

Grant application changes go live

Changes to EPSRC grant application eligibility – aimed at alleviating pressure on the peer review system – will be introduced on 1 April.

The changes will limit repeatedly unsuccessful applicants to submitting only one application (as co-investigator or principal investigator) within the subsequent 12-month period, allowing them to review their approach to submitting proposals.

Once the policy is live, EPSRC will email all applicants who are to be constrained and also all applicants who are one proposal away from meeting the criteria. Emails will be copied to applicants' university research offices. This process will be carried out on a monthly basis and any new people affected will be contacted.

In the lead up to the policy change, EPSRC has worked hard to ensure all researchers are aware of the changes, understand the need for them, and had time, if required, to adapt their approach to submissions.

EPSRC chief executive David Delpy said: "Our goal is to protect Peer Review. This policy change will help us achieve that and we want to work with the research community in introducing it."

The number of proposals received by research councils has doubled over the past two decades, placing huge pressure on the peer review system, including reviewers and panels. April's policy change, developed in consultation with the academic community, will help alleviate pressure on all involved in the process.

The changes are one of a number of measures aimed at improving the Peer Review system.

EPSRC will carefully monitor the effects of all new measures introduced to help alleviate pressure on peer review as part of an ongoing process to help maintain and further develop a world-class research base.

Submission constraints

From April 2010, applicants with:

Three or more proposals within a two-year period ranked in the bottom half of a funding prioritisation list or rejected before panel

AND

An overall personal success rate of less than 25% over the same two years

will be limited to submitting only one application within the subsequent 12-month period, and we will ask them to review their approach to submitting proposals.

Please see EPSRC's website for full details on the policy.



inside

2
RESEARCH OPPORTUNITIES
AT HARWELL

3
CONNECTING WITH MATERIALS,
MECHANICAL AND MEDICAL
ENGINEERING

4
IMPACT! EXHIBITION

5
NEW PEER REVIEW COLLEGE



Further information:

[http://www.epsrc.ac.uk/funding/
apprev/preparing/Pages/rua.aspx](http://www.epsrc.ac.uk/funding/apprev/preparing/Pages/rua.aspx)

If you have any questions, please contact the EPSRC portfolio manager for your research area (<http://fd.epsrc.ac.uk/contacts/search.aspx>).

EPSRC Strategic Plan 2010

EPSRC's Strategic Plan 2010 will be published in March – setting out the organisation's ambition for the future and how it will deliver UK science and engineering that leads the world.

The Plan, which will be available on www.epsrc.ac.uk, will outline the organisation's high level vision and goals over the next three to five years.

The Strategic Plan will not detail specific activities, targets, milestones and resources – but will provide the framework within which these will be formed.

EPSRC chief executive David Delpy said: "This Plan will provide us with clear direction in achieving our mission – to maintain the UK's excellent research base, improve

quality of life for all and contribute to the economic competitiveness of the UK.

"Given the current economic situation, and the imperative to tackle global challenges such as climate change, it has never been more important for the engineering and physical sciences community to come together to deliver a healthy, sustainable and prosperous future for the UK."

The Plan has been developed following consultation and engagement with the research community, industry and EPSRC's advisory panels.

He added: "We must work together to show how important we are to the UK's future and why sustained investment in our area is so crucial."

EPSRC's Delivery Plan – set to be published in 2010/11 – will be guided by the Strategic Plan and will detail specific activities, targets and milestones, along with resources allocated to each activity.

Adrian Paul, EPSRC's head of strategy and planning, added: "The Delivery Plan will set out how our strategy will be implemented across our portfolio and will be developed with further input from both the research and industrial communities, and other partners."

Further information:

www.epsrc.ac.uk

Contact: Adrian Paul
adrian.paul@epsrc.ac.uk



The Research Complex at Harwell

A new multidisciplinary laboratory is offering researchers in physical and life sciences, opportunities for close interaction with Diamond, ISIS, the Central Laser Facility and other facilities at Harwell.

