

Promoting Cross-Disciplinary Research: Engineering and Physical Sciences and Economic and Social Sciences

DEADLINE: 4pm 12 October 2010

Summary

High quality research at the engineering and physical sciences (EPS) and economic and social sciences (ESS) interfaces is of strategic importance to EPSRC. The Cross-Disciplinary Interfaces Programme (C-DIP) aims to enable UK engineers and physical scientists to be world-leading in research and training at existing and emerging cross-disciplinary interfaces. C-DIP aims to be at the leading edge and to strategically intervene at targeted interfaces that are a priority for EPSRC.

The Cross-Disciplinary Interfaces Programme (C-DIP) wishes to support cross-disciplinary proposals at the engineering and physical sciences and economic and social sciences interfaces, with the majority of outputs looking to strengthen and feed back into the engineering and physical sciences. EPSRC invites applications from integrated cross-disciplinary groups to undertake research at these interfaces and promote cross-disciplinary culture and exchange across the respective disciplines.

Up to £6 million has been earmarked for this targeted activity and, subject to the quality of the submissions received, it is anticipated that we will fund up to four proposals. Grants funded under this call will provide funding to support a suite of related research and people based activities focusing on one major theme.

Objectives of this call

- To fund a small number of cross-disciplinary packages consisting of research and people-based activities which will develop and strengthen the interfaces between engineering and physical sciences and economic and social sciences.
- To promote knowledge exchange between the disciplines with the long term aim of developing a vibrant cross-disciplinary research community and therefore a cohort of people who understand and can work across the interfaces.

The focus of the call is on building research collaborations between engineering and physical sciences (EPS) and economic and social sciences (ESS) while also supporting transformative, cross-disciplinary research. We are interested in two thematic areas;

Quantitative Aspects of Understanding Behaviours.

- new models of social systems
- understanding behaviours and engineering behavioural change.
- understanding vs. simulation in decision making

(Behaviour could include: social relations, social practices, social structures, organisational behaviour, economic behaviour and social institutions)

Innovation at the bottom of the pyramid. For example, low income or marginalised groups. This could include:

- Novel technologies for developing countries or deprived social systems.
- Disruptive technologies for development
- Optimisation of cutting edge technology
- Technical solutions very different from traditional approaches

We intend a broad interpretation of each thematic area and there may be topics that underpin these themes, for example, social cohesion, ethics and trust; no specific areas are excluded. It may also be appropriate to engage with policy makers, users or the third sector and these activities are not excluded from this call. EPSRC would encourage groups to identify and submit proposals that cross the EPS and ESS interfaces where there is real potential for the UK to become internationally leading.

Scope of the Call

Through this activity we aim to fund truly cross-disciplinary beacons that will have a transformative effect on the interfaces. Proposals are invited from cross-disciplinary teams for flexible grants which will support a suite of related research and people based activities, focussing on one thematic area.

The activity is made up of two strands:

Research Focus:

- Addressing novel EPS and ESS research challenges in a thematic area
- Undertaking potentially transformative, truly cross-disciplinary research
- Providing researchers with the opportunity to explore new research questions across the disciplines.

People-Based Activities:

- To support a suite of people-based activities to grow a multidisciplinary working environment

