applicants are strongly encouraged to submit applications as soon as possible during the call for applications.***

## **NCMAS 2020 Allocation Committee**

The NCMAS Allocation Committee Chair is Dr. Amanda Barnard (CSIRO/Data61). The Deputy Chair is Prof. Derek Leinweber (Adelaide).

A call for Expressions of Interest (EOI) in Committee membership is currently underway to fill four (4) vacant committee positions for the 2020 call. Details of the Committee EOI are available at:

<https://ncmas.nci.org.au/2020/NCMAS-Committee-EOI>.

The Committee EOI call closes Thursday 25 July 2019.

## **Appeal Process**

***All decisions of the NCMAS Allocation Committee are final. Appeals will be considered only against administrative or procedural issues and not against decisions of the Committee or against assessor ratings and comments, in a manner consistent with the practices of the Australian Research Council.***

The administrative rejoinder phase of the NCMAS process for the 2020 call gives applicants a timely opportunity to correct errors or address non-compliance issues in their applications, and submit their application for consideration, instead of being rejected outright. The administrative rejoinder process effectively eliminated administrative appeals in the NCMAS 2019 call.

Administrative appeals must be submitted by the project Lead Chief Investigator, using the administrative appeal form on the NCMAS website. The online form for administrative appeals will be available on the NCMAS website on or before the application deadline, 20 September 2019.

The deadline for submission of an administrative appeals is 5:00 pm AEDT Friday 07 February 2020.

Administrative appeals will be considered by the NCMAS Allocation Committee Chair and Deputy Chair, and processed within 28 working days. Appellants will be notified of their outcome by email as soon as possible following a final decision by the Chair.

The administrative appeal process is intended to:

- Determine whether administrative or procedural errors have occurred in NCMAS processes;
- Determine whether any such errors affected decision making by the NCMAS Secretariat and/or Allocation Committee;
- Determine whether to uphold or dismiss an appeal;
- Provide advice to the NCMAS Committee and Secretariat in relation to how NCMAS processes could be modified or improved.

## Conditions of Use

### Autonomous Sanctions and the Defence Trade Controls Act

All Lead Chief Investigators on NCMAS applications are required to certify (via a question on the NCMAS application form) compliance of their project with recent Commonwealth legislation, in particular, the Autonomous Sanctions Act (2011, Cth) and the Defence Trade Controls Act (2012, Cth). These articles of legislation impose additional requirements for supporting documentation and certification of project researchers in some circumstances. Applicants should review the current conditions of use on the websites of each of the participating HPC facilities:

- NCI: <https://nci.org.au/users/access-and-use-policies>
- Pawsey: <https://support.pawsey.org.au/documentation/display/US/Conditions+of+Use>
- Monash: <https://www.massive.org.au/terms-of-use/>
- UQ: <https://rcc.uq.edu.au/flashlite#flashlite-guide>

Compliance with Commonwealth legislation is managed through your institution's research office. Consult your research office if you have specific questions about Autonomous Sanctions or DTCA compliance.

### Email Addresses

To ensure compliance with relevant Australian Government legislation, all researchers named in NCMAS applications must register and use an official institutional email address for all correspondence. Chief Investigators and Researchers who currently use a non-institutional email address (for example, [@gmail.com](mailto:example@gmail.com) or [@yahoo.com](mailto:example@yahoo.com)) must register an official institutional email address. It is the responsibility of the project Lead Chief Investigator to ensure that all project staff register and use official email addresses.

### Proposal Format

Guidelines for proposal formatting follow general ARC conventions. Use plain English and comply with the proposal format and submission requirements. Use Australian English spelling.

