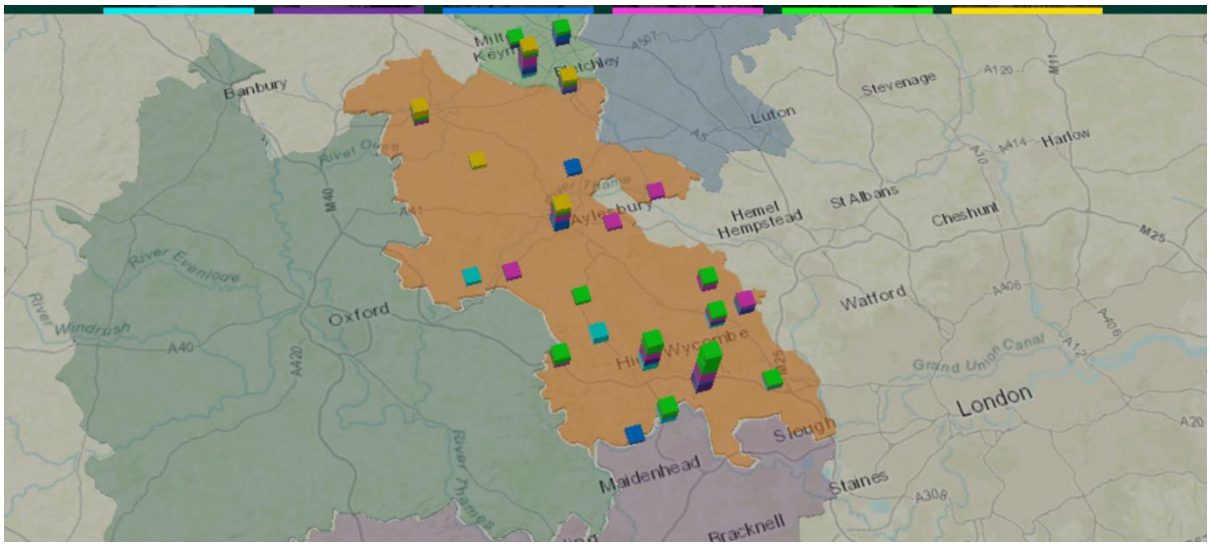
Buckinghamshire Life Sciences Innovation Centre (BLIC) – Further Details

This paper sets out Bucks New University's response to a request for more information about the grant request to extend the LGF- funded Buckinghamshire Life Sciences Innovation Centre (BLIC).

Further information requested:

Size of the health and social care sector and its importance to the region:

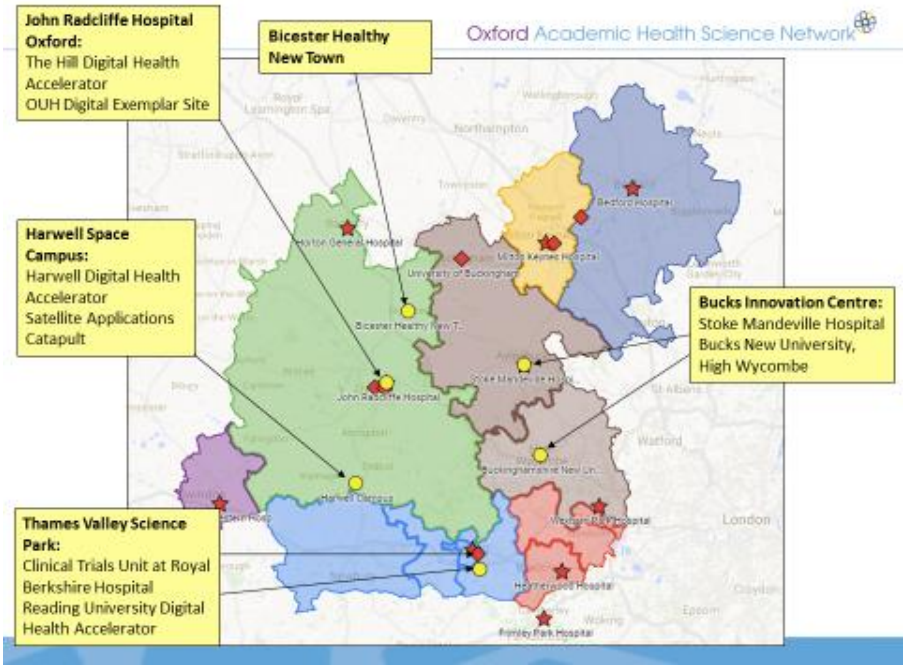
- BLIC will operate in a region with a dynamic life and health sciences ecosystem. Academic centres drive cluster generation, and Oxford University has global significance and draws industry and funding into the Oxford AHSN region. Buckinghamshire is located within a strong regional life sciences cluster, with over 700 life science companies in the diagnostics, digital health, medtech and associated industries. This cluster is arguably one of Europe's leading life sciences clusters. Buckinghamshire has a number of global industry leaders in healthcare including Janssen/Johnson & Johnson and GE Healthcare. Investment into the cluster is substantial and over the last few years, has led the UK in terms of capital investment in the life sciences. (Over $1,042 raised representing 43% of total UK fundraising in life sciences. The region also has the largest presence in patient capital (over $1.2 billion in funds). There are good opportunities to leverage the breadth and depth of this ecosystem for local and regional benefit and in supporting business growth.
- Interactive maps are available at http://wealthcreationmap.healthandwealthoxford.org/ detailing life sciences businesses by sector and organisation. Below please find a snapshot of Buckinghamshire:



- Situated within the Golden Triangle and well connected to Oxford, Milton Keynes and Reading, as well as London, Buckinghamshire is ideally placed to support health and social care focused start-ups, small and high-growth SMEs. The proposed improvements in transport links between Oxford and Cambridge offer an opportunity for Buckinghamshire to play a role in shaping the supercluster. In particular, the county can offer a real-world 'testbed' environment for innovators to co-create, test and validate their products within the health and social care system through a close partnership between academia, the NHS and industry. This alignment between "technology push" and "system pull" is an important value add to the region and is aligned with the Thames Valley LEP's local industrial strategy priorities.

Lack of Supply/Evidence of Need:

- Analysis of the wider region (Buckinghamshire, Berkshire & MK) demonstrates an equal split of strengths into four sectors – digital health, diagnostics, medtech and pharma.
- Within Buckinghamshire there is a strong presence of large Pharma companies with 15 global companies within the county or on the borders. However, there is minimal life science R&D capability or cutting-edge digital or medtech companies. Most SMEs are consultancy companies employing less than five people.
- Innovation has no boundaries and Buckinghamshire is ideally placed in between Oxford and London, to benefit from the infrastructure and cluster assets already in place within the region, which will drive further business developments. There are a number of Science Park and Innovation Centre developments planned across the region as shown in the map below.



