

CHILDREN AND EDUCATION SCRUTINY COMMITTEE	AGENDA ITEM No. 5
20 JANUARY 2022	PUBLIC REPORT

Report of:	Chief Officer, Business Board Director of Business & Skills, Cambridgeshire and Peterborough Combined Authority	
Cabinet Member(s) responsible:	Cllr Lynne Ayres - Cabinet Member for Children's Services, Education, Skills and the University	
Contact Officer(s):	John T Hill, Chief Officer, Business Board Director of Business & Skills, CPCA	Tel. 07542 226979

NEW UNIVERSITY OF PETERBOROUGH

RECOMMENDATIONS	
FROM: Chief Officer, Business Board Director of Business & Skills, CPCA	Deadline date: N/A
<p>It is recommended that the Children and Education Scrutiny Committee:</p> <ol style="list-style-type: none"> 1. Note and comment on the progress on the establishment of a Phase 1 Teaching Building 2. Note and comment on the progress on the establishment of a Phase 2 Research Building 3. Note and comment on the progress on the establishment of a Phase 3 Teaching Building 4. Note and comment on the outline plans for Phases 4 & 5 	

1. ORIGIN OF REPORT

- 1.1 This report is submitted to Children & Education Scrutiny Committee following a request from Cllr Lynne Ayres, Cabinet Member for Children's Services, Education, Skills and the University, that the responsible officer of the Cambridgeshire & Peterborough Combined Authority, update Committee Members on the process and progress in establishing Phases 1, 2 & 3 of the new University for Peterborough, and on plans to expand the campus further in Phases 4 & 5.

2. PURPOSE AND REASON FOR REPORT

2.1 The purpose of this report is to provide Members with an overview of the progress on phases 1 to 3 and plans for phases 4 & 5.

2.2 This report is for the Children and Education Scrutiny Committee to consider under its Terms of Reference No. Part 3, Section 4 - Overview and Scrutiny Functions, paragraph No. 2.1 Functions determined by Council:

Education, including

- a) University and higher education;
- b) Youth service;
- c) Careers; and
- d) Special needs and inclusion.

2.3 This report links to the Corporate priorities:

- Improve educational attainment and skills
- To drive growth, regeneration and economic development

3. TIMESCALES

Is this a Major Policy Item/Statutory Plan?	NO
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4. BACKGROUND AND KEY ISSUES

4.1 Progress On The Establishment Of A Phase 1 Teaching Building

The budget for the construction of the initial teaching building is for up to £31.3m, which consists of a confirmed investment of £12.3m from the Mayor's Gainshare Fund, £12.4m from the CPCA Business Board's Local Growth Fund and up to £6.5m from ARU. Currently, ARU has committed £3.8m and the remainder provides for a contingency for the build. PCC has also contributed to the project, through the provision of £1.87m worth of land. All partners receive shares in the Peterborough HE Property Company Ltd that will own the building, in proportion to their contribution to it. The university phase 1 building will enable delivery of a curriculum matched to the growth needs of local businesses, providing new opportunities for communities to gain access to higher level skills, better paid employment, and enhanced life-chances. This will be delivered from four core faculties.

1. Faculty of Business, Innovation and Entrepreneurship
2. Faculty of Creative and Digital Arts and Sciences
3. Faculty of Agriculture, Environment and Sustainability
4. Faculty of Health, Education and Social Care

From September 2022 the following thematic areas will deliver a range of courses.

1. Art and Design
2. Creative and Digital
3. Environmental Management
4. Engineering
5. Health
6. Social Care
7. Education
8. Management and Finance

The 72 week programme is 36 weeks in and forecasting completion to schedule in July 2022.

Good progress has been made, with the concrete frame now complete and B+K (the construction contractor) stripping out all of the scaffold supports and props. Works have commenced on the rubbing up of the stair cores and exposed soffit to achieve the specified finish. Waterproofing works around the internal roof upstand have been prioritised with this an important element of works to allow internal works to progress. Façade works have started with the steel framing system (SFS) complete and the curtain walling commenced. All stairs including the central steel staircase have now been installed. B&K have now installed all of the stud work and boarded one side throughout the ground floor, which has allowed early commencement of the mechanical & electrical first fix.