All pages of additional text (uploaded in PDF form) must be as follows:

- Black type, or occasional coloured type for highlighting purposes
- Single column
- White A4 size paper with at least 0.5 cm margin on each side, top and bottom
- Text must be size 12 point Times New Roman or an equivalent size before converting to PDF format and must be legible to assessors. Otherwise, a highly legible font type must be used: Arial, Courier, Palatine and Helvetica subject to them being an equivalent size to 12 point Times New Roman. Variants such as mathematical typesetting languages may also be used.
- References only can be in 10 point Times New Roman or equivalent
- Adhere strictly to page limits designated for each part of the proposal.
- Applicants should note that colour graphs, colour photographs, detailed graphics, and grey scale objects may be reproduced in black and white.
- Additional text uploaded as PDF may appear slightly reduced in size due to NCMAS formatting of attachments. Additional text uploaded in PDF form should be directly generated rather than scanned to maximise the quality of reproduction.

- The NCMAS Secretariat reserves the right to seek an original electronic copy of the Proposal to determine that the text meets these requirements.

### HPC Resourcing Alternatives

Facility partner schemes and start up schemes offer an opportunity to supplement your NCMAS allocation or provide alternatives to NCMAS for projects which are gaining experience and developing HPC capabilities. An application to a partner or start up scheme will usually be less onerous than an application to a merit scheme, such as NCMAS. Partner schemes, in many cases, can allocate resources on a more flexible schedule to accommodate developing workflows.

Partner and start up scheme allocations are determined by the Partner Scheme Manager for each partner. The Scheme Manager is the responsible allocation authority for the partner institution.

The following sections describe start up and partner scheme options to obtain national facility resources independently of NCMAS.

### Startup and Introductory Schemes

Projects that are developing experience, or that require less than the minimum NCMAS allocation available on the national HPC facilities should consider applying to a facility start up scheme.

Scheme	Facility	Resources Available / Information	Email
<b>NCI Startup</b>	NCI/Gadi	1000 SU/quarter for one year (Raijin). Default /short allocation of 72 GB. Startup projects are not eligible for /g/data or massdata allocations. Apply at <a href="https://my.nci.org.au/">https://my.nci.org.au/</a>	<a href="mailto:help@nci.org.au">help@nci.org.au</a>
<b>Pawsey</b>	Pawsey/Magnus	Apply at <a href="https://support.pawsey.org.au/documentation/display/US/Director%27s+Share">https://support.pawsey.org.au/documentation/display/US/Director%27s+Share</a>	<a href="mailto:help@pawsey.org.au">help@pawsey.org.au</a>
<b>MASSIVE Startup</b>	MASSIVE	<a href="https://www.massive.org.au">https://www.massive.org.au</a>	<a href="mailto:help@massive.org.au">help@massive.org.au</a>
<b>FlashLite Startup</b>	UQ/FlashLite	<a href="https://rcc.uq.edu.au/flashlite">https://rcc.uq.edu.au/flashlite</a>	<a href="mailto:m.hankel@uq.edu.au">m.hankel@uq.edu.au</a>

### Partner Schemes - NCI Gadi

NCI partner schemes are listed in the following table. Scheme eligibility generally depends on your home institution. NCI User Services ([help@nci.org.au](mailto:help@nci.org.au)) can answer general questions about partner scheme eligibility and help you to contact scheme managers.

The ANU-NCI partner scheme is a special case. The ANU Merit Scheme operates a merit-based allocation call similar to NCMAS, offering compute time on NEW to ANU researchers only. The ANU Merit Scheme call for applications normally operates October-December each year, roughly in parallel with the NCMAS call. ANU-based researchers are eligible to apply. NCI will announce the opening of the ANU Merit Scheme 2020 call in September 2019.

