****

**EPSRC Impact Acceleration Account**

**Call for Proposals November 2017 – Guidance Notes**

**Seed Funded Projects**

**Additionality and Objectives**

***Relevant Criterion***

We will assess the additionality of the project in terms of the use of IAA funds initiating and developing an impact pathway which could not reasonably occur without IAA funding and for which alternative sources of funds are difficult to raise for example because there is insufficient evidence from R&D outcomes to leverage external investment*.* Good examples include projects where the technology is at TRL 2 and the project proposes to bring it to TRL 3 or beyond in the nominated application context or that a new partnership needs the support of new R&D and/or market data to substantiate a potential case for impact from technology already at TRL 3. For technology at TRL 4 and above we will expect projects to be co-funded.

***Guidance on Completion***

Describe the current state of research findings from which impact is to be enabled in terms of the current findings and TRL and then describe how the project intends to build on these in terms of initiating and developing an impact pathway. How far do you expect this to progress along the pathway and developing the relationship with the partner, for example commitment to some form of co-funding and why is seed funding essential for this?

**Why does this represent an opportunity for impact?**

***Relevant Criterion***

There is a paper based logical case for practical application of the technology to deliver significant benefits to potential users compared with the current state of technology. It is the potential beneficial changes arising from the application and development of the research findings that represent the opportunity for impact.

***Guidance on Completion***

Based on the research findings to date and the proposed development of these described in the previous section provide a justification in the form of a FAB analysis for the current findings providing an opportunity for impact. How will the proposed project substantiate this case for example in validating the potential advantages for users? Outline the potential scale of the impact in terms of the attraction that could be generated by the advantages and benefits for those affected (eg potential users). What is the likely scope and population of those affected?

**Impact Pathway Development and Project Plan**

***Relevant Criteria***

The expectation as the impact pathway develops, perhaps in a succession of projects, is that the partner will take an increasing role in leading and undertaking project activities and bearing a share of the costs (eventually 100%) of investing in the pathway activities. In order to enable and incentivise this the partner needs to embed an understanding of the project outcomes from seed project inception onward so that a business case can be tested for investing (eg co-funding) projects which follow the seed funding. This requires that the partner commits to undertaking activities in coordination with the timing of project outcomes to embed and understanding of the project outcomes so that their significance can be assessed in developing a business case for follow on funding and that these activities are set out together with the project activities in a project plan so that this commitment is transparent to the assessment process.

For seed funding submissions from Autumn 2017 onward we need to see a commitment to a follow-on project from the partner based on achieving a specified milestone in the seed funded project. If the partner is not willing or able to make this commitment contingent on the seed funded project achieving a milestone then the seed funding does not represent value for money as an investment in an impact pathway. Good value investments will include commitment to a co-funded project or the preparation and, ideally, securing of a bid for such partnership funding as a KTP. Please see the seed funding form for further detail. Where the follow on project is to be a project co-funded by the IAA then please prepare and submit the bids together as the funds will be allocated as a package.

***Guidance on completion***

Impact Pathway Development: Describe the potential impact pathway beyond the project and what will a partner do in the project to start to assess and develop this in terms of the activities they will undertake to embed and evaluate the outcomes and develop a business case for follow on project(s) and plan those projects with the University if appropriate.

Project Plan: Provide a project plan ideally in the form of a simple Gantt chart showing the project activities, their sequence and any dependencies including those activities to be carried out by the partner. Guidance and assistance on developing and presenting such plans can be provided. Please confirm that the partner has committed to undertaking these activities.

**Budget**

***Relevant Criterion***

EPSRC Funding Criteria coupled with the need to ensure that the project has been costed in sufficient detail to be feasible within the limits of seed funding (£10k Max).

***Guidance on completion***

The project cost does not need to be based on a full economic cost basis nor be costed on pFACT. Applications should not include the salary of the applicant; only the additional costs of the activity will be funded. These may include but are not limited to staff support, travel, consumables etc. As per the conditions of the grant institutional estates and indirect costs are not eligible.

