Working Together in ICT

Call type: Invitation for proposals

Closing date: 10 July 2012

Summary

EPSRC’s ICT Theme intends to commit around £5M of funding for research projects which will directly address its Working Together priority.

Projects submitted in response to this call should comprise two or more ‘streams’ of research which run concurrently and show significant mutual benefit. These streams may include ICT researchers working with researchers in areas outside ICT, as long as the potential benefit to ICT research is the main driver for the project.

Background

Working together across the ICT research landscape and with other disciplines is a priority for the ICT Theme. Mapping of the EPSRC portfolio highlights numerous ways in which, by working together more effectively, new opportunities for research could be identified, seized and exploited.

At an event in March 2012, more than 100 researchers who are funded by the ICT Theme or who review its proposals met to discuss the Working Together priority (see http://www.epsrc.ac.uk/ourportfolio/themes/ict/introduction/Pages/workingtogether.aspx for more information on this priority). The key messages from this event were:

- There are many ways of working together which, on their own or in combination, might indicate that a project addresses the Working Together priority and so is suitable for the Working Together call. [To help clarify some of these, the ‘dimensions’ of working together presented at the March event are in an annexe to this call.]

The EPSRC portfolio already has a healthy degree of collaboration, but Working Together goes beyond this. It is the aims and nature of the collaboration rather than its simple existence or the ‘amount’ of it that identify a project as being suitable for the Working Together call. Researchers are encouraged to consider the range of dimensions it takes and how they might contribute to the priority being addressed.
• Working Together is about identifying, creating, developing and exploring exciting research opportunities which might so far have been missed as a result of the necessary connections not having been made.

The Working Together call will encourage and support work which otherwise might not naturally appear because researchers are not confident that their view of its value to ICT research will be shared by their peers.

• A call like Working Together is not an end in itself. It is a way to initiate a change in behaviour with a view to turning it into normal practice in ICT research.

Working Together projects should be based on the same principles of excellence, importance and impact as proposals submitted to standard mode. The idea is that, eventually, the portfolio as a whole will reflect the objectives of this call and be fully accepting of proposals which address the aims of the Working Together priority. Working Together projects should employ the same resources, and explain and justify themselves in the same way, as proposals which arise and are supported without specific intervention in the standard mode. The call’s target audience is the community as a whole: peer reviewers and panel members as well as applicants.

• There are already some good examples of working together in the ICT portfolio as a result of the nature of the schemes EPSRC operates. Programme Grant applications often feature working together; Fellowship applications must address the priority to be accepted for review. The thinking behind these needs to become more widespread.

The Working Together call is not suitable for proposals or ideas which would be well-served by a scheme already offered by EPSRC. It should not be seen as a second chance for already rejected proposals and resubmissions are not allowed. Working Together proposals should learn from what is already being done in the EPSRC ICT portfolio and be seen as positive additions to it.

• As society comes to rely more and more heavily on data, information, communication and the technologies which underpin them, the importance of ICT research is growing massively. It is considered to be an exciting time to be an ICT researcher.

There are currently many major challenges and opportunities for ICT researchers. Contrary to the perceptions of many potential applicants there is actually strong shared agreement on what these are, how to tackle them and the fact that they often relate in some way to boundaries between areas. Working Together projects should be ambitious and reflect a commonly-held belief amongst the ICT research community that the interfaces (of all kinds) of ICT remain under-exploited.

**Funding available**

Around £5M of EPSRC funding is available in support of the Working Together call. Given the background outlined above this is a flexible figure and more or less funding may be made available according to the fit to the call of the proposals we receive.
Aims and scope of the Call

The Working Together call aims to support research projects which contribute to the ICT Theme’s Working Together priority and which might not currently arise without intervention, given the relative newness of that priority. Its overall objective is a demonstration that projects which align with the Working Together priority can and will be supported by less interventionist means in future and that potential applicants should therefore be confident in submitting them without the need for a specific call.

Working Together is relevant to all areas of research within ICT. Given the focus on interfaces we encourage consideration of work which is outside traditional areas of ICT interest, as long as the benefit to ICT is clearly stated and the case made on that basis (i.e. the case should not be made solely or primarily on the basis for impact or advances outside ICT.) Proposals with insufficient relevance to the ICT Theme remit may be rejected before peer review.