Scheme	Availability	Scheme Manager
<b>ANU (ANUMAS, Startup)</b>	October 2019	Markus Hegland
<b>Bureau of Meteorology</b>	NOW	Robin Bowen
<b>CSIRO</b>	NOW	Steve McMahon
<b>Geoscience Australia</b>	NOW	David Lescinsky
<b>Intersect</b>	NOW	Wei Fang
<b>QCIF</b>	NOW	Marlies Hankel
<b>Adelaide</b>	NOW	Derek Lienweber
<b>Monash</b>	NOW	Simon Michnowicz
<b>UQ</b>	NOW	Marlies Hankel
<b>Sydney</b>	NOW	Geraint Lewis
<b>UNSW</b>	NOW	Joachim Mai
<b>Deakin</b>	NOW	Christopher McAvaney
<b>RMIT</b>	NOW	Salvy Russo
<b>Tasmania (ACE-CRC, AGP, AAD)</b>	NOW	Ben Galton-Fenzi
<b>Wollongong</b>	NOW	Keith Brophy
<b>UTS</b>	NOW	Mike Lake
<b>Macquarie</b>	NOW	Grant Sayer
<b>Garvan Institute</b>	NOW	Warren Kaplan
<b>Victor Chang Cardiac Research Institute</b>	NOW	Steven Wilson

#### Partner Schemes - Pawsey Magnus

Pawsey Supercomputing Centre allocation schemes are listed in the following table. Scheme eligibility generally depends on your home institution. The Pawsey user support service ([help@pawsey.org.au](mailto:help@pawsey.org.au)) can answer general questions about your eligibility and can provide guidance in obtaining resources for your project.

Scheme	Links
<b>General Information</b>	<a href="https://support.pawsey.org.au/documentation/display/US/Supercomputing+Documentation">https://support.pawsey.org.au/documentation/display/US/Supercomputing+Documentation</a>
<b>Startup Allocation</b>	<a href="https://support.pawsey.org.au/documentation/display/US/Director%27s+Share">https://support.pawsey.org.au/documentation/display/US/Director%27s+Share</a>
<b>Pawsey Partner Allocation</b>	<a href="https://support.pawsey.org.au/documentation/display/US/Pawsey+Partner+Scheme">https://support.pawsey.org.au/documentation/display/US/Pawsey+Partner+Scheme</a>

## Frequently Asked Questions

The questions and answers presented in this section reflect actual enquiries and situations from previous NCMAS calls. The Committee and Secretariat recommend that all applicants read this FAQ section in full.

### General

FAQ 1.0 -- I have a question about NCMAS 2020. How do I get more information?

*Email [ncmas@nci.org.au](mailto:ncmas@nci.org.au) if you have any questions about NCMAS. This email will reach the Secretariat, who will contact you with further information.*

FAQ 1.1 -- What is the deadline for application?

*The application deadline is 5:00 pm AEST Friday 20 September 2019.*

FAQ 1.2 -- Can I request an exception to the application deadline if it overlaps with a travel or work commitment, such as an overseas conference?

*Unfortunately, no. If you have commitments at or near the deadline you are advised to submit your application as soon as possible during the call.*

FAQ 1.3 -- If I have a draft application in the NCMAS system at the time of the submission deadline will I be allowed extra time to finish and submit my application?

*No. Applications cannot be submitted after the deadline.*

FAQ 1.4 -- Can I resubmit my application from the previous NCMAS call (2019) with minor changes and updates?

*Yes. The online forms system will pre-populate an application with content from the previous call if it is available. Note, however, that all CIs on your project should update their career profiles and research track records to reflect recent developments or changes. Resubmission of an application as-is from the previous call without updated to reflect progress **is not recommended**.*

FAQ 1.5 -- The outcome of my ARC or NHMRC grant proposal is expected to be announced during the NCMAS call. How do I include this outcome in my NCMAS application?

*Research funding outcomes announced in the September-December time frame are relevant to your application. A grant outcome can be submitted as an addendum to your application by sending email to [ncmas@nci.org.au](mailto:ncmas@nci.org.au), including the text "NCMAS 2020 APPLICATION ADDENDUM" in the email subject line.*

FAQ 1.6 -- What period is covered by the "previous five (5) years" requirement for publications and grants?

*The "previous five years" period extends from 2014 to the present.*

FAQ 1.7 -- Is it possible to transfer my project to another Lead Chief Investigator?

