

## **MULTIDISCIPLINARY SYNTHETIC BIOLOGY RESEARCH CENTRES (SBRCs)**

Following the first phase of the Multidisciplinary Synthetic Biology Research Centres (SBRCs) call in 2013, which established three SBRCs; this is the call for proposals to the second phase. The call has been developed by the RCUK Synthetic Biology Working Group, and BBSRC and EPSRC will support some recurrent costs alongside the capital monies received as part of the 2012 Autumn Statement. BBSRC is administering the call on behalf of the Councils.

The call will proceed straight to full applications which will be assessed by an International Panel of experts. All applicants submitting a proposal will be expected to attend an interview with the Panel as part of the assessment process. Applicants should note that there will be an enforced latest start date of Friday 14th November for successful proposals.

### **FREQUENTLY ASKED QUESTIONS AND APPLICATION GUIDANCE**

These frequently asked questions are provided as guidance to applicants on common queries. Applicants should contact us if further clarification is required or if they have queries which are not covered here or in the main call text.

- Questions on the scope and purpose of the SBRCs
- Questions on industrial collaboration
- Questions on deliverables and monitoring
- Questions on funding and equipment
- Questions on the application and assessment process

### **QUESTIONS ON THE SCOPE OF THE SBRCs**

**Should Centres be focussed on a specific scientific question, sector, or industrial outcome, or can they be aimed at underpinning technologies / research?**

The scope of the Centres has deliberately been left open to the applicants. Therefore, they may be focussed or underpinning, according to the strengths of the applicants. However, Centres should have a clearly articulated vision and be in line with the ambitions described in the [Synthetic Biology Roadmap](#).

**What is the balance of biology to engineering anticipated within the Centres?**

Although it is expected that all Centres will incorporate some aspects of biology and engineering, the balance of the disciplines should be appropriate to the objectives of the Centre. This may mean that some proposals are heavily skewed towards one discipline over the other. It is important that applicants consider the need for multidisciplinary within the Centres, even if the proposal is predominantly either biology or engineering oriented.

**Who is eligible to apply to this call?**

Standard BBSRC guidelines for managed mode funding will apply. In preparing your application you should ensure that all of the applicants are eligible to apply for BBSRC funding. If you have any queries about eligibility, please contact BBSRC by emailing [SynBioRC@bbsrc.ac.uk](mailto:SynBioRC@bbsrc.ac.uk) with 'eligibility' in the subject heading.

Applications are equally welcomed from investigators who are established in the field and those who are new.

The New Investigator, IPA, and LINK schemes do not apply to this call.

### **Can Centres be multi-institutional / Regional?**

We do not intend to establish a group of Regional Centres through this call.

If appropriate, multi-institutional Centres are welcome but must demonstrate evidence of:

- added value and synergy with the partners bringing additional expertise to the partnership;
- genuine aim of collaboration and sharing;
- strong management to enable true integration of all institutions;
- a coherent vision and programme rather than a disparate set of activities;
- how equipment will be effectively managed and run across the consortium.

All applications should be on a **single** Je-S form **submitted by the Principal Investigator**. Applications that involve investigators from different institutions that are not submitted on a single form will be withdrawn from the scheme.

### **Are there fundamentals that every centre must have?**

The multidisciplinary SBRCs will possess the vision, breadth of intellectual leadership and research resources required to integrate disciplines including bioscience, engineering, chemistry and information and communication technology into programmes of synthetic biology research of the highest international quality. They will also integrate the research activities of experimental scientists with those working on ethical, legal, societal and other issues within the context of responsible innovation.

The UK roadmap recognised that SBRCs are necessary to build on the UK's strong research foundations in order to create bioengineered solutions to underpin the UK bioeconomy.

The SBRCs must focus on strategic areas relevant to one or more key industrial sectors that could include: fine and speciality chemicals; life science technologies; energy; environment; sensors (including diagnostics); agriculture and food; medicines and healthcare. Once established the SBRCs, working with the Research Councils, will form a coordinated programme of investment providing 'one-stop' access to resources and expertise, enhancing developmental opportunities for academia and industry alike.

### **Do the people involved in the proposal have to be physically co-located?**

No, however applicants should consider the need to demonstrate multidisciplinary working and effective collaboration.

### **We would like some help in identifying links / collaborators at other institutions, can the councils help with this?**

Good sources of information are the 9 research council-funded synthetic biology networks and the synthetic biology Special Interest Group, which has nearly 700 members.