Community communications and engagement has been undertaken with neighbouring home owners with no new issues being raised. Two local newsletters have been distributed to local homes. One work experience placement has taken place with more planned. A meeting has been held recently with the principal of Bishop Creighton Academy and a school project on Peterborough in 25 years has been initiated which will culminate with the burial of a time capsule on site. The contractor launched Time Capsule project at school assembly Fri 22nd October. School visits to be held every Friday afternoon to culminate in the burial of the time capsule towards the end of Nov.

The physical progress can be seen below.

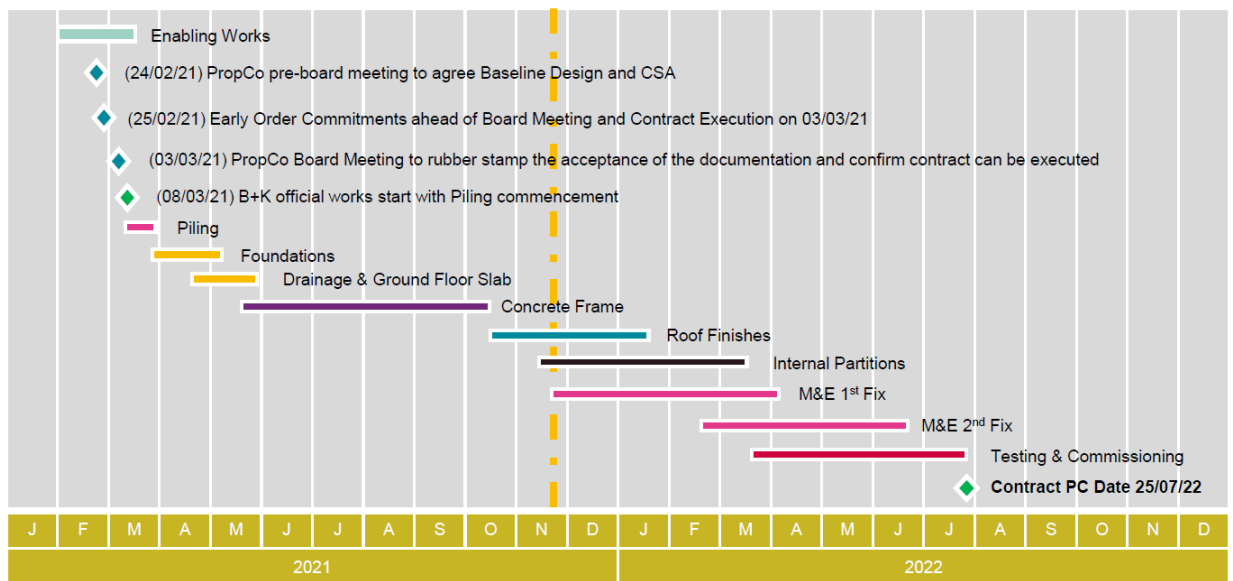


Progress this period

Structure completed including slab, lift walls, stair cores and columns and lecture theatre walls complete, internal partitions and first fix electrical now commenced. Floor screeds commenced w/c 22th Nov

The image shows a central architectural floor plan of a building. Four yellow arrows point from specific areas on the plan to four inset photographs. The top-left inset shows a long, narrow hallway with glass-walled rooms. The top-right inset shows a room with concrete walls and a ceiling, with some construction materials on the floor. The bottom-left inset shows a large, open-plan area with concrete floors and walls, with a forklift and other equipment. The bottom-right inset shows a room with a large window and a desk, with some construction materials on the floor.

The schedule to completion is as follows.