**Co-funded Projects**

**Additionality and Objectives**

***Relevant Criteria***

We will assess the additionality of the project in terms of the use of IAA funds in making progress along an impact pathway which could not reasonably occur without IAA funding and for which alternative sources of funds are difficult to raise, for example because the partner cannot provide justification for all the resources needed and/or the project is in the “valley of death” – past the stage at which public funds are available for research and not yet far enough developed for fully commercial or available sources of R&D funding. Projects for co-funding will typically start out at between TRL 2&4 and expect to progress as far as possible although we will happily consider projects starting at a higher TRL where the partner is an SME and needs assistance in developing the technical and business case for further funding. (NB – the SME instrument in Horizon 2020 requires the technology to be at TRL 6 to qualify)

***Guidance on Completion***

In this section describe the current state of the research outcomes and/or R&D and the relevant TRL they represent. Describe the intended Project Outputs and the objectives in terms of the TRL to be attained and/or any other ways in which progress in the impact pathway will be made during the project e.g. detailed market studies. What are the intended outcomes for partner and potential impacts from this project e.g. enhanced capability / understanding of use of project outputs? Include a FAB analysis where Features = project outputs, Advantages = potential outcomes for partner and Benefits = potential impacts; see the Glossary of terms below). What is the potential scale of the impact in terms of quantitative data to illustrate potential market size where available?

**Proposed Activities**

***Relevant Criteria***

The project team (Academic and Partner) can demonstrate a satisfactory degree of planning for the project to provide the assessors with the comfort that the plan is credible. Suitable arrangements are made in the project management to address the risks and opportunities inherent in an R&D project to avoid abortive expenditure and ensure that opportunities arising can be pursued within or outside the project.

Activities in securing any follow on funding are necessary to minimise or avoid discontinuity in the availability of key staff resources to the follow on project.

Embedding activities by the partner are included and sufficient. Depending on the TRL reached by the project the partner will need to participate in or lead the funding process for follow on projects and embedding is essential for the partner to have the confidence and capability to do this.

***Guidance on Completion***

Describe intended activities (including those by the partner, for example in providing data) and how these will achieve “embedding” of the intended outcomes for the partner and the development of a business case for any follow on project. Include a Gantt chart of the activities (broken down by month) to show how the activities are intended to deliver the outputs and partner outcomes achieved and the dependencies between them. Include in your project plan any necessary activities prior to the start of the project eg recruitment and the completion of the IAA project agreement. It is recommended that a template of this agreement is supplied to the partner as part of the preparation of the proposal. Include activities by the team to use the project outputs to raise any necessary follow on funding.

Provide details of how ongoing project evaluation and management will be carried out. Advice and guidance is available if necessary.

**Follow on Impact Pathway Potential**

***Guidance on Completion***

What could a follow on project achieve given that this project is successful, what level of funding might be needed, and how will this project support the raising of the funding?

**Nature and potential funding for subsequent collaboration to deliver on Impact Pathway potential**

***Guidance on Completion***

Think about grants for follow on R&D and market introduction activity – RCUK, Innovate UK, KTP, Horizon 2020, risk capital etc and ensure you have included the necessary activities to pursue these in the project plan (above).

**Demonstration that proposed activities do not displace existing resources sourced from other funding (research, IP protection, technology transfer staff)**

**Requested Budget and Justification**

***Relevant Criteria***

EPSRC Funding Criteria coupled with the need to ensure that the project has been costed in sufficient detail to be feasible within the limits of the requested budget. Normally this is £50k including the partner cash contribution. The partner is expected to part fund the project to maximise the impact potential leveraged from the IAA funding as the project develops genuine impact potential to which the partner has effectively a first right of refusal under the terms of the standard IAA agreement.

***Guidance on Completion***

The project cost does not need to be costed on pFACT. Applications should not include the salary of the applicant; only the additional costs of the activity will be funded. These may include but are not limited to staff/student support, travel, consumables etc. As per the conditions of the grant institutional estates and indirect costs are not eligible to be funded through the IAA contribution.

The normal maximum of support for Co-funded projects from the IAA is £25k but higher amounts will be considered if they are warranted by the prospective impact.