### **Is it expected that the Centres will work together?**

Although there is an element of competition between the Centres, they should be outward-facing and linked in to developments in other Centres and appropriate initiatives in order to exploit synergies and complementarities. Longer-term, the councils would like to see some collaboration within the funded portfolio. To facilitate this, there will be an annual meeting for the Centres to disseminate results and share best practice. It will also be important to keep abreast of advancements in the wider-UK, and International communities.

**Are Centres wholly focussed on wet-lab research or dry-lab research allowed?**

Due to the requirement for multidisciplinary and integration, proposals that are wholly focussed on theoretical or on wet-lab research are not eligible for this call.

**Are proposals that focus largely on the ethical, legal and social aspects (ELSA) of synthetic biology eligible?**

It is expected that all proposals will show consideration of ELSA and whilst this should not form the main focus of a Centre, it is expected that the lead PI for any ELSA activities will be incorporated into the governance and management structures of the Centre.

All applicants are expected to answer 'yes' to the question on ethical issues arising from the proposed research when completing the JeS proforma and must provide an overview of how they will be addressed. It may be appropriate to refer to further details in the Case for Support.

**Are EPSRC and BBSRC proposing to fund the social sciences aspects of any successful Centres?**

(Also see the answer to the question above).

ESRC have had input to the shaping of this call, although they are not contributing financially at present, as such, BBSRC/EPSC will fund the social sciences aspects of a successful proposal, as long as it is fully justified. However, applicants should consider the balance within their proposed Centre – the social science aspect of a proposal could be a specific activity or a more general component - but the overall balance of the Centre must fit within BBSRC and / or EPSRC's remit.

**To what extent do you see the social science aspect reflecting public views or shaping public views?**

There are opportunities here to integrate social science aspects, such as how this sort of science community is created or how does the scientific community engage with the public so that they understand what is being done and why, into the SBRCs. Both the applied social sciences and the wider ELSA are important considerations.

**Are the other Research Councils engaged in this call?**

MRC and NERC will consider contributing resource funding on a case by case basis. Applicants intending to include significant human health elements (MRC) or significant elements relevant to the strategic interests of NERC must contact MRC no later than 4pm, Friday 6<sup>th</sup> June or NERC by 4pm, Monday 30<sup>th</sup> June (see contact details below). However, applicants should consider the balance within their proposed Centre – the overall balance of the Centre must fit within BBSRC and / or EPSRC's remit. The final decision on remit and co-funding will be made by the relevant research councils based on the final, submitted version of the application.



## **QUESTIONS ON INDUSTRIAL COLLABORATION**

### **What is the expected / desired level of industrial engagement?**

BBSRC and EPSRC remit is within the TRL 1 to 3 space, although Centres may position themselves at any point along the translational pathway to industry. Although BBSRC and EPSRC do not stipulate a specific degree of industry participation, applicants are encouraged to consider industrial engagement and it is expected that applicants will be able to clearly demonstrate what the route(s) to industry would be and identify in their 'Pathways to Impact' statement which industrial partners would be most relevant to engage with.

Examples of industrial engagement on a project could include but are not limited to; cash contributions, materials, access to equipment or facilities and staff participation in research or on a project management committee / scientific advisory board.

Where an application includes industry collaborators, applicants should ensure that they fully address the contribution of the industry collaborator to the project, how the collaboration will be managed and how that collaboration will increase the likely impacts of the project.

### **Do we need a letter of support from our industrial collaborators?**

Yes, a letter of support from the industry partner(s) providing a direct or indirect contribution should be attached to the proposal using the 'project partner letter of support' attachment in JeS. The letter should outline their contribution to the project and describe their involvement.

### **Does the proposal require a letter of support from the TTO of the lead institution or from all of the institutions involved?**

We require one letter of support from the lead institution TTO confirming that in line with section GC21 of the [Cross-Research Council Research Grant Terms and Conditions](#), a signed collaborative agreement between all partners will be provided before research commences.

### **Where should the details of industrial collaborators be included in the application?**

Industrial collaborators providing a direct or indirect contribution should be entered into JeS as 'project partners'. The case for support should describe the benefits of the collaboration to the Centre. The 'Pathways to Impact' statement should outline how the collaboration will increase the likely impacts of the research. Applicants may wish to consider getting input from their collaborators in addressing this.

### **Do the Industrial Partnership Award (IPA) and LINK schemes apply?**

No, while engagement with industry is welcomed, these schemes do not apply to this call.

### **Can our industrial collaborators access equipment bought on the SBRC grant, and do they have to pay access fees?**

Yes, industrial collaborators can have access to equipment bought on the SBRC grant. Whether they pay access fees depends on the financial model you decide to use for maintaining the equipment. Cost recovery models are allowed within the FEC rules and if you decide to operate a cost recovery model for access to your equipment then it would be appropriate for industry collaborators to be charged in the same way as anyone else. You must avoid unfair competition with the private sector.