Working Together proposals will need to be based on two or more ‘streams’ of research. A stream can be thought of as a project with its own objectives and resources, where close communication with other streams allows these to be met more effectively.

Each stream should clearly relate both to its sister stream(s) and the objectives of the project as a whole. In themselves, streams may well look like ‘standard’ research projects. Their planning and resourcing are not required to be unusual except that resource should be built in to support the necessary interactions between streams.

Streams may be ongoing in the same institution and/or included in the same proposal form, as long as their distinct nature and value is described adequately in the case for support. You should also explain why the individuals or groups involved in your proposal have been included and how this fits with the aims and scope of the call. Note that collaboration between organisations is not on its own sufficient grounds to consider a proposal as being suitable for the Working Together call.

Working Together projects could include:

- Feasibility studies exploring where different research streams could benefit from working together
- Projects focused on known interfaces where value can be added by more effective working together
- Projects to build the links that will enable effective collaborative follow on projects
- Projects which can act as a focus for working together between a wider community of researchers
- Or other ideas for projects which will fit the aims and scope of the call
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, 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/Pages/Eligibilityforrcs.aspx

How to apply

Submitting application
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 Research’
- On the Project Details page you should select the ‘Working Together in ICT’ 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.

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 10 July 2012.

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/Pages/default.aspx) which should be consulted when preparing all proposals.

Guidance on writing application
Proposals submitted in response to this call will be assessed against the standard research criteria (see below) and should include all the usual information and documentation, in the usual format, required for a proposal in standard mode.

Each Working Together project should be described in a single, shared, case for support of the normal length, irrespective of how many streams of research it includes or how many partners are involved. No additional pages or annexes are allowed. There is no limit on the number of Je-S forms which can be associated with the single, shared case for support: if more than one institution is involved, all of the resources may be requested on a single Je-S form or you may choose to submit separate forms for each partner institution.
In addition to meeting the necessary quality standards, applications will also need to make a clear case, in the case for support, for why this call is appropriate for them. This might be achieved by answering – directly or indirectly, explicitly or implicitly – the following questions:

- What will be the benefit of the research streams running concurrently?
- Why is it important to have a project bringing researchers in these areas together?
- Why isn’t this happening already?
- What are the benefits given by these research streams running in parallel?
- How will this result in a different ICT research portfolio?
- What will they do to ensure this project contributes to greater working together amongst ICT researchers?
- How do they think this will effect ICT research in the UK in the beyond the boundaries and end of the project?

Applications which do not make the case for their relevance to its stated aims will not be funded through this call, irrespective of their other merits. In extreme cases it may be possible for a proposal to be routed back into standard mode, but given the inevitable delay this will cause in making a final funding decision we hope not to see this tactic being pursued deliberately (i.e. cases of proposals being submitted in case they are relevant rather than because they are relevant, in the expectation of having a second opportunity to receive funding.)

For general advice on writing proposals see:

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

Assessment

Assessment process

Proposals will initially be assessed by anonymous peer reviewers against the standard research criteria. Those proposals which receive sufficiently supportive reviews will be evaluated further by a panel to produce a prioritised funding list.

Assessment criteria

The criteria for assessment of proposals are:

- Quality of the proposed research
- Importance of the proposed research
- Pathway to Impact
- Appropriateness of the applicants to deliver the research
- Resources and Management
Reviewers will be asked to comment also on fit to the call’s aims. The panel will also use fit to the call’s aims and scope as a criterion to decide proposal rankings.

**Guidance**

**Guidance for reviewers**

Reviewers will see the following further guidance text:

‘Working together across the ICT research landscape and with other disciplines is a priority for EPSRC’s ICT Theme. This proposal has been submitted in response to a call intended to support working together.

As well as looking at its technical quality and merits, you should assess it in light of its potential to support working together in new ways, between otherwise poorly-connected areas of research or on shared challenges in ICT. Proposals must be excellent in terms both of their fit to the aims of the call and their scientific quality if they are to be recommended for funding.’

