

# Announcement of Opportunity – Technology Clusters

*Re-issued 01/04/2009 note change to Section 5 –Impact Plan*

## Summary

This research programme opportunity will provide funding for Technology Clusters that will deliver aspects of the NERC strategy, as part of the Technologies Theme. Funding is available to create and support four Technology Clusters, in defined strategic areas, that will bring together key researchers and other stakeholders and provide a forum for technology networking and knowledge exchange. Each cluster will operate for up to two years with a budget of up to £100k (at 80% FEC). Future investment in technology cluster activities will be reviewed at the end of the initial two-year period.

Each cluster must aim to support and enhance capability in a specific technology area and contribute new approaches to relevant NERC Science Themes. The clusters should provide communities with a forum for technology sharing, training and networking between NERC communities and externally with other researchers, industry and policy makers/regulators. The clusters should aim to improve co-ordination and collaboration of environmental technology research activities and assist in building a NERC technology community. Key requirements will be inclusiveness across the scientific and stakeholder communities and a clear programme of activities for the cluster, utilising appropriate and varied networking, knowledge exchange and training methods.

## 1 Introduction and Scope

### 1.1 Introduction

The NERC Technologies Theme Action Plan<sup>1</sup> identifies challenges and activities relating to the support of the development of new technologies in four strategic areas:

- Remote Sensing and Earth Observation
- Intelligent Field Sensors and Networks of Sensors
- Novel Laboratory Instrumentation
- Informatics, Models and Data

This document specifies the requirements for four technology clusters, one in each of the strategic areas. These clusters will contribute to meeting NERC Technology Theme challenges and the following NERC organisational objectives:

- promote collaborative research and a vibrant community throughout the environmental science, engineering and technology base.
- establish a culture of knowledge exchange between NERC and stakeholders, and ensure knowledge generated from NERC-funded science, and data and information holdings, are communicated and used.

### 1.2 Scope

Funding – up to £100k per cluster (at 80% FEC)

Start Date, Duration & Completion – up to 2 years from Autumn 2009

Activities included – Cluster management and co-ordination, networking activities (e.g. conferences, workshops, focus/expert groups), knowledge exchange (e.g. websites, publications, email lists, coordinating academic and technological staff exchange), and support for small-scale capacity building activities in the community (e.g. joint training events with learned societies).

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<sup>1</sup> <http://www.nerc.ac.uk/research/themes/tap/documents/tap-technologies.pdf>

Activities Excluded – Research activities (e.g. grant rounds, proof of concept or technology development), activities outside the four strategic technologies areas identified.

Conditions - The standard NERC research grant terms and conditions will apply to the cluster awards. NERC governance and performance management guidelines, or acceptable equivalents, must also be applied. Additional conditions specific to this cluster activity and its requirements are possible. Prior to confirmation of funding with selected clusters negotiations related to specific outputs and conditions are expected to take place.

## 2 Rationale

Communication between researchers working in common technology fields is central to maximising NERC impact and in enabling new and innovative technological solutions. Whilst opportunities for discussion, horizon scanning and dissemination exist extensively within any applied science area, such opportunities across technology fields are rare. Without an established mechanism for interactions there is a risk that new developments do not transfer between disciplines, best practice is not shared effectively, or at worst that effort is wasted through duplication. The aim of the clusters is to create a supportive and vibrant environment for technologies research, to support existing communities and to highlight opportunities in the field in both the short and long term to new entrants.

The high-level objectives of the technology clusters programme are to:

- 1) create and support technology clusters in four strategic technology areas,
- 2) develop a supportive and vibrant environment for technologies research,
- 3) provide a forum for technology dissemination, showcasing and sharing best practice across NERC science disciplines,
- 4) facilitate the growth of the NERC Technology Community

Further background is available in the NERC Technologies Management Plan<sup>2</sup>

## 3 Requirements

### 3.1 Science and implementation requirements

Clusters are required to relate directly to one of the defined strategic technology areas.

