COAST TO CAPITAL LOCAL GROWTH FUND
OUTLINE BUSINESS CASE

Project Title:	**University of Chichester Engineering and Digital Technology Park – Specialist Facilities**
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This document provides a template for an Outline Business Case (OBC) in support of Coast to Capital's investment in a project to be funded through the Local Growth Fund.

The main purpose of the OBC is to put forward the case for change and the preferred way forward identified in an internal Strategic Outline Case (SOC); which establishes the option which optimises value for money; outlines the deal and assesses affordability; and demonstrates that the proposed scheme is deliverable.

In practice, you will find this entails updating the strategic case; undertaking investment appraisal within the economic case; and completing the commercial, financial and management cases, with supporting benefits and risk registers.

Please note that this template is for guidance purposes only and should be completed in accordance with any guidance issued by Coast to Capital and the guidelines laid down in HM Treasury's Green Book which can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

The OBC should cover the 5 cases – the Strategic case, the Economic case, the Commercial case, the Financial case and the Management case.

The amount of work and detail put in to a Business Case should be proportionate to the scale of the project or programme, and the expenditure involved.

Coast to Capital Disclaimer

There shall be no expectation of grant payment unless and until a funding agreement is signed by both parties. All the Applicant's costs and charges incurred as a result of making this outline application shall be for the Applicant's account and cannot be claimed as part of the project except where feasibility funding has been prior awarded.

1. Executive Summary

1.1) Overview of the project including what opportunity or barrier the investment will unlock:

Introduction

The successful bid by the University of Chichester to Coast to Capital for £8million of LGF towards the Engineering and Digital Technology Park in 2015 has already enabled in excess of £1.65 million worth of firm cash and in-kind support pledged by business, plus an additional £700k to be confirmed, along with £2.7m secured from the Higher Education Funding Council for England (HEFCE) - together enabling this exciting and much needed facility to become a reality. The landmark building will be operational by September 2018, with a brand new innovative suite of Science, Technology, Engineering and Maths (STEM) programmes to be delivered through two new Departments of Engineering & Applied Design (EAD) and Creative & Digital Technologies (CDT) - along with significant input from the University's Business School and Institute of Education.

Project overview

This application for additional Local Growth Fund (LGF) monies will enable the University to maximise an opportunity prior to opening the Technology Park building in September 2018 - and so reduce the impact of barriers to delivering an optimal size and design of building which have arisen since the outline business case (OBC) was submitted in November 2015. The proposal (known as the Project in this document and differentiated into two areas relating to the 'new facilities' and the 'main building') - specifically being focussed to:

1. Establish new complementary facilities through enhancing the function of and infrastructural facilities for key areas of the Technology Park as well as purchasing specialist equipment for staff, prospective students and businesses for enhanced usage thereby strengthening and augmenting the original project outcomes whilst reducing risks to recruiting under-represented student groups. As much as possible of the expenditure for this part of the project will be prior to 31 March 2017.
2. To provide industry standard facilities and specialist equipment for student and business use within the main building. Securing this funding would ensure the ambition to specify and provide industry standard equipment is delivered, in a context of increased construction and technology equipment costs.

These elements are seen as essential components to the overall Technology Park project in order to create a pool of highly skilled industry-ready graduates and graduate apprentices from elements of the local population that are currently not engaged in STEM and in many cases not engaged in higher education. This is an ambitious, long term project designed to raise aspirations and excite under-represented groups into STEM careers in an area of low economic growth. This will stimulate economic growth in the Coast to Capital area by providing graduates that will contribute to the raising of productivity through the use of technology, and filling higher level skills gaps in technology companies.

Strategic context

Coast to Capital 'Skills for Growth' Strategy cites two interconnected goals:[1]

- Educational establishments should be aligned with the needs of businesses to compete and grow in a fast moving global economy.
- Businesses have a central role to play, both collectively and individually, in developing the skills of their workforce, and in inspiring the workforce of the next generation.

The ethos of the Engineering and Digital Technology Park is aligned to both of these goals, which will be met through delivering in excess of 30 new programmes across two of the priority industry sectors in the region identified by Coast to Capital - namely Advanced Manufacturing & Engineering - and Creative, Digital & IT. The Engineering and Digital Technology based sectors are both vital to the UK's

[1] Coast to Capital LEP, Skills for Growth: A Skills Strategy for the Coast to Capital Local Enterprise Partnership, January 2015, page 3.

economy, nationally they contributed an estimated £455.6 billion to Gross Domestic Product (GDP) in 2014, representing 27.1 per cent of the total UK GDP. Total employment in engineering and high tech sectors of the economy account for more than 5.3 million jobs, which equates to 20 per cent of the UK total workforce, and yet the majority of employers report difficulties in recruiting suitably qualified staff. This proposal is for further funding to enhance the aims and outcomes of the existing project.

A number of Local Authority wards close to the University demonstrate low participation in Higher Education and there is a significant higher level skills gap for both Engineering and Creative Digital Technologies. This context is well presented in some detail in the overall Technology Park business case documentation presented in October 2014 and December 2015. The University of Chichester is a recognised pioneer of widening participation and an analysis of the tracked element of the University's widening participation programme demonstrates that we perform well above the norm in this area: between 2007/08 and 2013/14 our average Young Participation Rate (YPR) was 38%. The national statistics for a similar cohort show a progression YPR rate of less than 25% and progression of tracked participants in outreach activities to engineering from sub-regional postcodes is currently only 1.6%.

We are confident that an initial investment in equipment to support outreach, careers advice and guidance and encourage business involvement in the project, along with applying our widening participation expertise to STEM we can lead on the delivery of a coherent STEM outreach programme in collaboration with other local and national providers such as STEMSussex and the Sussex Learning Network along with partners such as the Royal Institution, with whom we have a Memorandum of Understanding (MoU). This would increase this progression rate to 3.2%, providing a significant impact in terms of a new pipeline of local, industry ready graduates.

The project

1. The new facilities

This proposal requests investment to secure early procurement of specialist equipment and provision of facilities for learners, staff and the business community to support and enhance the Technology Park offer in advance of the 2018 opening.

In addition, existing accommodation on the Bognor Regis campus will be refurbished to provide new facilities for the Technology Park project to be available during 2017, prior to the main building, due to open in 2018. Most of these will be fully operational by September 2017, some by March 2017, and will assist in de-risking aspects of the Technology Park project, such as student recruitment, and enhance the outcomes. These are:

a. A prototype engineering Conceive-Develop-Implement-Operate (CDIO) style STEM laboratory provided ahead of the launch of the Technology Park will be required to prepare initial kits to support the launch of CDIO engineering projects and for the other STEM labs. It will enable the University to work with industry to develop the programmes and facilitate on and off-campus STEM outreach and successful student recruitment for the 2018 launch and beyond. The University is introducing Engineering from base-zero, investing heavily in it well ahead of receiving an income stream from it, and this will support early success of the facility.

b. 3 specialist IT labs to test the new IT infrastructure, systems, hardware and software needed for the new programmes and provide work stations for students on the first stage programmes launched in 2016 and to be launched in 2017, such as an undergraduate BSc in Digital and Technology solutions.

c. A screening room for University and business use to support the delivery of Creative & Digital Technologies (CDT) provision. This and the proposed equipment bank will be made available to industry and will address a gap in sub-regional provision.

d. Refurbishment works on 67/69 and 71 Upper Bognor Road, two listed buildings in the conservation area and close to the Technology Park building, to bring partly unusable spaces into use to provide student and student support facilities, including in particular a Careers, Information, Advice and Guidance Hub.

e. A new footpath and ancillary works on an adjacent listed wall to provide connectivity between the Technology Park and the rest of the Bognor Regis campus, necessary for the success of

interdisciplinary working through the connectivity of the campus, and technology students' access to learning and social facilities.

f. And on the Chichester campus in the recently formed Creative & Digital Technologies Department, an enhanced, industry-standard, Creative Digital equipment bank which will provide students with industry experience and enable businesses in this sector in the Coast to Capital area to hire the University's cutting edge equipment for the first time. This will not be a commercial (i.e. profit-making) operation and SMEs and will encourage start-ups by providing good facilities will benefit from not-for-profit rates.

The work undertaken by the University since 2014 prior to the previous Coast to Capital bid, and the consultation undertaken for planning has stimulated intense business interest in the Technology Park. This proposal, if successful, will enable some of this interest to be realised as tangible benefit to business prior to the Park being launched which provides a benefit to business and credibility to the University. The establishment of a modern prototype STEM laboratory in advance of the launch of the Technology Park will enable the University to progress the new academic programmes in an environment that is conducive to testing and development, whilst creating a space to interact with external stakeholders such as local employers to collaborate on developing relevant, exciting and interesting content.

Crucially it will provide significant opportunities for on and off-site outreach and student recruitment activities vital to the successful recruitment of widening participation students to new provision, when the facilities are not yet available for them to see and experience. Some of the STEM / Engineering equipment will be purchased based on knowledge of the needs of the local business community gained through consultation and will be available for hire through the University's commercial arm, Chichester Enterprises Ltd (CEL).

Early provision of a prominent careers hub in close proximity to the Technology Park building will emphasise that the University is serious about ensuring the graduates from the Technology Park programmes can access high quality graduate positions in local companies. This is a key recruitment factor for students from lower incomes and non-traditional backgrounds.

The early installation of this equipment will also be essential in promoting the change of culture needed to develop the integrated technology / 'STEAM' vision for our portfolio as a whole as well as the Technology Park. Operating out of specialist facilities will promote inter-departmental working to ensure that the Science, Technology, Engineering, Arts and Mathematics (STEAM) agenda becomes a truly integral part of the University offer – rather than being viewed as an 'add-on' facility that operates in isolation to other departments.

It will provide credibility, excitement and depth to our new STEM outreach programme, the core of which is establishing a southern hub to the Royal Institution's STEM outreach programme as well as working with other national and local partners (with an MoU already signed). The programme provides a progressive curriculum offer for primary pupils to college students and is integrated with careers input via industrial ambassadors as well as student mentors and ambassadors.

As new staff members continue to be recruited to the two Technology Park academic departments, they will be empowered to develop the programmes in readiness for launch, whilst cultivating external relationships with groups such as employers, local schools and colleges plus the local community. These practices will provide an excellent foundation for the Engineering and Digital Technology Park in advance of the completion of the build and the launch of the programmes.

We are strongly committed to working with employers to deliver degree apprenticeships and as a Skills Funding Agency (SFA) registered provider, we launched our first degree apprenticeship in 2016 with 5 employers and 22 apprentices. We are planning to launch further degree apprenticeships as our 'hands on' pedagogy lends itself to the degree apprenticeship route. In order to capitalise on the increasingly vocational focus of higher skills we will need to have increased access to specialist industry-standard facilities.

A new internal access path with necessary adaptations to a listed wall will ensure that the Technology

Park is an integrated part of the campus by allowing easy flow of students and staff between the new and existing departments and services. This is also important to facilitate interdisciplinary working necessary for the successful delivery of the project and is not included in the main construction contract.

An equipment loan bank and associated training for the creative digital sector, provided to businesses through a commercially facing body structured to interlink education with the creative digital sector, managed by the new CDT department (and initially located in Chichester where this department is currently based) responds to a number of needs identified by the influential UKCES Report, *Sector insights: skills and performance challenges in the digital and creative sector,* (June 2015). This would enable the University to self-generate commercial projects (films/documentaries/games/scoring etc.), whilst offering support and/or partnership for creative companies bidding for corporate or broadcast work, for example. The new commercial arm being developed through our Creative Digital Technologies department would manage commercial access and use of the high-end facilities available in the new building, offer internships to students, provide genuine partnership opportunities for creative commercial projects and generate a number of permanent employment positions for graduates and/or local creatives to mutual benefit of students and businesses.

2. The main building

This proposal requests increased investment in larger, enhanced laboratory space and specialist equipment within the Technology Park building, focussing mainly on the Creative Digital Technologies which will assist in mitigating some of the negative impacts of the following:

1. Detailed space modelling identified that to deliver all the outputs required for education and business, as stated in the OBC, the floor area of the building is now 440m^2 larger than estimated when the business plan was submitted. An additional floor has been added, providing more laboratory and other learning / business spaces, along with additional staff / business offices
2. The impact of the outcome of the EU referendum in June 2016 on the value of the UK pound and other economic / political factors have played a part in increasing costs of construction materials and specialist equipment for academic and business use. This has put increased pressure on providing the range and quality of equipment needed to provide students with an industry-style experience in University facilities and thus meet business expectations as graduates, and businesses with facilities then demand for their own use.

An increase in the scale, scope and complexity of the main technology park building needed to deliver our ambitious regeneration agenda along with external factors has led to an increase in the cost of the building, with the new budget cost stands at £30.5 million rather than the previously estimated £22.85 million. The University will absorb the majority of this additional cost to the project of almost £8 million. This budget does not include the cost of any specialist equipment, merely the building itself, and the delivery of the required specification of this specialist equipment is now at risk.

The build project remains financially sustainable even with the increased cost of the building. This is in part based on the funds raised for the project so far and the low cost of borrowing, but also due to the focus on ensuring the building is fit for purpose and efficient to run both financially and environmentally.

1.2) Please choose the theme in which the LGF funding will invest in directly*(please choose only one main theme of relevance)*		
	Infrastructure	☐
	Housing and Regeneration	☐
	Skills and workforce	✓
	Business and Enterprise	☐

1.3) The fit with the Strategic Economic Plan and Devolution Deals

The establishment of the facilities in advance of the opening of the Technology Park will also enable participation in an extensive on-campus outreach programme for local Further Education Colleges, their feeder secondary schools and some primary schools. Young people will have access to participate in specially designed learning activities that utilise the equipment on campus, to enhance their understanding of the breadth of career opportunities within these subject areas, and how they interconnect with other subject areas such as Sport, Computing and Business. Outreach activity

supported by local employers will enhance the awareness of the range of specialist and industry-leading companies that are in their geographical locality.

