

学振協一第1-69号
平成22年2月22日

各関係国公立大学長、各関係機関長 殿

独立行政法人 日本学術振興会
理事長 小野元之
(公印省略)

多国間国際共同研究事業 (G8 Research Councils Initiative)
第一回公募について (依頼)

平素より本会諸事業の運営にご支援、ご協力を賜り、誠にありがとうございます。

本会では、平成22年度より、ドイツ研究振興協会 (DFG)、フランス国立研究機構 (ANR)、米国科学財団 (NSF)、カナダ自然科学工学研究会議 (NSERC)、イギリス研究会議 (RCUK)、ロシア基礎科学財団 (RFBR) と協力し、世界各国が短期的な利害を超えて継続的に中・長期的視点から取り組むべき課題解決に向け、多国間共同による国際共同研究を推進するための事業「多国間国際共同研究事業 (G8 Research Councils Initiative)」を実施します。

本事業における第一回公募 (予備申請) を、平成22年2月1日 (月) から平成22年5月7日 (金) にかけて実施しています。

本公募に対して、貴学関係者に奮ってご申請いただきたく、ご案内申し上げる次第です。貴学関係者にご周知いただければ幸いです。

募集要項を同封致しますので、配布いただく等ご活用下さいますよう、併せてお願い致します。

記

1. 申請期間：平成22年2月1日 (月) から平成22年5月7日 (金)
2. 第一回公募テーマ：
「地球規模課題のためのエクサスケール・コンピューティングを目標とした応用ソフトによる学際的プログラム」
Interdisciplinary Program on Application Software towards Exascale Computing for Global Scale Issues
3. 申請資格：
以下に掲げる我が国の研究機関に所属する常勤の研究者又は常勤として位置づけられている研究者。
※常勤職の位置づけについては、各機関の定めによります。
 - ① 大学、短期大学、大学共同利用機関、高等専門学校
 - ② 国公立試験研究機関等
 - ③ 学術研究・研究開発活動を行う独立行政法人、特殊法人、認可法人、政府出資法人、一般財団法人、一般社団法人
 - ④ 民間研究機関※ ②～④については「機関コード一覧」
(<https://www-kokusai.jstps.go.jp/jstps1/kikanList.do>) に掲載されている機関に限ります。

4. 対象領域
人文・社会科学及び自然科学
5. 採用期間：2年または3年間
6. 採用形態：
本Initiativeに参加する7カ国から、最低3カ国以上の研究プロジェクトで構成されるコンソーシアム単位で採用
7. 参加学術支援機関：
日本 : 日本学術振興会 (JSPS)
ドイツ : German Research Foundation (DFG)
イギリス : Research Councils UK (RCUK)
フランス : French National Research Agency (ANR)
アメリカ : National Science Foundation (NSF)
カナダ : Natural Sciences and Engineering Research Council of Canada (NSERC)
ロシア : Russian Foundation for Basic Research (RFBR)
8. 本会支給経費：
1,500万円以内/年/プロジェクト（間接経費を含む）
用途：研究費、旅費、人件費、間接経費 ※間接経費は直接経費の10%以内
各学術支援機関は、自国の研究者を支援します。
9. 採用予定件数
我が国の研究者による研究プロジェクト5件程度を予定
※全学術振興機関で併せて8～10の研究コンソーシアムを採択予定
10. 審査方法
本事業は、予備申請 (Preliminary Proposal) 、本申請 (Full Proposal) の2段階で審査が行われます。

【予備申請】

予備申請は、コンソーシアムを代表する研究者 (Leading Principal Investigator (Leading PI)) が取りまとめの上、公募事務局 (Call Secretariat) であるDFGに提出頂くこととなります。日本側研究代表者は、本会に申請書を提出する必要はありません。本事業に申請を希望する日本側研究代表者は、コンソーシアムを構成する各国の研究代表者と協議、Leading PIを決定の上、Leading PIを経由して、予備申請に係る申請書を公募事務局に提出するよう調整してください。

予備申請提出に関する詳細は公募事務局内公募専用サイト (<http://www.dfg.de/g8-initiative/>) をご確認ください。

予備審査の結果は、公募事務局からLeading PIにお知らせいたします。JSPSからは、日本側研究代表者に通知はされませんので、ご注意ください。
予備審査を通過した課題のみ、本申請に申請できます。