## **Do we have to include all of our industrial collaborators on the scientific advisory board?**

Although a wholly 'internal' board would not be acceptable, it is at the discretion of the applicants who they decide to invite to be on the scientific advisory board; whoever is included (or not included) should be justified within the application.

## **QUESTIONS ON LEADERSHIP, DELIVERABLES AND MONITORING**

### **Should we appoint a Director?**

In the experience of the Research Councils, it is imperative to the success of major investments of this nature for there to be both meaningful scientific and strategic direction. Our preferred model is for these roles to be separated between individuals with the appropriate skills to deliver the different functions.

As such, it is expected that in addition to a lead-PI (who will have overall oversight of the scientific direction of the Centre) each Centre will appoint a Director who will have oversight of the strategic direction and management. The lead PI and Director should demonstrate a significant commitment to the Centre. In addition, applications should outline contingencies for succession planning.

### **Do we need a governance and management plan?**

Yes; management and governance requirements should be appropriate to the size, complexity and needs of the Centre, and professional project management resource can be included, if appropriately justified. It is also expected that the lead PI for any ELSA activities will be incorporated into the governance and management structures of the Centre.

### **What are the deliverables and long-term objectives of the Centres?**

Depending on the scope of the successful Centres the deliverables and long-term objectives could be very different. Applicants should articulate the deliverables and long-term objectives of the Centre based upon the scope and overall vision. It is expected that the Centres would be self-sustaining by the end of the 5 years funding period.

### **How will the Centres be monitored?**

The Centres must appoint a Scientific Advisory Board, to which the Director and lead-PI will report on an annual basis. BBSRC and EPSRC representatives must be invited to the SAB meetings. The research councils will organise an annual meeting for the successful grant holders; representatives of each Centre will be expected to attend.

In addition, the research councils will commission a mid-term review after three years, which will be used to provide feedback on the progress against the deliverables, and guidance for the final two years of funding.

## **QUESTIONS ON FUNDING AND EQUIPMENT**

### **Is it anticipated that more than one Centre will be funded in the same area?**

Each Centre should play to its strengths and ideally it would be synergistic with the other Centres. A diversity of approaches / topics is preferred but it is not an absolute requirement that each Centre addresses a different topic.

### **What is the requirement for upfront commitment from the hosting organisation(s)?**

Centres will need to demonstrate strong leadership, strategic commitment and a strong alliance with the hosting organisation's strategy; this includes demonstration of how the application integrates with the institution's own priorities. Proposals **must** include an institutional letter of support from the Pro-Vice Chancellor or equivalent of each institution on the proposal.

Some examples of institutional commitment could be:

- plans for longer-term sustainability after the 5 year funded period
- dedicated space
- appointment of a dedicated Director and / or significant commitment from the lead PI / Director to the running of the Centre (not less than 30%).
  - this could include a commitment to the continuation of the Director and / or lead PI's post after the duration of the Centre
  - there should also be contingencies for succession planning within the application
- contributions towards staff posts

Applicants should note that whilst host institutions do not necessarily need to commit matched resource funding, the final amount awarded will be dependent on significant resource commitment from host institution(s).

### **What do you mean by capital costs?**

Any costs which are solely and entirely related to the acquisition of a major asset can be classed as capital.

### **By capital equipment items, do you mean items over £10k?**

Yes

### **Are we permitted to apply for capital equipment items between £10k and the OJEU threshold of £113,057 (excluding VAT)?**

Yes. The normal requirement for the host institution to provide a 50% contribution to the cost of equipment in this price range will not be mandatory in this instance. However, where a Research Council contribution of greater than 50% is sought, this must be well justified. A significant commitment to the Centres will be expected from the host institution(s) (see above).

### **Are we permitted to apply for capital equipment items over the OJEU threshold of £113,057 (excluding VAT)?**

Yes. In this instance, items over the OJEU threshold will not need an additional business case. However, clear justification for these items should be included in the justification of resources; the maximum length of this attachment has been increased in order to accommodate the extra justification(s). The costings must be based on tangible market evidence (see question on quotations below).

**Are quotations for items of equipment over £10k or over the OJEU threshold of £113,057 (excluding VAT) required?**

Whilst the final purchases must be made using legal and robust procurement procedures in line with EU competitive tender requirements, applicants are invited to apply using early estimates, based on tangible market evidence. Awards will then be made using an 'up-to' capital amount, where the final award is informed by full procurement procedure.

**Are we permitted to include depreciation costs?**

Depreciation cannot be claimed on any equipment where the Research Councils have funded the capital costs, so it is not an eligible cost under the call. BBSRC institutes using QMAC should consult their funding offices, and if necessary BBSRC, prior to submission.

