BBSRC POLICY FOR KNOWLEDGE EXCHANGE AND COMMERCIALISATION

BBSRC Position

The Biotechnology and Biological Sciences Research Council (BBSRC) has a responsibility to enable the optimal and successful application of the outcomes from the excellent research and capabilities it funds. It must ensure the widest benefit to society and the economy both within and beyond the UK. Such application may lead to direct financial impact through commercialisation or, more commonly, through the development of research outcomes to deliver wider benefit in a range of different areas of society and the economy.

Fundamental to this position is BBSRC's commitment to ensuring that research outcomes are translated so as to deliver both direct and indirect benefits to individuals and organisations. Benefits will include:

- improving the effectiveness of public goods and services and delivery of public policy
- creating commercial wealth
- supporting economic competitiveness, and
- enhancing people's quality of life in UK and overseas.

BBSRC will do this through a strategy that enables and incentivises a wide range of knowledge exchange, translation and commercialisation activities both directly through BBSRC funding schemes and in partnership with other organisations.

Principles underlying BBSRC Position

- BBSRC's aim in supporting knowledge exchange and commercialisation is not necessarily to generate a financial return to an individual, research group, institution or the BBSRC but to deliver the widest range of benefits to society from the excellent bioscience research it funds.

- BBSRC recognises that it is critical to capture the outputs, outcomes and impact of the research funded by the Council so as to demonstrate the wider value and benefit of these outcomes to the UK society and economy.

- BBSRC acknowledges that knowledge exchange is a much broader activity than commercialisation or translation. This means that a wide range of knowledge exchange and commercial activities are required to deliver benefit and impact. These will include engaging with users of research outcomes in business, public and third sectors. Interactions will be two-way, complex and take a variety of forms. Success will be achieved through many different channels and mechanisms and deliver benefit over varying timescales.

- BBSRC recognises that knowledge exchange with some organisations, particularly in the non-commercial sector, is unlikely to generate income. These engagements are however central to delivering benefit, for example through public policy and are as valuable as those that lead to commercial wealth creation.

- BBSRC recognises that in seeking to take forward research outcomes it is essential to take into account all the intellectual assets associated with research activity and capabilities that are of potential value in any form.

- As set out in current conditions of grant, BBSRC delegates responsibility for the identification, management and application of intellectual assets arising from research funded by the Council to the host institution. This includes identifying and managing intellectual property and where they arise intellectual property rights, which BBSRC appreciates, in certain circumstances, can be central to delivering commercial benefit from research outcomes.

- As part of this responsibility, BBSRC expects the host institution to make effective decisions around intellectual asset management so as to deliver the widest benefit to society and the economy. This will include recognising circumstances where the publication of research outcomes or free dissemination to business might be the most effective approach.

- BBSRC anticipates that institutions will seek opportunities for sharing or combining intellectual assets in the interests of public good as a priority over institutional benefit.

- BBSRC holds that all excellent research will have impact, but accepts that not all research will be translated to practical application. The principles underlying BBSRC's position on impact are described in BBSRC's Impact Policy.

- Excellence in all forms of research and knowledge exchange activities is at the core of BBSRC support for knowledge exchange and commercialisation.

- Researchers who undertake knowledge exchange and commercialisation activities must be incentivised through recognition and rewarded by their host institutions and the research community. This will include rewards to inventors where appropriate but also wider approaches to recognise the commitment and success of individuals and groups in achieving benefit through the application and dissemination of research outcomes.

- BBSRC expects the universities and institutes in receipt of BBSRC funding to have a strategy and vision for knowledge exchange and commercialisation within the context of their diverse missions, areas of research and user communities.

Mechanisms to deliver the Policy

- **Institutes strategically funded by BBSRC**
  BBSRC has introduced a separate funding stream to support knowledge exchange and commercialisation at the Institutes strategically funded by BBSRC. BBSRC's goal in providing this funding is to enable Institutes to take a longer term and more strategic approach to delivering impact through knowledge exchange and commercialisation.

- **Research community**
  BBSRC has developed a wide range of mechanisms to support and encourage knowledge exchange and commercialisation. These can be accessed by researchers and users as appropriate to their needs. Mechanisms include: support for collaborative and strategic research, collaborative training, people exchanges and translation, as well as mechanisms to incentivise and celebrate success. In addition, researchers are expected to consider, as part of a research grant proposal, how the proposed research might benefit society and the

economy. BBSRC also expects that those researchers that receive funding will capture and disseminate the outputs, outcomes and impact of their research.

- **Strategy**
  The Bioscience for Industry Strategy Panel provides BBSRC with expert advice on how research outcomes are translated to practical application. The Panel contributes to the development of BBSRC strategy for knowledge exchange and commercialisation, ensuring effective approaches to support the research and user communities. In addition, the Bioscience for Society Strategy Panel provides strategic input on societal issues surrounding the conduct and outcomes of research supported by BBSRC.