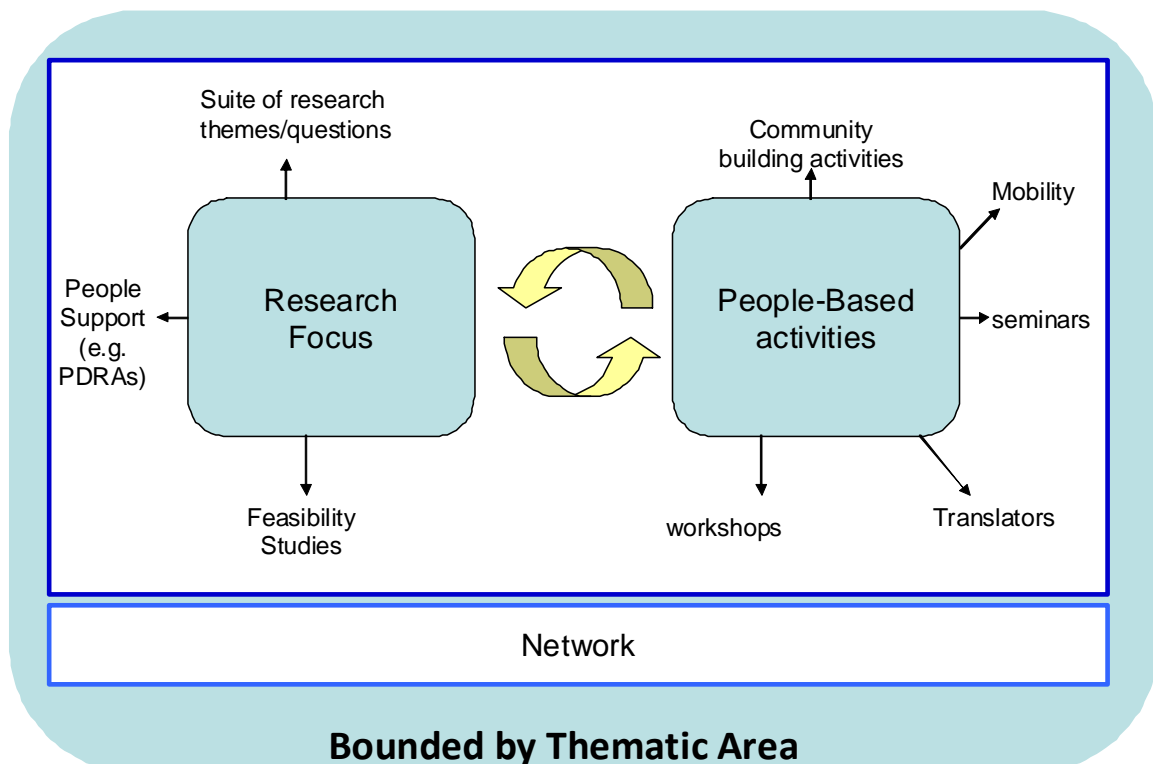
- To initiate new, long-term collaborations between researchers across the EPS and ESS remit by stimulating innovative approaches to collaboration between disciplines.
- To alleviate barriers to collaboration

The proposal must look to address both streams; research focus and people-based activities, while meeting the objectives of the call. It is anticipated that these streams will complement each other and also be interlinked. It is also envisaged that, through the people-based stream, the project would look to engage with a broader set of academics than the project team from across the EPS and ESS disciplines to promote cross-disciplinary working during the lifetime of the grant.

In addition to the streams each proposal must ring fence 5% (100% FEC) of its funds to networking activities across the successfully funded bids. In addition to the primary objective of this activity, this call aims to build a community of knowledgeable cross-disciplinary researchers working across the interfaces who are advocates for the opportunities that exist in this space.

There is no pre-determined composition of the 5% costs for networking activities. It is for the team of investigators to determine the best use of these funds and deem what is most appropriate for the proposal.

The diagram below suggests possible mechanisms that could fall under these streams. Please note, the diagram aims to demonstrate the ethos of this call and is not an exhaustive list. It is for the team of investigators to determine the balance between the two streams and the most appropriate structure and mechanisms to meet the objectives.



Each Promoting Cross-Disciplinary Research package must be bounded by a thematic area and supported by networking activities. Each package must also be made up of two streams which complement each other and are interlinked. The first stream is Research Focus and could include such activities as; suit of research themes/questions, people support (e.g. PDRAs) and feasibility studies. The second stream is People-Based activities and this could include such activities as; mobility, seminars, community building activities, workshops and translators.