【本申請】

公募事務局より予備審査を通過した旨の連絡を受けたコンソーシアムは、本申請に係る申請
手続を行ってください。

本申請に係る申請書は、公募事務局において定めている様式で作成し、Leading PIが取り纏
めの上、公募事務局に提出していただきます。本申請に係る申請書は、公募事務局において
定めている様式で作成し、Leading PIが取りまとめの上、公募事務局に提出していただきま
す。また、日本側研究代表者は、Leading PIであるなしにかかわらず、JSPSに対して本申請
書の写しとJSPSが別途独自に定めている様式を作成し、提出して頂きます。公募事務局およ
び JSPSへの提案がなされていない場合は、審査が行われない場合があります。

本申請の結果についても、公募事務局からLeading PIにお知らせし、JSPSからは、日本側研
究代表者に通知はされません。

本申請に係わる申請書および申請に関する詳細については、後日、下記URL上にアップデー
トされる予定です。

1 1. 本事業ホームページ：

(JSPS) http://www.jsps.go.jp/j-bottom/01_b_gaiyo.html
(公募事務局) <http://www.dfg.de/g8-initiative/>

本件担当： 〒102-8471 東京都千代田区一番町6

独立行政法人日本学術振興会

国際事業部 研究協力第一課

「多国間国際研究協力事業－G8 Research Councils Initiative－」担当

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Call for proposals

The G8 Research Councils Initiative on Multilateral Research Funding

an initiative between Research Councils from Canada, France, Germany, Japan, Russia, the UK, and the USA¹

launches its first Call for Proposals:

Interdisciplinary Program on Application Software towards Exascale Computing for Global Scale Issues

CLOSING DATE FOR SUBMISSION of “Preliminary Proposals”: 7th May 2010²

NOTIFICATION FOR SUBMISSION of “Full proposal”: 28th June 2010

CLOSING DATE FOR SUBMISSION for “Full proposal”: 25. August 2010

At the G8 Heads of Research Councils (HORCs) meeting held in Kyoto, Japan in May 2008, the initial proposal for a multilateral funding activity was introduced. The idea presented many benefits but also challenges. Multilateral research projects could address global challenges in ways that national and bilateral activities could not. The G8 HORCs framework provided the unique opportunity to pilot a new modality for conducting international research.

Since global challenges need global solutions the following research funding organizations the National Sciences and Engineering Research Council of Canada (NSERC), the French National Research Agency (ANR), the German Research Foundation (DFG), the Japan Society for the Promotion of Science (JSPS), the Russian Foundation for Basic Research (RFBR), the Research Councils of the United Kingdom (RCUK), and the U.S. National Science Foundation (NSF), hereafter referred to as the Partner Organizations, are launching a new multilateral initiative. It is aimed at supporting excellent research on topics of global relevance which can best be tackled by a multinational approach. Funding should help researchers to cooperate in consortia consisting of partners from at least three of the participating countries. As the first of three anticipated annual calls, this gives an unprecedented opportunity for the Partner Organisations to work together across a broad range of disciplines. Research topics will be defined separately for each call.

First call: Interdisciplinary Program on Application Software towards Exascale Computing for Global Scale Issues³

¹ Italy will not be participating in this call for proposals.

² All closing dates will be midnight GMT

³ The programme acknowledges a preliminary study of application needs and of the matching computing technologies, which was conducted through a series of international workshops (www.exascale.org) held in 2009, gathering an international community of software specialists, application specialists and funding agencies to lay the groundwork for an international activity on exascale development.

Simulation supported by high performance computing infrastructures has become the third pillar of science complementary to experimentation and modelling. Major challenges of the 21st century such as climate change, energy, water, environment, or natural disasters can be addressed by high performance numerical and symbolic simulations that are both data and computer intensive. Computing resources required for these simulations, including improved model resolution, model physics, data analysis and visualization, will reach the exascale (10^{18} operations per second) level by 2020. However, taking full advantage of these resources for global scale scientific challenges will rely on application software featuring fundamentally new algorithms and data structures capable of exploiting the massive parallelism underlying future exascale level computing.

This international program aims at supporting collaborations between experts in research areas related to these global challenges and developers of future exascale platforms, so that they address together the relevant needs of the research community during the early design stages of emerging new computing systems.

Not only will such collaborations bring together global networks of experts on global topics, they will ensure the rapid and efficient application of new tools as they become available. Proposals for multilateral collaborations should therefore define milestones which can be seen as initial steps ultimately leading to the exascale challenge. They are expected to address short-, intermediate-, and long-term goals, corresponding to (approximately) 10 petaflops in 2013, 100 petaflops in 2016 and 1 exaflops in 2019.

The program will support interdisciplinary projects targeting the exploration and development of open source algorithms and data operations that are resilient, sustainable and scalable to exascale for application solutions to socially relevant global scale issues. It is only through the close cooperation of computing specialists with global scale issues specialists, including related humanity and social scientists where appropriate, that future high performance computing systems can successfully be applied to tackle essential challenges for mankind in the 21st century.