Each cluster is expected to undertake activities to deliver the following requirements:

- Provide networking activities between NERC communities and externally with other researchers, industry and policy makers/regulators via regular technology events (conferences, workshops, focus/expert groups)
- Provide knowledge exchange opportunities, stimulate interactions, pull-through of technology into use and increased economic impact (websites, publications, email lists, coordinating academic and technological staff exchange)
- Be a flexible and evolving group of researchers and stakeholders with a high level of knowledge and expertise in one of the four strategic technology areas identified
- Support existing communities, maintain an overview of the short-term and long-term developments and opportunities in the sector and proactively engage with new research groups as appropriate
- Participate where appropriate in targeted training activities
- Identify future technology requirements and priorities through horizon scanning and technology road mapping
- Undertake activities relevant to appropriate NERC Science Themes
- Facilitate the community to respond to future NERC technologies requirements/opportunities and enable activities leading to increased economic impact of NERC technologies research.

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<sup>2</sup> <http://www.nerc.ac.uk/about/strategy/documents/plan-technology.pdf>

- Make links to the other clusters and ongoing activities and existing networks and partnerships e.g. in the Centre for Earth Observation Instrumentation (CEOI) and Knowledge Transfer Networks (KTNs)
- Make key links to the wider community (particularly with LWEC partners and industry)
- Stimulate collaboration between NERC Centres and HEIs
- Interact with the other Research Councils e.g. EPSRC, STFC and Technology Strategy Board

Good coordination of the cluster will be essential and it is anticipated that each cluster will have a dedicated co-ordinator. The cluster coordinator should:

- have a clear programme plan that covers both resources and activities, accepting that some flexibility for future activities and developments will be required
- utilise a range of inclusive networking and knowledge exchange methods, including a cluster website
- have good knowledge of the sector and an overview of the range current activities
- identify any other KE activities in this area (e.g. learned societies, KTNs) and how the cluster can provide added value
- allow for activities across the whole strategic technology area and interaction of the four clusters

The following Key Milestones are anticipated. These should be expanded in the cluster proposal which must clearly define specific milestones and tangible outputs/deliverables meeting the requirements.

- 1 month: Establishment of Cluster
- 3 months: Kick off event
- 4-12 months: Year 1 programme of outputs/deliverables
- 12 months: Annual report, detailing activities to date and plans for next 12 months
- 12-24 months: Year 2 programme of outputs/deliverables
- 24 months: Final Report

### 3.2 Governance & Performance Management Requirements

*Governance* – The clusters supported will be expected to adhere to the principles of the NERC Governing and Managing Investments Policy and to adopt appropriate practices<sup>3</sup>.

The Principal Investigator for each cluster will be responsible to NERC for meeting the cluster's milestones and deliverables. They may wish to form a cluster management board to support their activities as appropriate. Linkages between the management of the four clusters are expected.

A representative from NERC Swindon Office will act as the NERC Programme Manager i.e. the relevant Science & Innovation Manager or delegate. Representatives from NERC may attend cluster meetings, as appropriate.

*Performance Management* - In order for NERC to manage performance against its Strategic Objectives and Delivery Plan and report to NERC Council and DIUS, the Principal Investigator of each cluster will be required to report regularly on the outputs and outcomes they have been commissioned to deliver. The clusters supported will be required to provide the standard reporting measures as per NERC terms and conditions:

- Progress reports, provided on a template and timetable agreed with the Programme Manager. These should identify targets and key milestones with details of progress against them and future plans. The reports should also capture any key achievements and highlights, which may feed into the NERC Science Impacts Database and any additional required performance management information specified by NERC.

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<sup>3</sup> <http://www.nerc.ac.uk/about/delivery/processes/investments.asp>

- Output and Performance Measures (OPMs), collected annually through the NERC Research Outputs Database (ROD).
- Final Report – as per standard NERC terms & conditions.

## 4 Procurement procedure

### 4.1 Eligibility & Funding

This opportunity is open to individuals and organisations eligible for NERC research grant funding i.e. applicants based in UK Higher Education Institutions (HEIs), NERC Research & Collaborative Centres, and Independent Research Organisations (IROs) approved by NERC. Please refer to the NERC Research Grants Handbook for details<sup>4</sup>. Potential applicants should contact NERC well in advance of the submission deadline if they have any queries concerning their eligibility.

Individuals may submit no more than one application as Principal Investigator plus one as Co-investigator or two applications as Co-Investigator to this call. Involvement in bids relating to two of the strategic technology areas is allowed.

Organisations (e.g. industry, government agencies) not eligible to receive NERC funding directly are encouraged to participate as project partners.

The total funding requested from NERC (80% FEC total) may be up to £100k per cluster.

