

High Performance Computing Complementary Capability Challenge – Call for Proposals

Closing Date: 4pm 11th September 2008

Introduction

EPSRC has recently taken the decision to extend the HPCx service until January 2010.

The decision to extend HPCx is in response to consultation with UK HPC users that have highlighted a need for more flexible, user led provision of HPC resource in the UK in order to accommodate job types that do not readily fit within the remit of a “Leadership” facility. As such, both the extension and this call are aimed at exploring the concept of complementary capability computing and the role that this mode of operation may play in future HPC provision.

Specifically, this call provides an opportunity for UK investigators to request large amounts of compute time on the HPCx service in order to explore this mode of operation and investigate scientific computational challenges that do not “fit” within the necessary operational confines of the UK’s current Leadership facility, HECToR.

EPSRC is keen to explore these opportunities within the timeframe of the HPCx extension in order to assess the potential for incorporating this mode of operation in future service provision. Grants will be awarded for a period of twelve months starting from 1st January 2009.

In addition to requesting time on HPCx (and where necessary HECToR); a modest amount of resource (£400k) has been set aside to cover essential fEC costs.

This document contains the following information:

- Scope of the call
- Eligibility
- How to apply
- Assessment procedure
- Criteria for assessment
- Timetable
- Contacts

Scope of the call

This call is open to UK academics whose research falls into EPSRC’s remit. Resources will be provided through an EPSRC grant and standard EPSRC terms and conditions will apply.

The goal of the call is to select a small number of ambitious, innovative, medium term research projects that can make high-impact scientific advances not possible without flexible access to a HPC resource.

EPSRC expects that applications to this call will clearly demonstrate how new avenues of research will be opened, or existing barriers removed, by utilising the flexibility provided by this call e.g:

- Very long jobs
- Real-time computing
- Data-intensive jobs
- Interactive computing
- Shared-memory
- Large memory jobs

The above is neither exhaustive nor exclusive and other possible modes of operation need to be discussed with the HPCx service prior to application in order to determine the feasibility of approach. Further guidance on Complementary Capability Computing can be found at:

<http://www.epsrc.ac.uk/ResearchFunding/FacilitiesAndServices/HighPerformanceComputing/CCCGuidance.htm>

Please note, grants will be awarded for a fixed period of twelve months and must start no later than 1st January 2009. No extensions or delays to the start date will be permitted.' As the HPCx service will close at the end of January 2010 applicants should state clearly how the project milestones will be achieved, and how the project support (note: Students cannot be supported on a grant lasting less than 3y) will be recruited/provided to fit into this tight timeframe.

Eligibility

Standard eligibility rules for targeted funding apply to applicants and organisations as specified in the EPSRC Funding Guide.

Only applicants who are permanent employees of eligible research organisations are normally able to submit research proposals. An exception maybe made for holders of EPSRC's Advanced Research Fellowships. Fixed-term employees of UK research organisations are eligible to submit proposals under certain conditions.

The EPSRC Funding Guide is available at:

<http://www.epsrc.ac.uk/researchfunding/howtoapply/fundingguide.htm>

In addition to the standard eligibility requirements applicant should have held (or currently hold) within the last 3y an EPSRC research grant or be a current member of a consortium within EPSRC's remit.

How to Apply

You should submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>). When adding a new proposal, you should select Council 'EPSRC', document type 'Standard Proposal' and the 'Standard' Scheme. On the "Project Details" page you should select the 'Complementary Capability Challenge 2008' Call.

All proposals need to be accompanied by a completed HPCx (and where appropriate HECToR) technical assessment form completed as per the requirements for a Peer Reviewed (Class 1) application. The technical assessment form and guidance notes for completion can be found at:

<http://www.epsrc.ac.uk/ResearchFunding/FacilitiesAndServices/HighPerformanceComputing/HowToApplyForAccess/default.htm>

Details of which Research Organisations have registered to use Je-S are available from [http://www.pparc.ac.uk/jes/jes1/RODetails\(Web\).pdf](http://www.pparc.ac.uk/jes/jes1/RODetails(Web).pdf).

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please remember to allow sufficient time for your organisation's submission process between submitting your proposal to them and the Call closing date. **EPSRC must receive your application by 4 pm on 11th September 2008.**

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (<http://www.epsrc.ac.uk/ResearchFunding/HowToApply/default.htm>) which should be consulted when preparing all proposals.

Assessment Procedure

Applications will be assessed by **an expert panel** comprised of members of the research community who have recognised expertise in HPC software/code development and scientific application of HPC.

N.B. there will not be a postal reviewing stage for this call. Therefore, you will not be required to nominate reviewers, assessment will be carried out by the expert panel. In addition, this means you WILL NOT receive any feedback on your proposal prior to its review and prioritisation for funding by the expert panel, as such this call does not adhere fully to EPSRC's Principles of Peer Review. For more information on the Principles of Peer Review please visit:

<http://www.epsrc.ac.uk/ResearchFunding/ReviewingProposals/Principles.htm>

If you would like to discuss this decision further then please contact Dr Dai Jenkins using the contact details below.

Criteria for Assessment

There must be a clear output within twelve months of the allocation of resource, by which proposals can be assessed and information fed into the HPC team at EPSRC.

The specific purpose of the call is to elicit proposals that will be able to clearly demonstrate the need for, added value of and applicants ability to take advantage of the flexibility on offer. As such, applicants will be required to demonstrate:

- A full appreciation of the scope of the call;
- Track record using national and international HPC facilities in order to support the project;
- That the necessary human resource can be made available locally for the duration of the award. The focus of the call is for the provision of compute time;

however, consideration will be given to proposals presenting a strong case for staff support at a level appropriate to the research being carried out.

- How and why the resources requested will make a step change in the research proposed;
- Deliverables as a result of the project.
- Potential impact of the science with respect to the duration of the grant
- Where applicants are requesting time on both HECToR and HPCx a clear case must be made for dual access.

End of grant evaluation will reflect the criteria for assessment.

Timetable

Closing date for the submission of proposals:	4pm 11th September 2008
Anticipated funding decisions:	Mid November 2008
Start date of successful proposals:	1st January 2009
End date of award	31st December 2009

If you are interested in submitting a proposal to this call it would be extremely useful if you could contact Dr Dai Jenkins via e-mail stating your interest to submit a proposal to the call, your area of expertise and the proposal's area of application. This information will be used as a guide in constructing the panel membership and does not constitute an outline stage, any information given will be treated in confidence.

Contacts

If you have any queries about this call please contact:

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