The Coastal West Sussex (CWS) Partnership Board and Careers and Enterprise Co have stated their intention to encourage members to become involved in University Outreach activities. CWS recognise that employer engagement may inspire the future generation of the local workforce to aspire to higher skill levels and be attracted to exciting career opportunities in coastal West Sussex. Upskilling the local current and future workforce and retaining them in the locality would ultimately meet the aim of the Coast to Capital Strategic Economic Plan in slowing the outward migration of skills and talent, and in time reverse this trend.

The coastal West Sussex area is diverse in the range of industry sectors represented, but there are significant pockets of deprivation, low skilled workforce and poor engagement of younger residents in Higher Education. The University currently draws 53% of learners from families with no previous participants in Higher Education. On-campus outreach work in specially kitted out accommodation will enhance and enrich the experience of the participating learners in their activities, and break down barriers to the perception of accessibility to Higher Education. On-campus outreach and will also continue to promote alternative routes into Higher Education to standard A level for non-traditional learners as the University develops more flexible learning routes including our Degree Apprenticeships.

The Devolution Prospectus, Three Southern Counties, Sept 2015 identifies East Sussex, West Sussex and Surrey as the 'Powerhouse of the UK economy'[2] with both population and combined GVA as greater than that of the Greater Manchester Combined Authority. The Technology Park project is underpinned by the aim to unlock the potential of the work-force in the area, by increasing accessibility to Higher Education to act as a catalyst for economic growth and social improvement. This proposal will engender this effort to begin sooner and in a more effective manner than waiting until the building is operational.

Given the increasing focus on the regional issue of productivity, the relationship with the University's Business School will be increasingly important. A partnership between Business Schools and Engineering or Technology Departments of the depth we will develop is very rare in the Higher Education sector, with long-established departments only usually developing project by project academic links rather than a joined up approach across all provision. The Business School will provide input into all the programmes in the form of developing business and enterprise skills. Optional modules will focus on Operations management, at the core of productivity improvement. This will support students in both developing their own businesses but being able to support the growth and performance of the regional businesses that they might work for. The Business School is also leading on the delivery of degree apprentices and regional businesses are already seeing the benefit of working with the University to employ individuals that they might not otherwise reach and would be lost to industry or to the region. This model will be extended to the full portfolio of programmes.

The Business School will also extend its current Business Support services offer to support the start-up and growth of local businesses utilising not just in terms of advice and guidance but in facilitating access to prototyping environments. The University is currently proposing to lead a bid for the Coast to Capital ERDF Business Support Services call (all 5 lots). This will involve working with a range of partners to deliver a complex network of services and it demonstrates the University's strategic desire to provide support to SMEs across the region.

On a larger scale, the University also recognises the importance of Innovation South and the Science and Innovation Audits. The Technology Park fits very well within two of the core sectors that will provide the focus of the SIA; Connected Digital and Advanced Engineering. It is clear that the output from the SIA will be used to provide the evidence base for future inward investment and having facilities and equipment that will attract high quality research staff, students and businesses will provide a strong base for the attraction of new funding streams and investment opportunities.

The University is committed to be at the forefront of the developments of degree apprenticeships and launched its first one via the Business School, in Software Technology Solutions, with 8 employers and

[2] Devolution Prospectus, Three Southern Counties, Sept 2015, page 10

20 students, with a second in the pipeline and several others under discussion with employers. This includes one in High Performance Engineering as a result of significant interest fr Rolls Royce Motor Cars Ltd and Ricardo.

1.4) Expected Total Project Cost and source of funding. Please also complete the funding breakdown tab on the supporting spreadsheet.

	Amount	**% of Total Cost**
Total Project Cost	£43.4m	100%
Applicant own funds	£28.8m	66%
Other public funds: HEFCE Catalyst Fund – awarded 23/09/2016 Coast to Capital LGF – awarded 15/01/2015 West Sussex County Council	 £1.2m £8.0m £0.35m	 3% 18% 1%
Private sector funds Industry pledges in cash and kind (not capital)		
Funding requested from Coast to Capital LEP:	£5m	12%

1.5) Expected tangible core outputs/outcomes: Please also complete the outputs tab of the supporting spreadsheet

Output/outcome	**Metric**	**Number to be delivered**
Employment- created and/or safeguarded	No.	25
Businesses assisted- financial and non- financial	No.	150
Skills- new learners and/or apprentices	No.	250
New housing unit completions	Units	
New floor space constructed/refurbished- learning	Sq mtr	979
New floor space constructed/Refurbished- Commercial	Sq mtr	
Length of new roads/cycle ways	km	
Improvement to journey times	Minutes per mile	
Carbon reduction	Tonnes of CO2	

Supporting spreadsheet is Annex 1.

1.6) Main risks and issues the project will need to manage?

A key aim of this project is to reduce the risk to student recruitment to the Technology Park for its launch in 2018 and its first few years, prior to a track record being developed. If student numbers are not realised in the early years the financial sustainability of the project would be in jeopardy. While the University, with the support from HEFCE, have made a considerable forward investment to the project in order to manage this risk, the cost pressures which have developed since the project was conceived has increased the risk in this area, which the University is seeking to mitigate through this programme.

Key risks:

1. **Order to payment / delivery times**. Part of new bid is to enhance the current project, with the refurbishment of existing facilities and equipping laboratories for prototyping etc. as outlined above. Based upon the assumption of hearing the outcome of the bid by the end of February, there is a risk that there would be insufficient time to complete the procurement process by the end of March for the specialist equipment as well as implementing a programme of works. To mitigate this risk, the project programme reflects realistic procurement and construction timelines, to ensure best value is secured and contingencies are in place to spend on other elements of the capital project rather than relying on unrealistic procurement timeframes.

   This will not apply to the construction and specialist equipment within the main building. The proposed draw down by the University of the remaining balance on the current LGF contract would need to be spent by the 31 March 2017. The main contract capital spend will be in the financial year Apr 2017- Mar 2018, when the main construction phase will take place and Apr 2018 – Mar 2019 when fit out will be completed. The risk of not spending in this part of the project is minimal.

2. **Maintaining the quality of student experience.** Ensuring that the student experience is not adversely affected by building works presents a risk, though this risk has been reduced significantly through careful planning and excellent communication. The University has considerable experience in bringing in large capital projects to budget and on time, whilst maintaining business as usual. Two of these projects, including a new academic building close to the main entrance to the campus, have been completed this academic year on the Chichester campus.

   The University aims to minimise disruption issues to all those affected by the construction, and has mitigated the risks by employing a range of measures including appointing contractors who have a track record and can demonstrate competency in working on live HE campuses, the use of specialist acoustic consultants to advise on measured to mitigate noise disruption, timing disruptive construction work when students are not on campus where possible, keeping the residents directly affected by the build informed of likely disruption or noise and ensuring that contractors are aware of student examination periods so that work can be managed around these critical times. Disruption to students, staff and local residents therefore links to timing of elements of the entire project and managing those can impact upon the timescales.

DOCUMENT STATUS

REVISION HISTORY

Revision Date	Version No.	Summary of changes	Author/editor

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DISTRIBUTION LIST

2. The Strategic Case

2.1) Describe the compelling case for change.

Introduction

The University has secured firm pledges worth in excess of £1.65 million cash and in kind contribution from industry for its innovative industry-led interdisciplinary Science, Technology, Engineering and

Maths (STEM) facility, the new Engineering and Digital Technology Park at Bognor Regis, for the duration of the first three years of its operation. There is also an additional £700k of support agreed in principle, more details of which are in section 2.3. With the exception of input into the curriculum and support, most of this will be provided from September 2018 onwards when the new building becomes operational and the majority of new programmes are launched. This demonstrates very powerfully the need for the project-based, industry-focussed interdisciplinary STEM provision being developed.

The first phase of this transformative project attracted a Local Growth Funding award of £8 million and £2.7m HEFCE Catalyst Funding, and the University can now demonstrate that a further award at this stage would deliver enhanced outcomes and added value in the economic, social and environmental spheres. The project is underway with the building due for completion in June 2018, with the current LGF contract finishing in 2018/19. This can be evidenced by the University committing to claim the full £8 million prior to March 31 3017 subject to a number of conditions, in a letter dated 05 December 2016.

The University is therefore now in an excellent position to both fast-track and enrich aspects of the Technology Park project through a LGF award to further enhance outputs for industry and students. This project is a subset of the original project and will also assist in its delivery by reducing the risk to the vision behind the project in challenging and changing market conditions.

The University's Technology Park is an ambitious project which responds to this national agenda by linking higher level skills with industry to provide a new and sustainable pool of highly skilled local people to drive up productivity and fill skills gaps through their use of technology. It is particularly challenging and ambitious as it is a long term project designed to tap into elements of the local population who do not currently engage in STEM, some of whom do not yet participate in higher education. In the post-EU referendum, marketised Higher Education system this task is increasingly challenging. The University has the experience in widening participation and the relationships with business to deliver, and is requesting additional resource through this proposal to assist in funding facilities and equipment that will enable this pool of new talent to be developed, prior to any income streams materialising.

The Rationale for the overall Engineering and Digital Technology Park project
The project enhances the overarching Technology Park project which is an ongoing collaboration between a small university and some of the large number of small and medium businesses (SMEs) in its locality and sub-region to close the significant skills gap in higher level engineering, creative digital, maths, data science and leadership and management skills often displayed in these sectors, particularly SMEs and raise career aspirations and achievements of young people in STEM. This is being achieved by genuine and close collaboration in the design and delivery of project-based curricula and a progressive outreach programme in low participation areas. The project responses to:

1. Recent labour market reports[3], Coast to Capital and local data, intelligence from SMEs in the Coast to Capital (Coast to Capital) LEP area indicate a need for more work-ready, technician-level graduates from the locality (coastal strip) and sub-region (Coast to Capital area) to meet engineering skills shortages in SMEs[4].
2. Some deprived coastal areas served by this project, based on our Bognor Regis campus, have Higher Education (HE) participation rates between 7.6% and 19.8% [5]and only 1.6% of participants in outreach activities from sub-regional postcodes progress to study engineering at HE[6].

Unlike larger Higher Education Institutions (HEIs), Chichester is well-equipped to respond as our small scale and flat structure allow SMEs to easily understand how to engage with us, and we can be more flexible and responsive to them than larger HEIs; we have a proven track record in widening participation (see Section 2.1); we are not restricted by existing structures, staff and facilities for STEM. Specifically the local challenges the project will address are:

[3] Engineering UK, *Engineering UK 2015:The state of engineering* (2015) p5
[4] Coast to Capital, *Skills for Growth: A Skills Strategy for the Coast to Capital Local Enterprise Partnership,* January 2015, p23
[5] http://www.hefce.ac.uk/whatwedo/wp/ourresearch/gaps/
[6] Analysis of participants in outreach activities, undertaken by all HEAT universities, with a home postcode of BN, SO and PO Postcodes from 2009/10 to 2013/14

1. **Shortage of Engineers, Creative Technologists and others with higher level skills relevant to the SMEs:** According to Creative Skillset[7], 18% of companies when interviewed had vacancies that were proving hard to fill and 33% of companies report a skills gap within their workforce. In consultation with film industry employers, Creative Skillset identified 16 key role shortages in the UK. In the last survey by Engineering UK, nearly half of engineering firms said that hard-to-fill vacancies had meant delays in developing new products or services, while 45% said they experienced increases in operating costs[8]. These trends are even more prevalent locally, particularly in the coastal strip and our proposition is seen by local employers to address their needs (see section 2.3).
2. **Lack of well-qualified Technology and Maths teachers:** Association of School and College Leaders 2014 data showed 52% of respondents had vacancies in maths and 50% in science.
3. **Low productivity:** gross value added (GVA) per head: Coast to Capital is 13th / 39 LEPs and GVA growth over the last 10 years Coast to Capital is 12th / 39 LEPs[9].
4. **Limited involvement from businesses in technology curriculum development and delivery.** Every Technology Park programme will have at least one industrial advisor from a sub-regionally based business and there is a strong focus on developing degree apprenticeships, with the first one successfully launched in September 2016.
5. **Inequality of access to HE, and to STEM provision:** Only 27% of students in Coast to Capital universities graduate in technical or scientific subjects, against 40% nationally. Only 2% graduate in Engineering and / or Technology based disciplines[10]
6. **Lack of integration between Creative and Technical disciplines:** for example, *'Employers in the VFX industry tell us that they're on the lookout for graduates with core skills in **Maths**, **Design**, **Computer Science** and **Physics**, and not just self-taught artists with specific software skills. A degree in one of these broader subjects supported by either self-teaching or a traineeship is just as promising as completing a specialist degree or private qualification in visual effects*.'[11]
7. **Low progression to and from apprenticeships:** Only 19% of advanced apprenticeships progress to higher education, when tracked over 7 years[12].

The rationale for this funding proposal

In a 'cold spot' for HE participation and for studying STEM subjects, the Technology Park building will be a locus for interest in science and 'making' from a diversity of users – students, staff, employees and school and college students. Features such as viewing balconies and glass partitions will promote transparency and stimulate interest from visiting groups in the process of education taking place, breaking down stereotyped ideas of Engineering and deliver a forward looking model for an area without large companies to provide this.

