





# Department of Science and Technology (DST), Government of India & Research Councils UK (RCUK)

# Indo – UK Collaborative Research Initiative in 'Bridging the Urban and rural Divide'

# **Summary**

The Department of Science and Technology (DST), Government of India and the Research Councils UK (RCUK) are looking to strengthen collaboration between UK and Indian research institutions. India remains one of the UK Research Councils' priority countries for increasing research collaboration.

This call will focus on 'Bridging the Urban and rural Divide'. The area of the call was agreed upon through a dialogue between the Department of Science and Technology, Government of India Research and the Councils UK Digital Economy and Energy programmes. Addressing the research challenges of making rural living a sustainable option was agreed to be of importance to both countries.

Joint proposals are sought from consortia of researchers from the UK and India that will address the thematic areas articulated in this call document.

## Important dates and deadlines

Deadline for declaration of intention to submit: 15<sup>th</sup> December 2010

Closing date: 14th January 2011

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# **Background**

DST and RCUK have agreed to fund research projects that tackle the challenges in 'Bridging the Urban and Rural Divide'. This initiative aims to address whole systems research problems in making living rurally a sustainable option, both in the India and UK, and build on the strengths of existing DST – EPSRC initiatives in Solar Energy and Next Generation Networks.

At the UK-India Science and Innovation Council hosted in India in February 2010, UK and Indian Governments agreed areas for joint working, one of which was on the role of off-grid technologies in bridging the urban and rural divide. This followed a series of meetings between officials from DST and RCUK to discuss complimentary priorities. Following stakeholder consultation in India and UK, a concept paper and joint funding was agreed at Ministerial level in July 2010. In order to further scope the areas for potential collaboration and enhance understanding of the challenges in both countries, a workshop to bring together leading researchers from both India and the UK was held in Wardha, Maharashtra in October 2010. This call is based around areas identified as themes of common interest during the workshop. Framed by the aim of making rural living a sustainable option, areas of research focus include:

 Robust, digitally secure systems to provide information and decision support

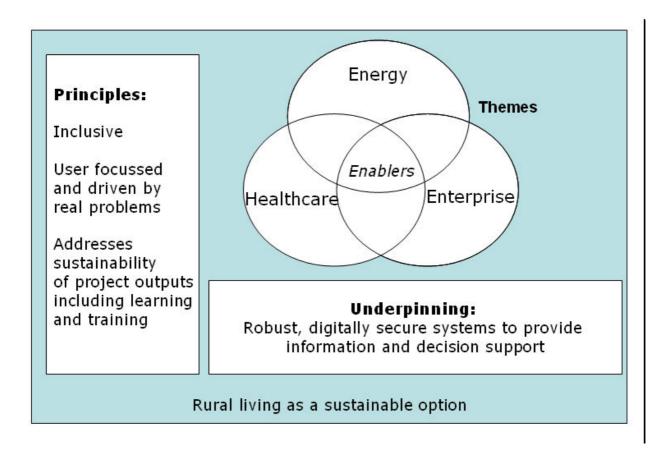
- Hybrid systems for energy
- Healthcare technologies and systems
- Enterprise

# **Funding**

DST and RCUK expect to support large collaborative consortia projects from this call which address the research challenges set out below. The funding requested should reflect the scale and ambition of the project. The costs of the UK Institutions will be met from RCUK funds, those for the Indian partner institutions will be met by the DST. Projects should be of three years in duration.

Thematic focus for the call: Proposals submitted to this call should address the themes below, framed by the underpinning aim of making rural living an economically, socially and technologically sustainable option in both the India and UK, whilst demonstrating a strong technical research base. The selection of the focus areas for this call has been informed by the joint workshop in Wardha in October 2010 and stakeholder consultations in both countries.

Research projects are required to address at least one theme (Energy, Healthcare, and Enterprise) and be underpinned by robust, digitally secure systems. Proposals must show awareness of the principles of the call and must be highly inter-disciplinary, cross cutting and collaborative in nature.



## **Principles:**

- Inclusive
- User focussed and driven by real problems
- Addresses sustainability of project outputs including learning and training.