EPSRC's cross-disciplinary interfaces and research infrastructure and international programmes are now providing £5m funding for multidisciplinary research at the centre.

Similar to platform grants, this flexible funding will enable a small number of research groups to establish a 'home from home' at the Research Complex. Interested groups must submit a four-page outline proposal in the first



instance. The call is on the EPSRC website and closes on 22 April 2010.

The new Research Complex will give researchers the chance to carry out new, better or faster experiments with beam time. It also offers time away from admin and teaching duties to concentrate on research in a strongly multidisciplinary environment and develop new ideas and alliances. Stakeholders in the Research Complex include a number of research councils

and Diamond. EPSRC is planning to hold an informal event on 26 March 2010 at the Research Complex. There will be a chance to ask questions and have a look around the new building. Details of the event are in the call document.

Further information:

www.epsrc.ac.uk/callsforproposals
www.rc-harwell.ac.uk/



CONNECTING WITH Materials, Mechanical and Medical Engineering

Over the last few months, the Materials, Mechanical and Medical Engineering programme has been considering the balance of its priorities for the next 12 months. The programme has determined four over-arching themes of focus: fostering international excellence; supporting the best early career researchers; securing future postgraduate training; and engaging societal debate.

A new scheme will allow researchers with an established international profile to further their overseas collaborations by embarking on an extended overseas visit to highly-respected universities. We are hoping to provide funding for applicants to carry out research while abroad, and these proposed International Collaboration Sabbaticals offer far more than the Overseas Travel Grant.

The scheme could also provide for key team members, or even family, to accompany researchers that would otherwise hamper their willingness to go on sabbatical.

Challenging Engineering is a cornerstone of engineering support at EPSRC, and was a consequence of the 2004 International Review of Engineering. Since 2005, EPSRC has invested almost £25m in 28 individuals, tipped as potential research leaders of the future.

Over the last year, the engineering programmes have given considerable thought to the value and position of Challenging Engineering in relation to other support for early career researchers. Challenging Engineering will return to the spotlight in spring 2010, with a renewed focus on helping the most promising early career researchers across EPSRC's engineering remit. For the first time, proposals will be invited across the remit of the three engineering programmes; Information and Communication

Technologies, Materials, Mechanical and Medical Engineering; and the Process, Environment and Sustainability programme. The launch of the scheme will be supported by a number of information days – details of these days will be released shortly.

During 2009, the programme reviewed its provision of trained researchers – for both academic and business careers. This highlighted gaps in our current portfolio of engineering doctorate studentships. As a result, we intend to provide a “stimulus” of up to £4m to enable universities to increase the provision of Engineering Doctorate studentships in mechanical and manufacturing engineering.

Finally, we are running an ongoing public dialogue on synthetic biology in conjunction with BBSRC, which will gather opinion on a transformative area of research. The programme is also working with EPSRC's Societal Issues Panel to look into the ethical issues surrounding robotics and autonomous systems, which will include work with arts and humanities researchers.

Further information and news about all of our plans will appear on the EPSRC website, and in future issues of Connect.

Contacts:
International Collaboration Sabbaticals:
stephen.kemp@epsrc.ac.uk
Challenging Engineering:
susan.soulsby@epsrc.ac.uk
Doctoral Training:
ben.rendell@epsrc.ac.uk
Public Dialogue in Synthetic Biology:
susan.soulsby@epsrc.ac.uk
Ethics in Robotics and Autonomous Systems:
stephen.kemp@epsrc.ac.uk

EPSRC website has a makeover

The EPSRC website has undergone a much needed overhaul. A fresh, clean design will now greet visitors to the site. Strong emphasis has been placed on making information easier to find.



Under the skin there have been many changes to move towards full compliance with the Government's Central Office of Information's web guidelines which aim to make the site useable for people with visual, auditory, physical, speech, cognitive or neurological disabilities.