- **Partnership – Users**
  BBSRC research underpins the needs of a variety of users and business sectors often with differing requirements in relation to knowledge exchange and commercialisation. BBSRC uses a range of mechanisms to work in partnership with these stakeholders to ensure an understanding of the routes to application and that knowledge exchange support mechanisms are fit for purpose.

- **Partnership – Funders**
  BBSRC is positioned within a network of other funders including Research Councils, Funding Councils, Technology Strategy Board, government departments, devolved administrations, charities, business and financial organisations. BBSRC works in partnership with these organisations to ensure a greater understanding of the way research outcomes have practical application and to deliver collaborative or joined up approaches to support.

- **Public Engagement and science communication**
  BBSRC is committed to ensuring transparency in all processes associated with the Council's support for knowledge exchange and commercialisation. Researchers are expected to consider how their research and knowledge exchange activities are consistent with BBSRC's approach to public engagement and science communication. This should lead them to consider how their proposed research, knowledge exchange, public engagement and science communication activities, address social issues, including public aspirations and concerns. BBSRC is also committed to publicising these activities and their outcomes in ways that enable the wider public both to see the outputs of the research funded by the Council and to engage in discussion around the potential applications of this research and their impact on society and the economy.

Definitions

Knowledge Exchange

Knowledge Exchange describes the processes, mechanisms, networks and relationships that enable knowledge derived from research activity to move between organisations. The term is applied to the sharing of knowledge that has potential impact on innovation, and to change, transform, enhance or generate new or improved professional practices, policies, technologies, products, services and public perceptions. (Adapted from: University of Stirling Knowledge Exchange Policy statement)

Commercialisation
Commercialisation (which in some contexts is referred to as Technology Transfer) describes the process by which the outcomes of research activity are brought to the market place through the development of new products, processes, services or technologies. There will be some kind of commercial return involved in the process relating to the potential value of the assets. The process involves the identification of research which has potential commercial interest and the designing of strategies for how to exploit this research. This will include the protecting and managing of the rights to intellectual property. The process is typically undertaken by dedicated offices in universities and research institutes and companies. Strategies can include the creation of licensing agreements or joint ventures, partnerships, or spin-out companies. (Adapted from PraxisUnico Report: Metrics for the Evaluation of Knowledge Transfer Activities at Universities, 2009)

Translational research
Translational research is defined as research that helps turn early-stage innovations into new products, advancing the innovation to the point where it becomes attractive for further development by industry. It reflects the fact that although academic and company research activity produces many new discoveries and inventions that have the potential to lead to marketable products this can prove extremely difficult. Bringing innovation closer to market often requires further work to establish scientific or technical proof-of concept or bring together the right business expertise to develop a given product. Translational research has the potential to help bridge this gap between basic research and marketable products. It is important to recognise that translational research may not achieve this fully. For example, translational research may advance the research outcomes to the point where intellectual property may be exemplified and consolidated, or technology may be brought to a stage at which commercial value can be ascribed to it and its potential defined more accurately.
(References: Wellcome Trust [Reference/webpage no longer available – May 2016]
and
RAND Europe: http://www.rand.org/pubs/technical_reports/TR986.html)

Intellectual Assets
An asset is an item that has monetary value or which can be used to add value to an organisation. Within the context of this policy the term relates specifically to the assets associated with research activity and capabilities. Some assets are tangible in that they exist physically and have a readily defined value. Other assets are intangible and do not exist physically nor have they a readily defined value. Intellectual capital is defined as the combined value of the intangible assets of an organisation, and will include for example people, technology, knowledge, processes and procedures. Intellectual assets are a key component of intellectual capital, these are the intangible assets that are or can be recorded (or written down, codified etc). A subset of these assets is Intellectual Property (IP) which will include for example technical information, know-how, methodologies, and Intellectual Property Rights such as patents, plant breeders rights, trademarks, copyright, registered designs etc that are legally protected by the statute law. (Reference: http://www.oecd.org/science/inno/40637101.pdf)

Reports Relevant to Policy

- Innovation, Research and Growth, Department for Business, Innovation and Skills, Innovation Report, March 2014
  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/293635/bis-14-p188-innovation-report-2014-revised.pdf

- Collaborative Research between Business and Universities: The Lambert Toolkit, 8 Years On, Intellectual Property Office (2013)
  http://www.ipo.gov.uk/ipresearch-lambert.pdf

- A review of Business-University Collaboration, Professor Sir Tim Wilson (2012)
  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32383/12-610-wilson-review-business-university-collaboration.pdf

- Intellectual Assets Management Guide for Universities, UK Intellectual Property Office (2011),
  http://www.ipo.gov.uk/ipasset-management.pdf

- Evaluation of the effectiveness and role of HEFCE/OSI third stream funding: Report to HEFCE by PACEC and the Centre for Business Research, University of Cambridge (2009)
  http://www.hefce.ac.uk/pubs/year/2009/200915/