## **Underpinning:**

## Robust, digitally secure systems to provide information and decision support:

- Digital security for trusted systems, digital interfaces that are useable and accessible for different communities and cultures
- Low cost network connectivity

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#### Thematic focus areas:

## **Energy**

- Hybrid systems for energy
- Biomass and waste utilisation
- Energy storage and efficiency
- Supply, demand and grids
- Solar, thermal and photovoltaics

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# Healthcare technologies and systems

#### **Enterprise**

- Business Models
- Enterprise development at the local level
- Value-chain analysis for enterprises
- Institutions for enterprise

## **Enablers**

- Community design and implementation tools
- Sensors and monitoring

# **Eligibility**

SEED Division will handle proposals on behalf of DST.

Usual eligibility requirements of DST and EPSRC apply. In addition:

- Only activities that involve academic collaboration between the UK and India can be considered.
- The Proposals should be for consortia and should include both UK and Indian partners.
- Proposals involving industrial collaborators are welcomed, but costs for these partners will not be covered by DST/ EPSRC through this call.
- Proposals involving Non Government Organisations (NGOs) are welcomed. Costs for such partners in India will be covered by DST, but NGO partners in the UK must fund their participation from other sources.

A key aim of this scheme is to foster inter-disciplinary collaboration on common research challenges for India and UK, with a focus on technical challenges in Energy and Digital Economy. Accordingly, India and UK lead investigators and co-investigators should be academic researchers from institutions eligible to apply for DST/EPSRC funding respectively, or investigators/researchers from Science and Technology NGOs in India.

Organisations with a specific interest in the application of the outputs of this research may be involved as partners in projects, only if they are eligible to receive funding from one of the organisations, or are participating on a selffunded basis.

Applicants should note that this call has been informed by the outputs of a workshop held in Wardha in India on 19<sup>th</sup> to 21<sup>st</sup> October 2010. A list of participants at the workshop is published with this call. The networks and knowledge created at this workshop will form the core around which consortia will develop.

**UK applicants:** For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: http://www.epsrc.ac.uk/funding/apprev/basics/Pages/fundingguide.aspx

As this call is a targeted funding opportunity provided by EPSRC, higher education institutions, and some research council institutes and independent research organisations are eligible to apply. A list of organisations eligible to apply to EPSRC is provided at: http://www.rcuk.ac.uk/research/eligibility.htm Note that only investigators employed in the UK are eligible to apply for EPSRC funds.

Indian applicants: Normal DST eligibility requirements will apply, please refer to the DST website: http://www.scienceandsociety-dst.org.

# **Registering your interest**

Lead partners must register their intention to submit by contacting the nodal officer of the programme Dr. Konga Gopikrishna (E – Mail: kongagopikrishna@yahoo.com, phone: +91 11 26590298) by 16:00 Hrs (IST) by 15<sup>th</sup> December 2010). If you fail to register your interest by this deadline, your proposal will not be accepted.

At this stage, a very brief outline of what you plan to cover in your proposal and an indication of the partners to be involved is all that is required; details of the proposal are permitted to change before the closing date for applications.

# How to apply

An Indian based lead partner and UK based lead partner should be identified each of whom will lead on interaction with the funding agency in their respective countries.

SEED Division will handle proposals on behalf of DST.

This is a joint application to DST and EPSRC. Applicants should ensure that identical applications are submitted by the closing date to DST and EPSRC.

The UK application should be submitted through the UK Research Councils grant submission system which is known as 'Je-S' (further details on this below).

The DST application should be a hard copy of the UK Je-S form and attachments (this can be printed directly from Je-S); both must include financial and project information for both UK and India parts of the joint project.

Applicants are to ensure that all documents are submitted to both DST and Je-S. For further details see the Je-S submission guidance below. The costs of the UK Institutions will be met from Research Councils funds, those for the Indian partner institutions will be met by the DST.

**Submitting proposals – UK lead partner:** The UK based lead partner should prepare and submit the proposal using the Research Councils' Joint electronic Submission (Je-S) System (https://je-s.rcuk.ac.uk/).