We welcome any comments or feedback. Please email webteam@epsrc.ac.uk

Further information:
www.epsrc.ac.uk



To find out more about EPSRC funding opportunities please visit:

www.epsrc.ac.uk/callsforproposals

or sign-up to e-alerts and RSS feeds.

UK leads in ground and structural engineering

The UK is internationally leading in a number of areas of ground and structural engineering.

That is the view of an expert panel, convened by EPSRC in 2009 to review UK academic research in these disciplines.

The panel examined a variety of data, and looked at the perceptions of academia and industry, to see how research in the UK compares internationally, to what extent it crosses borders and disciplines and whether it is having impact on practice.

The panel also recommended that the community should start to address a number of other important challenges, including sustainability and resilience to climate change.

The report of their findings was recently published at www.epsrc.ac.uk.

Further information: Matthew Davis
matthew.davis@epsrc.ac.uk

Advanced manufacturing showcased at Loughborough



Research that could invigorate UK manufacturing was showcased at the EPSRC-supported Innovative Manufacturing Research Centre at Loughborough University in January.

Senior government officials, industry representatives and collaborators gathered at the university to hear about new additive manufacturing techniques from leading research teams.

Professor Richard Hague said: "We arranged the event to showcase the area of additive manufacturing and the great potential it has for new industry and new jobs."

He added: "The UK is particularly strong and specialised in this area.

Additive manufacturing moves us away from moulding and machining parts to producing parts direct from 3D computer models."

The techniques offer potential cost savings, are less labour intensive and open up new design possibilities.

Professor Hague added: "It has great potential for high wage economies like the EU and the US because it is 'hands-off'. It is great for high-value and niche manufacturing."

Contact: Anne Farrow
anne.farrow@epsrc.ac.uk

IMPACT! Exhibition

EPSRC is staging a major exhibition this month in partnership with the Royal College of Art (RCA) and NESTA. This unique collaboration between science and design explores the importance of engineering and physical sciences in all aspects of our lives.

The IMPACT! exhibition will be held from 16-21 March 2010 at the RCA in London. The exhibition is free and open to all. It is part of EPSRC's IMPACT! campaign and

pairs 16 EPSRC-funded research teams with RCA designers. To find out more about the people involved, their ideas and concepts, visit the exhibition blog, www.impactexhibition.org.uk

EPSRC's IMPACT! campaign aims to communicate the impact research has on the world around us and how engineering and the physical sciences are vital to our future.

To sign up to the IMPACT! e-newsletter email: impactnews@epsrc.ac.uk

Further information:
www.impactexhibition.org.uk or
www.impactworld.org.uk

Contact: Helen Bailey
helen.bailey@epsrc.ac.uk

Innovative Instrumentation for Synchrotron Science

X-ray instrumentation is big business: over 50 synchrotrons worldwide operating around 1,000 beamlines. The EPSRC-funded beamline at ESRF, Grenoble, known as "XMaS" (X-ray Magnetic Scattering) has been operating since 1997.

It provides comprehensive facilities for wide-ranging scattering and spectroscopy studies. It has repeatedly developed new instrumentation to keep it internationally competitive and it has licensed 8 innovations, which between 2003 and 2008 led to over half a million pounds of sales.

There have been two "best sellers" to date. The first is an x-y-z cryostat mount with sub-micron precision. Whilst diffractometers routinely provide angular adjustments controllable from outside interlocked

radiation hutches, finessing the position of the sample is a different matter. Crystals in diffractometer-mounted cryostats need to be kept at the centre of rotation as they are cooled and the cryostat contracts. Often just a small region of the crystal that reflects well must remain aligned. This used to mean interrupting the experiment, unlocking the hutch, making manual adjustments and then interlocking the hutch again: time consuming and irritating. Users estimate that the x-y-z mount saves at least half a day's frustration every time, a very important gain with beamtime a very limited resource.