All proposals must demonstrate clear relevance to a thematic area. Proposals must articulate a coherent and ambitious vision for their project. These awards are intended to be flexible and it is not a requirement to outline pre-defined projects as it is recognised that time is often necessary for different disciplines to discuss research questions and co-construct the solutions. We intend a broad interpretation of each thematic area; no specific areas are excluded. However, please note carefully the following points:

- Funded proposals under this call will have a clear emphasis on promoting cross-disciplinary working across the interfaces with strong integration of economic and social sciences. Proposals with insufficient emphasis on novel EPS and ESS challenges will be rejected without recourse to postal peer review.
- Conversely the involvement of leading researchers in the economic and social sciences will be critical to the success of these research programmes. New proposed collaborations are acceptable, but bids with insufficient engagement with appropriate areas of economics and the social sciences will also be rejected without recourse to postal peer review.
- Consideration of creative people based activities to alleviate the barriers to collaboration; dispel preconceptions; change attitudes and perceptions; and train individuals at the interfaces will underpin all successful bids in this call.
- When making funding decisions we will also take into account our existing portfolio of research, including particular projects funded through recent calls, for example Sustainable Urban Environments, and the cross-council mission programmes, such as Energy and Digital Economy. Proposals which appear to overlap significantly with existing investments will not be supported through this call.

Please refer to annex 1 for previous investments at the interfaces.

Related Funding Opportunities

This call complements a larger strategic activity for EPSRC and applicants are directed to also read the '[Discipline Hopping: Engineering and Physical Sciences and Economic and Social Sciences](#)' call document. C-DIP recognises the importance of understanding respective disciplines and allowing researchers the time and space to explore new ideas when collaborating across disciplines.

C-DIP therefore wishes to support Discipline Hopping grants between the engineering and physical sciences and economic and social sciences interfaces. We invite applications from established researchers in either discipline who wish to explore a new research area and are passionate about cross-disciplinary working.

Understanding individual behaviours is a strategic priority for the Economic and Social Sciences Research Council (ESRC) and in partnership with other research councils they will be developing further strategic activities and may take further decisions following the upcoming Spending Review (SR).

Assessment Criteria

EPSRC reserves the right to reject proposals, without reference to peer review, which are deemed to fall outside the remit of this call. You are advised to contact EPSRC if you are unsure whether your proposal would be suitable for this call. The majority of the proposal must fall within EPSRC's remit with the main outputs looking to strengthen and feed back into the engineering and physical sciences.

EPSRC will be working closely with colleagues at ESRC throughout this call and particularly during the peer review stage.

Proposals will be assessed using the following criteria at the postal peer review stage:

- Relevance to the objectives of the call, in particular
 - Research focus for application in the stated thematic areas
 - People activities and the level of engagement with appropriate areas of economics and the social sciences
- Quality of research, including
 - research vision, ambition and adventure
 - novelty, relationship to the context, and timeliness
 - synergy and added value of proposed research strands
 - appropriateness of proposed methodology
- Potential research impact, including
 - relevance and appropriateness of any beneficiaries or collaborators
 - plans for dissemination and knowledge exchange
 - plans for promoting cross-disciplinary culture
- Ability of applicant team to deliver the research, including

- track record of the team, the leadership quality of the Principal Investigator
- balance of skills of the project team and integration of different methodologies and approaches
- Resources and management, including
 - effectiveness of planning and resource management strategy
 - appropriateness of resources requested

In addition to these criteria the panel will also be considering how the proposals successfully meet the aims of the two streams; research focus and people-based activities and promote cross-disciplinary culture across the relevant disciplines.

Eligibility

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, research council institutes and independent research organisations are eligible to apply. A list of eligible organisations to apply to EPSRC is provided at: <http://www.rcuk.ac.uk/research/eligibility.htm>

How to apply

Submitting proposals

You should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>).

When adding a new proposal, you should select:

Council 'EPSRC'

Document type 'Standard Proposal'

Scheme 'Standard'

On the Project Details page you should select the 'Promoting Cross-Disciplinary Research' call.

Details of which research organisations have registered to use Je-S are available from [http://www.so.stfc.ac.uk/jes/jes1/RODetails\(Web\).pdf](http://www.so.stfc.ac.uk/jes/jes1/RODetails(Web).pdf).

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 on 12 October 2010**.

