LIVERPOOL HOPE UNIVERSITY
1844

Estate and IT Strategy
2020-2025

	Issue No.	Date	Details of Changes	Issued by
Approved by University Council	1	01/02/2021	Original Issue	James Ellison
	2	01/06/2022	Updated Estates entries and addition of IT Strategy	James Ellison / Mike Beecroft

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Executive Summary

The University recognises that its estate and IT provision is central to the achievement of the University's academic endeavour and Corporate Plan. A fundamental objective is to build resilience into the estate and IT provision to ensure that the University's assets continue to align with the University's evolving priorities.

The University is rightly proud of the investment it has made in creating two outstanding garden campuses which provide the backdrop to the University's ambitions to provide students with an outstanding learning and social experience. Both staff and the facilities encourage collegiality, high level research and exceptional commitment to our students and the University's success.

As we reflect on the previous planning period (2012-2017) the University completed a number of iconic buildings. In 2016 Hope Park cut the ribbon on a new £14m state-of-the-art Health Sciences and Sport building, alongside new sports facilities, 3G pitches, tennis courts and a strength and conditioning suite; and in 2018 Hope's Creative Campus celebrated the addition of a new Arts Centre, alongside refurbishment and expansion works to the Grade II-listed Cornerstone Building.

Continued investment in the University's estate and IT provision has systematically improved and enhanced the learning and teaching spaces across the campuses; as well as improving environmental performance and reducing carbon emissions. The student experience has also benefited from new facilities such as the refurbished Hope Park Sheppard-Worlock Library and the formation of new library space at the Creative Campus. Additionally, the creation of the Our Place student hub, Fresh Hope food court, Cafe 1846 at the Creative Campus and the refurbishment of the Trinity building at Aigburth Park have all helped create additional student social spaces. At the same time, the University has invested in its Outdoor Residential Centre at Plas Caerdeon.

Alongside the development of the physical estate, the multi million pound investment in the IT infrastructure and software has allowed the University to provide a resilient electronic provision for all its users that supports the growing demand for speed of connectivity and the volume of devices now requiring access.

As we look forward, the University (and indeed the sector) faces unprecedented change through government policy, the resultant impact of the COVID-19 pandemic and the increased reliance on digital facilities (with the linked increased threats from cyber-attacks). This external landscape makes strategic planning particularly challenging. However, this does not change our compass bearings. The University is clear about its academic ambitions and what is required to achieve them. Central to that is the good planning, careful budgeting and sound management of our estate and IT provision in order to support the University through the changing environment over the next few years.

Underpinning this strategic plan is therefore the need to:

- maximise efficient use of estate resources in order to reduce operating costs
- further enhance sustainability and reduce the carbon footprint
- maintain or improve the condition of the existing building portfolio
- plan and deliver strategic capital projects.
- continue to provide a resilient IT service that supports the needs of all the user bases
- minimise the risks of cyber attacks
- implement further IT provisions in support of our students and researchers, delivering the wider student experience, and allowing interaction with people wherever they are located

We must continue to ensure that future estates and IT developments are aligned to learning and teaching needs and to make provision for targeted growth whilst being mindful that unforeseen changes may impose constraints, or provide new opportunities, that might require unexpected or rapid responses.

Introduction

This Estate and IT Strategy is a fundamental document underpinning the University's Corporate Plan and the University's overall mission statement. It provides a long-term management and development plan that will support the University's academic ambitions, its community and business engagement programmes, within a financially and environmentally viable framework that contributes towards a sustainable future.

The Strategy will consider both internal and external challenges and risks; but given the number of uncertainties over the timescale of the Strategy, there must be flexibility and agility within the plan. This is to recognise that current priorities may be superseded by others, and some future developments may not yet feature in the Strategy. Individual projects cannot be planned in isolation; decisions need to consider the whole, since one planned development will invariably impact on a number of others.

The Strategy will provide an overview of the estate and the IT provision setting out a clear direction of travel to support the University's academic ambition. This will ensure that there is consistency between strategic direction in estates and IT terms, effective management of assets and infrastructure, and a forward programme of intended projects.

At the time of writing, the University is in the midst of a global COVID-19 pandemic and it is yet unknown what the clear impact this event will have on the medium to long-term strategic objectives. This Estate and IT Strategy covers a five-year period from 2020-2025; however, it must be noted that Estate and IT Strategies are not discrete time periods, but represent the strategic flow and direction as determined by the Estate and IT Strategic Planning Group and ultimately, modified by the changing context over the planning period.

Background

Liverpool Hope University is the only University foundation in Europe (and the USA) where Catholic and Anglican colleges have come together to form an integrated, ecumenical, Christian foundation.

Liverpool Hope University was formed through the amalgamation of three colleges St Katharine's 1844 (Anglican), Notre Dame College 1856 and Christ's College 1964 (both Catholic) as part of a unique ecumenical foundation to form the Liverpool Institution of Higher Education. The name Hope was adopted later after Liverpool's Hope Street which links the Anglican and Metropolitan Cathedral as a symbol of unity and collaboration. In 2002 taught degree awarding powers were secured and the title Liverpool Hope University College was bestowed.

Liverpool Hope University was reconstituted in 2005 when the Privy Council bestowed the right to use the University title and research degree awarding powers were granted in 2009. With a history extending 175 years, Liverpool Hope has developed a strong tradition of scholarship and research in key disciplines. Today, the University offers a diverse range of undergraduate and postgraduate degrees, postgraduate research and continuing professional development. The academic profile of the University is divided into nine Schools and Departments each of which comprises a number of subject areas with strong teaching and research reputations.

The University places great emphasis on the bringing together of research excellence and top-quality teaching. This is facilitated by a community of academics and scholars who are of the highest calibre. There are approximately 300 FTE permanent academic staff employed by the University, of which 75% are doctoral degrees holders. This research-informed teaching enables our students to develop into rounded and employable graduates who can take their place confidently as global citizens in the 21st century. Liverpool Hope has a student population of approximately 5,500 FTEs and employs approximately 650 FTE permanent staff (academic, administrative and service personnel).

Liverpool Hope was awarded a Gold Status in Teaching Excellence Framework in 2017, an accolade only one in five UK Higher Education providers achieved, and the only Gold-rated university in Liverpool. Liverpool Hope will also participate in the Research Excellence Framework in 2021.

