Pawsey Partner Scheme

The Pawsey Partner Scheme supports the Pawsey partner institutions: **CSIRO**, **Curtin University**, **Edith Cowan University**, **Murdoch University**, and the **University of Western Australia**. It provides significant amounts of compute time for meritorious projects led by researchers from these institutions.

Staff from **Western Australian Government Agencies** who are conducting research or development are considered as being from the Pawsey Partners, for the purpose of being eligible to access Pawsey services under the Partner Share. Such staff are eligible to be Principal Investigator of Partner Share projects, and contribute to the 50% FTE criteria.

Available Resources

The Pawsey Partner Scheme is 40% of the available compute time on Magnus. The Pawsey Partner 2020 call has a total of 115,000,000 core hours for allocation to successful projects, over the January to December 2020 period. Of this, 110,000,000 is available to the main call for applications and 5,000,000 will be set aside that can be applied for throughout the year by new project leaders that have recently become eligible for the scheme. The set aside amount reduces pro rata through the year.

Requests for this scheme must be a minimum of 100,000 core hours per project. There is no maximum limit to the amount of time that can be requested. However, partial allocations may be awarded depending on the availability and demand for allocations within the scheme.

Note that 100,000 cores hours in a year is less resource than if you buy your own 16-core workstation. Applications for such a small allocation must specify why access to a supercomputer is necessary for the research, and based on the scoring criteria below such uses of the supercomputer are unlikely to be competitive against other applications who demonstrate they need the expensive interconnect. Nimbus Documentation Landing Page is better suited to single-node applications, and has a light-weight application process.

Eligibility

The project leader must hold a substantive position at a Pawsey Partner institution. A researcher undertaking a higher degree by research, or holding only an adjunct position, is not eligible to be a project leader.

There is a limit of one application per project leader for the Pawsey Partner call.

The applicant (person who completes the application form) cannot be a student. Ideally, the project leader is the applicant.

To be eligible for the Pawsey Partner scheme, at least 50% of the total FTE must be from among the Pawsey Partner institutions.

Other members of the project team may be staff or students at an academic institutions or research organisation, including those located internationally as well as within Australia. The use of Pawsey Project Infrastructure is conditional on complying with relevant laws and export controls, including the Australian Defence Trade Controls Act, United National Security Council (UNSC) sanctions regimes and the Australian autonomous sanctions regimes, and U.S. Export Controls.

Assessment Criteria

Applications are assessed against the following criteria, which are also used for the Energy and Resources call. To be competitive, particularly for larger requests, it is crucial that applications are of a high standard and address all criteria. The combined research and technical criteria have equal weighting.

Note that the research criteria are flexible, and it is up to the applicant to make a strong case for their track record and the research project. For example, academic researchers will typically highlight their publication record and the scientific benefits of their research, whereas academics partnering with industry may choose to focus on industry grants and transformational benefits to the company of their work. Patents may also form part of the track record and/or project outputs.

Project Quality and Innovation (research criteria, 30%)

- Significance of the research
- Originality and innovative nature of the computational framework
- Advancement of knowledge through the goals of the proposed research

Investigators (research criteria, 10%)

- Research record and performance

Benefit and Impact (research criteria, 10%)

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

Suitability (technical criteria, 15%)

- Method of parallelisation, including job packing, OpenMP, MPI
- Footprint of workflow, including wall times, memory, storage, and transfers

Scalability (technical criteria, 10%)

- Scale of workflow in terms of size and number of jobs

Usage (technical criteria, 10%)

- Appropriate track record of HPC systems
- Usage relative to previous allocations
- Current request relative to previous usage

Appropriateness of Request (technical criteria, 15%)

- Justification of size of request
- Capacity to achieve project within request

Partner Top-up Allocations

Applications to the Energy and Resources and NCMAS schemes that are not allocated the full request, and have a project leader that is eligible for the Pawsey Partner scheme but has not applied directly to that scheme, will be also be considered in the Pawsey Partner scheme for the remaining resource request.

If an applicant to Energy & Resources also has an application to NCMAS, and both applications are eligible for Pawsey Partner top-up, then only one will be considered for top-up and the decision rests with the Chair of the Pawsey Partner panel.

The top-up amount considered is the remaining requested allocation, without accounting for any allocation obtained via other schemes.

Out of Session Requests

Applications for the Pawsey Partner scheme outside of the official call may be considered in exceptional cases. These applications will be subject to the normal review criteria by the Pawsey Partner panel. Allocations will terminate with those of the corresponding main call. There is a cap of 1,200,000 core hours per project, reduced pro rata with months remaining of the year.

An example of an exceptional case is a newly recruited Project Leader into a Pawsey Partner institution. Another example is if a significant industry collaboration is initiated after the primary call for applications. The decision whether to accept an out of session application rests with the Chair of the Pawsey Partner panel.

Forgetting to apply or not being aware of the call for applications do not constitute exceptional cases.

Appeals Process

To maintain integrity of the independent merit allocation committee, the Pawsey Supercomputing Centre will not make adjustments to allocations made by the committee. This also includes requests for extra time for a project throughout the year.

Appeals can be made against procedural issues, but not against decisions by the reviewers, review panels or Pawsey Executive Director. Appeals should be emailed to help@pawsey.org.au.

Application Form and Process

Applications for the Pawsey Partner scheme must be submitted online via the Pawsey Allocation Portal, after the call commences and before the call closes.

To ensure Pawsey has the information needed to properly assess a proposal, a researcher should ensure they:

- meet the criteria of the call to which they are applying;
- read the call text carefully and aim to address all points of consideration;
- provide clear and complete information.

More specifically, the application form requires the following information:

Merit Allocation submission requirements (Energy and Resources, Partner)

1. Summary
    a. Title
    b. Short description
    c. Field of Research codes (FOR Codes)
    d. List of participants
2. Project Team
    a. Research record
    b. Ten best publications
    c. Research funding information for last five years
3. Research Proposal
    a. Research significance
    b. Computational methodology
    c. Supporting funding for the research (if applicable)
    d. Resource request - calculate service units, memory and data requirements
    e. Applications, tools and libraries required

A project should have the following defined:

- time-frame (specified start and end point);
- scientific goals;
- expected research impact;
- technical approach (including, software, hardware, tools and techniques);
- resources (people effort and expertise);
- cost (compute time and short-term storage requirements).

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- When evaluating a proposal, the selection panel considers the proposer's performance in any previous compute-time awards they may have received – in terms of fulfilment of goals and use of allocated resources.
- If a researcher has under-utilised a previous merit allocation, they should include an explanation of the reason for not using the allocated time.
- Allocation of compute time on Pawsey resources remains the discretion of the Pawsey Executive Director: their decision regarding the assessment of a proposal or the allocation of compute time is final.