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/funding/apprev/basics/Pages/default.aspx>) which should be consulted when preparing all proposals.

Costs that are eligible under FEC can be requested for this call. Although it is not the primary aim of this call to build UK research capacity, PDRA posts and PhD studentships can be requested if appropriate and fully justified by the applicants. There are no specific restrictions on the resources that can be requested in proposals submitted to this call and the EPSRC Funding Guide should be consulted when preparing all proposals.

Investigators from more than one research organisation may be included on a proposal, but **only one Je-S form** per programme of research should be submitted, with a single Principal Investigator, and as many Co-Investigators as desired.

Guidance on writing proposals

As well as the Je-S form, the following documents should be submitted:

Case for support

The case for support should be up to 8 pages in total, to include:

- Two-page track record, which should detail the relevant expertise that each investigator will bring to the research programme. For the Principal Investigator, there should be evidence of leadership and management skills.
- Six-page description of the proposed research focus and people-based activity streams. This should include a clear statement of the proposal's vision, and how each strand of activity complements this vision.

Pathways to Impact

Up to two pages. This document should describe who may benefit from the research, how they may benefit and what will be done to make sure they have the opportunity to benefit. More information on preparing the impact plan and more general information on economic impact can be found on our website at:

<http://www.epsrc.ac.uk/funding/apprev/preparing/Pages/economicimpact.aspx>

Justification of resources

Up to two pages. This should be a narrative description of the need for the resources requested.

Work plan

Up to two pages. It is not expected that this will be a Gantt chart for the whole time of the project, but should include a comprehensive plan for the start of the project and then refer to the management strategy to give

appropriate milestones for when important decisions on the direction of the research will be taken.

For advice on writing proposals see:

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

Register intent to Submit

Anyone wishing to apply for one of these cross-disciplinary awards must register with EPSRC first by completing the Intent to Submit form which can be downloaded from the EPSRC website from the same page as this call document. This must be sent electronically to PromotingCrossDisciplinary@epsrc.ac.uk by **1200** on **10 September 2010**.

Webinar

We will be holding a Webinar session on 02 August 2010 (details and timings to be confirmed) to give potential applicants an opportunity to learn more about this call, to include:

- Background information
- Vision and objectives of the call
- Eligibility and funding restrictions
- Assessment criteria

There will be an opportunity to ask any questions you might have about this activity.

If you would like to attend please register your interest by emailing PromotingCrossDisciplinary@epsrc.ac.uk by 26 July at the latest.

We would particularly like to encourage potential applicants from backgrounds in economics and the social sciences to attend this webinar.

Further details of this event will be provided to registered attendees in due course. Depending on demand, we may need to limit the number of participants.

Assessment process

Call for Proposals Issued	July
Deadline for Proposals	4pm 12 October 2010
Peer Review	October - November 2010
Prioritisation Meeting	January 2011
Interview Panel	February 2011

Proposals will be reviewed by a three-stage process:

1. Postal peer review.
2. Sifting panel to decide on which applicants are invited to interview
3. Proposals with sufficiently supportive reviewers' comments will be assessed at a specially convened peer-review interview panel.

It is expected that funding decisions will be available by February 2011.

Peer Review

Reviewers are asked to use the standard EPSRC form for reviewing research proposals submitted to targeted activities and all reviewers (e.g. users and nominated reviewers) will be asked to fill out the same form which can be found at: <http://www.epsrc.ac.uk/SiteCollectionDocuments/form-notes/rf-standardcall.doc>. Assessment should be made against the criteria provided on the EPSRC form, in the context of the overall objectives of this call. Please consult the earlier section on the assessment criteria within this call document.

EPSRC will be working in partnership with ESRC during this call and particularly in the peer reviewing of the proposals. The proposals will be sent to reviewers from each community while also approaching one or more of your nominated reviewers. Each reviewer will be notified of the cross-disciplinary nature of this call; the unique aims and objectives.

In order to aid the peer reviewing of these cross-disciplinary proposals, applicants are asked to nominate 5 potential reviewers. Please suggest people who are experts in the research field and/or able to judge the value of the research to people who might use its results.