Collimating slits are usually bulky and cannot be placed very close to the sample without 'getting in the way'. XMaS's second best seller is a set of compact lever operated slits which can be incorporated in the vacuum path very close to the sample, define incident and scattered beams to microns, and reduce background scatter.

And the next best seller will surely be a recently-licensed novel set of in-vacuum attenuator/filter holders which are actuated magnetically, not pneumatically or by any vacuum intrusive linkage, thereby ensuring that vacuum is never degraded.

The XMaS project shows that research can have impact through innovative instrumentation as well as science.

Further information:
www.esrf.eu/UsersAndScience/Experiments/CRG/BM28/



College renewal

EPSRC is currently renewing its Peer Review College, and invitations to join will be issued shortly with an expectation that the new College will come into operation from April 2010.

Existing members with a strong track record as reviewers will be invited to re-join the new College. Additional members have been identified by nomination from a range of EPSRC's stakeholders.

An annual rolling renewal process will ensure College membership reflects emerging research trends.

EPSRC has also taken the opportunity to update the keywords that are used to match reviewers' expertise.

Interdisciplinary Science Reviews (ISR) Journal

The Cross-Disciplinary Interfaces Programme (C-DIP) at the EPSRC encourages and supports cross-disciplinary research and cross-disciplinary researchers throughout their career.

The C-DIP programme aims to intervene at specific interfaces through a variety of approaches to meet EPSRC's strategic objective of encouraging and supporting research that crosses the borders between disciplines, research councils and universities. C-DIP has led a combination of interventions, both people-based and research driven, at different scales of investment, often working with other programmes at the EPSRC.

We would like to take this opportunity to introduce the Interdisciplinary Science Reviews (ISR) Journal. The British journal Interdisciplinary Science Reviews (www.isr-journal.org) was established in 1976 to further interdisciplinary work in the physical sciences, but with developments across the disciplines, has enlarged its scope to consider such work whatever fields of enquiry it may involve, wherever its questions may lead.

ISR actively explores the differing trajectories of the disciplines and practices in its purview to clarify what each is attempting to do in its own terms, so that constructive dialogue is strengthened. It focuses whenever possible on conceptual bridge-building and collaborative research that nevertheless

respects disciplinary variation. Its central question is how interdisciplinarity is done, not how to define it.

ISR publishes both commissioned and unsolicited contributions, all of which are subject to double-blind peer-review. It seeks out work that measures up to the highest standards of scholarship but that also speaks to an audience of intelligent non-specialists. Contributions are interdisciplinary in themselves or by appeal to a multidisciplinary audience.

Further information:
Willard McCarty, Professor of Humanities Computing at King's College London

Professor, Centre for Cultural Research University of Western Sydney
willard.mccarty@mccarty.org.uk