The additional LGF monies will complement the funding provided to enable the building to be designed and built to a higher specification to support the necessary levels of engagement with SMEs and disadvantaged student groups by enabling cutting-edge industry standard equipment to be provided as well, and in some cases over a year ahead of opening the Park. It will both foreground the excitement of 'making' and its visibility, and provide for the integration of facilities for different user groups.

With this funding, the University will offer a much needed inspiration to students of all ages to engage and succeed in STEM subjects, prior to the building opening to recruit students and ultimately provide industry ready graduates through the early use of STEM facilities and equipment in outreach and recruitment. It will also enable start-ups and SMEs with business ambition to up-scale through use of the facilities within the Park as well as accessing equipment prior to its opening. It will also provide a strong visual focus to encourage interest from prospective students and levels of collaboration with SMEs that other HEIs are not currently able to achieve. This will provide a focus for STEM that builds on

[7] Creative Skillset

[8] Engineering UK*, Engineering UK 2015:The state of engineering* (2015) p5

[9] Coast to Capital *Economic Assessment* (Aug 2015)

[10] *Skills for Growth.* (CtC 2014)

[11] Creative Skillset

[12] Commons Briefing on apprenticeships (2015)

our existing credibility with SMEs - a result of providing business support and leadership and management training through our Business School.

It will provide important student support facilities such as an easily accessible careers, information advice and guidance service on the Bognor Regis Campus for the first time, tailored to provide careers services that technology students and employers require through a dedicated facility and further development of the partnership with Love Local Jobs. This integration of outreach, business support and careers advice to the depth being developed is very unusual in HE, hence the HEFCE funding award, and is costly and difficult to achieve.

The campus connectivity element of the project is important to deliver the interdisciplinary vision of the project, termed STEAM (Science, Technology, Engineering, Arts and Maths). Modern design engineering and creative digital technology frequently overlap in the workplace – SMEs need product designers who understand production processes and design engineers who understand the aesthetic. This is expressed most clearly through an active debate around 'STEM' or 'STEAM'.

We plan to take this concept a little further to incorporate the concept of 'STEAM' into the curriculum and outreach programme; i.e. incorporating the arts into the curriculum from across the University, and technology into arts and humanities programmes, as promoted, by, for example, STEM ambassador and engineer, Nick Corston. This both increases the attractiveness and relevance of STEM to a wider audience and injects creativity which fuels innovation, and is aligned to Chichester's liberal arts curriculum and the co-location of creative digital technologies in the same purpose-built building.

Therefore, campus connectivity is not just important to the students and staff in the technology park to access the rest of the campus facilities, it enables easier access to the technology park by students and staff in other departments of the university and avoids a 'technology ghetto'.

The University is investing heavily in this project, for several years prior to receiving any income and this award will be very important in the success of the long term vision and ambition of the project to develop a sustainable new pipeline of local graduate talent. It is not an easy task to reverse generations of low aspiration and lack of interest in a career in STEM prevalent in many of our local communities.

The outputs listed in section 3.13 are really merely milestones in a much more ambitious, longer term project, the first phase of which will generate over 2000 graduates, which will multiply many, many times if the Technology Park has enough initial investment to succeed in its early year, prior to the income stream becoming established.

The need for widening participation activities

If successful, this funding proposal will significantly support the University to accelerate the re-focus of its already successful widening participation activities to stimulate increased interest in participation in STEM, ahead of the opening of the main facilities.

To illustrate the scale of the challenge of increasing participation in HE in the sub-region, the University has analysed the following data: *Gaps in young participation in higher education* [1], HEFCE Cold Spots, English Indices of Deprivation: Education, Skills and Training, 2015 (EDI:EST) and HEAT reports, to identify the areas where there are the most significant gaps in participation in skills, training and FE/HE education.

We have focussed our analysis of on the sub-regional coastal locality that encompasses the coastal towns of Shoreham, Worthing, Littlehampton, Bognor Regis and Havant, whilst stretching up the central corridor to Crawley.

The *Gaps in young participation in higher education*, and the EDI:EST highlight the gaps in education and skills of young people in the locality, illustrated in the data provided in the tables below. This is particularly stark when compared to the EDI:EST of the Coast to Capital area which ranks 30th out of 39 Local Enterprise Partnerships, with 39 being the least deprived.

Table 1a: English Indices of Deprivation, 2015: Education, Skills and Training

[1] http://www.hefce.ac.uk/whatwedo/wp/ourresearch/gaps/

Local Authority District name (2013)	Education, Skills and Training - Rank of average rank n/326
Adur	53
Crawley	65
Havant	73
Arun	84
Worthing	149
Chichester	238

The participation of local areas (POLAR) classification groups areas across the UK based on the proportion of the young population that participates in HE. The POLAR classification looks at how likely young people are to participate in HE across the UK and shows how this varies by area. POLAR is used to inform targeting, and support analysis, of widening participation activities. POLAR classifies local areas or 'wards' into five groups, based on the proportion of 18 year olds who enter HE aged 18 or 19 years old. These groups range from quintile 1 areas, with the lowest young participation (most disadvantaged), up to quintile 5 areas with the highest rates (most advantaged).The most recent iteration of the classification is POLAR3.

Table 1b: POLAR3 participation in HE data applied to the regional locality

Town	Wards which appear in the lowest quintile	% POLAR3 Participation Q1 <20%	IDACI	Town	Wards which appear in the lowest quintile	% Participation	IDACI
Bognor Regis	• Bersted • Orchard • Pevensey	15.4 15.8 18.0		**Shoreham**	• Mash Barn • Southlands • Hillside • Eastbrook	18.4 11.5 19.8 17.8	
Town	**Wards which appear in the lowest quintile**	**% POLAR3 Participation Q1 <20%**	**IDACI**	**Town**	**Wards which appear in the lowest quintile**	**% Participation**	**IDACI**
Littlehampton	• Wick/Toddington • Ham • River	19.0 9.5 20.8		**Havant**	• Bondfields • Battins • Warren Park • Barncroft • Stakes	10.2 9.3 6.8 7.6 16.7	
Worthing	• Northbrook • Peverel • Churchill • Widewater	16.8 11.8 15.9 18.5		**Crawley**	• Bewbush • Tilgate • Broadfield South • Broadfield North	16.5 18.8 17.4 19.5	

Source: *Gaps in young participation in higher education*[31]

The table above therefore demonstrates how poorly some wards local to the University perform in terms of young people's entry into HE and the pressing need for consistent, focussed, targeted, progressive and impact-driven outreach and widening participation activities in schools and colleges.

The University has analysed the tracked element of the University's widening participation programme to demonstrate its positive impact. This analysis should also be placed in the context of the University' recruitment pattern of high proportions of first generation to HE students and students from low income households.

The tracked element of the University's widening participation programme reveals that since 07/08 69% of the young people we have worked with live in POLAR3 postcodes quintile 1 & 2. Of this tracked cohort 82% declared themselves as first in family to enter Higher Education. Where the data was provided the tracked cohort scored highly in 3 or more of the 4 deprivation indices (IMD, EST, IDACI and POLAR3).

Over the 7 years from 07/08 to 13/14 the average Young Participation Rate YPR was 38%. Whilst this is identical to the national HEFCE Young Participation Rate (YPR), when interpreted in the context of tracked cohort profile, as outlined above, it reflects the success of the widening participation programme in equipping those from the most disadvantaged backgrounds to progress to HE. The national statistics for a similar cohort show a progression YPR rate of less than 25%.

Furthermore, 85% of the University's tracked cohort who were classified as in the lowest NS-SEC (groups 4-8) on entry to HE (based on parental occupation) were, six months after graduation, based on their occupation, classified in the NS-SEC group 1-3. This provides evidence that the structured outreach programmes undertaken by the University that result in YPR in HE contribute to social mobility.

The Higher Education Access Tracker (HEAT) service is a collaborative project which helps higher education institutions (HEIs) in England track students that have taken part in outreach activities in schools and colleges, through to their achievement in higher education. Table 2 confirms the low progression to engineering of the tracked cohort, with a home postcode of BN, SO and PO postcode, of the widening participation programmes undertaken by all HEAT universities, from 2009/10 to 2013/14.

Table 2: Progression of participants into HE and engineering, 2009/10 – 2013/14

Total tracked participants	% progressed to HE	% studying engineering
5760	38	1.6

Source: HEAT

The gaps in progression, taken in conjunction with IDACI data are stark and reinforce the findings of the Education Select Committee's report on *Underachievement of White Working Class Children*

"*Sir Michael Wilshaw has drawn attention to the fact that the distribution of underachievement has shifted away from big cities and is now most concentrated in 'deprived coastal towns and rural, less populous regions of the country*" (June 2014, p46).

The analysis of the above data, taken in tandem with the results of the employer forums (see section 2.3) clearly demonstrate that there is latent demand both in progression to HE and also in STEM. The closing of this gap would contribute towards the delivery of the Coast to Capital Skills Strategy as well as the Government aim of doubling the numbers of those from the most disadvantaged backgrounds entering HE and also respond to their productivity plan.[13]

In order to achieve this we have built on our experience to develop a STEM outreach programme.

STEM Outreach Programme

The University's Outreach team works with 20,000 students a year in fifty schools across West Sussex, Hampshire and Kent. In addition, the University trains teachers in partnership with 800 schools and runs its own University Academy Trust. The University's background in Teacher Education makes it uniquely qualified within the region to lead the aspiration raising challenge of a STEM awareness project that includes all levels from Primary schools to Secondary schools.

Four local FE colleges are pledged to support the project by expanding their Level 3 STEM provision and using the facility as a 'centre of STEM excellence'.

From September 2015 we have re-focussed our outreach provision on opportunities around STEM, in line with Government policy to increase STEM capacity in schools. A key delivery partner is the Royal Institutions, with which we will establish a southern hub, and our work is supported by Annika Small, the CBI's '*First Woman in Science and Technology 2014'*, who is working with us on the recruitment of girls into STEM. We are also working with local partners such as the Sussex Learning Network, STEMSussex and Coastal West Sussex Partnership. Other partners include STEMettes, Greenpower, Education Trust Engineering Development Trust (EDT) and The Girls' Network, as well as local schools.

Elements of the programme are to:

1. **Develop and lead an evidence-based, progressive framework** to STEM access and outreach for young people from primary age, up into schools and colleges. The framework will adopt a project-based approach which mirrors that adopted by CDIO and will place industry and peer ambassadors at its core. The development of a STEM young leaders' programme that will link PGCE students to

[13] HM Treasury, *Fixing the Foundations: Creating a more prosperous nation,* July 2015, p27

FE Colleges (FECs) to Secondary and Primary schools, with SMES acting as STEM and leadership ambassadors, will be a centrepiece. 'Women in Engineering' is a key strand to provide a response to the long-standing poor record of women in engineering. In addition to a structured engagement and attainment programme, a core feature of this strand will be the involvement of female industry ambassadors.

2. **Collaborate with FE Colleges including integrated programme pathways from FECs into HE and HEIs.** The collaboration with the four FECs encompasses: curriculum design; integrated progression routes; common, structured outreach with secondary schools; and delivery of FE and HE courses at the FE Centre of Excellence in the higher education environment of the Technology Park. SME engagement in the curriculum and structured outreach is common to all partners, but specific areas of interest and detailed beneath in order to demonstrate the differentiation based on the locality, student demographic and nature of the College.
3. **Undertake a STEM Skills CPD programme for teachers, assistants and advisors in schools and colleges**. The STEM Skills element will be led by our Institute for Education and will be based on pedagogical principles, it will be piloted with our trainee teachers on our undergraduate teacher education program. Once it has been successfully piloted, the same approach will become a school based CPD programme with resources and toolkits.

   We will build on our a lead role of re-creating the West Sussex local authority careers professionals hub, as well as our existing subject networks for teachers, by involving organisations such as Love Local jobs.com, Sussex Learning Network (SLN) and the Technology Park employer forums to develop a coherent approach to closing the skills gaps and providing clear education and training pathways.
4. **Support an industry-led curriculum.** Students will have access to regional businesses at all levels with a focus on work-based learning and will also work alongside businesses in the Technology Park. Successful accredited modules on preparation for internship and employment will be adapted from existing programmes to support students into employment. Professional placements and graduate internships in SMEs, an identified need in the Coast to Capital Skills Strategy, will be put in place at the outset. Businesses will be engaged in the design and delivery of the programmes.
5. **Lead an HEI widening participation STEM partnership** to co-develop and share practice as it develops for the benefit of the rest of the HE and education sector. This dissemination will begin via the Sussex Learning Network, the local coordinator for the National Networks for Collaborative Outreach.

Careers Hub

'*To maximise impact and effectiveness, it is crucial that all higher education providers and stakeholders take a broad view of widening participation encompassing a student's entire lifecycle: preparing for and entering higher education, graduating successfully, and progressing to employment or postgraduate study*'[14]

The Careers hub will be sited within the listed (and to be refurbished 67/69 and 71 Upper Bognor Road buildings) so as to provide dedicated facilities adjacent to the technical building. The focus will be to provide curriculum embedded employability and enterprise education from the first year of study onwards – with a base being sited within a venue that will facilitate easy access of facilities by students. The Careers hub will act as a home from which pop up workshop events will run within, for example, the main Technical building, the Learning Resource Centre (LRC) and Students' Union - to encourage participation and engagement with all our students. The hub will moreover as a centre and focus for outreach to employers, a centre from which internships will be administered and as a base for publicising career opportunities, training programmes and even CPD. Our aim is to ensure all students are provided with exceptional opportunities for enhancing employability by training graduates who have the skills, experience sought after by employers.