For the Funding Organizations this gives an unprecedented opportunity to work together across a broad range of disciplines, putting into practice joint funding activities aiming to increase compatibility in funding instruments and facilitate research-driven funding without overburdensome bureaucracy. Finding optimal ways for the Funding Organizations to fund excellent research multilaterally will be of primary importance for this initiative.

Principles for Applications - for details, please consult www.dfg.de/G8-Initiative

Each consortium is to be represented by a Leading Principal Investigator (LPI) who has the responsibility for submitting a joint application to the Call Secretariat. Research projects will be selected in a two-step procedure. Short "preliminary proposals" have to be submitted by interested consortia by 7th May 2010. They will be the basis for a scientific review panel that will encourage submission of full proposals by 25th August 2010. After a multinational peer review of the full proposals, the intention is to fund approximately 8-10 consortia.

Principles of Funding

Within each selected consortium, funding of the participating researchers is provided by the respective national Funding Organization according to their normal terms and conditions for project funding. Funding is meant for collaborative research, not merely for networking, mobility or communication. The total budget for this call is approximately 10 million € over three years. It is expected that 8-10 research consortia will be funded in this call. Funding can be provided for projects lasting for two or three years. It is anticipated that awards will be made by February 2011.

1. Eligibility

Each consortium must consist of at least one academic participant from a minimum of 3 different countries represented by the participating Funding Organisations. Consortium partners should identify a Leading Principal Investigator (LPI) for each proposal for application, management and communication purposes. The Leading PI is officially responsible for all communications with the Call Secretariat, including the submission of the Preliminary Proposal and, if encouraged to do so, the Full Proposal.

All applicants must fulfil national eligibility rules for research grant applications as set by their Funding Organisations.

More than one partner from each country is possible in each consortium. However, consortia should aim for a balanced geographical contribution to the research project.

A proposal may not include any applicants from any countries not represented by any of the Funding Organisations.

2. Selection criteria

A successful proposal combines significant contributions of scientists from at least three of the participating countries and must show an interdisciplinary approach in addressing problems within the scope of the described call theme. Major evaluation criteria are:

- Conformity with program aims and designated research fields including project integration
- Scientific quality and innovativeness of the joint research plan
- Sound project management, methodological approach, feasibility and appropriateness of the joint research plan
- Added value to be expected from the research collaboration
- Balanced cooperation
- Competence and expertise of teams and complementarities of consortium (interdisciplinary / inclusion of all necessary expertises)
- Appropriateness of resources and funding requested
- Expected impacts: e.g. scientific, technological, economic, societal
- Opportunities for early career researchers

Applications that are not complete or do not meet the eligibility criteria outlined above and in the national Funding Organization's terms and conditions will be removed from the competition.

3. Preliminary Proposals

The selection of projects to be funded follows a two-step-procedure. In the first step, interested consortia are required to submit a Preliminary Proposal, using the forms provided by the Call Secretariat. [HYPERLINK](#)

It is requested that application forms are completed in English and submitted electronically as a pdf-file to the Call Secretariat. (Secure server details will be provided at www.dfg.de/G8-Initiative within three weeks of the launch of the call)

The Preliminary Proposals will be evaluated by the Pre-Selection and Selection Panel (PSSP) The PSSP consists of approximately 20 scientists, encompassing the necessary expertise to cover the call theme. The PSSP will establish a pool of high quality applications based on published selection criteria (section 2) that will be encouraged to submit Full Proposals.

All Leading PIs will receive brief comments on their Preliminary Proposals from the Call Secretariat.

4. Full Proposals

The Full Proposal must be closely based on the successful Preliminary Proposal and substantial changes to the proposed program of research or consortium membership is not anticipated.

The Leading PI should submit one copy of the Full Proposal to the Call Secretariat (for central registration and statistics) and one copy to each of the Funding Organizations which would be responsible for awarding funds to members of successful consortia. There may be additional national application requirements. Further details will be provided in due course.

Peer review will be co-ordinated across the participating Funding Organizations using ad hoc and panel review, sharing a common review form. Each proposal will be peer-reviewed by at least three experts, none of which may be member of the Pre-Selection and Selection Panel (PSSP).

Full Proposals will be discussed and recommended for funding by the PSSP based on the selection criteria and the assessments of External Reviewers, with quality of science being the primary criterion in selection. The final award decision will be responsibility of the Funding Organisations.

All Leading PIs will receive brief comments on their Proposal from the Call Secretariat.

5. Contact Data

Call Secretariat for this call:

G8 Research Councils Initiative Call Secretariat

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