The University's turnover is over £50m per annum and it has a history of strong financial performance. There has been significant investment in buildings, equipment and infrastructure of over £43 million since the previous Estate Strategy was approved in 2012, which has been almost entirely funded from cash reserves.

Liverpool Hope has two main teaching campuses: Hope Park (Figure 1) is situated in Childwall and the Creative Campus (Figure 2) close to the City Centre which specialises in performing and creative arts. Aigburth Park (Figure 3) is a residential-only campus in South Liverpool, and the University also operates Plas Caerdeon (Figure 4), an outdoor residential campus in North Wales,

which is used for academic and other activities, including enterprise. All four campuses have seen major investment in recent years, with traditional architecture now sitting beside contemporary buildings and facilities. Across its three Liverpool campuses the University provides accommodation for 1,177 students.
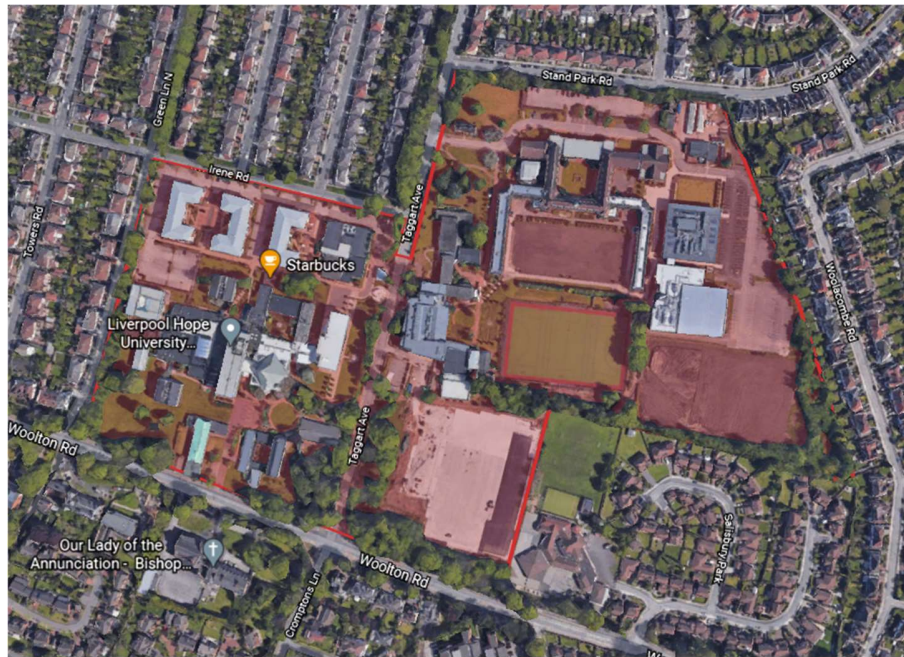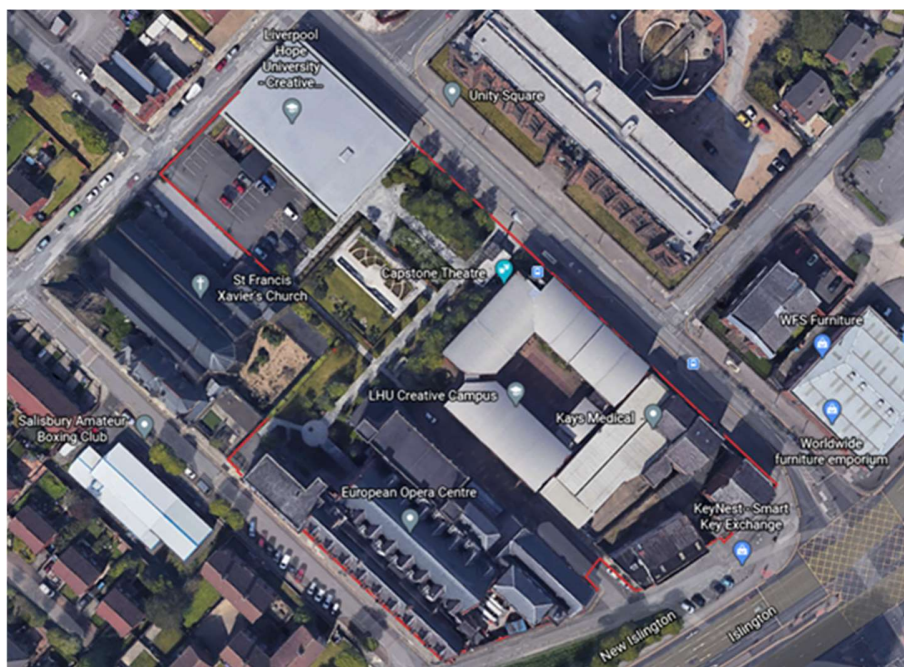