[14] National strategy for access and student success in HE, Dept for Business, Innovation and Skills, April 2014, p.9

The need for industry-standard specialist equipment

A component of the proposal is to provide industry-standard equipment both in advance of the building opening and in the Technology Park building itself to support the long term process of developing a local pool of graduates to meet the needs of local industry. Any equipment purchased in advance of the main facility opening will be re-located to within the building and used for mainstream student teaching, student outreach and recruitment and / or made available to business as appropriate on an ongoing basis.

The summary of responses from our ongoing consultation with businesses in both Engineering and the Creative Digital sectors in terms of both co-delivery to students and use of facilities demonstrates that industry-standard, cutting edge equipment must be a core element of our offer. This is endorsed by sector specific research and industry reports, some of which are referenced elsewhere in this document.

The investment in high technology equipment will enable the outcomes listed in section 3.13 to be delivered, and a facility with significant long term impact to be established, in particular by:

- Recruiting experienced and innovative staff and enable them to develop innovative programmes including degree apprenticeships; fast track phase 2 – list programmes, additional students
- Delivering an innovative and effective outreach programme to develop a sustained stream of locally based students from under-represented groups in HE and STEM to increase productivity of local companies through the use of technology and fill high level skills gaps locally when they graduate
- Supporting businesses to increase their use of technology by establishing commercially facing equipment banks with a training facility to increase productivity and stimulate growth

STEM prototype laboratory

Engineering will be taught through a project-based pedagogy, the 'Conceive, Design, Implement, Operate' (CDIO) model, as recommended to us by the Royal Academy of Engineering (RAE). This is a worldwide initiative (http://www.CDIO.org) developed by Massachusetts Institute of Technology with three Swedish HEIs. CDIO has been successfully adopted by some UK Universities, including Liverpool, Aston and Leicester Universities, though only by Bristol in the south of England.

CDIO is an ideal model to use with widening participation students in an SME environment as it creates 'work ready' graduates for SMEs by ensuring that they have the necessary skills and adaptability. CDIO also reflects the 'hands on' 'learning by doing' approach underpinning Chichester's educational philosophy.

To attract students, CDIO needs to be demonstrated as part of their school / college studies as well as through outreach to them and their families. We do not currently have a space adaptable to deliver CDIO to prospective students. We have arranged that students at four FE colleges and at local schools will co-deliver with ourselves elements of their courses using CDIO.

Delivering CDIO has particular space needs, including a very large lab designed for problem-focused group work - hard to successfully adapt from existing classroom space (as other HEIs have demonstrated) especially as our campus largely comprises historic, listed buildings within a conservation area. Approachability and practicality for use by apprentices, prospective students and employees through a CAD suite and Prototyping Lab will allow students and SMEs to develop ideas for new products, together and separately and this innovation will encourage start-ups and support the 'scaling up' required of SMEs by government.

CDIO Workspace Attributes (Summary)[15]

- facilitate student learning of CDIO skills
- encourage hands-on learning of product and system building, disciplinary knowledge and social learning
- facilitate group activities, social interaction and communication
- provide adequate training opportunities
- provide a sustainable resource

[15] http://www.cdio.org/implementing-cdio-your-institution/implementation-kit/design-build-and-workspaces/workspaces

- provide flexible equipment and activities
- facilitate access to students outside normal class hours
- provide access to modern tools, equipment and software

Examples of the equipment within the STEM prototype laboratory
Lab Equipment
Materials testing and measuring equipment, for example the INSTRON E10000, are valuable to measure material properties when under tension, compression, torsion or cyclically loaded. Such equipment is enables course content, for example is materials science to be developed with student interaction in mind and also serves as interesting and highly visual demonstration for STEM outreach and engagement activities.

Aerodynamics and fluid dynamics is a very important area of engineering and science. Measurement of forces on different cross sectional objects placed in fast flowing air and the occurrence of drag and lift forces and turbulent flow are key topics in undergraduate engineering degrees. Smaller, table top wind tunnels provide the opportunity for students to operate and measure examples individually or in small groups, providing a much richer learning experience. Visual demonstrations provide powerful insight into the qualitative behaviour of flowing fluids which and are an excellent way of engaging interest in STEM.

Machine Tools
3D printing is probably the most rapidly developing area in engineering, with the technique now being used more in industry. All engineering students should understand the principles and applications of 3D printing technology and have significant practical experience of using 3D printers in coursework, lab work and project work. Due to its media presence and rapid growth, 3D printing is an excellent STEAM outreach tool, being highly visual, applied and having potentially highly creative output. 3D printing has important components of materials' science, mechanical and electronic engineering along with mathematics and software.

Physics
Physics underpins all science and thus is *the* foundation of engineering. Demonstrating the foundations of physics serves to make the subject less abstract and widen interest. Physics principles such as collisions and thermodynamics can be demonstrated using high quality apparatus developed to show these phenomena in an interesting way which will benefit the engineering undergraduate student as well as younger students who may be thinking of taking STEM subjects. Example equipment, includes air cushioned tables to demonstrate mechanics and collisions and a Stirling engine to show how heat can be converted to mechanical motion.

IT suites
In the summer of 2016 we introduced two Apple-Mac based media IT learning labs for film and digital media provision. The proposal is to add to these with a PC-based film and digital media learning lab, within the Learning Resource Centre at Bognor Regis that forms part of the facilities aligned to the tech-park programme. The reason for an adding PC based IT learning lab is to recognise that film and digital production consists of a broad spectrum, in which the more vox-pop, rapid web-casting and you-tube developments are typically undertaken in Apple based products (which require Apple Mac computers) whereas the more cinematic developments, (using the AVID software System) plus animation (Using Autodesk Maya) and music production (using Sibelius) requires high-performance PCs using the Microsoft environment.

Of the other two further IT learning labs we have proposed, the first is to provide PCs configured around 3D modelling (static graphics) to enable the introduction of the CAD environment (using the Solidworks and MatLabs software environment), similarly in a learning, and teaching facility. The final IT learning lab proposed is to provide PCs configured around data processing, (primarily using Hadoops) in order to develop learning teaching, show-casing and the introduction of data analytics, and big-data elements for existing and new business school students. They will also enable the University IT systems to be tested in these new areas prior to the much larger scale Technology Park building and programmes being launched in September 2018.

These IT learning labs integrate with data storage and cloud services networked from the data centre

elements of the proposal, each integrates with the editing suites (for media) and prototyping CDIO lab to realise film and engineering production, plus in terms of film grading, sound and colour balancing these facilities integrate with the screening room element of the proposition.

CDT facilities and equipment

Examples of equipment being installed through this project, for student and industry use, subject to internal business cases, include:

Visual Effects & Cine Robotics and Milo camera with long arm and associated technologies
Oscar winning technology used in films, visual and special effects, games design, animation and advertising. World leading company. Would solidify the 'partnership' already in discussion with MRMC. Would provide students with high-level skills in cine robotics, programming and engineering for the creative industries. Full training & hire packages would be on offer to C2C regional companies. A major component to aid recruitment and create employment opportunities in a specialist field. This unit is also transportable and would be perfect for outreach sessions at schools and colleges. MRMC are interested in utilising and supporting the new facility. Nikon who are providing a large R&D budget for future products has recently acquired MRMC. A partnership with MRMC would facilitate major opportunities in research. This technology would also be available to support research in Sports Science.

Multi Camera Robotic Heads System
A complete package of 4 camera set ups for live event filming and broadcast. System currently used in live sporting, broadcast and music filming. Would allow local companies to provide very professional services to event led clients raising the profile of their businesses and enabling greater competitiveness in an area of much demand. Students would gain high-level technical skills and better placement & employment opportunities through package hire.

Cameras, lighting, audio equipment etc.
3 levels of cameras to support a range of audio- visual creative activities.
There are very few options regionally to hire professional camera equipment as what is available in he region is very limited in terms of choice and range.

Motion Capture System
Used immediately to upskill and train staff. Training and access to use the system will be available to commercial companies and freelancers.
Screening Room
The set up proposed for the lecture theatre conversion into a multi-purpose screening facility and lecture space allows for a configuration with some hardware and software for a Master Suite if possible without compromising seating capacity. This would be relocated later into the new technology building.

Media Storage
It is prudent to begin building some of the complicated Media Storage and support package required in the new tech park building to allow for testing and training for the IT and CDT departments to alleviate any initial issues.

CDT commercial equipment hire facility

According to an influential report by UKCES, *'The digital and creative sector has grown rapidly in recent years and contributed £134 billion in GVA to the UK economy in 2014. The sector employed 2.1 million people in 2012.'*[16]

Establishing a commercial entity to interface with creative and digital companies, enhances the prospect for local economic growth, raises productivity, provides employment opportunities and a higher skills based workforce. With the University of Chichester playing a significant leading role in the local regeneration plans, the creative and digital commercial arm would not only support the development of these vibrant and vital industries locally but act as a beacon to regional, national and international creative companies, drawing in new business and establishing Bognor Regis as a town to invest in.

[16] UKCES Report, *Sector insights: skills and performance challenges in the digital and creative sector* (June 2015)

By launching a clear interface and first point of contact for business through the commercial arm, we will be able to develop stronger relationships and industry partnerships. In turn this will lead to better informed course development, degree apprenticeships and desirable occupational skills needed from graduates by industry to fill skills gaps and raise productivity.

The first stage would be to launch an Audio Visual Equipment Hire and Training operation. A/V hire and training responds to a number of needs identified by the UKCES Report June 2015. *Sector insights: skills and performance challenges in the digital and creative sector. All quotes in this section are from this important report.*

Particularly important is the need for CPD to ensure employees and practitioners are up to date with training and experience with technology advances. With an estimated 47% of Freelancers within the creative sector this is a major issue that needs intervention to ensure a high skilled workforce moving forward. The creative and digital sectors are expected to require *'1.2 million new workers between 2012 and 2022, to both support growth and replace those leaving the sector'*, the report highlights the importance of the role Universities can play in ensuring these existing and future skills gaps are met. However *'There are particular concerns about the ability of the education system to supply the quantity and quality of workers needed for digital roles.'*

Clearly establishing and strengthening the links between industry and the University should be at the heart of how we intend to produce the next generation of digital creatives but also how we can interface with the needs of industry right now.

'Employers may find it advantageous to build stronger relationships with local educational institutions and training providers to enable employees to undertake modular training without the need to travel too far from the workplace.'

The new equipment will enable the CDT department to deliver bespoke training to SMEs and micro businesses on various high end technologies for those working in the relevant fields of film, high end TV, graphics/animation and special visual effects (VFX). This covers 4 of the 5 most important occupational needs as identified in the report;

- *Programmers and software development professionals*
- *Graphic designers*
- *Arts officers, producers and directors*
- *Photographers, audio-visual and broadcasting equipment operators*.

Being able to help train those already developing or having developed careers is reinforced by making that technology available to hire. We will encourage any hirer to take on trainees for the duration of the hire period thus enabling students to gain real world experience in the creative digital sector. We can particularly support companies who engage with the trainee track.

'Within the UK, the greatest concentration of digital and creative employment is within London, where the sector accounts for just over 600,000 jobs, equivalent to 12 per cent of total employment in the capital. There is also a concentration of digital and creative jobs in the South East, where there are 382,000 creative and digital jobs.'

By providing this all round support framework we believe local and regional companies and freelancers will be able to compete for higher value projects thus increasing the opportunities for growth. The hire service we also draw non-regional practitioners and creative businesses into the area helping to promote the region and facilities we have to offer to a wider national and international marketplace.

Our approach is underpinned by the following;

'The Technology Strategy Board (2013) highlights the increasing convergence of media content across networks and platforms, such as the streaming of video and audio. Stakeholders cited the example of producing a film, which typically now involves not only producing the film itself, but producing related content for an interactive website, mobile apps, and so on.'

We have, for a number of years, engaged with industry in a unique and highly productive way. On our BA Hons Digital Film Production & Screenwriting programme we have researched, developed and applied a pedagogical approach to learning rarely seen in the sector.

Annually, working with 2nd and 3rd year students, we have taken a professional short film into production. Alongside staff (all originally from industry) we employ industry professionals with careers spanning BAFTA and Oscar winning productions in both film and TV, as heads of various departments, and the students work directly beneath them as assistants, trainees and runners. The production spans a 2-week period and every student undertakes a 5-day stint, working a full day as we mirror professional protocols. The films, once complete, are submitted to international film festivals and have gone on to win a number of awards. Students also get Internet Movie Data Base (IMDB) credits that link them directly to some very significant individuals from industry.

The establishment of the equipment hire facility and industry-quality facilities in the Technology Park building will enable the University to build on this experience to the benefit of students and industry alike.

Bognor Regis Creative Hub
There is a very positive local action enterprise, stimulated by West Sussex County Council (WSCC) to establish a Creative Hub in units attached to Bognor Regis rail station. The ambition is to support and help build the local creative and digital sector. This Wired Sussex, West Sussex County Council and Hemingway Design initiative has our full support, and these organisations support our project which is seen by all as complementary.

The University being an active participant will lead to growth and enhanced skills base through utlising the resources we are developing and this commercial proposition enables us to interact freely with the local creative community. By facilitating access to training, equipment and amenities via the commercial arm we will underpin the ambitions for the regeneration of the town and provide a launch pad for existing companies to expand and for new companies to be developed.

2.2) Investment Objectives- detail the specific objectives to achieve the anticipated outcomes.