If the UK application comes from multiple institutions then the application should be made on a single Je-S Form from the UK-based lead partner's host institution. The application must comply with current Research Council guidelines on format and content. Further information is available on the Je-S website (https://je-s.rcuk.ac.uk/Jes2WebLoginSite/Login.aspx) and in the EPSRC Funding Guide (http://www.epsrc.ac.uk).

Those unfamiliar with Je-S should note that it is a pre-requisite of submission that the lead UK investigator's organisation is registered to use Je-S. Applicants should ensure that the registration process is complete as soon as possible, well in advance of the call closing date. A table showing the current status of research organisations registered to use Je-S is available at <a href="http://www.so.stfc.ac.uk/jes/jes1/RODetails(Web).pdf">http://www.so.stfc.ac.uk/jes/jes1/RODetails(Web).pdf</a>. Submission of proposals after the closing date will not be accepted due to incomplete Je-S registration. Full details of how to register are available from the Je-S Helpdesk at JeSHelp@rcuk.ac.uk.

When adding a new proposal, applicants should select:

Council 'EPSRC' > Document type 'Standard Proposal' > Scheme 'Standard' On the Project Details page you should select the 'Bridging the Urban and Rural Divide' call.

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 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 16:00 (GMT) on 5th January 2011.

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.

**Submitting proposals – India lead partner:** The India-based lead partner will submit the identical proposal (5 hard copies of the Je-S form) using the same common proposal format to DST for processing as per requirements of DST India (http://www.scienceandsociety-dst.org).

In order to send the identical proposal, the UK lead partner should save the Je-S form (or print to PDF) to send to the lead Indian partner, along with ALL attachments that were uploaded to Je-S. The Indian lead investigator is then responsible for submitting 5 hard copies of all of this information to DST. All enquiries regarding expression of interest and submission of final applications may be addressed to

Dr. Konga Gopikrishna
Scientist – 'C'
Science for Equity, Empowerment and Development Division
Department of Science and Technology
Technology Bhawan, New Mehrauli Raod
New Delhi – 110016

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Phone: +91 11 26590298

The final applications should be submitted to:

The Head
Science for Equity, Empowerment and Development Division
Department of Science and Technology
Technology Bhawan, New Mehrauli Raod
New Delhi – 110016

# **Guidance on writing proposals**

The following information and documentation has to be submitted via Je-S:

- https://je-s.rcuk.ac.uk/ Application form for the relevant call detailing funds requested from the Research Councils.
- Case for support including a track record (up to 2 sides of A4) and a
  description of the proposed research and its context (up to 6 sides
  of A4). It is important that this includes a description of how the link
  between UK and India researchers will be managed and how
  Intellectual Property is to be shared and managed between UK and
  India partners.
- If a field study is to be carried out in India, please include details regarding:
  - o Profile of project area
  - Target population (SC, ST, Women) (In case of SC/ST, please specify sub-caste)
  - Direct Beneficiaries

- Date of registration of the organisation, place and details of the act
- A pathways to impact document (up to 2 sides of A4)
- Justification of the resources requested for the collaboration from both EPSRC and DST (up to 2 sides of A4).
- Work plan (up to 1 side of A4)
- CVs (up to 1 side of A4 each) for named researchers, visiting researchers and researcher co-investigators - where applicable. Note that CVs for investigators are not required – this information should be covered in the track record section of the case for support.
- Statement of support from any project partners (no page limit) where applicable
- Quotations for equipment (no page limit) where ever applicable
- Technical assessment for the use of a major facility (no page limit) where applicable

For extra guidance regarding the required technical content of your proposal, see www.scienceandsociety-dst.org.

Note that costing details entered directly into the Je-S form should be UK based costs that are requested of the EPSRC. The Indian based costs that are to borne by DST should be entered on the 'Joint Proposal Format' form and uploaded as an attachment under 'letters of support' within Je-S.