*Yes. The recommended process is:*

- 1. The new Lead CI should register and join the project using the <https://my.nci.org.au> system.*
- 2. If you (as current Lead CI) wish to leave the project, you should promote another project member to the Delegate Lead CI role, and then leave the project. Leaving the project will elevate the Delegate Lead CI to the (full) Lead CI role.*
- 3. If you (current Lead CI) wish to remain in the project in a (regular) CI or Researcher role then*

*submit an NCI support request to change your project role. The support request can be submitted by email to [help@nci.org.au](mailto:help@nci.org.au). Please provide the project code, your request and the new Lead CI's information in the support request.*

FAQ 1.8 -- I'd like to include as many researchers as possible on my project to demonstrate its significance and impact. Can I include former members of my group, whom I still collaborate with?

*A Lead Chief Investigator should update his/her project memberships to include personnel who will actively contribute to the project during the next calendar year. Inclusion of former group members who do not currently contribute to the research is not recommended. Retention of a previous Chief Investigator could inadvertently breach eligibility rules if that CI is now listed on another NCMAS application. The key rule to observe is: **An investigator can be named as a Lead CI or (regular) CI on one project only.***

FAQ 1.9 -- I have drafted a new project proposal for the NCMAS scheme (proposal-XXXXXX) using the <https://my.nci.org.au> system and want to add people to this project proposal. How can I do that?

*Anyone who wants to join the new project proposal (proposal-XXXXXX) should visit <https://my.nci.org.au/mancini/project/proposal-XXXXXX/join> to request the project membership. Then the Lead CI of this proposed project will be able to approve the membership request using the <https://my.nci.org.au> system.*

FAQ 1.10 -- Does the word length limit for the proposal apply to both the proposal body and references?

*The recommended length is for the body of the proposal. NCMAS recommendations are rough guidelines, which are intended to capture appropriate levels of detail and ensure that larger resource requests have sufficient scientific and technical justification. The online form does not enforce a word or size limit.*

FAQ 1.11 -- Can I request fewer than 250 CPU-hours per year in the 2020 NCMAS call?

*No. The minimum compute request is 250 KSU. Applicants with smaller requests are advised to contact facility and/or partner allocation schemes.*

FAQ 1.12 -- I am a research student, and my supervisor has asked me to complete the NCMAS application for our research group. What do I do?

*Your supervisor needs to change your project role to Delegate Lead CI to enable you to access the online NCMAS application form. Your supervisor can do this through the NCI registration system (<https://my.nci.org.au>) or by emailing NCI support at [help@nci.org.au](mailto:help@nci.org.au). Note that as Delegate Lead CI you become the responsible agent for the application. You will need to keep your supervisor informed through the call for applications period.*

FAQ 1.13 -- Can I attach my CV instead of entering publication and grant information on the application form?

*Unfortunately, it is not possible to attach a CV to the application. Please enter relevant publication and grant information on the online form.*

FAQ 1.14 -- Why do I need to update memberships of my NCMAS project?

*The members of your project should include only those who actively contribute to the project. Prior members of your research team who no longer contribute should be removed from your project. Note that removing former team members is also required under Conditions of Use for NCI and other HPC facilities.*

FAQ 1.15 -- My project requires HPC resources for two types of work – (1) research and development, and (2) ongoing operations, for example, a data analysis service. Can I use NCMAS to obtain resources for both types of work?

*NCMAS should be used to obtain resources for your research and development work. Facility and/or partner schemes are usually the appropriate resourcing channels for operational or service HPC workloads.*

FAQ 1.16 -- The NCMAS form provides for only 15 research grant entries. How can I provide details for more than 15 grants?

*Use the 15 available slots in the form for your most recent or relevant grants. Additional grants may be provided in an addendum document. Submit the addendum to [ncmas@nci.org.au](mailto:ncmas@nci.org.au) and include the text “NCMAS 2020 APPLICATION ADDENDUM” in your email subject line.*

FAQ 1.17 -- Last year I made a mistake and completed a project registration in the <https://my.nci.org.au> system but did not complete the full NCMAS proposal in the <https://ncmas.nci.org.au> system and missed out. How can I make sure to complete a full application in the 2020 call?