Figure 1. Aerial view of Hope Park Campus

Figure 2. Aerial view of Creative Campus

Figure 3. Aerial view of Aigburth Park

Figure 4. Aerial view of Plas Caerdeon

The University recognises that the Estate and IT provision, both buildings, grounds and electronic infrastructure are critical resources, central to the achievement of its academic endeavour and Corporate Plan objectives;
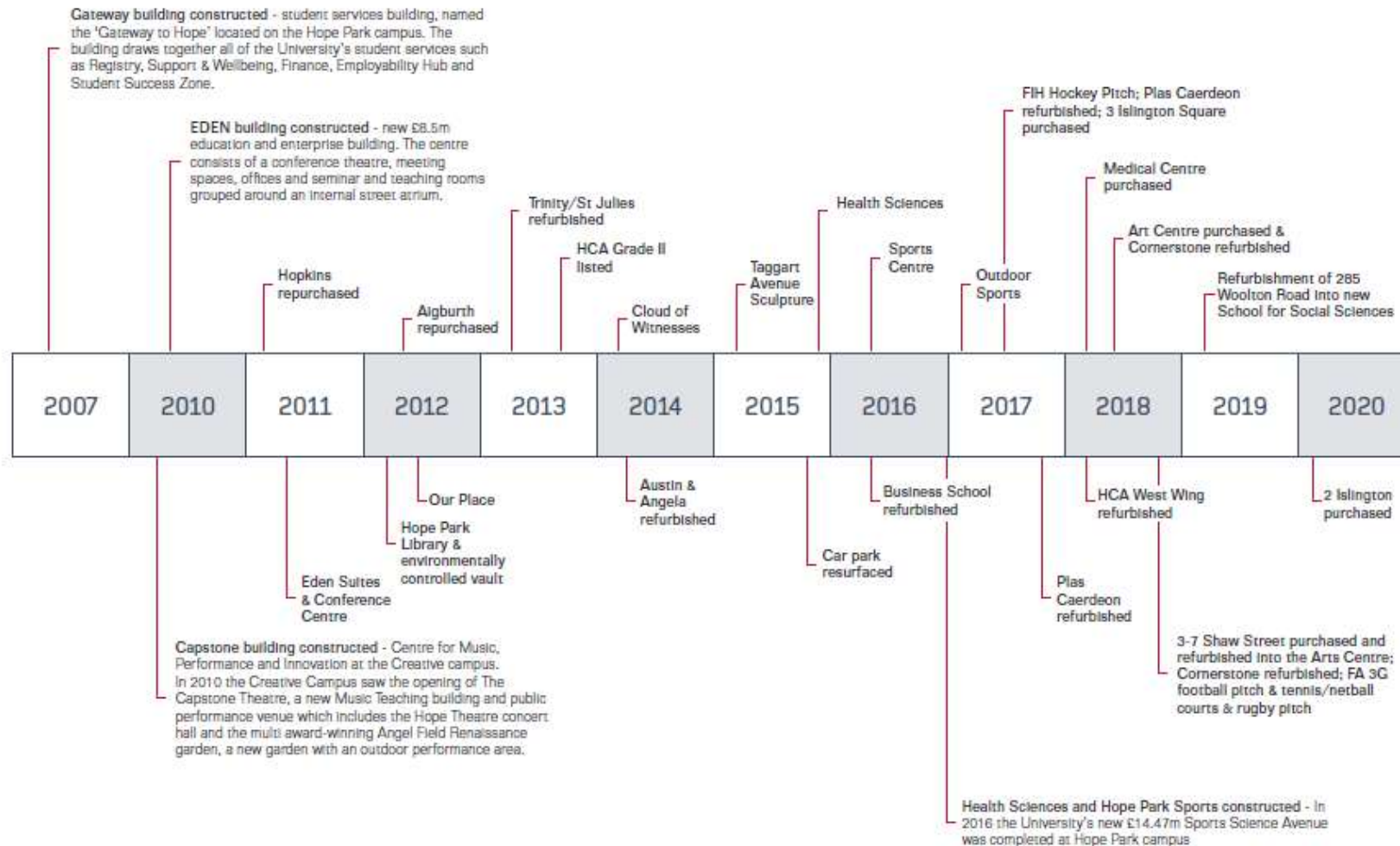
- to provide students with an outstanding learning and social experience;
- to provide the facilities and work environment that encourages collegiality, high level research and exceptional commitment;
- to fulfil our community and business engagement activities.

Recent Estate Development

Since the approval of the 2012 Estate Strategy, a significant investment of over £41 million has been made in buildings, equipment and infrastructure. A timeline of recent estate developments is provided on the following page.

The timeline demonstrates that good progress has been made against the previous Estates Strategy objectives. However, the acquisition of three major buildings at the Creative Campus within the last planning period, serves to illustrate the difficulties of longer-term plans, and the various opportunities (and occasional threats) that fall outside the envelope of a fixed strategy. The University purchased these buildings to extend the Creative Campus footprint, facilitating the re-structure of departments to form a single School of Creative and Performing Arts; and to complete ownership of the city block which secures the future of the campus in perpetuity against outside developments. The Estate and IT Strategy must therefore remain responsive to such unforeseen change and opportunity.

Liverpool Hope University - Major Works 2012 – 2020

Gateway building constructed - student services building, named the 'Gateway to Hope' located on the Hope Park campus. The building draws together all of the University's student services such as Registry, Support & Wellbeing, Finance, Employability Hub and Student Success Zone.

EDEN building constructed - new £8.5m education and enterprise building. The centre consists of a conference theatre, meeting spaces, offices and seminar and teaching rooms grouped around an internal street atrium.

Hopkins repurchased

Aigburth repurchased

Trinity/St Julies refurbished

HCA Grade II listed

Cloud of Witnesses

Taggart Avenue Sculpture

Health Sciences

Sports Centre

Outdoor Sports

FIH Hockey Pitch; Plas Caerdeon refurbished; 3 Islington Square purchased

Medical Centre purchased

Art Centre purchased & Cornerstone refurbished

Refurbishment of 285 Woolton Road into new School for Social Sciences

2007	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020

Our Place

Hope Park Library & environmentally controlled vault

Eden Suites & Conference Centre

Austin & Angela refurbished

Car park resurfaced

Business School refurbished

HCA West Wing refurbished

Plas Caerdeon refurbished

2 Islington purchased

Capstone building constructed - Centre for Music, Performance and Innovation at the Creative campus. In 2010 the Creative Campus saw the opening of The Capstone Theatre, a new Music Teaching building and public performance venue which includes the Hope Theatre concert hall and the multi award-winning Angel Field Renaissance garden, a new garden with an outdoor performance area.

3-7 Shaw Street purchased and refurbished into the Arts Centre; Cornerstone refurbished; FA 3G football pitch & tennis/netball courts & rugby pitch

Health Sciences and Hope Park Sports constructed - In 2016 the University's new £14.47m Sports Science Avenue was completed at Hope Park campus

Current Estates Performance

The University currently operates from two main academic and residential campuses in Liverpool, namely Hope Park Campus, located in Childwall and the Creative Campus located in Everton, which falls within the Liverpool City Region's Knowledge Quarter. A third residential only site, Aigburth Park Campus located in South Liverpool and an outdoor residential centre, Plas Caerdeon located in North Wales.

The estate totals 33 buildings ranging in age from c. 1850 to 2016 with a non-residential estate of around 57,000m^2 Gross Internal Area (GIA) and a residential estate of around 29,000m^2 GIA (as defined by HESA).