Additional material is required for Indo-UK Collaborative Research Initiative on 'Bridging the Urban and Rural Divide' applications as follows:

- Up to 2 letters of support from the key Indian institution(s) with whom you are working. One of these must be a Host Organisation Statement from the head or equivalent of the lead India institution on the application, indicating their commitment to the partnership and how this will be delivered.
- The 'Joint Proposal Format' form detailing the funding requested from DST; this is available on EPSRC's website included in the documents for this call. The lead partner(s) in India should be indicated on this document. This should be a single document uploaded as an attachment under 'letters of support' within Je-S.

Please note: We do not require supporting technical annexes, letters from UK academic partners or separate lists of publications. Any excess material will be removed from your application. If you wish to refer to additional supporting information, please use a web-link in your case for support but we cannot guarantee that the expert review panel will consider additional web material. Papers for the expert panel (see further detail below) are converted and copied in greyscale/black and white, therefore colour material will not be accurately reproduced. We require the use of minimum 11pt Arial font on A4 pages with 2cm margins on all pages. For advice on writing proposals see:

# http://www.epsrc.ac.uk/funding/apprev/preparing/Pages/default.aspx

When we receive your application through Je-S, you cannot make any amendments or additions. Therefore please make sure that all letters of support are secured well in advance of the closing date. We will contact you if there is a problem with your application. Any delay in your proposal will jeopardise the speed with which we can get your proposal to the expert review panel for prereview, which may affect the final panel decision.

The deadline for receipt of proposals in Je-S format is is 4:00PM (IST) on Wednesday 5th January 2011. Late applications will not be accepted.

# **Assessment process**

Applications submitted to this call will be assessed though Evaluation by Committee (Expert Peer Review Panel) composed of panel members selected by both DST and RCUK.

Once a joint proposal is received at DST and at EPSRC and the necessary eligibility checks have been carried out, two panel members (one nominated by DST, one by EPSRC) will be asked to pre-review the proposal against the assessment criteria given below, completing a proforma pre-review form on which they will record comments for the proposal. The necessary guidance will be given to panel members in order to enable them to do this. The assessment criteria for pre-review are:

- Technical/technology content
- Profile of institution and track record of investigators
- Workplan
- Resources (and appropriateness of the budget)

The expert panel members' pre-review forms (made anonymous) will be passed back to the lead investigators from India and the UK to comment on any factual inaccuracies or questions rose before consideration by the Committee (Expert Peer Review Panel). The lead investigators' response to the pre-score comments, if such a response is made, will be given to the panel for consideration, along with all other accepted documents.

A rank ordered list will be produced by the Committee (Expert Panel) and EPSRC and DST will then fund as far down the list as either quality or funds permit.

Funding decisions will be made by the end of March 2011.

Because there is no postal peer review element to this review process, applicants are not asked to nominate reviewers.

# **Assessment criteria for proposals**

The proposals will be assessed following a procedure mutually agreed by EPSRC and DST. In particular, the proposals should demonstrate:

- Excellent and innovative research
- Fit to the remit of the call and that the proposed research will address at least one theme (Energy, Healthcare, Enterprise) and be underpinned by robust, digitally secure systems. Proposals must show awareness of the principles of the call.
- Joint activity involving research groups from both the UK and India with track records and team compositions appropriate to the research proposed.
- The project will build new or substantially stronger links between UK and Indian research groups, with appropriate management of this link incorporated in the project management.

# Additional grant conditions

In addition to the standard terms and conditions for grants, award holders will be expected to participate actively in a broader network of DST - RCUK grants.

# **Key dates**

November 05 <sup>th</sup> 2010	Joint Call Issued by RCUK
December 15 <sup>th</sup> 2010 (16:00 Hrs IST)	Deadline for Indian applicants to register
	their intention to submit.
January 05 <sup>th</sup> 2010 (16:00 Hrs IST)	Closing date for receipt of applications
March 2011	Evaluation by Committee
March 2011	Decisions announced (formal grant offer to
	follow)

#### **Contacts**

# **United Kingdom**

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## India

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Dr. Konga Gopikrishna, Scientist – 'C' (E – Mail: kongagopikrishna@yahoo.com & Phone: +91 11 26590298) should be contacted for any questions/queries relating to expression of intention to submit and submission of final applications. Applicants are reminded that they should allow enough time before the closing date for their organisation's internal submission process.