It's important that we avoid any conflicts between personal interests and EPSRC's interests. You should not suggest reviewers that you have had a close working relationship with in the past (for example, your PhD supervisor), current or proposed project partners, anyone from your own organisation, or anyone with financial or personal connections with the organisations involved in the proposal. Please avoid suggesting more than one reviewer from the same organisation. Please do not approach nominated reviewers before hand.

Standard EPSRC practices and procedures will be followed throughout this call. Information about the EPSRC peer review process and guidance for reviewers can be found at: <http://www.epsrc.ac.uk//funding/apprev/review/Pages/default.aspx>

The peer review panel will consist of cross-disciplinary researchers and will include experts from both EPS and ESS.

Guidance for Reviewers

Postal peer reviewers will not only be directed to this call for proposals when contacted to review the proposals but specific guidance will also be available to them based on the information in this call and background information on the call's concept.

Contacts

If you have any questions regarding the call then please contact;

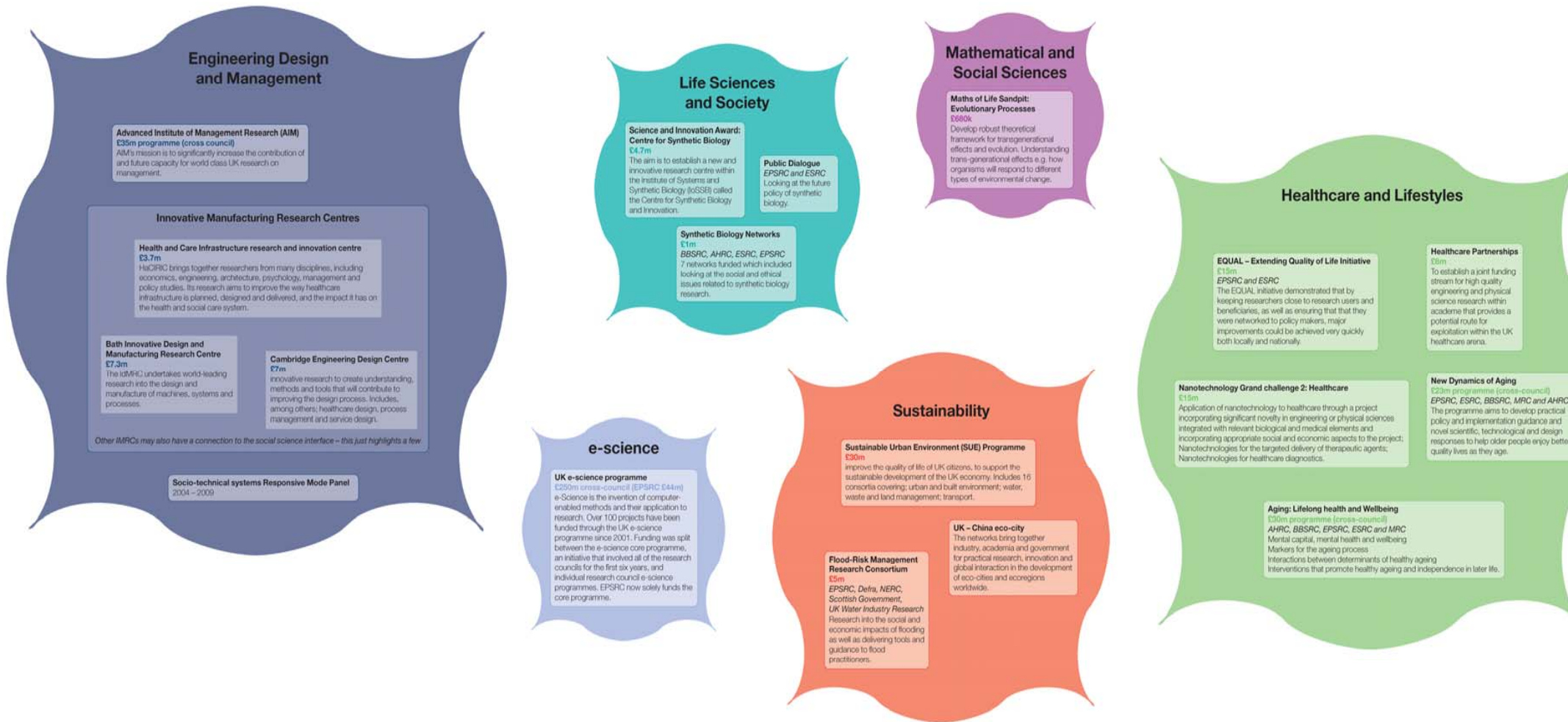
Miss Samantha Madden

Cross-Disciplinary Research Portfolio Manager

Tel: 01793 44 4463

Annex 1

This diagram represents previous major EPSRC investments and activities at the interfaces. It focuses on targeted interventions and does not include activities in responsive mode. It is intended to provide an overview and an EPSRC perspective and is not an exhaustive list.



Energy

People, Energy and Buildings
A £4 million joint call supported by EDF and the Research Councils' Energy Programme.

The Carbon Vision Buildings and Industry Programme
£14m partnership
EPSRC and the Carbon Trust
Domestic and industrial demand reduction.

Climate change Tyndall Centre
ESRC, NERC, EPSRC
The Tyndall Centre is a national UK centre for inter-disciplinary research on climate change. It is dedicated to the identification, promotion and facilitation of sustainable responses to the challenge of climate change.

Marine and Shipping
£3m
Understanding economics of greener shipping.

Strategic Partnerships with EDF and EON

Understanding human behaviour

Walking and Cycling Grants
£5m
Understanding barriers to modal shift, society, transport and policy.

Energy and Communities Collaborative Venture
£7.5m
ESRC and EPSRC