The University estate has grown significantly in the last planning period following the acquisition of Aigburth Park, Hopkins Hall and further buildings at the Creative Campus as outlined within the previous section.

Additionally, the University owns ten residential dwellings (around 1,000 m^2 GIA), which are privately rented to staff.

The following provides a summary of the performance of the current estate (excluding privately rented dwellings); data is drawn from the 2018-2019 HESA Estates Management Record. Further measures of key performance of the existing estate are included within Appendix 1 - *Key Estate Management Ratios jitter charts.*

Building condition
Building condition across the estate is generally good and is higher than the sector average reflecting the significant investment in the estate particularly over the last ten years. Continual investment is required to maintain this position and to avoid a build-up of future backlog maintenance issues.

Condition surveys are completed on a quinquennial basis and were last completed in 2017-2018 (excluding mechanical and electrical aspects of the buildings). Refer to Figure 5

97% of the Non-Residential estate is classed as condition B (sounds, operationally safe and exhibiting only minor deterioration), with the remaining 3% of buildings being classified as a condition D (Inoperable, or serious risk of major failure or breakdown).

80% of the residential estate is classified as condition B with the remaining 20% (one halls of residence) classified as condition C (operational, but major repair or replacement needed in the short to medium term).
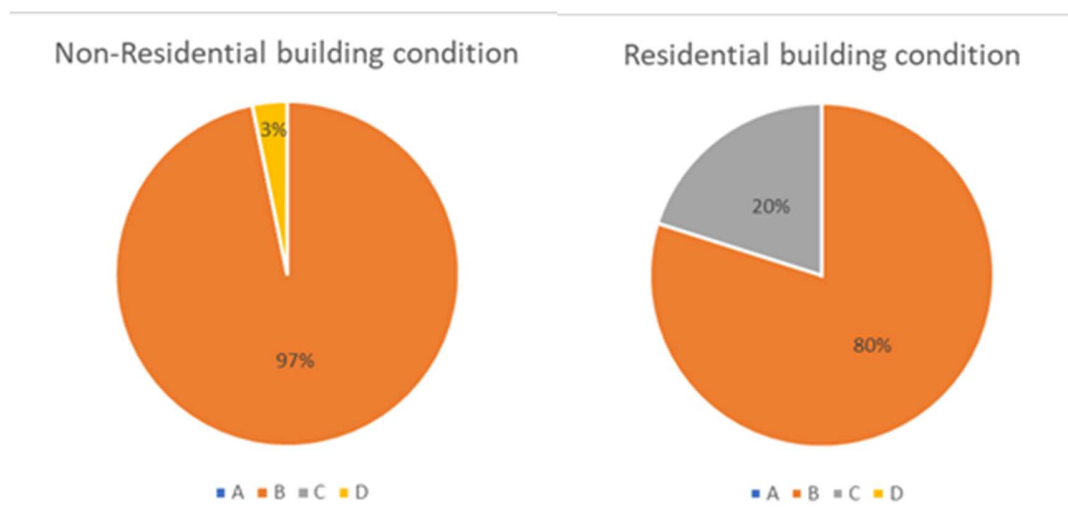
Figure 5. Building Condition of Non-Residential and Residential Estate

Functional Suitability

The functional suitability of the University estate is also assessed on a quinquennial basis and is generally good; falling within the sector median for non-residential buildings.

Space utilisation

The University measures the utilisation of its centrally booked teaching spaces in terms of frequency (number of hours the room is in use compared to the hours available) and occupancy (actual occupation of the room as a percentage of the total capacity). Currently the University has a frequency rate of 46.6% and an occupancy rate of 50.5% based on 2018-19 data. However further audits and analysis are required to ensure the optimisation of the estate as a whole, and consideration should be given to the use of technology to assist with this. This is especially important in light of COVID-19, to monitor the impact of COVID secure measures, blended learning and longer-term trends.

Specialist teaching spaces such as laboratories, workshops, performance spaces, offices and support spaces are currently not monitored. Monitoring of both centrally booked and specialist teaching spaces will ensure a better understanding of how the estate operates, where efficiencies can be gained and to help identify future space needs.

Property running costs

Following staffing, property costs are one of the largest overheads for the University. These operating costs need to be monitored to ensure that efficiencies are maintained. The total property costs (including rateable value, repairs and maintenance, cleaning and utilities) across the estate are £76/m^2 which is equivalent to the sector median for cost per student FTE (non-residential). In relation to cost per bed space, property costs are below the median for the sector.

The utility costs across the whole University are £15.7/m^2 with energy costs of £12.4/m^2 which is within the sector median for energy costs per m^2 GIA.

Environmental Sustainability

The University's Scope 1 and 2 carbon emissions for 2019-2020 were 2,535 tonnes CO_2e and per campus are:

- Hope Park – 1,763 tonnes CO_2e
- Creative Campus – 452 tonnes CO_2e
- Aigburth Park – 293 tonnes CO_2e
- Plas Caerdeon – 27 tonnes CO_2e.

The University has reduced its Scope 1 and 2 emissions by **53%** since 2012-2013 (a reduction of 2,894 tonnes CO_2e) despite growth in the estate. This reduction includes an element of decarbonisation of the emission sources (~933 tonnes CO_2e) and the implementation of various projects and initiatives (~1,961 tonnes CO_2e). During the same period (2012-2013 to 2019-2020), electricity consumption has decreased by 30% and gas consumption by 37%, see Figure 6.