*Read the instructions in the Information for Applicants document in full and ensure that you complete your new project registration and your full merit proposal. Contact [ncmas@nci.org.au](mailto:ncmas@nci.org.au) if you run into any difficulties during the application process.*

FAQ 1.18 -- Can I modify or correct errors in my NCMAS application after submission?

*Submission is considered final, as noted in the Information for Applicants, so an application cannot be modified following submission. You may submit an addendum to correct errors by sending email to [ncmas@nci.org.au](mailto:ncmas@nci.org.au). Include the text “NCMAS 2020 APPLICATION ERRATA” in your email subject line.*

FAQ 1.19 -- How can I make my application more competitive?

*First, make sure you are applying in the category appropriate to your level of experience. Postdoctoral fellows who are establishing themselves in the field are advised to submit an ECR application. All applicants should read the Information for Applicants in full, pay attention to detail, and demonstrate to the fullest extent their ability to use national facility HPC resources at scale.*

FAQ 1.20 -- Why is the application process so complex?

*NCMAS is very competitive and resources are limited. Applications must capture detailed information needed by the Committee to assess scientific merit and the ability to use HPC resources at scale.*

FAQ 1.21 -- Why don't I receive detailed feedback about my application?

*NCMAS receives approximately 250-300 applications in each yearly call. Committee workloads are such that detailed feedback for each application is not possible; each member of the Committee will assess between 20 and 50 applications. The Committee will, however, try to provide brief suggestions to the applicant in as many cases as possible. The Committee will also record comments raised during the allocation meeting for inclusion in your outcome.*

FAQ 1.22 -- Can I get advice on how to write my NCMAS application?

*Unfortunately, the Secretariat and Committee are not able to provide specific advice to individual applicants. All applicants are advised to:*

1. Make sure to read all supporting documentation, including rules and guidelines.
2. Check your eligibility. If you have questions about eligibility contact the Secretariat as soon as possible.
3. Update your profile and research track record, and those of CIs in your research team.
4. Make a compelling case for your proposed research.
4. Demonstrate your ability to use the national HPC facilities at scale.
5. Include references for all research funding over the previous 5 years.
6. Submit your application as early as possible to take advantage of the administrative rejoinder process.
7. Write clearly. Pay attention to detail.
8. Respect the guidelines and the submission deadline.

FAQ 1.23 -- My research team includes people who will not be involved in computational work for my project. Should these non-computational team members be included in my NCMAS application?

*Team members who are not part of computational activities are not required to be listed on your application. Note that if you do wish to include such persons, they will need to register for an NCI user account and join your project.*

FAQ 1.24 – What is the proper length and level of detail for a NCMAS proposal?

*Recommendations for proposal length are listed in the Instructions for Applicants document. Length guidelines are stated as word counts. There are no explicit limitations on number of pages. It is important to note that the level of detail in a proposal is expected to be proportional to the resource request. An application which makes a large resource request and has a short proposal with sparse details is unlikely to be successful.*

FAQ 1.25 -- Is the project description in the NCI new project application the same as the proposal for NCMAS in the application form at <https://ncmas.nci.org.au>?

*No. The description in the NCI new project registration (at <https://my.nci.org.au>) is treated as a proposal abstract for the purposes of NCMAS. The full, detailed proposal must be submitted in the NCMAS online application form – <https://ncmas.nci.org.au>.*

FAQ 1.26 -- Does the NCI new project request submitted through <https://my.nci.org.au> need to be approved before the project is available in the NCMAS application system at <https://ncmas.nci.org.au>?