4.2 Progress On The Establishment Of A Phase 2 Research Building

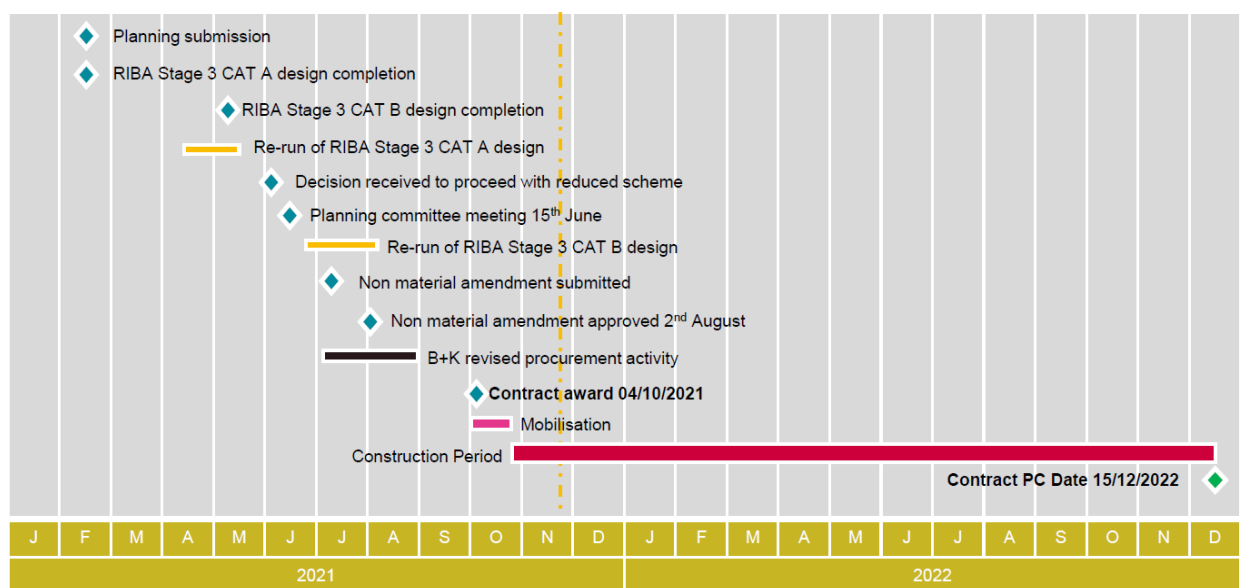
The building will house established and start-up companies developing cutting edge technologies linked to net zero carbon products and equipment development, as well as advanced manufacturing processes to produce them. The anchor tenant, will be Photocentric, developing new 3D printed battery technologies for vehicles. This phase of the University will link academia and industry to establish a net zero research cluster in the very heart of Peterborough, providing a platform for a high value manufacturing innovation eco-system with a Technical University at its core. Photocentric will provide an array of 3D printers making products for many applications with open access to Peterborough University students to learn under trained supervision. The budget for the construction of the initial research building is for up to £15.78m, which consists of a confirmed investment from the CPCA Business Board's Get Building Fund of £13.78m and £2m from its private sector partner, Photocentric Ltd. Both partners receive shares in the Peterborough R&D Property Company Ltd, that will own the building, in proportion to their contribution to it. The research building will sit within the land sold by PCC to the Phase 1 development, now owned by the Peterborough HE Property Company Ltd. The land required for Phase 2 was purchased (at a pro rata price based on the original land sale). To complement the building, Peterborough City Council (PCC) will contribute up to £500k of borrowings to part fund increased car parking capacity. The CPCA will provide an £800k grant to create a budget to deliver a flat grass-crete car park adjacent to the site.

B+K commenced works on site on 25th October 2021, and practical completion planned for 15th December 2022. Piling works have completed on schedule to allow groundworkers to commence on site in November. Underslab drainage has been installed, ground beams have started to be constructed and waterproofing works have commenced.

The physical progress can be seen below.



The schedule to completion is as follows.



4.3 Progress on the establishment of a Phase 3; Second Teaching Building

On 27th October 2021 Government announced the Comprehensive Spending Review for next 4 years which included news on the allocation of Levelling Up Fund Round 1, including confirmation that the £20m application for University of Peterborough Phase 3 project led by Peterborough City Council was approved. In addition, ARU have committed £4m, CPCA £2m and PCC £2m through transfer of land for shares in the property company.

The joint funds will be invested in combining additional teaching facilities at the campus with the development of new cultural facilities. At the centre of the development is a new landmark cultural asset called The Living Lab, which will be located within a second ARU Peterborough teaching building. The new teaching building will provide STEM (science, technology, engineering and mathematics) education to thousands of students, helping to produce a higher-skilled workforce for the city to help generate high quality economic growth and attract cutting-edge industry.

This innovative university-managed space will combine learning with an interactive public science facility and will form the heart of a new University Quarter Cultural Hub, making the city centre a more attractive destination for residents, businesses, and visitors. The Living Lab will be a new open, interactive science lab and education space to creatively engage people (especially young people) in science and technology. Broadening Peterborough's cultural offer, it will provide a window into the city's net zero future through events, exhibitions and flexible learning. The building will provide facilities within the Living Lab building to support a further 1,700 local students. Work on the design of the building and on an Outline Planning application has already started, funded by the cashflow, of the Phase 1 Project.