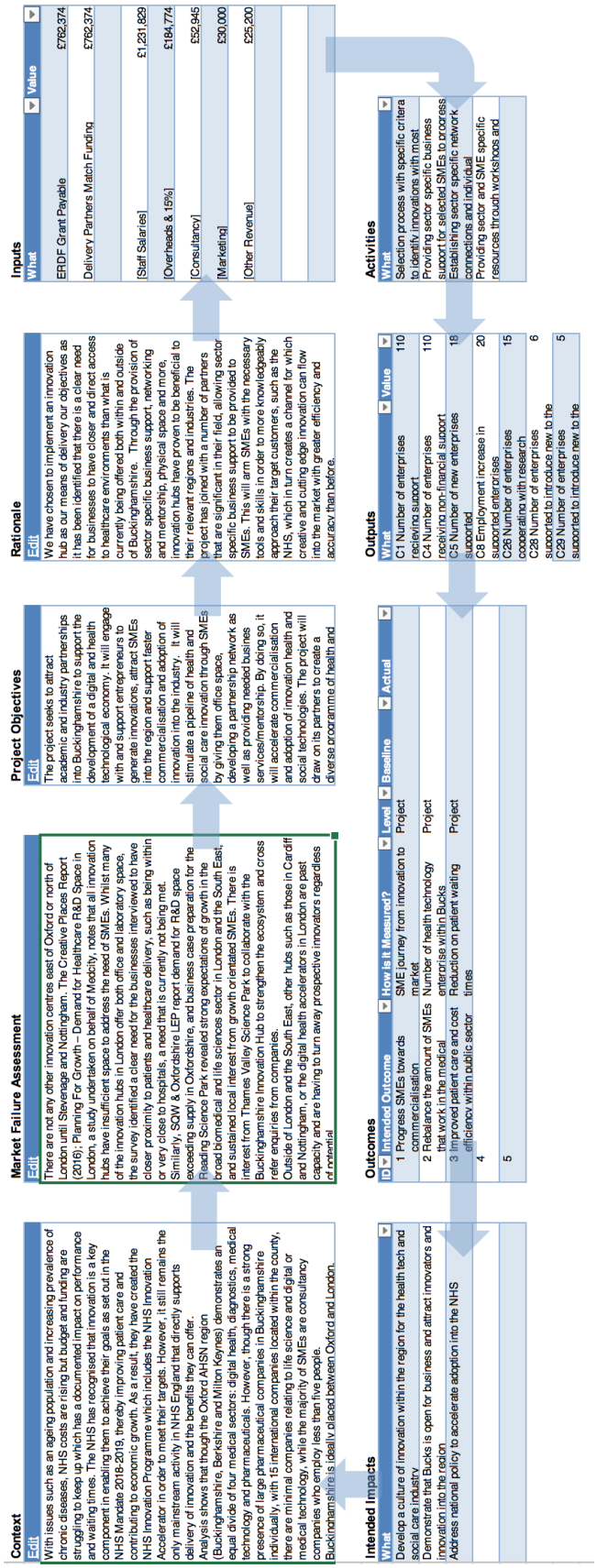
- BLIC will collaborate with these centres and those within London and the wider region and share networks and resources where appropriate to continue to build the innovation ecosystem
- There are no other innovation centres east of Oxford or north of London, until Stevenage and Nottingham. The Creative Places report (2016); Planning for Growth – Demand for Healthcare R&D Space in London, an analysis undertaken on behalf of Medcity, notes that all innovation centres have insufficient space to address the need (http://www.creativeplaces.com/media/1223/medcity-report-appendices.pdf).
- Whilst many of the London Innovation centres offer both office and laboratory space, the survey identified a clear need from some businesses interviewed for closer proximity to patients and healthcare delivery. They identified a need for space within or very close to hospitals that is currently unattended to and for which provision is required.
- Similarly, SQW & Oxfordshire LEP report demand for R&D space exceeding supply in Oxfordshire, and business case preparation for the Reading Science Park revealed strong expectations of growth in the broad biomedical/life sciences sector in London and the South-East, and sustained local interest from growth orientated SMEs. There is interest from Thames Valley Science Park to collaborate with the Buckinghamshire Innovation Centre to strengthen the ecosystem and cross refer enquiries from companies.
- Outside of London & SE other centres in Cardiff and Nottingham or Digital Health accelerators in London are all full and have to turn away prospective clients.
- The Buckinghamshire Innovation Centre is not currently looking to provide dedicated lab space or to attract innovators within the field of scientific discovery but rather to support the translational R&D that takes such discoveries into commercial application. Buckinghamshire is well placed between Oxford and London to benefit from the overspill from such activity and will differentiate itself from more high-tech offers in Harwell, Reading and London and focus on meeting the demand for proximity to patients and healthcare delivery, and build its own innovation ecosystem focused on digital, medtech and consumer products. There will be no specialisation into any particular clinical fields, instead the reach of the innovation centre will be as broad as possible, building an alignment with the aims of the NHS and other health and social care providers where prevention and keeping patients out of hospital is becoming increasingly important.
- Relationships are being developed with a number of innovation centres incubators or accelerators, and it is anticipated that there will be cross referral of enquiries between centres.
    - Cardiff Innovation Village & Lifesciences Hub
    - The Queen Mary Bioenterprises Innovation Centre (QMB), London
    - London Bioscience Innovation Centre (LBIC)
    - Bioescalator, Stevenage,
    - Nottingham Biocity & Medicity
    - London Medcity/Golden Triangle inward investment network