*No. New projects registered for NCMAS at <https://my.nci.org.au> remain in “pending approval” state until their NCMAS outcome is determined. NCI will approve project registrations for successful applications after NCMAS outcomes are finalised.*

FAQ 1.27 -- Our NCMAS proposal contains graphs and images. It looks like the NCI project proposal (web form) doesn't allow figures. How do I include figures in my application?

*The NCI online registration system, <https://my.nci.org.au>, is used to register a new project for NCMAS (and to capture career profile information for researchers). The proposal/description entered here should be treated as an abstract of the proposal for the purposes of NCMAS.*

*Submission of the full NCMAS proposal happens at the next step in the process, when you complete the detailed application at <https://ncmas.nci.org.au>. Submission of the proposal via PDF upload in your application gives you more control over proposal format and content, including figures and graphs. Note that uploading your NCMAS proposal as a PDF is optional.*

FAQ 1.28 -- Why was the administrative rejoinder process implemented for the NCMAS 2019 call?

*The goal of the administrative rejoinder process is to eliminate outright rejection of applications due to completeness or compliance issues. The bottom line is to help applicants.*

FAQ 1.29 – How do I use the new ORCID functionality in my NCMAS application?

*Applicants are able to import publication references from ORCID into their career profile via a new interface in the NCI online registration system, <https://my.nci.org.au>. The ORCID interface is available in the user's my.nci.org.au profile. The ORCID interface allows the user to nominate publications from their ORCID record for inclusion in their personal career profile in an NCMAS application.*

***ORCID cannot be used to populate the publications fields in the project progress report section of the application.*** Note also that the my.nci.org.au ORCID implementation gathers data from ORCID only; it is not an alternative tool for managing your ORCID record.

*ORCID will be the preferred method for managing publications in the career profile section of your NCMAS application. The free text publication interface in the Career form on <https://my.nci.org.au> will remain, however, completion of this is not required if you use ORCID. Applicants must, however, use one of the options in the user profile on <https://my.nci.org.au>: (1) ORCID via the Publication Record page, or (2) populate the free text entry fields for publications on the Career page.*

***All applicants should read supporting documentation for ORCID functionality — available via the NCMAS website — in full.***

## **Allocations**

FAQ 2.0 -- I was unable to utilise most of my 2019 NCMAS allocation due to unforeseen circumstances or external dependencies. Can I still apply to NCMAS for 2020?

*Yes. Your application should clearly explain the circumstances leading to under-utilisation of your 2019 allocation. Your application should provide a strong justification of your 2020 resource request.*

FAQ 2.1 -- My project expects to use its NCMAS allocation at specific periods during 2020, and to have some corresponding periods of low usage. Can I request that my allocation be provided nonuniformly across quarters in 2020 to accommodate this operational requirement?

*Nonuniform installation of a compute allocation is at the discretion of the HPC facility. Generally, facilities can accommodate small variations in quarterly allocations. They will not, however, be able to install an allocation into just one or two quarters, for example. Applicants who have scheduling dependencies and expect to have seasonal or varying usage are advised to engage directly with the facilities to discuss their options.*

FAQ 2.2 -- In 2019 I consumed my allocations before the end of each quarter. Can I request supplemental allocations if I face a similar situation in 2020?

*Unfortunately, NCMAS is unable to provide supplemental allocations because it is heavily oversubscribed. Supplemental allocations are best sought from partner schemes if additional resources are needed during the year. Also note that some facilities, e.g. NCI, provide bonus time to allow projects to use spare cpu-hours at a reduced priority after a project has exhausted its primary allocation.*

FAQ 2.3 -- Why have my previous NCMAS allocations been less than the amount requested?

*NCMAS allocations are highly competitive; demand for cpu-hours has exceeded supply by a factor of 2-3. The Committee determines each allocation based on the merit of the proposal and*

*track records of the project and its CIs. The Committee must also adjust allocations to attempt to optimise usage of the NCMAS resource shares.*

FAQ 2.4 -- Can I appeal if I am not satisfied with my NCMAS outcome?