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

**Key dates**

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<thead>
<tr>
<th>Activity</th>
<th>Date</th>
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<tbody>
<tr>
<td>Call issued</td>
<td>2 May 2012</td>
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<tr>
<td>Call closes</td>
<td>10 July 2012</td>
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<tr>
<td>Panel meeting</td>
<td>November 2012</td>
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<tr>
<td>Grants announced</td>
<td>By end December 2012</td>
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**Contacts**

For general advice on EPSRC remit and applications please contact the relevant ICT portfolio manager. Their details can be found at http://www.epsrc.ac.uk/ourportfolio/themes/ict/Pages/contacts.aspx.

For specific advice about this call please contact:

Alex Hulkes

alex.hulkes@epsrc.ac.uk

Tel.: 01793 444116
Appendix

The dimensions of working together

There are many features of a project which might indicate that it is suitable for the Working Together call. The examples below are not exhaustive and should not be seen as a check-list.

Dependencies

Progress in research does not often come in the form of leaps forward which are unsupported by advances in other areas. Dependencies are the rule rather than the exception, and ICT is no exception to that rule. Working Together proposals might reflect the fact that advances in one area of research will often rely on parallel progress in others, or on particular pieces of new knowledge or understanding developed within them. Research is not necessarily a relay process in which a baton is passed; often it is more like a team game where each member has a defined role of their own to play and depends on others to ensure overall success.

Convergences

Different areas of research or groups of researchers sometimes find themselves working on the same problem using similar techniques but perhaps starting from different places. For instance, is the question of how to get a robot to correctly identify, say, the buttered side of a piece of toast an AI issue, a robotics issue, a machine vision issue or something else? In reality all those areas of research and more might have something useful to say or exciting and novel to add. Rather than each researcher developing a separate approach it may sometimes be more useful to draw on each others’ expertise and converge a solution from the best component parts.

Upstream – downstream

Sometimes research is more like a relay than a team game. Work which is ‘upstream’ – further, in some sense, from application, in some way – needs to be handed over effectively to someone who can take it ‘downstream’ – closer to application in some sense, even if the application is in further research – if it is to fulfil its potential. Sometimes this happens naturally and easily, sometimes it does not. Whose responsibility is it to make sure that the baton is passed? The Working Together call is an opportunity for researchers to ensure a smooth handover and to allow upstream research to move downstream.

Inside – outside ICT

Inter- and multidisciplinary working is a perennial challenge and a particularly important one for ICT research, which is so often an enabler for broader impact or advances in other areas. The interfaces of ICT with other fields continue to provide rich sources of innovative ideas and challenges of all kinds. ICT research can be as much a beneficiary of work in these areas as the cognate discipline. Working Together is a good vehicle to support collaboration of this kind, which has exciting new ICT work at its heart.

Shared challenges

There are numerous acknowledged problems or issues in ICT which can be described as ‘shared challenges’. For example, there is a ‘big data’ challenge, an autonomy challenge, an energy efficiency challenge, a security challenge... The list goes on. These challenges are often not well defined but researchers tend to understand what they mean, in the context of their work, sufficiently well to address them without the need for a formal call or funding mechanism. Working Together is a good opportunity for researchers from a broad range of disciplines to address shared challenges, whatever they are and however they are described.

Other funders

Although EPSRC is ‘the main UK government agency for funding research and training in engineering
and the physical sciences’ we are not the only one, and in some areas are not even the major funder. By aligning EPSRC funding with support from other sources, offered with different aims, new connections may be made or new pathways to impact opened up. While Working Together is not intended to formally co-fund research, it might operate as a vehicle to build on, widen or strengthen work funded by other organisations.

**Other countries**

International collaboration is another aspect of research that is universally agreed to be a) potentially very valuable and b) almost always difficult to do. Where the difficulty comes from a perceived lack of will to support such collaboration, the Working Together call may be able to help. For more information on international working see: http://www.epsrc.ac.uk/about/partner/international/Pages/default.aspx

**Other dimensions**

The dimensions outlined above are not definitive, comprehensive or tidily delineated. They tend to smear into each other and share some aspects. Other ways of fitting the aims of the ‘Working Together’ call and the associated priority are doubtless possible, as are combinations of those outlined here. It is the aims and spirit of the call that matter, not box ticking to fit to as many dimensions as possible (an approach which will probably even be counter productive). Working Together applications need to make the case for benefit to ICT research as a result of working together in new ways. The exact nature of those ways is very much up to applicants to describe.