The 2019-2020 data has been heavily influenced by the pandemic situation, with reduced consumption of utilities and other emission sources from April 2020 onwards.
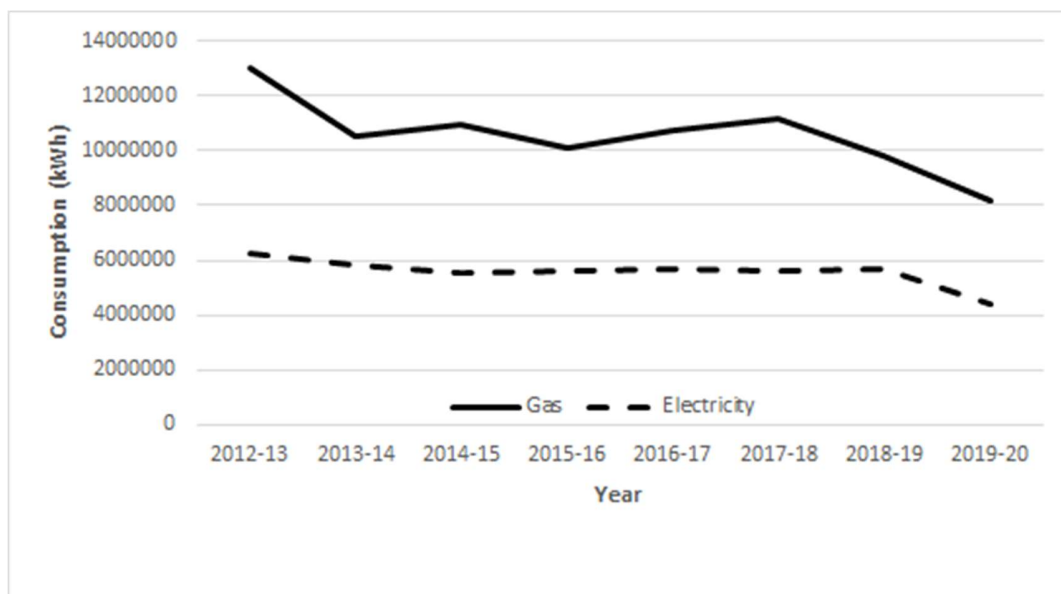
Figure 6. Energy consumption since 2012-2013

The University currently measures its Scope 3 emissions from its Scope 1 and 2 elements, water, waste disposal and recycling (excluding construction), supply chain and travel (car hire and travel management company bookings) and work is continuing to collect, collate and analyse the University's remaining Scope 3 emissions.

Measured scope 3 emissions for 2019-2020 were 6,784 tonnes CO_2e and have reduced by 35.6% since 2012-2013 (a reduction of 3,755 tonnes).

Our known scope 3 emissions currently account for around 70% of our total carbon emissions and as more emissions sources are collected and analysed this is likely to increase, highlighting the significance of these scope 3 emissions and the challenge the University faces to reduce them.

Recent IT developments

Over the last 10 years, several million pounds has been invested in the IT infrastructure to enhance performance and increase the security of the service. In summary, the major initiatives have been:

- Core Network Infrastructure

  - The link to and from the internet is provided via the JANET infrastructure. This is now provided at 10 GB / sec with the capability to be increased to 50 GB /sec once JANET is upgraded to this speed
  - A new fibre connection has been established between the server rooms in FML and SWL underneath Taggart Avenue. This provides a link that is capable of running at 50 GB / sec.
  - The internal core network that processes traffic between the HCA side of the Hope Park Campus, the FML side of that campus and to Creative Campus and Aigburth provides a connectivity speed around the core of 40GB / sec.
  - The Aigburth campus has been integrated with the other campuses via the JANET network, replacing the private Virgin Media agreement
  - Servers have been maintained at supported operating system levels. These are currently Windows Server 2016 and 2019 and Linux CentOS 7.

- Wired Network Infrastructure

  - The edge switches that receive the traffic from the core operate at 20GB / sec where single mode fibre has been installed and 1 GB / sec elsewhere. Single Mode fibre has been implemented in a number of key areas which rely on heavy usage computing including the 2nd, 3rd and 4th Floors of FML. It is also being introduced during new building construction or major refurbishments including HCA East Wing and Green Lane Building.
  - Connectivity speeds to the end user devices is 1GB / sec that is exponentially higher than home broadband connections.

- Wireless Network Infrastructure

  - The University wireless service is based on the use of the eduroam facility, the secure, world-wide roaming service developed for the international research and education community. Eduroam allows students, researchers and staff from participating institutions to obtain internet connectivity across campus and when visiting other participating institutions.
  - The wireless access points and controllers have been upgraded across all three campuses to ensure that the massive increase in devices being connected can be operated at an appropriate speed.

- Security Infrastructure

  - BGP (Border Gateway Protocol) is the routing method that enables the internet to function. New, state of the art, Fortinet BGP routers have been installed containing the latest security provisions
  - Over the last 10 years, the University has moved from Forefront firewalls via Cyberoam to the current state of the art Fortinet appliances. The new firewalls have a continual flow of upgrades / patches that react to the latest threats identified and perform many more checks than previously. The appliances have been specified to handle the increased level of checks and also the increased level of traffic due to users having many more devices that are used for longer periods.
  - The new Fortinet firewalls also contain a Virtual Private Network (VPN) facility that provides a two-factor authentication process. All remote administration access no utilises this facility.
  - the FortiClient element of the new solution checks a file is safe. If suspect, it is sent to the cloud system for analysis. This provides better protection against emerging threats and is similar to the facility JISC use to protect the JANET network by quarantining suspect traffic. This type of solution ties the firewall and endpoint protection together to provide a more integrated approach to overall security
  - the first phase of the network segregation has been completed including the CCTV provision, external provisions such as Milapfest and areas utilising a Bring your own Device provision such as the Learning Lab.
  - Various changes have been made to the infrastructure and other parts of the IT provision that has enabled the University to gain Cyber Essentials Certification.

- Telephony

  - The annual revenue expenditure with external suppliers for the telephony provision, in real terms, has been reduced by 40% in the last 10 years. This has been achieved by:
    - Removal of lines that were no longer required
    - Renegotiation of the landline provision
    - Transferring call charges to a cheaper provider
    - Reducing the number of mobile devices and renegotiating the cost of calls

- Desktop / AVA

  - Desktops have been maintained at supported operating system levels, currently Windows 10
  - Apple devices have also been maintained at supported operating system levels
  - Software has been upgraded from 16bit versions to 32 / 64 bit versions

- A desktop replacement cascade process has been utilised to maintain a desktop estate that is suitable for all users
- AVA provision has been updated, where required, including the software utilised by the service

- Software

  - Solutions provided by Third Parties have been upgraded to ensure that they are on supported versions including Moodle, SITS and AGRESSO.
  - The Library system provided by Capita has been replaced by an enhanced service from Ex-Libris
  - The previous third party system for accommodation, catering and conferencing (KINETICS) has been replaced by an in-house built system
  - Many major services have been developed in-house including:
    - SAM
    - Dashboard
    - Departmental Performance
    - Personal Tutor Hub
    - Attendance Monitoring and Attendance Management
    - Student Lookup
    - Annual Review and Enhancement
    - Education Interviews
    - Course Design and Approval
    - Department / School Quality Assessment