*Allocation decisions by the Committee are final. Appeals are accepted only in cases of administrative error on the part of the Secretariat, Facilities or the Committee. Administrative appeals are decided by the Allocation Committee Chair, with the assistance of the Secretariat.*

FAQ 2.5 -- My NCMAS 2019 application was unsuccessful. Why didn't I receive an allocation?

*In most cases NCMAS applications are not successful for one of the following reasons:*

- 1. Eligibility issues;*
- 2. Non-compliant or incomplete application;*
- 3. Poor conception or development of proposal;*
- 4. Insufficient demonstration of peak-scale HPC requirement;*
- 5. Inadequate justification of HPC resource request;*
- 6. Ambit claims for large-scale resources.*

*New applicants to NCMAS should, if possible, demonstrate a track record of effective HPC utilisation through partner or facility resourcing schemes.*

FAQ 2.6 -- Why do some projects receive large NCMAS allocations?

*The Committee will consider allocation of more than 4-5 MSU/year to applications which demonstrate exceptional and sustained track records or HPC utilisation, and which make a compelling case for HPC resources at large scale. Projects in this category typically present well documented resource requests with compelling justification, and with extensive details of methodology, workflows, application performance, and scalability. These projects also have strong records of successful grant proposals and research output.*

## **Eligibility**

FAQ 3.0 -- I am a research student, and my supervisor has asked me to submit an application to NCMAS. What should I do?

*As a research student you are not eligible to apply for NCMAS. You should advise your supervisor to check his/her eligibility and apply.*

FAQ 3.1 -- As a Lead CI, I want to delegate preparation of my NCMAS application to a senior member of my research group. How do I do this?

*Promoting a team member to a Delegate Lead CI role on your project will grant them access to the NCMAS online application system. Promotion is done through the online registration system at <https://my.nci.org.au> :*

- 1. Log in to <https://my.nci.org.au>*
- 2. Go to your project listing (click on project name - in blue)*
- 3. Select your delegate's name (click on name)*
- 4. Use the Change tab to change the person's role to Delegate Lead CI*
- 5. Submit the change.*

FAQ 3.2 -- I am a Lead Chief Investigator on my own project, and I also collaborate closely with a research group at another university. Can I be included as a (regular) Chief Investigator on my collaborator's NCMAS application?

*No. An individual can be a Chief Investigator or Lead Chief Investigator on one NCMAS application only. Membership as a Chief Investigator or Lead Chief Investigator in more than one NCMAS application will render all such applications noncompliant.*

FAQ 3.3 -- I have recently started a Postdoctoral appointment and wish to submit an application to NCMAS. What should I do?

*You are eligible to apply to NCMAS, however, you will be expected to demonstrate that you have independent research funding support, such as an ARC DECRA or similar award. Applications which do not provide evidence of independent research funding will be disqualified before merit assessment. There is also an expectation that Lead CIs with recent Postdoctoral appointments will apply in the Early Career Researcher category.*

FAQ 3.4 -- I have recently resumed my research career after a period of interruption. Am I eligible to apply to NCMAS?

*You are eligible to apply in the Special Consideration category provided your research work has resumed within the last five (5) years, and your PhD was awarded within the previous nine (9) years. Please also note that Special Consideration applications are expected to demonstrate independent funding support.*

FAQ 3.5 -- I am a Research Scientist employed at an Australian Government science agency (e.g. ANSTO, BoM, CSIRO, DST, Geoscience Australia). Am I eligible to apply?

*Yes, however, applicants from Australian Government agencies are expected to hold a position of CSOF5 (or equivalent) or higher.*

FAQ 3.6 -- Our research group pursues several related compute-intensive research projects, with each research thread is led by a different member of the group. Can we submit individual NCMAS applications for each body of work in the combined research effort?

*No. The group should submit a single, combined application to NCMAS. Note that an individual may be Lead CI or CI on one application only, so individual applications submitted in this case would be ruled non-compliant.*

FAQ 3.7 -- I am an experimentalist who wishes to use NCMAS supplement my research with theory/computation. Am I eligible to apply?