### 4.2 Application procedure

#### **The closing date for proposals is: 14 May 2009**

Applications must be submitted using the Research Councils Joint Electronic Submission system (Je-S).

Please select the Scheme – ‘Directed’ and the Call – ‘Technology Clusters’  
Please indicate the strategic technology area in the title of your proposal.

To use this system, the applicant’s Research Organisation must be registered as a Je-S user. Full details are available on the Je-S website<sup>5</sup>. Further information can also be obtained by contacting the Je-S Helpdesk by email at [JeSHelp@rcuk.ac.uk](mailto:JeSHelp@rcuk.ac.uk) or by telephone on 01793 44 4164.

Applicants must ensure that their application is received by NERC by 4pm on the closing date. Applicants should leave enough time for their application to pass through their organisation’s Je-S submission route before this date. Any application that is received after the closing date, is incomplete, or does not meet NERC’s eligibility criteria, will be returned to the applicant and will not be considered.

### 4.3 Assessment

The cluster proposals will be assessed against the following criteria:

- Fit to Requirements
- Excellence\*
- Risk-Reward\*
- Cost Effectiveness\*

\* assessed under Knowledge Exchange Funding category

<sup>4</sup> <http://www.nerc.ac.uk/funding/application/researchgrants/grantshandbook.pdf>

<sup>5</sup> <http://www.rcuk.ac.uk/je-s/>

Applications will be reviewed and ranked by a panel. There will be no external review process. There will not be the opportunity for PIs to respond to comments. Feedback will be available upon request once the funding decision process has been completed.

#### 4.4 Timetable

Closing date for proposals: **14 May 2009**

Funding decision communicated to applicants: **July 2009**

Cluster starts: **Autumn 2009**

Cluster ends: **Autumn 2011**

## 5 Format and content of proposal

The Principal Investigator must submit form Je-SRP1 (NERC) detailing the financial request, together with the Case for Support and other attachments. All attachments submitted through the JeS system must be completed in single-spaced typescript of minimum font size 11 point, Arial font, with margins of at least 2cm.

The Case for Support should comprise:

**Previous Track Record** not exceeding 2 sides of A4, covering the following points:

- The specific expertise available for the cluster at the host organisation and that of any associated organisations and beneficiaries. This may include the type of information for Principal Investigators and Co-Investigators that would normally be shown on CVs;
- Provide a summary of the results and conclusions of recent work in the strategic area that is covered by the cluster. Include reference to both NERC and non- NERC funded work. Details of any relevant past collaborative work with other beneficiaries should also be given.

**Description of the Proposed Cluster**, not exceeding 4 sides of A4 (including all necessary tables, references and figures), addressing the following points:

- Specific objectives of the cluster, including their potential relevance to UK and international research work in the field, relevance to the specification, and anticipated achievements and outputs. How the cluster will complement existing activity and add value;
- Programme and/or plan of cluster and management of both project and resources. Staff roles e.g. cluster coordinator/administrator, project milestones, specific activities envisaged and cluster operation;
- Relevance and links to industry and public sector bodies, and the potential scientific benefits.

**Impact Plan**, not exceeding 2 sides of A4. Should expand on the information contained in the Impact Summary and describe what will be done to increase the scale or likelihood of impact. In making your case, you should consider and describe any potential impacts of the research on society and the economy. Any costs associated with impact plan activities should be included in the appropriate section of the Je-SRP1 (NERC) form.

**Justification of Resources** up to 1 side of A4 submitted as a separate attachment in the JeS system. It should include justification for all Directly Incurred Costs, Investigator effort, use of pool staff resources and any access to shared facilities and equipment being sought. No justification for

Directly Allocated Estates and Indirect Costs is required. It should be noted that if resources are not fully justified, they will be subject to reduction

**Letters of support** from any named Project Partners (up to 2 sides A4 each)

For further details please refer to the NERC Research Grants Handbook and the guidelines for standard grant applications<sup>6</sup>.

## 6 Contact information

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For queries about Je-S registration or technical submission of proposals, please contact the Je-S Helpdesk by email at [JeSHelp@rcuk.ac.uk](mailto:JeSHelp@rcuk.ac.uk) or by telephone on 01793 44 4164.

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<sup>6</sup> <http://www.nerc.ac.uk/funding/application/researchgrants/grantshandbook.pdf>