Understanding of issues surrounding energy use within communities with a view to contributing to the Government's green house gas emissions targets. Addresses a broad range of research challenges such as community ownership, energy innovation, policy, governance and social movements.

Living with Environmental Change (£9m from EPSRC)

The Risk Centre, Cranfield
£3.5m
Defra, EPSRC, LWEC, ESRC, NERC
Themes: strategic risk appraisal, risk and evidence, organisation maturity and knowledge exchange.

ARCC (Adaptation and Resilience in a changing climate)
The £3M programme will enable the design of urban systems that are more resilient to climate change.

Digital Economy

Research Clusters
£2m
9 clusters to promote multi-disciplinary working.

Digital Economy Research in the Wild
£3m
Allowing researchers in the Digital Economy to expose and test their research ideas with potential beneficiaries – for example, the individual, business and/or society – in order to get closer to achieving a viable proposition with potential for transformational impact.

Doctoral Training Centres
These 7 centres cover research relating to the Digital Economy; connect people with digital technology to radically improve the way we live, work, play, and travel sustainable responses to the challenge of climate change.

Digital Economy Hubs
£36m
Social inclusion, Digital economy in rural economy, connecting people with digital technology.

Design in the Digital World Sandpit
£3m
The digital world helping people to design for the people and by the people in ways which transform the use of technology to enhance business and society.

Transforming energy demand through digital economy
£7 million call supported by the Research Councils' Energy and Digital Economy programmes.

Economic Performance and Development

Complexity Science

Complexity Science for the Real World Call
£11m

- University of Southampton - The Care Life Cycle: Responding to the Health and Social Care Needs of an Ageing Society. (*Health and wellbeing*)
- University of Surrey - Evolution and Resilience of Industrial Ecosystems (ERIE). (*Economic Systems*)
- The University of Manchester - The Social Complexity of Immigration and Diversity. (*Social Stability and Exclusion*)
- UCL - Explaining, Modelling, and Forecasting Global Dynamics (ENFOLD-ing). (*International development and globalisation*)

Information Technology and Society

Cognitive System Foresight
BBSRC, MRC, Wellcome Trust, ESRC
A form of signpost activity (no pre-allocated funding).