Samantha Madden, Research Portfolio Manager, C-DIP
samantha.madden@epsrc.ac.uk



EPSRC Contacts

For further programme information: www.epsrc.ac.uk



Head of Materials, Mechanical and Medical Engineering

Mark Claydon-Smith 01793 444440 mark.claydon-smith@epsrc.ac.uk

Head of Information and Communications Technology

Liam Blackwell 01793 444217 liam.blackwell@epsrc.ac.uk

Head of Energy Multidisciplinary Applications

Rachel Bishop 01793 444241 rachel.bishop@epsrc.ac.uk

Head of Peer Review

Susan Morrell 01793 444462 susan.morrell@epsrc.ac.uk

Head of Digital Economy

John Hand 01793 444394 john.hand@epsrc.ac.uk

Head of Next Generation Healthcare

Claire Wagstaffe 01793 444586 claire.wagstaffe@epsrc.ac.uk

Head of Nanotechnology

Christopher Jones 01793 444163 christopher.jones@epsrc.ac.uk

Head of Knowledge Transfer

John Baird 01793 444047 john.baird@epsrc.ac.uk

Head of Mathematical Sciences and Public Engagement

David Harman 01793 444304 david.harman@epsrc.ac.uk

Head of Energy Research Capacity

Jason Green 01793 444208 jason.green@epsrc.ac.uk

Head of Engineering for Sustainability

Philippa Hemmings 01793 444378 philippa.hemmings@epsrc.ac.uk

Head of Cross Disciplinary Interfaces

Kedar Pandya 01793 444317 kedar.pandya@epsrc.ac.uk

Head of User Led Knowledge and Skills

Alan Thomas 01793 442806 alan.thomas@epsrc.ac.uk

Head of Infrastructure and International

Jane Nicholson 01793 444065 jane.nicholson@epsrc.ac.uk

Head of Physical Sciences

Andrew Bourne 01793 444358 andrew.bourne@epsrc.ac.uk

Head of Research Careers Strategy

Lucy Brady 01793 444147 lucy.brady@epsrc.ac.uk
Maggie Wilson 01793 444333 maggie.wilson@epsrc.ac.uk

Head of Business Relationships

Emma Feltham 01793 444321 emma.feltham@epsrc.ac.uk

Senior Manager International

Edward Clarke 01793 444438 edward.clarke@epsrc.ac.uk

Senior Manager Public Engagement

Katherine Miller 01793 444196 katherine.miller@epsrc.ac.uk

IDEAS Factory Contact

Susan Morrell 01793 444462 susan.morrell@epsrc.ac.uk

For current grant maintenance and grant assessment queries

Engineering

Chris Elson 01793 444504 chris.elson@epsrc.ac.uk

Technology

Valerie Hibberd 01793 444560 valerie.hibberd@epsrc.ac.uk

Science

Jan Tucker 01793 444046 jan.tucker@epsrc.ac.uk

EPSRC, Polaris House, North Star Avenue, Swindon SN2 1ET

Telephone: 01793 444000 www.epsrc.ac.uk

Editor: Christopher Buratta, christopher.buratta@epsrc.ac.uk

Circulation amendments: connect@epsrc.ac.uk

© Engineering and Physical Sciences Research Council 2010.

ISSN 1476-6485

Material may be reproduced providing the source is acknowledged.

Changes to the Justification of Resources of Resources

From immediate effect, the Justification of Resources (JoR) statement, part of the grant application process, can now be up to two sides of A4.

The JoR document is an important part of the proposal and should be used to justify the resources required to undertake the research project. The role of this document is to aid reviewers when assessing proposals so that they can make an informed judgement on whether the resources requested are appropriate for the research posed.

Further information:

Please refer to the following EPSRC web pages on how to complete a JoR document when applying to EPSRC: <http://www.epsrc.ac.uk/funding/apprev/preparing/Pages/jor.aspx>

This guidance is also on JeS.



Major milestone for long running centre

The Cambridge Crystallographic Data Centre (CCDC) has passed a major milestone in the history of crystallography – the archiving of the 500,000th small molecule crystal structure to the Cambridge Structural Database (CSD).

The centre originating in the Department of Chemistry at the University of Cambridge in 1965, with UK Government funding from EPSRC's forerunner SRC, the CCDC is now a fully independent institution constituted as a non-profit company and a registered charity since 1989.

This unique, scientifically rigorous database, built over 45 years, is the international de facto standard for small-molecule chemical structures and has become an essential resource to scientists around the world.

Today, the CCDC archives approximately 150 new experimentally determined structures each working day.

Further information:

www.ccdc.cam.ac.uk



Industrial CASE Studentship Competition 2010

Funding is available for at least 40 PhD Industrial CASE studentships – a scheme that allows businesses to take the lead in arranging projects with an academic partner of their choice.

This year EPSRC is operating a limited competition and is accepting applications from companies wishing to establish a new collaboration. The closing date for applications is 7 April 2010.

Further information: Anita Howman

anita.howman@epsrc.ac.uk