- DigitalHealth.London
- Boston Mass Challenge, London

Alignment with LEP Priorities:

- According to a draft of the Local Industrial Strategy produced by the Buckinghamshire Thames Valley LEP, “The area has a dynamic and resilient employment base driven by a strong SME business community. We want to strengthen this advantage by capitalising on growth in new industries and technologies including digital services, film and TV production, life-sciences and high-performance engineering. By supporting the conditions for modern economic growth, we wish to cultivate our leading business sectors and wider economic ecosystem.” (page 4, TVLEP Local Industrial Strategy) BLIC closely aligns with this vision by better supporting and encouraging entrepreneurs to generate innovations, to attract SMEs into Buckinghamshire, and to support faster commercialisation and adoption of innovations within the life sciences sector.

Logic Chain Model:



Importance of Renovation/Value for Money:

- The funding requested will be used to complete the entire 2nd floor of Bucks New University's South Wing (High Wycombe campus), which is currently unused space at the end of the hallway. Please see photo below.

- This renovation will improve the currently planned hub's occupancy economies of scale and it will also capitalise on current building works underway. It will also allow more businesses to occupy the space and benefit from networking activities, use of the shared toilets, break-out area and kitchenette.
- In its current condition, the space cannot be used for any type of occupancy as it does not include heating/cooling ventilation, proper flooring, IT connectivity or furniture. It is underutilised space at the end of the hallway that adjoins to the BLIC space that is currently under development.
- By developing this additional space at the same time as the construction of the LGF-approved BLIC, this project will save due to economies of scale on:
    - construction costs (materials, scaffolding, etc)
    - design/architecture cost
    - ducting/ventilation
    - buying fixtures, fittings & furniture in bulk
    - lighting
    - carpeting
    - decorating/finishing

Methodology for output estimates and NPV:

Income:

- For the projected income in the first half year of operation, the following assumptions were made in order to calculate income:
    - 6-months
    - 70% occupancy
    - Average rental income per desk is £150 per month

- For the first full year of operation, the following assumptions were made:
    - 80% occupancy of the 26 desks (21 desks)
    - Average rental income per desk is £155 per month (inflation adjusted from the previous year)
- Subsequent years included the following assumptions:
    - 90% occupancy
    - Rental income per desk increased each year by roughly 3% due to inflation

Cost of Sales:

- The cost of sales was calculated using our internal estates calculation of the cost to maintain offices space including cleaning, heating/cooling, electricity, security, etc as £95/square metres x 167 square metres plus a fixed cost of £3,000 per annum for a hub management company to manage this extra portion of BLIC.
- The cost of sales also increased by 3% each year due to inflation

Net Present Value:

- For the proposed project, the NPV was calculated assuming a discount rate of 3.5%, the calculation run for 13 years
- For the base case, the same assumptions as above were made, but the occupancy rate was reduced by 10% every year

Benefit Cost Ratio Value:

- The benefits of this project capitalise on the economies of scale of the existing BLIC that is under construction and that will be managed by an outside hub management company. These costs are already relatively fixed and so the costs of construction and managing this additional space is incremental.
- The economic benefits are new businesses attracted and created within Buckinghamshire, a critical mass of innovators, leading to higher levels of innovation, growing businesses, higher employment and a virtuous circle, where success breeds success. This will make Buckinghamshire more attractive for these entrepreneurs, help alleviate the drain of talent and address weak export performance. There will be local financial benefits from stimulating the creation and growth of high growth potential firms and the jobs that they will create, as well as research opportunities for both HE and NHS partners.
- The health and financial benefits of the Centre are the acceleration of technologies into the NHS, social care or to other commissioners, and will be achieved by engaging commissioners and provider procurement leads in the process. Adoption of new technologies into the NHS is slow, and the Centre will use its links with the various partners to speed up adoption using Buckinghamshire as a showcase for the new technologies. There will be potential cost saving to healthcare commissioners from new technologies, for example from technologies supporting conditions management and keeping people in their own homes, which will benefit the NHS, CCGs and the County Council. In addition, there will be wider social benefits. Research has shown that NHS Trusts with higher levels of innovation have lower mortality rates, and this opportunity can be realised by creating a culture of innovation within the sector in Buckinghamshire.
- Other benefits include:
    - A larger network of businesses for networking/knowledge exchange
    - Twenty Six additional SMEs either being created, or growing, employing more staff and/or spinning out new life sciences products into the economy.

- Developing a culture of life sciences innovation within the Buckinghamshire area that will act as a draw in attracting more related businesses to the area creating a virtuous circle
- Investing in a skilled and creative workforce
- Using research and university funding, and planning policy, to encourage networks that encourage the flow of knowledge and information
- Harnessing government procurement to provide a market for innovative offerings

- The benefit cost ratio is:

Benefit (Income)	£647,275	=	2.34
Cost	£277,165		

Sustainability:

- By the time BLIC is fully renovated and operational, the ERDF-funded project "Bucks HSC Ventures" will be approaching its half-way mark and will only run for another 1 ½ years. The objective is that any revenue over and above the break-even amount needed to run the Centre will be used to contribute towards funding the revenue costs of the Innovation Hub activities once ERDF funding ceases. In effect, once ERDF funding ceases for the Innovation Hub, the activities and services will be brought into the Innovation Centre as the requirement to keep the two different funding streams separate will end.
- The anticipated costs for maintaining the previously ERDF funded services after the end of the ERDF project are based on maintaining the type and level of services provided during the project and ensuring that these remain free for SMEs to access. The nature of the ongoing services will be refined by the evaluation of the ERDF project, which will be conducted by an external evaluator in 2019, and it is anticipated that there will be the following changes:
  - Less need for pipeline stimulation activities, as pipelines will have been developed and activity will be around pipeline maintenance
  - A dedicated project manager to ensure ERDF compliance and manage claims will no longer be necessary as ERDF funding will have ceased
  - One off costs, e.g. website creation, evaluation, etc. will no longer be incurred
  - Economies of scale can be found by restructuring the management and delivery of the Innovation Centre and the Innovation Hub services once ERDF funding ends and specific ERDF issues, such as revenue generation from ERDF no longer apply, e.g. by combining the management and delivery of the Innovation Centre and the Innovation Hub services
- As previously mentioned, once refurbished, the BLIC will incur maintenance costs of £95/m2 per annum which need to be covered in addition to the costs for a hub management company. Both of these costs will be met by revenue from tenants and users of the space.
  Space will be rented on a licensing system, chargeable at different rates per calendar month depending on the service selected.
- There are no other funding sources at the moment.

Thank you for the opportunity to be considered. We believe that BLIC offers a unique opportunity for innovators within SMEs to work alongside academics, clinicians, provider organisations and payors (commissioners) within the health and social care system to develop and co-create innovations that meet the needs and priorities of the local system, and which have potential for regional, national and global impact. Involving health and social care payors in early-stage discussions with innovators will assist SMEs to develop products that both meet the needs of the system, in terms of improved patient outcomes and value for money and which payors are interested in and willing to pay for.