PACCIT
£2.5m
EPSRC, ESRC, DTI
Putting People at the centre of Communication and Information Technology.

Technology Enhanced Learning
£6m
ESRC and EPSRC
Technology in education, Artificial Intelligence, Human Computer Interactions.

Programme Grant: CHI + MED
£3m
Human computer interface and design of medical devices.

Assisted living Innovation Programme
EPSRC and TSB
Distributed systems and hardware for assisted living.

Chemistry and Social Science

Physics and Social Science

Engineering Design and Management

Advanced Institute of Management Research (AIM)

- £35m programme (cross council)
- AIM's mission is to significantly increase the contribution of and future capacity for world class UK research on management.

Socio-technical systems Responsive Mode Panel

- 2004 – 2009

Innovative Manufacturing Research Centres

Bath Innovative Design and Manufacturing Research Centre

- £7.3m
- The IdMRC undertakes world-leading research into the design and manufacture of machines, systems and processes.

Cambridge Engineering Design Centre

- £7m
- innovative research to create understanding, methods and tools that will contribute to improving the design process. Includes, among others; healthcare design, process management and service design.

Health and Care Infrastructure research and innovation centre

- £3.7m
- HaCIRIC brings together researchers from many disciplines, including economics, engineering, architecture, psychology, management and policy studies. Its research aims to improve the way healthcare infrastructure is planned, designed and delivered, and the impact it has on the health and social care system.

(Other IMRCs may also have a connection to the social science interface – this just highlights a few)

Living with Environmental Change (£9m from EPSRC)

ARCC (Adaptation and Resilience in a changing climate)

- The £6M programme will enable the design of urban systems that are more resilient to climate change.

The Risk Centre, Cranfield

- £3.5m
- Defra, EPSRC, LWEC, ESRC, NERC

Themes; strategic risk appraisal, risk and evidence, organisation

Complexity Science

Complexity Science for the Real World Call

- £11m
- Health and wellbeing - University of Southampton -The Care Life Cycle: Responding to the Health and Social Care Needs of an Ageing Society
- Economic Systems - University of Surrey - Evolution and Resilience of Industrial Ecosystems (ERIE)
- Social Stability and Exclusion - The University of Manchester - The Social Complexity of Immigration and Diversity
- International development and globalisation -UCL -Explaining, Modelling, and Forecasting Global Dynamics (ENFOLD-ing)

Energy

Walking and Cycling Grants – Understanding human behaviour

- £4m
- Understanding barriers to modal shift, society, transport and policy

Energy and Communities Collaborative Venture – Understanding Human Behaviour

- £7.5million
- ESRC and EPSRC
- Understanding of issues surrounding energy use within communities with a view to contributing to the Government's green house gas emissions targets. Addresses a broad range of research challenges such as community ownership, energy innovation, policy, governance and social movements.

Climate change Tyndall Centre

- ESRC, NERC, EPSRC
- The Tyndall Centre is a national UK centre for inter-disciplinary research on climate change. It is dedicated to the identification, promotion and facilitation of sustainable responses to the challenge of climate change.

Strategic Partnerships with EDF and EON

The Carbon Vision Buildings and Industry Programme

- EPSRC and the Carbon Trust
- £14m partnership

- Domestic and industrial demand reduction

People, Energy and Buildings

- A £4 million joint call supported by EDF and the Research Councils' Energy Programme.

Marine and Shipping

- £3m
- Understanding economics of greener shipping

Information Technology and Society

PACCIT

- £8.4m
- EPSRC, ESRC, DTI
- Putting People at the centre of Communication and Information Technology

Cognitive System Foresight

- BBSRC, MRC, Wellcome Trust, ESRC
- A form of signpost activity (no pre-allocated funding)

Technology Enhanced Learning

- £6m
- Technology in education, Artificial intelligence, Human Computer Interactions
- ESRC and EPSRC

Programme Grant: CHI + MED

- £6m
- Human computer interface and design of medical devices.

Assisted living Innovation Programme

- EPSRC and TSB
- £2m
- Distributed systems and hardware for assisted living.