- Strengthen the deliverability of the planned technology park in the light of increased construction costs based on current market conditions. Completion to current specification by September 2018; includes 440m^2 additional space within the building.
- Increase STEM activity on campus ahead of the building completion for pre-University students. Recruitment of 2,225 students by 2022/23 including 225 additional students. 13% of engineering department students will be women by 2018/19.
- Increase opportunity for SME stakeholders to engage with the University during the course development stages and provide input and support for outreach activities on campus. 197 SME stakeholders engaged with programme development and outreach in total (100 through this project) by 2022/23. An additional £1.05 million in kind and cash support levered in from business by 2022/23.
- Increase number of events and networking opportunities with the aim of expanding the number and industrial diversity of overall stakeholder partners. At least 4 dedicated Employer Forum events a year (16 in total by 2020/21), 32 STEM festivals by 2020/21 and activities in 76 schools and colleges by 2020/21 plus lectures, events, business school events on campus.
- Enhance resources on the Bognor Regis Campus outside of the new buildings provides additional ways to engage with regional businesses both ahead of the main project launch and for the longer term. 3 IY labs by March 2017; Screening room, STEM Laboratory, CDT Equipment bank, Careers hub by Sept 2017; 539m^2 additional space available; 150 businesses assisted by 2022/23.

2.3) Stakeholder Engagement carried out.

Since 2014, throughout the development of the project, the University has been listening and responding to the needs of local, regional and national businesses via employer fora, surveys, interviews and meetings, and through this work with employers the University can now evidence a significantly increased value of their investment in the project.

To date, and more a year ahead of the building opening, in excess of £2.3 million of investment over 5 years has been pledged, mainly by SMEs, with £1,65 million being in firm pledges. Stakeholder roles and responsibilities include: oversight of project; input into the design and delivery of programmes; project ambassadors; input into design of facilities; sponsorship of equipment; mentoring and support for students and new businesses; contribution to placement and internship programme and other initiatives.

For example, as a leading employer in the region, Rolls Royce Motor Cars Ltd, has pledged, through a partnership agreement, substantial support worth c.£400k over 5 years. Areas of interest include outreach, programme development, placements and internships and degree apprenticeships. The company's aspiration to develop a local pool of highly skilled managers, engineers, designers and other technologists that have creative scientific and project / team working skills exactly match the vision of this project. This demonstrates the extent to which we listened and responded to employers from the early stages of the project.

The investment from employers at this stage mainly comprises recurrent contributions to student-related activities and support, as well as curriculum input. In addition, two SMEs have also signed Memoranda of Understanding with the University to commit to a high level of support, including for specific areas of business-led development work. The breakdown of employer investment can be found in Annex

Consultation with industry which started in summer 2014. It was as a result of the initial consultation in 2014 that the decision was made to include engineering in the Technology Park. Later it was employer input that lead the University to adopt the project-based CDIO approach, as well as to incorporate the 'STEAM' agenda into the vision for the portfolio. An Engineering employers' forum was established in July 2015 which has continued to inform the development of the proposition which has directly influenced this proposal. The appointment of the Deputy vice-chancellor (Sustainability and Enterprise) and the Head of Engineering and Applied Design has stimulated further input from employers on an individual and small group basis.

The Creative Digital Technologies department has some well-established employer partnerships and relationships in the industry which have extensively informed the development of the portfolio and the equipment specification. These include, for example:

- *Avid (World leading post production software and hardware company. The CDT department is an Avid Learning Partner)*
- *Mark Roberts Motion Control (Oscar winning cine robotics company based in Surrey)*
- *London Metropolitan Orchestra (Internationally renowned film/games/TV scoring orchestra)*
- *Slightly Mad Studios (Highly successful games company. Specialists in authentic virtual experiences such as driving and flying games)*
- *Sussex Film Office (Promoters of the region for filming locations etc.)*
- *Rohde & Schwarz (World leading technology company providing media management and storage solutions)*

Relationships have been enhanced by the two departments working together on a STEAM agenda, for example technology companies such as Sony, Rohde and Schwarz and Mark Roberts Motion Control are interested in being involved in the Engineering, Design and Creative Digital provision.

The next steps are to set up a CDT employers' forum and to establish Industrial Advisors for each of the individual programme to ensure continued close working as the programmes develop.

In many of our consultations with employers, they have displayed enthusiasm to work with us to develop degree apprenticeships together. For example, we are currently in discussion with Ricardo and Rolls Royce Motor Cars Ltd over the development of a High Performance Engineering degree apprenticeship.

We have worked extensively with four local colleges to ensure that the proposed programmes will be attractive to students, that there will be clear progression routes, that there will be good local

employment prospects and an appropriate outreach programme with colleges and schools.

We also have strong relationships and partnerships with a number of prominent STEM organisations and individuals. In addition we have worked very closely with West Sussex County Council and Arun District Council over a range of matters ranging from Highways and Planning, to Student Accommodation, Education, Place-making, Regeneration and Economic Development; for the latter, we have been particularly involved in the development of the Bognor Regis Creative hub.

Letters of endorsement are attached in Annex 5.

2.4) List the key stakeholders and their interest areas.

Stakeholder	**Interest area**
Rolls Royce Motor Cars Ltd	High Performance Engineering; degree apprenticeships, outreach, curriculum input,
Ricardo	High Performance Engineering; degree apprenticeships, curriculum input
Rohde & Schwarz	Engineering and Creative Digital, curriculum input, equipment sponsorship
URT	High Performance Engineering; degree apprenticeships; curriculum development, STEM outreach in schools
SSE	Software Development; degree apprenticeships
Mark Roberts Motion Control	Engineering and Creative Digital - robotics
Sony	Engineering and Creative Digital – design / audio; degree apprenticeships
Avid	CDT department is an Avid Learning Partner
London Metropolitan Orchestra	Hire of Creative Digital facilities – e.g. already committed to recording film scores
Inpress Plastics	Engineering curriculum development, STEM outreach in schools
Solartron Metrology (Ametek)	High Performance Engineering; degree apprenticeships, outreach, curriculum input,
Biodot	Hire of facilities to facilitate business growth; degree apprenticeships
HyperTeknologies	Hire of facilities
Wired Sussex	Creative Digital Technologies, business start-up, Bognor Regis Creative digital hub
Central Sussex College	Engineering progression routes with an additional interest in Mathematics, STEM outreach
Chichester College	Engineering and Creative Digital Technologies curriculum development, with an additional interest in Mathematics progression routes, STEM outreach
South Downs College	Creative Digital Technologies curriculum development, progression routes, STEM outreach
Worthing College	Engineering curriculum development, progression routes, STEM outreach
Love Local Jobs.com	Enterprise education, raising aspiration; Careers IAG
Royal Institution	STEM outreach partner
Greenpower Education Trust	STEM outreach partner
STEMettes	STEM outreach partner
Coastal West Sussex Partnership	STEM outreach including Bognor Regis STEMFest; advisor / broker on skills development and business growth [Letter in Annex 4]
WSCC	Bognor Regis Creative Digital Hub, Highways,

	Place-making [Letter in Annex 4]
ADC	Bognor Regis economic impact, Planning

2.5) What are the strategic issues, risks and constraints that may impact successful delivery of the project?

- The result of the EU referendum in June 2016 has led to changes in the value of the pound and this with other political contexts seem to have contributed to recent construction price increases through rising material and labour costs. Whilst this is now controlled through the main construction contract which was let in December 2016, costs rose in the period from June to December 2016, significantly reducing financial contingencies and necessitating a value engineering exercise.
- The changes in the value of the pound to the dollar has driven the cost of some technology products up by between 10 and 20%, as evidenced by these quotes from communications from two of our suppliers within our purchasing consortium

  "Since Apple announced … their price changes based on weak £ vs $ Exchange Rate, we have been left waiting to find out whether we will be seeing any Price Support… As of yesterday we were still unsure, and this morning we have had confirmation that we will only be seeing 'part' price support –This leaves us exposed in such a way that we cannot support any price differentials on 'most' of the items, because there simply is nowhere near enough margin in the Apple equipment to cover what is in some cases a 20% cost-price increase from Apple."

  "Official notice of a 10% increase [across all framework suppliers for Windows based computer systems] to be implemented from August 8th was received on July 8th. A counter-offer of 5.4% was made Friday 15th… XMA have been permitted to increase the NDNA unit price by up to 8.5%".

  Without additional funding there is a significantly increase the risk of delivering aspects of the project, particularly the number of local graduates, including women, from low income and participation locations.
- Conversion of existing space to accommodate STEM activity may lead to some short term disruption for current students. Active communication and student involvement and careful planning of the work will help mitigate the impact and increase student buy-in and support for the project.
- The apprenticeship levy has unforeseen consequences that affect businesses interface with education e.g. the SFA's rules relating to sub-contracting ad employer relationships may adversely affect the University's opportunities for some business higher / degree apprenticeships.

We do not expect these to have a substantial effect on our ability to deliver the project.

2.6) Project Dependencies

- 67/69 and 71 Upper Bognor Road are listed buildings in a conservation area, so achieving listed building consent for the alterations will take time. Arun District Council have encouraged the University to develop these buildings for some time so are likely to support a reasonable proposal. However, significant internal alterations and reconstruction of 67 and 69 will warrant detailed consultation with the Local Authority Conservation Advisors and, given the context, achieving planning consent is likely to take some time. This has been built into the programme so is unlikely to have a negative effect.
- Procurement restrictions either in terms of tender process or in terms of supplier lead times will affect timing of specialist equipment delivery and may result in less than 30% of funding spent prior to 31/3/17 in the context of committing to £8m spend by this date as well.
- The University is committed to a policy of best value procurement and in order to secure best prices through effective negotiation there may need to be flexibility on delivery dates beyond 31st

March 2017 in order to secure the best price and overall deal (for example inclusion of extended warranty or maintenance plans).

- Existing space restrictions affect scope of new facilities, restricting the activities that can be delivered prior to the Technology Park opening. This has been assessed and mitigating measures will be implemented, reducing the potential impact on the project.
- Some equipment purchases are subject to successful completion of our internal business case process to ensure best value. If any items currently itemised and costed are not agreed suitable alternatives will be sought and procured.
- The continued delivery of degree apprenticeships as a main contractor is dependent on retaining Skills Funding Agency provider status in the current procurement process. The result of this is due in March 2017. As an existing HE status provider it is unlikely that the application will be unsuccessful; if it is unsuccessful there will be a delay in developing and delivering degree apprentices while provider status is gained in a subsequent procurement round.

We are mitigating these issues and judge that they will not be sufficient to adversely affect the University's capacity to deliver the project.

2.7) Project disruption

The following disruptions will be experienced during the project:

Main building and new entrance:
Local residents and students will experience some construction noise, particularly during the piling phase and may be inconvenienced by construction traffic on Felpham Way.

To a lesser extent, the refurbishment / adaptation works will cause some noise disruption for students, and some teaching sessions will be re-located to other similar facilities

The University is very experienced in managing and minimising disruption to students and local residents during its major construction projects, using the following strategies which are in place for the main building and will be implemented as necessary for the refurbishment / adaptation works:

- Appointment of contractors that have significant experience or working on live University sites
- Noisy activities such as piling are restricted to core daytime hours and minimised during scheduled exam periods
- Sound baffles are in place around the main construction site
- Implementation of a comprehensive communications strategy for local residents and students to inform them in advance of potential disruption and our mitigations
- Displacement of teaching will be communicated to students well in advance and reinforced by reminders and signposting nearer the time
- Works have been planned to minimise disruption to students and prospective students and the consequent potential negative effect on their experience and on student recruitment. For example the screening room refurbishment will not be completed until September 2017 so the most disruptive works will be undertaken during the summer when students are not on campus.

The University plans all capital projects in this way as a matter of course and has recently successfully completed a large project on the Chichester campus, with a new academic building constructed by the campus entrance and extensive re-modelling of the Music Building while part of the building continued to be used by students. Therefore it is not expected that these disruptions will affect our capacity to deliver the project.

3. The Economic Case

3.1) Please describe the options that have been considered in selecting the project proposal, completing both box 1 and 2.

Box 1:

Option Name:	Description:	Total cost:	Amount	Core outputs

			requested:	**(see 1.5)**
Do nothing	Undertake programme development with limited facilities and opportunity to test with employers, jeopardising the provision of programmes employers require. Continue outreach off-site with limited reach to under-represented groups. Jeopardise the outcomes to be delivered through the building design, particularly environmental performance evidenced by BREEAM Excellent rating, providing a landmark building designed to deliver innovative curriculum to attract students and deliver graduates and facilities businesses require all of which also support the regeneration of Bognor Regis. Building too small to accommodate all the programmes and respond to demands for access to business	Increased cost over £22.85m?	0	No change from original funded project, with increased financial risk Possible loss of student income
Preferred option: Specialist Facilities with enhanced building	Early procurement of specialist equipment and the refurbishment of existing facilities to accommodate the equipment to enhance outputs and reduce risk. Building size appropriate to education and business needs. Protection of the design elements necessary for delivering outputs including sustainability and carbon reduction measures	In table above Represents good value for money	£5m	As identified in OBC
Alternative options: **1. Portacabin or storage container**	Establish a facility in a portacabin or storage container on campus. Cost cutting provides a suboptimal building which will not be designed to deliver outputs required including sustainability and carbon reduction measures	£80-100k per annum rental	£5m	Equipment Bank hire to businesses may be jeopardised by lack of space jeopardising and / or reducing all of the business-facing outputs. Plus the addition of a new temporary space on campus.