The expectation is that the project partner will contribute at least 50% (as cash) to the total value of the project but a higher % will be expected if the amount sought from the IAA is higher than £25k. Similarly, a substantially enhanced contribution will be expected if the partner wishes to enhance their rights over the terms of the standard IAA agreement but such arrangements should be avoided other than in exceptional circumstances as the necessary negotiations may incur a significant delay. Changes which inhibit the University’s prime aim of enabling impact (such as restricting the use of outputs and outcomes where the partner does not wish to exploit them) will be resisted. Contributions in kind are also expected by the partner in the form of project activities but these are not to be counted as part of the co-funding

**Summary Business Plan (by the partner)**

**Outline how you expect that the outcomes from EPSRC research will be used in new product/service development/improvement**

***Relevant Criteria***

There is a credible case made for the investment of IAA funds as well as the partner’s funds in terms of the potential impact to be created, which is the University’s main rationale for investing the IAA funds.

***Guidance on Completion***

Please confirm in the business case the reason for collaborating with the University in this project and what you hope to gain by participating in the project activities. What eventual outcomes do anticipate from a successful relationship with the University in this an any follow on projects. Think about the nature of the anticipated change, for example new technology used in product development, new product development process, new manufacturing or service processes and the potential contribution to UK economic growth, such as increased turnover, profit and employment, investment leveraged or more systemic impacts such as import substitution in either your own business, your supply chain or your customers.

Please estimate the anticipated scale of the impact in % terms compared with current employment, turnover and profit.

What is the expected timescale before this development to start to have its impact?

**Glossary of Terms used in the Guidance Notes**

**Additionality** The additionality of an intervention (i.e. a funded project) arises when it achieves a significant result in progress along an impact pathway which then enables further progress to be made which could not otherwise have been made without the funding. For example, a seed funded project enables a technical and business case to be created which provides an incentive to a partner for a co-funded project (or any other form of shared cost collaboration).

**FAB Analysis (Features, Advantages and Benefits Analysis.)** A rigorous means of establishing why a research outcome could potentially translate into impact.

* Feature – the nature and properties of a research outcome
* Advantage – what the application of those research outcome delivers or creates which is in the perception of particular beneficiaries an advantage in achieving an objective compared with the current or absence of means of achieving that objective;
* Benefit – the underlying reason or motivation for adopting an innovation which uses the research to deliver the cited advantages.

The FAB analysis can be carried by addressing each successive statement with the “So what” question (ie why is that important; for example

“The application of this operational research finding will result in lowering the scrap % in the manufacturing process” (Feature)

“So what?”

“Manufacturing costs will be low**er**” (Advantage)

“So what?”

“We can sell at a low**er** price and make the same margin on a high**er** volume or make a high**er** margin on the same volume” (Advantages)

“So what?”

“We make a higher profit” (Benefit)

Note that:-

1. a benefit (in this case a profit) is related directly to the mission of an organisation – in this case a profit making company
2. you may need to progress through a chain of several advantages before getting to the benefit
3. advantages are always a comparison – often ending in “..**er**” - but “better” is never a satisfactory advantage unless you can say in what way better.

**Impact Pathway** An impact pathway identifies a potential sequence of activities, actors and beneficiaries through which a sustainable economic, societal or environmental impact is intended. Typically, an impact pathway from academic research will take the form of several successive projects through which research findings are progressively translated into practical application and then the widespread use of products and/or services enabled only by the application of those research findings. It is an important feature of impact pathways that they cannot be predicted – they depend, for example on external actors which is why the IAA focuses on partnerships. They are contingent, for example on research findings achieving a predicted result when attempting to demonstrate a feature of the research findings in demonstrating an advantage in application to a partner, and then on that partner being willing to invest funding to develop those advantages into a product or service application. They can however be enabled and then their development stimulated and monitored.

**TRLs** **Technology Readiness Levels.** Technology readiness levels (TRL) are a method of estimating [technology maturity](https://en.wikipedia.org/wiki/Technology_maturity) of Critical Technology Elements (CTE) of a program during the acquisition (development) process. They are useful to the IAA because they provide a technology independent means of assessing progress from basic scientific research into widespread application (i.e. the developments of technology from research to impact along an impact pathway) and therefore enable us to estimate the applicability and potential additionality of different forms of funding.

For the most part the descriptions most easily applicable to the EPSRC IAA are those in the descriptions from level 1 (basic scientific principles observed and reported) to level 9 (successful application in operations) in the form used by the US Department of Defence which can be found on Wikipedia:

<https://en.wikipedia.org/wiki/Technology_readiness_level>

<http://resources.sei.cmu.edu/asset_files/technicalreport/2010_005_001_15305.pdf> (p15/16)