Digital Economy

Digital Economy Hubs

- £36m

- Social inclusion, Digital economy in rural economy, connecting people with digital technology

Doctoral Training Centres

- These 7 centres cover research relating to the Digital Economy: connect people with digital technology to radically improve the way we live, work, play, and travel.

Design in the Digital World Sandpit

- £5m
- The digital world helping people to design for the people and by the people in ways which transform the use of technology to enhance business and society

Digital Economy Research in the Wild

- £3m
- Allowing researchers in the Digital Economy to expose and test their research ideas with potential beneficiaries – for example, the individual, business and/or society – in order to get closer to achieving a viable proposition with potential for transformational impact.

Research Clusters

- £2m
- 9 clusters to promote multi-disciplinary working

Transforming energy demand through digital economy

- £7 million call supported by the Research Council's Energy and Digital Economy programmes.

Sustainability

Sustainable Urban Environment (SUE) Programme

- £30m
- improve the quality of life of UK citizens, to support the sustainable development of the UK economy and to meet the needs of users of EPSRC funded research in industry, commerce and the service sector.
- Includes 16 consortia covering; urban and built environment; water, waste and land management; transport.

UK – China eco-city

- The networks bring together industry, academia and government for practical research, innovation and global interaction in the development of eco-cities and ecoregions worldwide.

Flood-Risk Management Research Consortium

- £5m
- EPSRC, Defra, NERC, Scottish Government, UK Water Industry Research
- Research into the social and economic impacts of flooding as well as delivering tools and guidance to flood practitioners and strengthening the UK science and engineering base in flood research.

Advanced Institute of Management Research (AIM)

- £35m programme (cross council)
- AIM's mission is to significantly increase the contribution of and future capacity for world class UK research on management.

Life Sciences and Society

Synthetic Biology Networks

- £1m
- BBSRC, AHRC, ESRC, EPSRC
- 7 networks funded which included looking at the social and ethical issues related to synthetic biology research.

Public Dialogue

- EPSRC and ESRC
- Looking at the future policy of synthetic biology.

Science and Innovation Award: Centre for Synthetic Biology

- £4.7m
- The aim is to establish a new and innovative research centre within the Institute of Systems and Synthetic Biology (IoSSB) called the Centre for Synthetic Biology and Innovation.

Healthcare and Lifestyles

EQUAL – Extending Quality of Life Initiative

- £15
- EPSRC and ESRC
- The EQUAL initiative demonstrated that by keeping researchers close to research users and beneficiaries, as well as ensuring that they were networked to policy makers, major improvements could be achieved very quickly both locally and nationally.

Healthcare Partnerships

- £8m
- To establish a joint funding stream for high quality engineering and physical science research within academe that provides a potential route for exploitation within the UK healthcare arena.

New Dynamics of Aging

- £23m programme (cross-council)
- EPSRC, ESRC, BBSRC, MRC and AHRC
- The programme aims to develop practical policy and implementation guidance and novel scientific, technological and design responses to help older people enjoy better quality lives as they age.

Aging: Lifelong health and Wellbeing

- £30m programme (cross-council)
- AHRC, BBSRC, EPSRC, ESRC and MRC
- Mental capital, mental health and wellbeing
- Markers for the ageing process
- Interactions between determinants of healthy ageing
- Interventions that promote healthy ageing and independence in later life

Nanotechnology Grand challenge 2: Healthcare

- £15m
- Application of nanotechnology to healthcare through a project incorporating significant novelty in engineering or physical sciences integrated with relevant biological and medical elements and incorporating appropriate social and economic aspects to the project;
- Nanotechnologies for the targeted delivery of therapeutic agents;
- Nanotechnologies for healthcare diagnostics.

Economic Performance and Development

Physics and Social Science

Chemistry and Social Science

Mathematical and Social Sciences

Maths of Life Sandpit: Evolutionary Processes

- £680k
- Develop robust theoretical framework for transgenerational effects and evolution. Understanding trans-generational effects e.g. how organisms will respond to different types of environmental change.