2. Off campus venue	Establish a facility in business premises, a portacabin or storage facility off campus	£100-150k per annum	£5m	Equipment Bank hire to businesses may be jeopardised by lack of space jeopardising and / or reducing all of the business-facing outputs. Plus weakened impact for the on-campus activity
3. Cost cutting reduces size and specification of the main building	Cost cutting provides a suboptimal building which will not be designed to deliver outputs required including sustainability and carbon reduction measures	Not costed		This option does not deliver a financial sustainable long term project for the University, with unacceptable core output reduction

Box 2:

Option Name:	Advantages:	Disadvantages:

Do nothing, minimum or status quo	**New facilities**
	• Programmes will still be ready on time and of a high quality.
	• Programmes will have been developed with employers
	• Outreach programmes will take place across the region as planned
	Main building
	• Could save money on the build in the short term
		New facilities
		• New staff would have benefitted from working in an environment that reflects their specialism, instead of generic spaces.
		• Programmes may have benefited from more internal collaboration
		• Programmes may not be such a 'good fit' with employers and would have benefited from on-campus collaboration
		• STEAM outreach will not be differentiated to the USP of the University of Chichester.
		Main building
		• Redesign and resubmission to planning leads to significant delay and earliest opening of September 2019, possibly 2020
		• Building does not deliver. E.g.
		  • Not attractive to enough new students to deliver financial sustainability and contractual requirements
		  • Not attractive to women and other low participation groups
		  • Students graduate without the skills needed by business
		  • Not enough facilities to provide for both students and business needs
		  • Building not able to deliver on environmental sustainability and

		carbon targets
Preferred option: Specialist Facilities with enhanced building	**New facilities** A venue: • For rigorous programme development in an environment that will promote creativity and innovation • To encourage engagement with the local community through hosting events • To boost culture change across the University and encourage collaboration between new and existing colleagues that will encourage a sense of belonging • For trialling equipment to ensure it is fit for purpose • To showcase the Tech Park facilities to employers who may utilise the equipment • To carry out a full schedule of outreach activity, supported by employers • To showcase the educational and career opportunities existing in the region to young people **Main building:** • Building as designed and approved can still be delivered in line with planning approval to original project timeline for 2018 • Attractive to new students and delivers financial sustainability and contractual requirements • Attractive to women and other low participation groups so students recruited to target and financial sustainability achieved • Students graduate with the skills needed by business • Facilities as required to fulfil both students and business needs • Building able to deliver on environmental sustainability and carbon targets • Enables contracts to be let for equipment at an earlier stage thus reducing the	**New facilities** • Warranty issues prior to the launch of the Technology Park • Ensuring appropriate storage and maintenance of facilities and equipment • Some disruption for existing students **Main building:** • Negotiations with planning necessary to deliver to programme and design brief within the construction budget even with additional funding • Costs of technology are not fixed by contracts yet so are liable to increase until this is achieved

	impact of price increases	
Alternative options: **1. Portacabin or storage container**	**New facilities** • Quick fix solution (subject to planning approval) • Minimal disruption to the campus in installation and removal	**New facilities** • Finding a suitable position on campus • Planning permission would have to be sought – the delay may minimise the window of opportunity to get impact before the new build is completed • Expense in the short term, with no long term investment benefit for the University • Part of the Campus is in a conservation area • Does not belong to the University physically, or carry a sense of identity with the University or the Technology Park, which may diminish the impact of the activities it is used for. • Facility may look cheap and basic in contrast to the main project aims
2. Off campus venue	**New facilities** • Quick fix solution • No disruption to the campus	**New facilities** • An expensive alternative, with no long term investment benefit for the University • Does not belong to the University physically, or carry a sense of identity with the University or the Technology Park, which may diminish the impact of the activities it is used for • Security/insurance issues with the storage of expensive equipment in a remote location • Lost synergy with existing courses and students and staff • Disjoint from the main build project and the Bognor Regis Campus may weaken the story to stakeholders rather than strengthen as planned.
3. Cost cutting reduces size and specification of the main building	**Main building** • Could save money on the build in the short term	**Main building** • Any change to the building design would require approval through a planning change and this would almost certainly push the project back a full year. • Not part of the ethos of the University • Not attractive to enough new students to deliver financial sustainability and contractual requirements and student numbers will be lower than planned • Not attractive to women and other low participation groups • Students graduate without the skills needed by business • Not enough facilities to provide for business and educational needs • Could create a greater impact on the environment • Could affect the BREEAM Excellent

		rating of the building, and therefore not meet contractual agreement • Poor value for money for the overall build as the cuts will have a larger impact on the visible aspects of the building. • Short term savings will lead to higher running costs and poorer environmental performance and CO_2 emissions. • If or when target numbers are achieved then there would be building capacity issues for both students and businesses

3.2) The preferred option

Preferred option: Specialist Facilities with enhanced building

Justification:

New facilities

The refurbishment of existing accommodation to house the specialist equipment procured in advance of the opening of the Technology Park building, represents the most effective use of funding in terms of value for money and impact of the activity it will promote. This will be excellent preparatory work for the opening of the Technology Park by helping to establish key supporting facilities within the University and at the heart of a community it serves.

The success of this bid will enable earlier and more effective interaction with a range of stakeholders by providing accommodation that is fit for the purpose, and can accommodate the utilisation of specialist equipment. It will offer the prospect for the University work more intensively to break down the barriers for young people to engage in, and aspire to succeed in particular subject areas where local employers have great demand for skills, and to engage with hard to reach sections of the community. The successful outcome of this proposal will offer a tantalising glimpse to learners, potential learners and employers of the opportunities that await once the Technology Park is completed and launched in 2018.

Main building

Keeping the main build to the agreed design and on time is essential to the broader project. The build-up of staff and resources is focussed on the 2018 launch. HEFCE Catalyst funding has helped the University to build up this resource by providing an income stream ahead of the student income which typically funds the delivery infrastructure. A delay would create a funding gap for the staffing and resources already in place. More than this the project would lose momentum, perhaps suffer from credibility perceptions and the launch itself would be undermined.

3.3) Issues with preferred option.

Guidance: Issues to be resolved before this option may proceed:

New facilities:

- Ensure suitable space is available for the use and storage of the engineering and creative digital equipment, especially equipment that is limited by portability and the ability to pack away
- Disruption to students and staff to reallocate classes to allow for fit out, such as installation of specialised IT/AV

Main Building:

- Planning consent is needed for the listed buildings. The timescales to achieve this has been built into the programme Some design changes
- The building is still higher cost than the University had originally based its calculations. The cost increase is within the range of its scenario planning calculations, but the scale of the increase has still had a knock on impact on the University's future capital investments.

3.4) What are the top 5 risks of this option?

A risk register for the project can be found in Annex 3. The top 5 risk are:

1. Adverse weather may affect below ground conditions and cause delays in the initial construction phase of the main building and compromise the delivery of the programme to schedule.
   Response: Close monitoring of progress against programme; contingency provided within programme.
2. Order to delivery times for speciality equipment for equipment bank may restrict selection of equipment procured during the first phase, prior to 31 March 2017.
   Response: Align programme and spend profile with procurement plan
3. Potential issues with the timeliness of planning documentation relating to the design adjustment and listed building consent of works within the conservation area.
   Response: Work closely with planning authority; plan ahead.
4. Student experience compromised through construction noise, re-allocation of teaching spaces for classes.
   Response: Careful planning, communication and pro-active monitoring throughout the construction phase of the project.
5. Academic staff recruitment – experienced staff are needed in a new department and they will need to have an innovative approach and possibly need to relocate; this combination is not always easy to find.
   Response: Previous recruitment to Technology Park posts has been successful. The University has a positive reputation in the sector. Setting up new provision can be an attractive challenge for academics with a good skills and experience match.

Please complete the boxes below, answering only those relevant for the theme of your project, referring to the guidance available. Please also complete the outputs tab of the supporting excel spreadsheet.

3.5) Economic impact

This project assists in economic growth and raising productivity in the following ways:

- Secures and enhances existing economic impact by reducing risk of timeline slippage or compromises on design / specification of the technology park building, plus the addition of 250 students and securing the arrival of the 1975 additional students.
- Fast tracks some outputs – the proposal increases the number of interactions with both industry and future students sooner and thus generates more ideas, opportunities and aspirations
- Provides facility for business earlier
- Provides opportunities for spin out activities through equipment hire and specialist support or services to businesses from University staff sooner
- Generates more opportunities for publicity, communications and build up to the main building launch
- Generates at least 25 additional jobs

This investment is to support the set-up, and accelerate some impacts of a facility that will provide an economic impact for many decades.

More information can be found in the strategic case 2.1 and skills section 3.10. Numbers of businesses assisted are in 3.8 and 3.13.

3.6) Environmental Impact

This investment is to support the set-up, and accelerate some impacts of a facility that will provide a positive environmental impact for many decades. Some of these positive impacts will offset the increase in carbon emissions which will occur as a result of opening a new facility with a significant amount of equipment within it, albeit the University seeks to keep emissions to a minimum.

This project will assist in:

- Achieving the output of BREAM Excellent and delivering a building which is environmentally efficient to run and maintain.

- The establishment of an attractive and successful Environmental Sustainability Research Centre and programmes
- Providing generations of trained graduate engineers, technologists and designers to be focussed on carbon reduction throughout their professional career. This will have a significantly bigger environmental impact than the performance of the building and refurbishments.
- Creating equipment banks and facilities that will be accessible to industry, HE students and staff, college and school students and staff along with the local community and the HE sector - the latter through the online HE KIT list.

The procurement strategy forms part of the University's approach to environmental impact as the environmental performance of equipment and buildings are an important priority.

A key outcome is to achieve the BREEAM 'Excellent' rating for the building and improve the environmental performance of refurbished buildings, though the scope to do this within a justifiable budget for listed buildings can be limited.

In addition, the development has sustainability as a key and very visible attribute so the design team will evaluate opportunities for environmentally sustainable development, including the use of renewable energy sources and the University will ensure that the sustainability elements are affordable and not cost-engineered out of the brief as far as possible.

The University has an excellent track record in sustainability initiatives and sustainable development is being addressed through:

- The University's strategies and plans including the Environmental Strategy, Carbon Management Plan and Sustainable Travel Plan, which will be enhanced for this project.
- Portfolio development to include sustainability elements
- Research and consultancy capacity through staff appointments and industry relationships
- Establishment of the Centre for Sustainability Business to provide a focus for both of the above
- A partnership with the University of Surrey's Centre for Environmental Strategy underpins the work
- The Environmental Sustainability Group regularly meets to consider all opportunities to improve the University's environmental impact and includes representation from WSCC
- Procurement strategy, whilst adhering to VfM and other requirements
- The brief for the new building is for it to perform at least at BREAAM Excellent
- The University is working closely with WSCC, Butlins and other partners to identify opportunities for a collaborative approach to aspects of sustainable development
- Achievement of 1st class in the Green League

3.7) Social Impact

In addition to the social impacts that a University with a community focussed, widening participation mission can demonstrate, the project itself has a number of social impacts.

This investment is to support the set-up, and accelerate some impacts of a facility that will provide an social impact for many decades.
Three impacts which can be highlighted are:

Increased productivity with SMEs and other businesses in the Coast to capital region
Although hard to quantify, there is a strong link between higher level skills and increased productivity, through increased use of technology. This is the basis of the Government's drive towards productivity gains. The role of higher skills will be even more important following our exit from the EU if the pool of cheap labour diminishes.

Social mobility through outreach and widening participation
Our STEM modern laboratory will be a place where young people aged 7 – 18 can explore all aspects of science and technology outside the classroom. And just as in the best research laboratories, students have access to advanced technology and experiments outside the remit of the normal school curriculum. We will offer half and full day workshops for students aged seven to 18, covering all biology, chemistry, physics, technology and engineering. Sessions will be offered primarily to school groups of

up to 30 students - rom Key Stage Two onwards. The STEM laboratory programme will be able to be fed back into lesson plans, shared with other teachers and of course will make explicit and curriculum links. We will also provide various workshops available in the school holidays for the local community. This provides opportunities for local residents of all ages to upskill and engage with STEM training.

Place making
STEM provision is a significant departure for Chichester and reflects the strategic intention signalled in our *'Twenty-Twenty Vision'*[17] to '*become regional leader in education-led social, cultural and economic renewal and growth'.* We recognise that to do so we must move beyond a liberal arts offer, and 160 years of our history, currently located in listed buildings that cannot be adapted for this new purpose. The new Technology Park building will speak to the future in an area that looks mainly to its past as a faded seaside resort and the aspect of the Technology Project that this project focusses on is an integral part of the delivery of this vision.

The Technology Park itself is part of a wider process of place-making supported by a positive partnership with the two relevant local authorities and is embedded in their respective Strategic Economic Plans. Arun District Council (the planning authority) is supportive of the Technology Park and the new proposals as they are seen as a key element of the regeneration of Bognor Regis. In addition the Technology Park is seen as an important component of Enterprise Bognor Regis. This is a 70 hectare commercial and employment development opportunity located on the northern edge of Bognor Regis, with the potential to accommodate 150 businesses and provide 4,000 jobs including in new and high-growth, knowledge economy businesses in specialised sectors: advanced manufacturing; business services and digital/creative industries. It is our joint intention that the sites in the Enterprise Zone will also provide accommodation for graduate businesses that outgrow our own incubator spaces.

WSCC (the infrastructure authority) are facilitating the establishment of a community led Creative Digital hub in central Bognor Regis, due to open in 2017 in partnership with the University, Hemmingway Designs and Wired Sussex with facilities for start-ups and micro businesses which complement the developments on our campus.

WSCC, has supported the University to employ Wayne Hemingway Design to work with our own architects on the public realm aspects of the new build to reinforce the connectivity between the advanced manufacturing park, the knowledge park and the University's Technology Park, in consideration of the latter's importance to the town.

3.8) The number of people and businesses positively impacted by the intervention?

The number of people and businesses positively impacted by the project are very substantial, even just taking these very early stages of this long-term project. The numbers relating to these groups listed below are in the outputs (section 3.13) in more detail.

The success of this project will impact very positively on the main Technology Park project, as it is an enabler for it. This also has substantial impact on a significant number of people and businesses and these need to be taken together.