- Campus Security

  - A replacement programme to convert old technology analogue CCTV cameras to digital, infra-red devices has been initiated. The whole of the Aigburth campus has been completed as has the internal cameras situated within the Wesley, Newman and Teresa Halls of Residence
  - Where appropriate, access to buildings and areas within them is controlled by the use of swipe access. This is executed by the use of user ID cards and the rights are maintained centrally via software controlled by IT Services

Risks and Challenges

The Estate and IT Strategy is subject to a number of external and internal risks and challenges. The major risk for both the Higher Education sector and for Liverpool Hope is the ongoing impact of COVID-19. The restrictions that have had to be put in place have been unavoidable and the move to predominantly online teaching has been the right thing to do. The situation is not something that could have been foreseen and, at this stage, it is unclear when there will be a return to some form of normality.

There has been a significant increase in the threat of cyber-attack due to the reliance on electronic provisions during the pandemic. The University sector alone has seen an increase in malicious activity of over 50% with some Universities being taken off line for days or weeks.

The buoyant student recruitment numbers for 2020-2021 provide reassurance that students will still undertake a University education. The demographic decline is (apparently) almost at its lowest and the number of 18-year olds is predicted to rise throughout the planning period however there will be regional variations.

Universities continue to be at the mercy of the market following the removal of the cap on student numbers. This has led to unparalleled competition from both traditional and new non-traditional higher education providers.

The greatest financial risk is that if courses are online, students may choose to remain at home and that accommodation income suffers as a result. Liverpool's private accommodation offering has rapidly increased over recent years, arguably outstripping demand, but certainly increasing direct competition to University managed halls. To compete, University managed halls and facilities must be maintained to the highest quality, whilst continuing to provide an affordable accommodation option.

From a political perspective, the implications of BREXIT remain a risk although this has been somewhat overshadowed by COVID-19. The key areas of concern are the recruitment of EU students, future grant funding for research projects and the ability to attract top quality academics.

Student learning requirements

The University's ethos is that it should know its students one-by-one and be able to provide a safe and nurturing environment for its students. Student learning demands have shifted considerably in the last decade. Students demand greater flexibility of learning, want ubiquitous content on a variety of disparate devices and are more likely to seek help from the web, social media and their peers than from their tutors. Technologies and technological solutions are ever more pervasive and the speed of adoption and assimilation has accelerated in light of the pandemic. This has impacted both the learning and teaching paradigms and the administrative and management processes.
Despite this attendance-based education is likely to remain the predominant mode of delivery during the planning period however blended learning or workplace learning will complement the increasingly evolving modes of delivery.

The University campus will need to continue to adapt to these changing requirements in a financially sustainable manner, retrofitting and repurposing existing facilities to meet a blend of learning needs. This will increasingly become a combination of teaching spaces, social learning spaces, meeting places, industry-facing laboratories and studios, all linked to the digital estate.

Students will want to take advantage of both on-site contact hours and digital technologies to support their learning. They will expect to be able to access digital content remotely, but also to be able to use social learning spaces on campus to engage with digital material in a way that enhances and supports their learning experience.

Impact of Climate Change

The University's Sustainability Policy and Carbon Reduction Plan sets out the University's commitment, methodologies and targets for reducing its environmental impact and carbon emissions in line with the Government target to become net zero by 2050.

The University must also consider the climate change risks to its buildings and operations and continue to build in adaptation and resilience actions when planning, designing and operating its estate.

Financial Planning and Value for Money

The University is facing an unprecedented period of uncertainty. As a result, the focus for the University will continue to be on increasing cash reserves to ensure financial viability and ensuring that all funds are used as efficiently and effectively as possible.

Level of capital grants has decreased therefore the University is reliant on its own resources. There is no intention to use bank loans to fund the capital programme, unless an exceptional opportunity should present itself, and therefore the available funding will be mainly from cash reserves.

The financing of the Estate and IT Strategy will need to form part of the detailed financial planning of the University. In order to do this the implementation plan will be costed, prioritised and then phased over the next five years in order to spread the financial impact while ensuring that the infrastructure is maintained. This will enable the University to manage the estate in such a way as to ensure that funds are ring-fenced in advance and cash is made available in order to achieve the strategic objectives without placing the finances of the University at risk.

Fixed Assets

In 1980 the two former colleges, St. Katharine's and Christ's and Notre Dame, entered into a Deed of Adherence with the Liverpool Institute of Higher Education under which they provided their respective properties to the Institute. These were superseded in 1998 by similar Deeds of Arrangement of Membership with Liverpool Hope.

St. Katharine's College (Warrington Training College Incorporated), was granted a 99-year lease in 1963 from the Central Board of Finance of the Church of England for the properties provided to the Institute under the Deed of Adherence. The lease is renewable upon request for a second and final 99 years from 2062.

Christ's and Notre Dame College property is owned by the Trustees of Christ's and Notre Dame College. Under the Deed of Adherence, the property of the College was made available for the use of the Institute. These buildings have been included on the balance sheet since 2004/05 to reflect the fact that the University carries the majority of the benefits and liabilities of the buildings.

Under the terms of the Deed of Adherence neither College shall withdraw from Liverpool Hope without the agreement of the remaining College and the consent of the Secretary of State for Education.

Subject to the appropriate agreements, written notice must be given at least five years prior to any withdrawal and, in the first instance, may only be given to expire no earlier than 31st August 2023.

Within the Trust Deed and the Deeds of Adherence between the Colleges and the Institute, those elements of the tangible fixed assets which are additions and/or improvements to buildings also become the property of the respective College Trustees.

Fixed assets located at Aigburth Park and Creative Campus are the property of Liverpool Hope University.

Risk Management

Despite these risks and challenges, the University is confident that it has a clear strategic vision underpinning the objectives of the Corporate Plan and can adapt to, manage and minimize the risks above.

