
To:
DCSC Grant Applicants

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From:
DCSC Secretariat

Subject:
DCSC Call for Proposals 2011-07-01

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Call for Proposals - Grant application to DCSC concerning funding for High Performance Computing (HPC) hardware

1 July 2011
/RB

The Danish Center for Scientific Computing (DCSC) has in year 2011 set aside DKK 10 million (EUR 1.34 million) for acquisitions of High Performance Computer (HPC) hardware. Funding for HPC will be awarded to individual researchers or research groups via a Primary Investigator (PI) and will be invested at a DCSC regional operating centre¹ or pooled from the DCSC HPC resource on Iceland¹. Applying researchers or research groups (i.e. PI's) must submit individual applications based on their research project. Batched applications from several research groups will not be considered.

Three types of grants

The aim of DCSC is to provide researchers in Denmark with access to HPC processing power for research projects with strong emphasis on high-performance large-scale computing.

DCSC allocates three types of HPC resources in 2011:

1. Funds for setting up new or expanding existing computer systems, within one of the five DCSC regional operating centres². The PI is expected to define the HPC needs, and possibly also the architecture, (non vendor specific) machine type, configuration and capacity.
2. Access to processing time on DCSC installations, within the DCSC pool of free resources (PFR). Access to the PRF is typically granted to:
 - Users that needs to get acquainted with HPC applications.
 - HPC experienced PI's that do not require substantial HPC resources, or only for a limited time span.
 - Users that need access to hardware not available at their local DCSC regional operating centre.

Eligibility for funding

Researchers employed by any public Danish research institution can apply. Funding will be awarded for specific, well-defined research activities, to be specified in the application (Appendix A). Researchers from all scientific disciplines are eligible. E.g. natural science, engineering as well as social science, the humanities, life sciences and medicine.

DCSC grants cover a three year period, are given to the applying PI. DCSC regional operating centres are expected to fund all operation costs, as part of university co-funding. DCSC grants can only cover hardware acquisitions.

When allocating resources (funds or access) a research quality criterion will be applied, similar to that used by the Danish National Research Councils. Grants

¹ DCSC HPC resource in Iceland: <http://nhpc.hi.is/>

² DCSC Regional operating centres: <http://www.dcsc.dk/contact.html>

will therefore be awarded primarily on the basis of scientific merit of the project as well as the recent research record of the applicants.

Applicants that already hold a DCSC grant must, if to apply for a further grant, report (Appendix D) on already achieved results from the current grant in terms of research output. It must be justified why further HPC resources are needed, and which further scientific problems are expected to be solved.

Any application *might* be subject to international peer review. All applications for resources surpassing DKK 2 million *will* be subject to international peer review.

Terms for hardware procurement, services and user support

Prior to submitting a grant application an agreement must be made between the operating centre and the PI expressing the universities commitment to co-fund operations. This commitment is to be submitted together with the application (Appendix B). In accordance with the application, the PI is responsible for utilising the grant in cooperation with the DCSC operating centres. It is up to the university, together with the PI's and the operating centre, to define terms for services and possibly specify a Service Level Agreements (SLA).

The amount of available HPC resources in the DCSC pool of free resources (PFR), for any given IP, varies over time as well as among the different DCSC operating centre. Available resources to PI's granted access to the PFR is administered by the regional operating centre.

Overheads

Overheads cannot be subtracted from DCSC grants, since overhead contributions cannot be included for major Danish national or international research infrastructures.

Application Content

Applications must consist of the following parts in the given order, with the given titles:

APPLICATION FORM no. 1:

- A standard application form from the Danish Agency for Science Technology and Innovation:
http://www.dcsc.dk/grant_applications_2011-07-01.html

Appendix A (Maximum 5 page): Project description:

- The objectives and contents of the research to be pursued.
- An explanation of why scientific computing is needed or is an advantage for carrying out the research project, with emphasis on the scientific merit of the project.
- If specific HPC hardware is applied for (e.g. set-up/architecture, machine type, configuration and capacity etc.), then argumentation for this should be included.

Appendix B (Maximum 1 page): Statement of commitment to provide operations:

- A statement from a host DCSC regional operating centre, stipulating that hardware can and will be procured for any granted funds, in accordance with the PI's needs and marked procurement conditions. The statement must guarantee operations by the regional operating centre for the whole three year duration of the grant.

Appendix C (maximum 2 pages per researcher, possibly including links to further information): CV's and publication lists:

- For all senior researchers in the research team, including publication lists covering the last five years.

Appendix D (Maximum 1 page): **For applicants that already hold a DCSC grant:**

- A report on already achieved results from the current DCSC grants in terms of utilisation of HPC and research output. It must be justified why further HPC resources are needed, and which further scientific problems are expected to be solved.
- Usage statistics from the hosting DCSC regional operating centre, showing to what extent previously granted DCSC resources have been utilised during the past year.

Application deadline and forwarding

All applications must be sent electronically as one single document (in any standardised format) to the DCSC Director at e-mail address belso@dcsc.dk, with subject line "*DCSC Call 2011*". The application must be received by DCSC no later than 1 October 2011 at 12:00 noon. An e-mail confirming that DCSC has received the application will be sent to all applicants.

Further questions or expressions of interest can be addressed to the DCSC Director, Rene Belsø: http://www.dcsc.dk/about_dcsc_administration.html