Consideration needs to be given to the fact that although the investment in the project is only specifically linked to the initial few years of the project, the real impact is that if the project is supported in the early years and is therefore successful, the impact will be on many thousands of graduates and businesses over several decades. Therefore long term impact is transformational.

- Academic staff in the two new departments, the Institute of Education and the Business School, professional services and support staff. We are expecting to create at least an additional 25 new jobs, committing to 55 in total, across the two projects, and in reality expect the total to be nearly 100 within the same time period.
- Stakeholder companies able to engage sooner as well as accessing specialist equipment and facilities. We estimate at least 150 additional businesses will benefit significantly from the equipment bank and training in the initial period, and at least another 25 (145 in total) companies

[17] http://d3mcbia3evjswv.cloudfront.net/files/Strategy.2013.48_0.pdf?skfEL65hExSej51KmNhT5i3qbrFgN2wz

will benefit from substantive work placements and internships. This is just the number we judge we can be called to account over at this stage. Based on the level of interest we have received from business, this is likely to be greatly exceeded, and will increase as the project matures beyond the accountable period. This does not take account of the number of companies that we judge will be delivering degree apprenticeships in partnership with the University, owing to the current uncertainty of future provider status. Judging by the current high level of interest, we envisage at least

- Future and prospective students visiting the campus to make use of the new facilities. The additional 250 students this project will attract will join the projected 1975 students as a result of the main project, bringing the total to 2,225 in the accountable period, and this will grow as the provision matures. This does not take account of degree apprenticeship numbers, except the one launched in 2016, owing to the current uncertainty of future provider status; again we expect the numbers of apprenticeships to become substantial over a period of time given the level of current interest.
- Parents and wider family groups attending open days and visits. This is hard to quantify at present.
- FE College partners, staff and students. Engineering, maths and creative digital students will have part of their curriculum taught thought the Technology Park. Engagement to achieve this can start earlier than planned.
- The Local Community and Schools. It is expected that the Outreach team will access 20,000 students a year with their STEM outreach programme and this reach will be accelerated by this project.

3.9) Follow on Investment

There are significant opportunities for substantial follow on investment being pursued and planned, which include the following, which can be quantified if required:

- The University expects the project to create a hub of specialist staff which will lead to many new initiatives and projects as those teams establish themselves. There is already opportunities emerging for research funding.
- The University continues to pursue funding from Trusts and Foundations to support elements of the main project.
- There is potential for the University to set up spin-out companies, the first of which will be the new commercial arm of the CDT department.
- The creative hub is expected to inspire and support many of our existing members of the Business Incubation Centre and draw in many more business start-ups and assists to new and micro-businesses.
- The University will be investing millions of pounds into the Bognor Regis campus over the next 5 years alongside the Technology Park and this project to support the significant increase in students.

3.10) Skills projects only- Impact on Skills Provision

Higher level skills, technology and productivity are inextricably linked, as evidenced by this quote from the OECD report:

'The report…presents evidence on the extent to which new technologies are transforming the structure of OECD economies and enhancing their ability to grow and create wealth and jobs. Economic activity is becoming increasingly knowledge-based: jobs are shifting from low to high-skilled workers; productivity and employment growth depend on the conditions for economy-wide diffusion of new products and processes. While aggregate productivity and employment growth remain modest in most countries, those firms that combine technological change, organisational change and upskilling display strong economic performance'[18]*.*

This explains the Government's continued emphasis on increasing productivity through up-skilling and innovation. The previous Government's paper 'Fixing the Foundations' (July 2015) recognised the need

[18] OECD: *Technology, Productivity and Job Creation – Best Policy Practices* (1998)

to raise productivity and focuses on two core needs:

- Encouraging long-term investment in economic capital - infrastructure, skills and knowledge.
- Promoting a dynamic economy that encourages innovation and productive use of resources

The current Government's 2016 Autumn Statement maintains its focus on the need to increase productivity along with reducing the deficit as its two main economic priorities and raising productivity will be the core of the Government's forthcoming Industrial Strategy. In the Autumn Statement the Government launched its new National Productivity Investment Fund to add £23 billion in high-value investment from 2017-18 to 2021-22, targeting this spending at areas that are critical for productivity: housing; research and development (R&D); and economic infrastructure. The second highest spend will be the £4.7 billion allocated to R&D to enhance the UK's position as a world leader in science and innovation, only exceeded by investment in housing.

The University's Technology Park is an ambitious project which responds to this national agenda by linking higher level skills with industry to provide a new and sustainable pool of highly skilled local people to drive up productivity and fill skills gaps through their use of technology.

The case for increasing productivity by 'scaling up' SMEs is particularly relevant to the Coast to Capital area. The recent HEFCE research[19] on SME distribution across the 39 LEP areas shows the concentration of SMEs in knowledge-intensive manufacturing, services and creative industries: 3,487 SMEs within the Coast to Capital region are classified as manufacturing companies, employing 26,445 people and have a combined turnover of £3.9 billion. It also shows that the Coast to Capital area has the fifth largest concentrations of SMEs in the country, with a healthy growth and survival rate, but a poor record among those that survive of increasing turnover beyond £1m. In 2013 only 260 businesses trading in Coast to Capital employed more than 250 people (ONS UK business counts). This project will therefore play a significant role in supporting the 'scaling up' of medium to high intensity manufacturing SMEs, with the potential for growth being signalled by their current productivity performance.

Currently, the Coast to Capital region loses 40% of its graduates each year, since they leave the area after university to find graduate work that is unavailable locally. The coastal communities have a business 'birth rate' at 6.64 per 10,000 working age population, well below that of Coast to Capital as a whole at 7.49[20]. The University also aims to retain graduates in the area by encouraging them to set up their own businesses or to work in recently established / growing SMEs. Enterprise Education is already well established in the University and is linked to on-site incubator facilities and business start-up support including for example an annual entrepreneurial competition. Enterprise Education will be a mandatory part of all the programmes associated with this development, including engineering and applied design. Our experience of delivering Enterprise Education over the last five years has led us to recognise the particular challenges this holds for students from deprived areas. The University has already garnered pledged commitment from many local SMEs to work in partnership to address these issues and we will also work with the Coast to Capital network of Enterprise Advisors, set up in the wake of Lord Young's Report *Enterprise for All* (June 2014).

The local area to be served by the Technology Park at Bognor Regis consists of a thirty mile radius of Bognor Regis incorporating Coastal West Sussex and SE Hampshire but excluding Brighton, Portsmouth and Southsea. Our research shows that this area contains 3,121 SMEs in total. Only 210 of these have a turnover in excess of £1m. Manufacturing companies account for 481 of the SMEs in this area and 110 of these have a turnover of over £1m. The Project will enable the University to address the full skills gap in these firms where up to now we have supported through leadership and management CPD delivered by our Business School.

Bognor Regis/Coastal West Sussex is an appropriate low-value, low-wage economy in which to locate a new paradigm. The coastal communities confound conventional perceptions of West Sussex/Hampshire as areas of affluence and opportunity. Typically, the coastal economy from Portslade (near Brighton) to East Cowes (Isle of Wight) shows little reliance on the knowledge economy and higher skills and is as unaffected by the impact of London as is the 'Northern Powerhouse'. The sub-region reflects all the

[19] HEFCE and The Enterprise Research Centre (ERC), *Collaboration between SMEs and universities – local population, growth and innovation metric,'* May 2015, Section 6

[20] Coast to Capital, *Strategic Economic Plan* 2014

challenges associated with social exclusion and low aspirations. It includes some of the most deprived wards in the country, and an HE participation rate in the lowest quartile, and being recognised as a 'cold spot' in the HEFCE data, with this being confirmed through our own more recent qualitative and quantitative analysis.

This project with its emphasis on outreach to deprived communities, business participation and careers advice and guidance will make an impact on the skills and productivity of the area, particularly to SMEs, and being in the forefront of the development of degree apprenticeships is very important.

Our experience of launching the degree apprenticeship route in Digital and Technology Solutions in 2016 indicates that we are attracting businesses and students from a wider field than much of our degree provision. We are bringing them in from Brighton, Horsham, Crawley. Essentially we are delivering a proposition, which is attractive to SMEs, which is not being addressed by other Universities along the Coastal strip. We can take this model further with further investment from Coast to Capital as suggested.

We are planning to launch further degree apprenticeships as our approach lends itself to the degree apprenticeship route and in order to capitalise on the increasingly vocational focus of higher skills we will need to have increased access to specialist facilities.

For example, Directors of Rolls-Royce Motor Cars in Chichester have welcomed our Project and identified that it resonates with their own mission as a medium sized high value enterprise that cannot recruit the skills it needs locally. We are working in partnership with their engineering and design teams to ensure our curriculum will meet their current and future skills needs, agree their level of involvement in outreach and future joint branding with Rolls-Royce is a possibility. RR have 2 degree apprentices already one on IT and one on management. We are also in discussion with Ricardo, as another prominent locally based internationally important company on co-developing degree apprenticeship courses as part of trail brazing groups.

3.11) Business and Enterprise projects only- Impact on business growth

Not part of this OBC, there are however a number of business growth benefits referred to throughout the document.

3.12) Infrastructure and Regeneration and Housing projects only- Physical and aesthetical impact- Does the project make a positive and lasting contribution to the physical, human and cultural environment?

3.13) If your project results in service and other improvements then please provide baseline data below.

Metric	Baseline		What the intervention will achieve	
	Figure	Year	Figure	By when
University/HEFCE Match Funding (£)	£16,400,000	2015/16-2020/21	£12,400,000	2020/21
Tech Park Building New employment/ learning space in m^2	5,900	2018/19	440	2018/19
Permanent additional facilities m^2	NEW		265	2017/18
Temporary additional facilities m^2	NEW		274	2017/18
Number of new full-time student entrants	1975	2018/19-2022/2023	250	2022/23
Direct employment creation	30	2016/17-2022/23	25	2022/23
New work placement /	120	2019/20-	25	2022/23

work based learning opportunities		2022/23		
Business activity involved in programmes (including outreach)	97	2018/19-2022/23	100	2022/23
Businesses assisted financially or non-financially	NIL		150	2022/23
Business leverage	£600,000	By 31 March 2023	£1,050,000	2022/23
Reduction in CO_2 emissions			160 U/G and P/G students educated in sustainable design / engineering impacting CO2 emissions throughout their careers	2022/23
Number of primary, secondary and FE colleges participating in outreach activity	NEW		76	By 2020/21
Number of STEM Festivals	NEW		32	By 2020/21
Minimum proportion of enrolments on U/G and P/G in Engineering and degree apprenticeships university wide to be from LPN1			13%	2018/19 onwards

4. The Commercial Case

4.1) Please provide details of your envisaged procurement route.

The University will follow sound procurement practices to satisfy its financial, legal and environmental obligations. A variety of procurement routes will be followed depending on the nature of the work or equipment to be purchased. This may include the use of national frameworks and/or traditional tendering practice including OJEU procurement, as applicable. The University will ensure that it receives best value for all work or equipment that it purchases and will select the most appropriate procurement route to meet this objective.

4.2) Involvement of private development partners.

Not applicable

4.3) Procurement plan and timescales.

The procurement plan and timescales are set out in the programme (Annex x)

4.4) How will the project contribute towards social value?

Social value is the recognition that social outcomes such as stronger communities, improved health and improved environments have a value to society and is at the heart of the mission and values of the University and we seek social value in all our business activities. This is reflected in our mission and vision:
Our mission is to be a university community that inspires and enables individuals to exceed their expectations.

Our vision is that, by 2020, the University of Chichester will be internationally recognised as a beacon of good practice for high quality, student-centred higher education within a supportive community of learning.

For example, In 2015 we took our sub-contracted cleaning service in-house to ensure that the cleaning staff were paid a living wage, received non-pay benefits aligned to the University's pay and rewards policy and were part of the University community, managing the additional expenditure involved in order to provide social value.

This ethos runs through this project and particularly relevant to this project are:

- Social value is being delivered through our strategic plan, 2020 Vision, and in this context, our second strategic goal is relevant, which is that: ***We will be inspirational agents for social, cultural and economic regeneration.***
- This project supports the development of research and teaching that has a direct relevance to business and industry
- Through our procurement activities we seek to influence the marketplace by using procurement policy to promote, for example, employment opportunities, decent work, social inclusion, accessibility designed for all, ethical trade and general compliance with social standards. For example, we seek to commission local contractors and suppliers where possible, with a track record of training and supporting their employees. This often goes beyond basic compliance to Best Value
- Our focus on reaching deep into our local communities to raise aspirations and encourage participation in HE goes far beyond most University's widening participation activities and reflects our mission. The is a core value of this project and the importance of developing an effective STEM outreach programme a product of this
- The ambition to retain and develop the Bognor Regis campus despite the financial and operational challenges it presents to the University is as a result of our deep commitment to the regeneration of Bognor Regis. This is demonstrated by this project and by the 'business and usual' support the Vice-Chancellor has provided as a member of the Bognor Regis Regeneration Board, as a member of the Coast to Capital board, and Chair of its Skills committee and as a governor of the Regis School.

4.5) State Aid Compliance.

The following state aid statement, drawn up by the University's solicitors for the original business case for the Technology Park is endorsed by the University's in-house solicitor as being applicable to this project. This is confirmed in a letter attached (Annex 4).