The University continues to scan the policy environment and is fully engaged with sector bodies and local, regional and national partners. With respect to the University estate, this also includes engagement with the Liverpool Local Plan 2013-2033 to ensure that Local Authority Planning policy designations for University sites are aligned with future University development aspirations.

From the IT perspective, the University engages fully with bodies including JISC, UCISA, various Computer, Security Incident Response Teams (CSIRTs) and the National Cyber Security Centre.

Future Direction - Estate Strategic Objectives

Strategic planning operates best in constant and controlled environments. However, as we look forward, the University (and indeed the sector) continues to face unprecedented change. However, none of this changes our compass bearings: The University is clear about its academic ambitions and what is required to achieve them. Central to that is the good planning, careful budgeting and sound management of the estate in order to support the University through the changing environment over the next few years.

The estate is essential to enable the University to fulfil its Corporate Plan objectives. It is critical that both the Corporate and Estates strategic planning are aligned to deliver a high-quality, efficient and effective estate which is the right size, capable and able to meet the many demands placed upon it; whilst remembering that spaces and assets are not 'on-demand' resources.

The Estate and IT Strategy outlines three distinct horizons, namely;

- **Horizon 1**
  2020-2021 - The here and now

- **Horizon 2**
  2021-2022 - Next academic year

- **Horizon 3**
  2023 onwards - An aspirational outlook on learning and teaching reimagined. How to use technology to humanise and personalise learning and how to plan our digital estate alongside our physical estate.

These horizons provide the structure for focused implementation plans, (contained within Appendix 2) based on three key strategic themes which underpin the Estate and IT Strategy.

These include;

1. **Supporting the development of an academic community of scholars, the culture of a collegium, in support of learning and teaching objectives**

   a. support increases in student numbers (undergraduates, taught postgraduates and PhDs)
   b. continue to ensure that estates developments are flexible, adaptable and aligned to curriculum needs, learning and teaching demands and to the growth (and reduction) of programmes and departments
   c. maximise the connectivity of our campuses, physically through the integration of transport and virtually by the implementation of digital IT strategies
   d. provide high quality accommodation and social spaces to further develop community, creativity and self-development

e. develop a portfolio of commercial services that breakeven or make a net contribution to University finances.

2. **Delivering improved environmental performance and sustainability**

   a. maximise efficient use of estate resources to improve the environmental performance and reduce our carbon footprint, through the implementation of the Sustainability Policy and Carbon Reduction Plan.
   b. contribute to the University's financial sustainability through the efficient, effective use of utilities, space and resources, and optimisation of capital and operating expenditure.

3. **Creating a distinctive place for learning**

   a. continue to zone the campuses into clear academic development zones (Appendix 3 - *Campus Development Zones*) to support the new School and Department structure
   b. continuously improve our estate and services to reflect and support diverse and changing student lifestyles and preferences
   c. maximise the efficient, flexible and agile use of the estate and buildings through space management, improved timetabling, management systems and building use
   d. continue to develop compact, high-quality safe and secure garden campuses in which all campuses and buildings are memorable, accessible, welcoming, navigable, clean, comfortable and well equipped
   e. maintain the condition of the existing estate to a high standard and enhance where required through localised refurbishment (Appendix 4 - *Estate Building Portfolio - Summary of Condition & Development Strategy)*
   f. plan and deliver capital projects linked to carbon reduction and other strategic priorities.
   g. act as a custodian to its unique architecture and historic heritage
   h. understand better the technological future that is coming; knowing and understanding the potential of changing technologies and methods of learning as a supplement rather than a replacement; increasing confidence in digital transformation to support;

      i. Home working future trends and conditions for blended learning
      ii. How to adapt and retrofit physical environments with developing digital learning technologies in a cost-effective manner.

Future Direction – IT Provision

Further development of the IT provision will enhance the work of staff, students and researchers. It will be increasingly important for how we, as a University, interact with students, undertake our research, deliver the wider student experience, and interact with people in whatever location. As a University, we want to inspire the excellence in everything we do and technology has a big role to play in this ambition.

The way forward considers all of the strategic aims of the University, ensures that IT is planned for, and delivered to meet the University's ambitions. The focus is not solely on the technology, but rather on the vision of what a better University as a real (not virtual) community looks like. As a Research Informed Teaching institution, the University's strategy for digital and IT technology is to make life easier for our students, staff and prospective students whilst supporting the University to achieve its strategic goals.

One key and important focus is to Humanise the Technology and enhance the user experience by seeking opportunities to change how the University works as a real (not virtual) community using new technologies and software.

As 2020 has shown, nothing stays the same for very long. The same is true of our IT provision. It will need to adapt regularly to reflect changes, both within and outside of the University, ensuring that the use of and benefit from digital facilities are maximised at all times.

Based on the above, the strategic IT themes are:

- ensure that the University systems and data are as protected as possible from cyber-attack
- Maximise the reliability of the underlying technical infrastructure so that services are available when and where people need them
- Humanise the technology for the work of our collegium which is a real (not a virtual) community
- Invest appropriately in the IT services used across the University to ensure they meet the needs of the academic Schools / Departments and the support areas. Alongside the provision of services, consideration will be given to more sustainable technology and facilities to reduce the administration burden
- Innovate and exploit new digital technologies and methods of working
- Enhance Usability and User Experience i.e. support people in using digital technology by appropriate training, simplified processes and user guides
- Continue to be more end user focused, so that the needs of every type of user is met, be that an introduction to IT or utilisation of advanced features

Strategic Campus Developments

To fulfil the outlined strategic objectives and to continue to transform the University's campus facilities, there is rationale to explore and invest in eight major capital works projects, including;

1. Redevelopment of Grade II* Listed Hermitage and Cloisters buildings at Aigburth Park to provide additional student accommodation and self-contained apartments for rental and to develop the garden campus with new landscaping within the associated courtyards and gardens.

2. Continuing to support the advancement of the defined Schools structure in line with the campus development zones identified within Appendix 3. Currently there are a number of schools/departments within a mix of development zones that might benefit from relocating as the opportunity arises. Such as film and radio to the Creative Campus; relocation of Earth Sciences and the School of Education primary science laboratories; the development of additional performance facilities and the creation of a central creative arts library at the Creative Campus; and the development of a field research laboratory located at Plas Caerdeon.