Outline Plans For Phase 4 To Deliver An Innovation-Ecosystem

4.4

Place Based Innovation Is Key To Levelling-Up

Changing the spatial distribution of economic growth and supporting an increase in innovation-based business growth in the north of the county, was a key recommendation from the CPEIR, giving rise to a key priority within the CPCA's Local Industrial Strategy, to achieve this by:

“Replicating and extending the infrastructure and networks that have enabled Cambridge to become a global leader in innovative growth, creating an economy-wide business support and innovation eco-system to promote inclusive growth”.

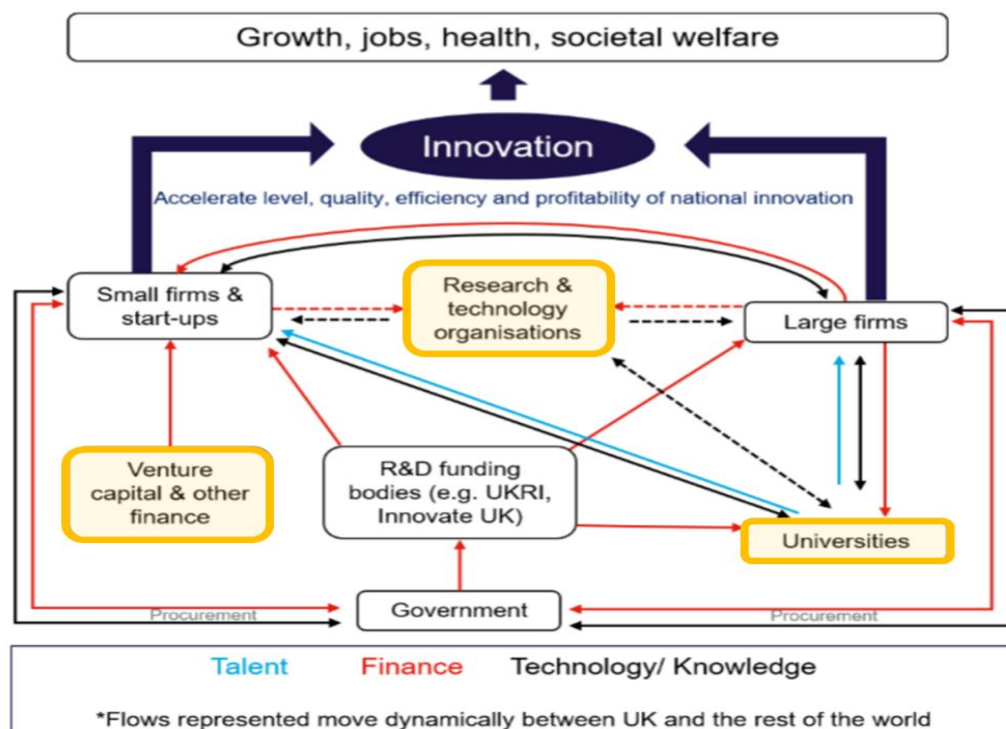
As for several cities in recent years, the establishment of a university and associated innovation eco-system has produced new, local knowledge engines to raise productivity, innovation, and with them, the knowledge intensity of products and businesses. However, replicating the “Cambridge Phenomenon”, that has taken decades to organically evolve and develop, requires a specifically designed and long-term programme of interventions that balance supply of improved human capital with the demand for it, created by indigenous and inward business growth, that is higher value, requiring higher level skills. Research is fundamental to achieving this - it produces the new ideas and technologies that enable entrepreneurs to start up, existing businesses to scale-up; and for new tech-firms to spin-out of academic and research institutions. Peterborough has been held back by a fragmented innovation ecosystem lacking a unifying focus, and a variety and breadth of international R&D taking place in the city, as seen in similar cities such as Rotherham, Coventry and Middlesbrough, possessing large scale research institutes. During the last two decades similar cities with economic and related social disparities across their places have made significant progress in levelling up by employing the dual levers of expanding HE provision and establishing innovation eco-systems in their left-behind places. These initiatives expanded resources from established university centres and research clusters into places with potential, to simultaneously increase the supply of higher-level skills as well as the demand for them. Examples include the simultaneous strengthening of HE delivery and the establishment of innovation eco-systems in:

- Rotherham through establishment of the Advanced Manufacturing Technology Centre (AMRC <https://www.amrc.co.uk/>) and University Centre Rotherham (UCR) supported by Sheffield Hallam University and the University of Hull.
- Coventry through the establishment of The Manufacturing Technology Centre (MTC <https://www.the-mtc.org/>) and expansion of the University of Coventry.
- Middlesbrough through the establishment of the Advanced Manufacturing Park (AMP <https://teesamp.co.uk/>) and expansion of Teeside University.

- Sunderland through the establishment of Sunderland Software City as part of the national Digital Catapult Network (<https://www.sunderlandsoftwarecity.com/what-we-do/innovation-services/> and <https://www.proto.co.uk/article/9280/Immersive-Lab>), and expansion of The University of Sunderland.

All these combined university and innovation ecosystems provide a step change increase in HE provision, and provide highly impactful support to tech start-ups, SME scale-ups and large organisations integrating local firms into global supply chains for new technology enabled products. In Peterborough however, a disconnect between research and industry has hampered innovation in the digital and advanced manufacturing sector that holds the key to a renaissance for the city and its region. Further, the lack of a higher education institution to act as a knowledge engine for the region means that local firms have been cut off from access to key research which could translate into business-level innovation.

The UK Innovation Strategy highlights the vital nature of interactions between universities and businesses for spurring innovation. More broadly, the Innovation Strategy notes that “*innovation occurs in an ecosystem in which companies, research institutions, further education providers, financial institutions, charities, government bodies and many other players interact through the exchange of skills, knowledge and ideas, both domestically and internationally.*”¹ Without a university or research institution to act as a knowledge engine in a place it is unlikely that an innovation ecosystem will be able to form or flourish. The diagram below from the UK Innovation Strategy presents a view of the components required to establish an effective innovation ecosystem in a place. Currently the Peterborough region is missing three (shown in orange) of the six necessary components.



Without deliberate intervention, these missing components are unlikely to form naturally.

¹ UK Innovation Strategy, July 2021

Establishing an innovation ecosystem at pace and scale

Providing a place's residents with access to higher-level skills ultimately has little or no effect on productivity or addressing local levelling up challenges without also stimulating the supply of higher value, good quality jobs for those residents to go into.

One way to provide these good quality jobs in a place is to establish an innovation ecosystem. The innovation ecosystem utilises a knowledge engine, such as a university or Research Institute, to produce new research which disseminates through the ecosystem.² This research is then used by local businesses which are part of the innovation ecosystem, raising local innovative activity, and with it, demand for workers with the higher-level skills to understand and apply the research the knowledge engine creates. The resulting effect is to create more higher-value jobs in a place, which are then filled by higher-skilled residents, ultimately leading to increased productivity and levelling up. Crucially to the wider university programme, a functioning innovation ecosystem will result in steadily increasing demand for higher-skilled workers in a place, which will therefore reinforce the operating model and viability of the University as the provider of industry-relevant higher-level skills in Peterborough.

Research is fundamental to successful innovation ecosystems - it produces the new ideas and technologies that enable entrepreneurs to start up, existing businesses to scale-up, and for new tech-firms to spin-out of academic and research institutions. A crucial lack of access to new research and technology that local businesses can embed into their processes and products to increase business-level innovation is a major reason why productivity and wages in Peterborough remain significantly below national levels.

Successful innovation ecosystems are slow to develop organically without intervention. They are the result of gradual calibrations between the supply of human capital and the demand for it. Cambridge's globally-recognised success as a centre of innovation is the result of progress over decades. The opportunity is for Peterborough to achieve this transformation much faster. Generating a free-flowing exchange of ideas and insights that ensure research is informed by local business' needs will result in the production of commercially driven innovations that improve productivity and products. As well as improving human capital through the University, establishing an effective innovation ecosystem in Peterborough requires concurrent 'top-down' and 'bottom-up' interventions to both increase the amount of R&D produced in the region and to increase the number of businesses accessing and benefiting from that R&D.