**Are we permitted to apply for running costs for capital equipment items?**

Yes

**If we make equipment bought with an SBRC grant available to other academics are we allowed to charge access fees?**

Yes, a cost recovery model is allowed within the FEC rules. However applicants must be sure to follow Wakeham requirements.

**Are we permitted to request consumables costs?**

Yes. However, this does not cover costs which should be covered by estates e.g. postage, photocopying, toner, discs non-specialist books.

**Are we permitted to request costs to cover service contracts / maintenance of equipment?**

Yes. If these are purchased as part of a package with a piece of capital equipment they should be listed as capital costs. If they are to be purchased separately then they should be listed as 'other costs'.

**Are we permitted to request costs to cover public engagement and outreach activities including training?**

Yes

**Can we request costs for a launch event?**

Yes, but this must be fully justified.

**Can we request costs for travel e.g. to the annual meeting mentioned in the call text?**

Yes, costs for travel are eligible but must be for meetings within the lifetime of the Centre and be fully justified.

**Are studentships an eligible cost?**

No, postgraduate studentships will not be an eligible cost for the Centres and should not be included as part of the application. Host Research Organisations with existing Research

Council-funded doctoral students should consider how best to integrate relevant studentships into the work of the Centre, reflecting the existing demands of Doctoral Training Partnerships/Centres for Doctoral Training on students' training.

### **Should partners who do not benefit financially be listed in the application?**

Project partners providing a direct or indirect contribution should be entered into JeS as 'project partners'. The case for support should describe the benefits of the collaboration to the Centre. The 'Pathways to Impact' statement should outline how the collaboration will increase the likely impacts of the research.

### **Can we include request for 'pump priming' funds?**

Yes.

### **Can we request refurbishment costs?**

Where refurbishment adds life to a building / increases the value generally or is required in order to enable an aspect of the scientific research, then yes.

### **The application is to be made on 1 form; for joint applications how should we address different FEC funding model parameters?**

Costs should be calculated for each institution and added together, the total should be listed on the form. A breakdown of the calculation should be included in the justification of resources section.

## **QUESTIONS ON THE APPLICATION AND ASSESSMENT PROCESS**

### **How will the proposals be assessed, and what will the assessment criteria be?**

The application documents will be assessed by a specially convened Panel of international experts. In their assessment, the Panel will consider the following criteria:

- The extent to which the application addresses the scope and aims of the SBRCs
- the excellence of the scientific proposal
- the strategic importance of the Centre to BBSRC, EPSRC and the applicants' institutions
- appropriateness of the proposed pathways to impact
- the economic and social impact
- timeliness and promise
- value for money
- the training and career development potential offered by the Centre
- the long-term sustainability of the Centre

As part of the assessment, all applicants submitting a proposal will be expected to attend an interview with the Panel. Panel members will be invited to submit questions for the applicants prior to the interviews, which will be supplied to applicants where submitted. Full details of the format of the interview will be provided to applicants in due course.

Taking into consideration their assessment of the application documents, and the information given by applicants during the interview, the Panel will generate a rank-ordered list to identify the Centres that are recommended for funding.

#### **BBSRC specific condition GC4 – starting procedures**

Successful proposals will have a latest permitted start date of the 14 November 2014. No slippage to this date will be allowed. BBSRC will allow grants to be started with expenditure under any fund heading to allow for the latest permitted start date.

#### **Should we include letters of support from collaborators (UK and / or International)?**

Letters of support must be included to confirm an active collaboration or contribution to a Centre in terms of resources or expertise, and may be included where a statement from a third party is necessary to enable the informed assessment of a proposal.

#### **Can unsuccessful proposals from the first phase be revised and re-submitted to the second phase?**

Unsuccessful applicants to the 13SBRC call may re-submit to the 14SBRC call, subject to revisions being made to the proposal to take into account feedback from the assessment of the first phase. Unsuccessful applicants who wish to consider applying to the second phase, **must** contact the office before doing so, otherwise the standard BBSRC resubmission policy applies.

#### **Contacts**

##### **Strategy and scientific enquiries, including remit enquiries:**

Ceri Lyn-Adams / Rowan M<sup>o</sup>Kibbin – BBSRC

Luke Davis – EPSRC

Tim Cullingford – MRC

Simon Kerley – NERC

##### **Peer review and administration enquiries, including eligibility enquiries:**

For queries relating to peer review, admin or eligibility please contact BBSRC by emailing [SynBioRC@bbsrc.ac.uk](mailto:SynBioRC@bbsrc.ac.uk).