3. Redevelopment of Grade II Listed 2 & 3 Islington Square buildings at Creative Campus to enhance and develop additional specialist learning and teaching space.   The redevelopment of the buildings and associated public realm must be well designed and coordinated to create a cohesive palette, which enhances the visual identity of the architecturally diverse campus. To enhance this a stopping-up order of Carver Street is being sought.

4. Obtain planning consent for redevelopment to housing and dispose of land at 45 Canterbury Street following a review of its strategic purpose.

5. Refurbishment of student accommodation to maintain high quality and affordable facilities. The HCA East Wing Phase two will reconfigure the current layout to create additional social space, improved kitchens and bedroom enhancements. Condition improvements to St Julies Hall including but not limited to window replacement and mechanical and electrical upgrades. Roll out of a planned preventative maintenance schedule to the wider residential building stock with a continued focus of maintaining strict fire safety compliance.

6. Landmark building to replace the LTC Media wing of the Lecture Theatre Complex located at Hope Park campus. Consideration to include provision for Learning Lab 2 with the potential for a mixed reality production studio, virtual reality laboratory and event space. This facility would develop the University's future blended learning and online content production, alongside specialist departmental use for research and performance and income generation through a new conferencing offering.

7. Investigate the development potential of land behind Austin Hall, Hope Park campus linked with the future demolition of Green Lane Building; enabling a new one-way vehicular campus access road, potential construction of an Earth Sciences building, and potential for additional student accommodation to future proof growth capacity and/or provide for a future option to move towards a two-campus strategy.

8. Expansion of the Sheppard-Worlock library linked with future development of the Health Sciences quadrangle.

In addition to major capital work projects, additional projects have been identified within the implementation plans contained within Appendix 2. Projects have been prioritised against the three defined horizons to consolidate, rationalise and develop the existing estate to realise the University's strategic objectives. Space management will become particularly important, given the current pandemic situation, and will continue to inform and guide the future direction of the Estates Strategy.

Current Strategic IT Developments

1. Upgrade the fibre network to single mode capable of supporting 10 GB / s (and, ultimately 50 GB/s)
2. Install CAT6a cabling to all key areas.
3. Further segregate the network to limit access and to prevent the spread of any viruses should an attack take place, focussing particularly on the Halls of Residence
4. Expand the use of two factor authentication
5. Implement a new telephony facility providing:
    a. the provision of a campus-wide, reliable, resilient and scalable service for both staff and nominated spaces that can be easily expanded to meet future needs
    b. a service that has enhanced mobility by allowing the use of soft phones allowing users to take / make calls via their devices' inbuilt microphone and speakers or by the use of headsets / Bluetooth etc. This allows staff to make and receive calls using the same number wherever they are located.
    c. a Switchboard facility that can be accessed from any location (including off campus)
    d. a Call Centre service that can be accessed both on and off campus
    e. integration of the voice traffic onto the University data network including enhanced security features
6. Where appropriate, replace staff desktops with suitable mobile devices to aid flexible working
7. Phase out all 32 bit software, replacing with 64 bit equivalents
8. Review the printing facilities in light of the significant reduction in printing volumes during the pandemic
9. Review the current HR system software (CIPHR)
10. Complete the replacement of all analogue CCTV cameras with HD, infra-red devices providing enhanced quality of picture
11. Support the creation of the Simulation Laboratory (SImLab) designed to:

    - explore how new technologies may have the potential to augment the educational experience.
    - train practitioners to utilise different types of technologies so that they become artisans able to build their own library of materials.
    - showcase good practice, techniques and demonstrate how existing technologies can be practically applied in an educational setting.

- become a centre of excellence for Spatial Computing Teaching and Immersive Education.

Summary

The University recognises that its estate and IT provision is central to the achievement of the University's academic endeavour and Corporate Plan objectives of providing students with an outstanding learning and social experience; providing the facilities and work environment that encourages collegiality, high level research and exceptional commitment; and fulfilling its community and business engagement activities. A fundamental objective is to build resilience into the provision to ensure that the University's assets continue to align with the University's evolving priorities.

The Estates' element of this strategy identifies three key strategic themes to support the University's objectives:

1. Supporting the development of an academic community of scholars, the culture of a collegium, in support of learning and teaching objectives;
2. Delivering improved environmental performance and sustainability; and
3. Creating a distinctive place for learning.

To meet these strategic themes, capital and minor works projects have been identified, costed and prioritised over three horizons: Horizon 1: 2020-2021; Horizon 2: 2021-2022; Horizon 3: 2023 onwards, to help inform the ongoing financial planning process.

From the IT perspective, the themes are:

- ensure that the University systems and data are as protected as possible from cyber-attack
- Maximise the reliability of the underlying technical infrastructure so that services are available when and where people need them
- Humanise the technology for the work of our collegium which is a real (not a virtual) community
- Invest appropriately in the IT services used across the University to ensure they meet the needs of the academic Schools / Departments and the support areas. Alongside the provision of services, consideration will be given to more sustainable technology and facilities to reduce the administration burden
- Innovate and exploit new digital technologies and methods of working
- Enhance Usability and User Experience i.e. support people in using digital technology by appropriate training, simplified processes and user guides
- Continue to be more end user focused, so that the needs of every type of user is met, be that an introduction to IT or utilisation of advanced features

We must continue to be vigilant, particularly in light of the current global pandemic and the uncertainty it presents for the future. Unforeseen changes may impose constraints, or provide

new opportunities, that might require unexpected or rapid responses; therefore, the projects and plans outlined within this Strategy must remain fluid and responsive.

The University will strive to deliver its Estate and IT Strategy within a financially and environmentally viable framework that contributes towards a sustainable future whilst meeting the many and varied needs of its students, staff, research endeavours, business partners and community.

Throughout the planning period the performance of the estate and IT provision must be monitored and reviewed to ensure that it is as efficient and effective as possible; and that it is performing to, if not better than, sector standards. Progress towards delivery of the key strategic themes outlined within this strategy will be managed and monitored via the Estate and IT Strategic Planning Group and the Finance & General Purposes Committee. The Estate and IT Strategy will be reviewed annually.

The University is rightly proud of its outstanding garden campuses which provide the backdrop to the University's endeavours and will continue to seek every opportunity to enhance it.