"The State aid rules only apply in relation to funding of activities which amount to "economic activity" and Section 2.5 of the draft Commission Notice on the Notion of State aid pursuant to Article 107(1) of the Treaty on the Functioning of the European Union states the following:
"According to the case-law public education organised within the national educational system funded and supervised by the State may be considered as a non-economic activity".
The business plan for the project to which this application relates operates on a basis whereby funding will be for a facility that will be used predominately by the University in furtherance of its educational functions, which it considers are non - economic in nature and thus outside of the ambit of the State aid rules.
Even if there is an element of economic activity within the facility, this will in all case only ever be purely ancillary to the core educational uses. It is understood that such ancillary economic usages of

infrastructure is permitted subject to it not exceeding 23% of overall annual usage (based on paragraph 49 of the Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty and paragraph 20 of Communication from the Commission — Framework for State aid for research and development and innovation) and it is considered that if there is any such use it will always be well below this threshold."

5. The Financial Case

5.1) what is the estimated total project cost and the amount of LGF being applied for? Please complete the funding breakdown tab in the supporting excel spreadsheet.

Year	Total project cost	LGF
16/17	1,194,787	1,194,787
17/18	5,910,607	3,805,213
18/19	3,200,000	
19/20		
20/21		
Total	**10,305,394**	**5,000,000**

This includes the additional element for this bid only. The 2016/17 LGF share can be increased by £702,026 using match funding from the original budget. The LGF share would then be £1,896,993 in 2016/17 (38%) and £3,103,007 in 2017/18 (62%).

5.2) Please set out the project expenditure items

Please state the date of this estimate-

Projects costs (delete as appropriate)	Total cost (£)	LGF (£)	Match funding (£)
Land Acquisition			
Planning and Feasibility studies			
Surveys			
Construction, inc-materials, equipment and labour	2,116,719	1,000,000	1,116,719
Fit out (inc. equipment and furnishings not included in construction)	8,188,675	4,000,000	4,188,675
Project management			
Consultancy			
Other (please specify)			
Contingency*			
Total Net Cost			
VAT			
Total Gross Cost	10,305,394	5,000,000	5,305,394

5.3) Net Present Value cash flow analysis.

Options	NPV
Do nothing, minimum or status quo	£25,317,317
Proposed option	£3,892,108
Alternative option	n/a

Please detail your project assumptions and discount rate used-

Do nothing is based on the existing project and funding for the first ten years with year zero being 2016/17. The discount rate is 2%.

The proposed option considers the additional £10.3m in this bid and matches this to additional income from other income generation and the share of growth in tuition fee income which offsets the equipment spend in the accounts.

The two NPVs added together show the total NPV of the enlarged project if additional funding is awarded.

5.4) Value for money.

The project represents excellent value for money as it meets demonstrable; synergies between partners, businesses and funders will result in facilities (space and equipment) that are flexible, fit for purpose, will meet a range of needs, be well used and will avoid duplication of similar facilities, as well as stimulating skills development and economic growth in a low participation area. Specifically:

1. Parts of SE Hampshire and coastal West Sussex are **deprived areas and recognised cold spots** and the Coast to Capital area has a low proportion of STEM and engineering graduates so funding is targeted to an area of need.
2. The sub-regional HE market is not currently providing for the higher level skills needs of SMEs in the sector; We carried out a sub-regional market assessment which identified that HEIs in the locality, the Universities of Surrey, Sussex, Brighton and Portsmouth, are not providing a solution to the higher levels skills gap in the Advanced Manufacturing and Engineering sector in the Coast to Capital area through existing provision, and in particular are not providing for the needs of SMEs. The data has been citied in this document and demonstrates significant evidence of market failure
3. The increase in student numbers on the campus provide critical mass to support **significant University investment** in the student facilities on the Bognor Regis campus which will optimise facility use and **benefit the student experience** of all students based or taught on the campus, as well as **increasing the efficiency** of a small 2-campus university, increasing the VFM of the HEFCE investment. The new programme is likely to have a side effect of stimulating demand for existing programmes delivered from the campus especially Business and IT.
4. The project is drawing new additional financial investment into HE and creating new learning resources for the long term, also made available to businesses.
5. The useful economic of the equipment and software is from 3 to 10 years. When the project is established and its value to SMEs proven, it is expected that local SMEs and other businesses will make significant contributions to replacement equipment through sponsorship, donations and income generated by lettings of facilities and equipment. Replacements would also be funded through operational income i.e. student fees. Full use will be made of the Kit-Catalogue.
6. The building is custom designed to be an effective learning space which functions efficiently, with flexible spaces that can be easily adapted for future use, and performs well over the BREEAM Excellent standard
7. The University has an established **VFM framework** that provides the basis for effective as well as efficient procurement, including statutory requirements such as OJEU tendering. Working with the southern Universities Purchasing Consortium we are **investing to further professionalise our procurement** ahead of investment in this new area
8. **Clear criteria are in place for competitive tendering** that adopt a rounded VFM approach, i.e. cost is considered against track record and quality of any proposal, as well as other key factors such as environmental impact.
9. Our **VFM approach has been successfully used** in recent capital projects, including the Bognor Regis LRC (new build delivered under budget and on time) and the Dome refurbishment, housing the Business School (complex remodelling of a listed building, delivered on time and on budget and the Academic and Music buildings ont eh Chichester campus, just completed on time, on budget

We are sourcing expertise based on in-kind contribution of SME staff time and goodwill input from other

HEIs to generate ideas and pragmatic solutions, which in turn we are sharing both with other SMEs and HEIs in other regions.

As a University we are required to report on our Value for Money impact on an annual basis. The University is required to assure HEFCE that it has spent economically, efficiently, wisely and on a fair basis. We additionally review our Value for Money based on the student experience to confirm that our students get a fair deal and based on our impact to the regional economy to ensure that the University plays a key role in the region and in regeneration and stimulation of the job market and the regional economy. This project has strong support from HEFCE and the region to succeed and even with the increased capital costs of the building and development we believe that the Technology Park story will deliver clear value for money messages against all six of the categories we report annually to HEFCE.

5.5) VAT status

Provision of education is VAT exempt and therefore the University cannot reclaim VAT on its purchases for its core activity. The University considers the HMRC rules carefully to identify where it is able to recover VAT. Chichester Enterprises Ltd is able to recover VAT on recoverable services and activities and is used for the University's trading activities.

5.6) Financial Sustainability

The financial sustainability of the project will be delivered through income from student fees, and our modelling identifies that the University will continue to deliver a level of surpluses which achieve this. The University's financial strategy is to grow its surpluses in order to fund maintenance and replacement of existing estate from cash generated. Loans are used to fund step change growth or to invest in student accommodation where there is a clearly defined future income stream. The new building and growth in student numbers planned presents a significant risk to the financial strategy as well as the opportunity of sharing the central costs of the University over a larger and broader port-folio of activity.

The funding requested will reduce the risk to student recruitment significantly, thus enhancing the financial sustainability of the project. The funding will also help stimulate the broader activity sooner which will provide new income generation for the University over a range of small scale activity. This in turn should stimulate economic activity amongst the stakeholders engaging with the project.

We also believe that the increased focus of attention on STEM subjects in the local media and schools will strengthen interest and pride in the University of Chichester and enhance student recruitment and business interactions across the University.

6. The Management Case

6.1) In which financial year do you expect your project to commence?	Q4 2016/17
6.2) In which financial year do you expect your project to complete?	Q2 2018/19

6.3) Please set out the key milestones related to the project.

Milestone	Start date	Completion date
Specialist IT labs	February 2017	March 2017
Facility provision – Screening room, CDT equipment bank and STEM prototype lab	January / February 2017	August / September 2017
Refurbishment of existing buildings – Careers hub etc.	February 2017	October 2017
Campus Connectivity	September 2017	January 2018
Main building lab construction	April 2017	December 2017
Main building fit out	January 2018	July 2018

Project plan is attached in Annex 2.

6.4) Project management arrangements

The University has created a structure for Project Management for the overall Technology Project.

In the first three to four months, or until necessary, this element of the project will have its own project steering group reporting to the main project steering group. When appropriate this sub-project steering group will be subsumed into the main project steering group. It will be Chaired by the Strategic Development Manager and will meet every 2 to 3 weeks. Members will include the Heads of Department, Head of IT Operations, Director of Finance and Performance, Director of Estates and this group will take operational decisions and ensure good coordination and communication. It will report into the Deputy Vice-Chancellor (Sustainability and Enterprise).

For most of the lifetime of this project it will be managed through the overall Technology Project management arrangements. These include the Technology Park Operations / Steering Group that meets every 2/3 weeks and a Project Board that meets every six – eight weeks. The Project Board comprises the University senior management team including the Vice-Chancellor (Chair), Deputy Vice-Chancellor, the Deputy Vice-Chancellor (Sustainability and Enterprise), Pro-Vice-Chancellor (Student Experience), Director of Strategy, Director of Estate Management, Director of Marketing, Communications and Access and the Director of Finance and Performance. The Project Board reports to the Chief Executive's Team (ChET), and the Board of Governors.

The Operations / Steering Group is Chaired by the Deputy Vice-Chancellor (Sustainability and Enterprise) and attended by key staff from across the University, including the Heads of the new academic departments, and the Director of Estate Management. This Group drives the project forward dealing with the pressing operational issues / decisions, project management and reports on standing agenda items that include the Risk Register, Marketing, Capital Programme and Academic Portfolio.

The Capital Programme and Academic Portfolio are significant elements to the overall project. The Heads of Department are well supported in portfolio development by the existing well-established University processes for Academic Quality and Standards, which ensure that the programmes are developed to the required standard, while maintaining the required schedule.

The Capital Project Team will oversee the construction of the building and the associated works, and the Portfolio Project Team the new academic provision. The Portfolio Project Team is a virtual group that will utilise the existing well established University processes and academic groups for developing the new courses in a timely manner.

The Capital Programme is managed internally by the Director of Estate Management and team, alongside external Project Management Consultants, both of whom work closely with the design team, other specialist consultants and the local planning authority. At project level they are supported by the Strategic Development Manager and Project Officer,

The University is very experienced at bringing in major construction projects to time and budget. On the Chichester campus, two new academic buildings have opened since June 2015, and although the Technology Park is the largest and most complex programme to date, the University is confident of delivery of this project.

6.5) Key project roles and responsibilities.

The overall strategic responsibility for delivery of the project for the University is the Deputy Vice-Chancellor (Sustainability and Enterprise).

Responsibility for the operational project delivery is with the Strategic Development Manager.

The Director of Marketing Communication and Access is responsible for the delivery of the outreach programme and corporate marketing of programmes. The Heads fo Academic Department are responsible for student recruitment to their programmes.

The Director of Estate Management is responsible for the delivery of the capital programmes and the Head of IT Operation for the procurement of technical products and systems.

Most project meetings and project documentation are supported by the Project Officer.

6.6) Governance, oversight and accountability

Overall, the Board of Governors holds the corporate accountability for the delivery of corporate projects, corporate financial sustainability and provide the oversight function. This is delegated to the Vice-Chancellor as the University CEO. Operationally this is discharged through weekly Executive meetings, line management accountability of both the Deputy Vice-Chancellor (Sustainability and Enterprise) who holds the strategic responsibility and the Strategic Development Manager who has operational responsibility.

An internal and external audit schedule includes capital projects and other relevant systems on a regular cycle. For example, in January 2017 the capital procurement process is being audited. It is very rare to receive an audit report with a high risk issue being identified.

Alongside this, the project management arrangements described in section 6.4 also provide governance, oversight and accountability.

6.7) Communications and stakeholder management

Corporately, communications is the responsibility of the Director of Marketing, Communications and Access, and therefore this post also holds the responsibility for the project's internal and external communications strategy, working closely with others when appropriate. There is an internal and external communications strategy that is being implemented by the marketing, estates and project teams.

Stakeholder management is the overall responsibility of the Deputy Vice-Chancellor (Sustainability & Enterprise), supported by many of the team, notably the Heads of Academic Departments, the Strategic Development Manager, the Director of Marketing Communications and Access and the Vice-Chancellor and Executive team. This is delivered as part of the University's stakeholder management strategy.

6.8) Benefits management

This project is not a stand-alone project, it is part of a significant strategic development to increase the size of the University and the range and scope of it programmes. Therefore benefits management has been part of the University's management of the project from its inception. Key benefits the University is planning for include:

- Upscaling the business carried out on the Bognor Regis campus, providing improved facility for students and businesses and re-balancing the university professional services and senior management presence on the campus in delivering the University's day to day operations
- Re-designing management and professional services systems and processes and IT systems to be efficient and effective for the larger student body
- Ensuring that existing programmes and departments and their students and staff benefit from the innovation, technology, equipment, facilities and expertise brought into the University by further developing programmes to include more use of technology, for example.
- Retaining the high quality and individualised student experience and continuing to deliver the community mission and ethos to the University while significantly increasing in size and expanding into STEM provision

As the strategic project lead, this is the overall responsibility of the Deputy Vice-Chancellor (Sustainability and Enterprise). In recognition that this is a University-wide responsibility, the Vice-Chancellor, the rest of the Executive team and the wider Executive group, also take responsibility for benefits management, and the Strategic Development Manager plays a key role in this.

6.9) Project evaluation

The project will be subject to the University's project evaluation process, as are all major capital projects. It can also be included in the Coast to Capital evaluation scheme as a sub-project important to the successful of the Technology Park, or which is it part.

Recommendation/ Declaration	
Recommendation- please state clearly the recommended action this business case supports.	
I support this funding submission to Coast to Capital.	
Declaration:	**I certify that the information provided in this Outline Business Case is complete and correct at the time of submission.**
Signature:	
Print Name:	**Professor Clive Behagg**
Title:	**Vice-Chancellor, University of Chichester**
Date:	**06 January 2017**

Before submitting your Business Case ensure you have all the required supporting documentation:

- **One electronic copy of the business case template, signed and dated**
- **Excel Spreadsheet**
- **Any other Supporting documents and evidence required**