*Yes. Your application should aim to demonstrate HPC expertise of your group and clearly describe how computation will contribute to your research plan.*

FAQ 3.8 -- I am a new research faculty/Postdoctoral appointment, but do not yet have a track record of funding support. Am I eligible to apply?

*NCMAS applicants are expected to demonstrate a record of independent funding support. NCMAS recommends that you investigate HPC resourcing through your local institution, which may have an active partnership with one or more of the NCMAS facilities: NCI, Pawsey, MASSIVE, and UQ/FlashLite. A resource allocation from your institution can be a vehicle for development of HPC expertise, with a view toward a future NCMAS application.*

FAQ 3.9 -- If a Researcher on a project is promoted to a Delegate Lead CI role to manage the project's NCMAS application, can that Researcher also be a Delegate Lead CI or (regular) CI on another NCMAS application?

*This is acceptable under NCMAS rules; however, it is not recommended. A person who is a Researcher on two projects could be promoted to a Delegate Lead CI role on both projects for the purposes of completing the applications. If the person is a (regular) CI on one of the projects, and a Researcher on the other the Lead CIs on both projects should exercise care about personnel roles. Potential issues in these circumstances would be identified and resolved at the administrative review stage of the call.*

FAQ 3.10 -- A Postdoctoral Fellow will be joining my project in January 2020 (formal job offer has been accepted) and I would like to include him/her as a CI on my NCMAS application. The future Postdoc will not receive his/her PhD until December 2019. Can I include this Postdoc as a (regular) CI on my NCMAS application?

*A PhD candidate may be included as a (regular) CI on an NCMAS application. Note, however, that the Committee will review research track records of the Lead CI and all (regular) CIs as part of the assessment process. If the PhD candidate has outstanding research outputs this could be a positive factor for the application. If there are few or no demonstrable research outputs it might be better for the PhD student to take a Researcher role.*

**NCMAS 2020 Application Checklist**

<b>Task</b>	<b>When</b>	<b>Comments</b>	<b>Done</b>
Download and read -- <i>NCMAS 2020 Information for Applicants</i>	Now	This document contains important rules and guidelines for the 2020 call.	
Register for NCI user account and new NCMAS project at <a href="https://my.nci.org.au">https://my.nci.org.au</a> (NEW APPLICANTS ONLY)	Now	New applicants must register for a user account and a project before starting an NCMAS application. Note that the full NCMAS application form is completed at <a href="https://ncmas.nci.org.au">https://ncmas.nci.org.au</a> (see below).	
All project members update contact information and career profiles at <a href="https://my.nci.org.au">https://my.nci.org.au</a>	Now	Personal information for all team members should be up to date.	
Lead CI or Delegate Lead CI should update project personnel at <a href="https://my.nci.org.au">https://my.nci.org.au</a>	Now	Add new team members, and remove members who no longer contribute to the project.	
Lead CI of a new NCMAS project must complete the online information course on NCMAS 2020. (NEW APPLICANTS ONLY)	Before submission of application	Course URL: <a href="https://learning.hpc-australia.org.au">https://learning.hpc-australia.org.au</a>	
Start NCMAS application at <a href="https://ncmas.nci.org.au">https://ncmas.nci.org.au</a>	From 5 Aug 2019	This is your NCMAS application. Note that The online form will be pre-populated with information from previous applications, if available. Draft versions of your application can be saved as needed.	
Submit final NCMAS application at <a href="https://ncmas.nci.org.au">https://ncmas.nci.org.au</a>	ASAP before 5:00 pm AEST, Friday 20 September 2019	Early submission avoids the crunch at the deadline. Also note that the administrative rejoinder process is not available for applications submitted on or after 16 September 2019.	
Check NCMAS outcome at <a href="https://ncmas.nci.org.au">https://ncmas.nci.org.au</a>	4 December 2019	Outcomes will be posted on the NCMAS web site.	