The 'bottom-up' approach to rapidly establishing an innovation ecosystem in Peterborough is about stimulating a connected and collaborative base of hi-tech start-up and scale-up businesses in the region. These businesses should hold a shared purpose and should be connected into the local knowledge engine with access to the local talent base supported by the University. In this case this shared purpose is technologies related to the UK's net zero transformation. Phase 2 of this programme responds to the need for a bottom-up approach.

The 'top-down' aspect of the approach is to identify and attract a suitable Research Institute into Peterborough to act as a local knowledge engine, supporting new research and technology development, and catalysing the dissemination of that research into the local business base. Phase 4 provides a model for this top-down approach. The model requires a university at its core, which in this case is the new university in Peterborough, which has established strong links to local businesses through its curriculum development.

² See Metro Dynamics' report 'Place Matters' for a detailed description of this process

The ecosystem is established through a Net Zero Research Programme Consortium, consisting of a small number of large companies with a shared net zero agenda. Much like the Catapult model (<https://catapult.org.uk/>) these large firms form both a community of need for new technologies and industrial sponsor group, contributing funding to a Joint R&D Programme to be carried out in Peterborough and in partnership with local SMEs as potential supply chain partners.

The facilities, equipment and scientists for the delivery of the Joint R&D Programme would be established in Peterborough, by a Programme Host organisation that, again like the Catapults, forms a Membership organisation which binds the industrial sponsors together. In the case of this programme, it would be an existing Research Institute, willing to relocate out from Cambridge, or another established innovation centre, and into Peterborough. This would transplant a successful knowledge engine into the core of the innovation ecosystem in Peterborough. To establish the buildings and equipment to host the R&D Programme in Peterborough, the Research Institute would make capital investments for a new build R&D Facility on the University campus. In the case of this programme this investment would be matched by a contribution from a Shared Prosperity Fund bid. On the basis of this matched funding from Government via the SPF, all Intellectual Property Rights (IPR) from the R&D Programme would be made available to local firms as potential supply chain partners and licensees into other applications.

Driving this IPR into the local advanced manufacturing cluster, will be achieved through a **Cluster Innovation Programme** that will identify opportunities across the IP portfolio for local firms in Peterborough and Fenland to:

- Share the IP, adding value to it, through their product or process technology to win supply chain roles with the individual large firms leading a particular project within the Joint Programme, and relating to a specific net-zero product or production challenge.
- Share the IP, applying it into their own products and processes to create spin-off applications and sales into other global markets and applications.

Through this model the intention is to transplant a key player in the national AI, digital and/or advanced manufacturing innovation ecosystem, from an established UK innovation centre into Peterborough, to act as an integrator of global original equipment manufacturers (OEMs) into a community of need and R&D Programme sponsor group, around enabling manufacturing technologies for net zero applications. This will facilitate at least 100 local SMEs, through bilateral projects to apply or further develop the OEMs' technology, to develop products and supply relationships with global firms they would otherwise have little opportunity to connect into. This place-based innovation eco-system will provide Peterborough and Fenland with a network to support a fully functioning innovation ecosystem: one that attracts, supports and retains innovative manufacturing businesses, enabling spin-out, start-up and scale-up firms to leverage technology and funding through a Joint R&D Programme, to grow and establish themselves in the Peterborough region.

4.5 Outline Plans For Phase 5 To Deliver A Third Teaching Building

Phase 5 is the furthest into the future and hence, least detailed. It relates to the construction of a the third teaching building to be open to students for the 2028/29 academic year. It will expand the University to support growth in student numbers up to 7,000 by 2031, with the potential for significant growth in student numbers in the following decade. Subject to the embankment masterplan conclusions and an outline Planning application, a potential component of Phase 5 might be to enhance and relocate the existing athletics track on the Embankment or elsewhere in Peterborough, extending and enhancing its public use, as well as increasing its utilisation by making it also, a platform for ARU Peterborough Sports Science courses.

5. ANTICIPATED OUTCOMES OR IMPACT

5.1 It is anticipated that the committee will have the opportunity to ask questions and comment on the process and progress in establishing Phases 1 and 2 of the new University for Peterborough, and on plans to expand the campus further

6. REASON FOR THE RECOMMENDATION

6.1 This report is for information and update purposes to ensure that the committee is fully appraised of the process and progress in establishing Phases 1 and 2 of the new University for Peterborough, and on plans to expand the campus further.

7. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

7.1 None

8. APPENDICES

8.1 None