Buildings and Estates

BUILDING
a sustainable future

Strategic Plan
2017–2021
UL aspires to be a world leader in the area of environmentally friendly university management
This strategic plan sets out the vision of the Buildings and Estates (B&E) Department for the University of Limerick (UL) estate and the B&E Department itself over the period 2017–2021. The plan has been prepared to align with Broadening Horizons, UL’s strategic plan 2015–2019.

UL is located on a stunning 148-hectare riverside campus about five kilometres east of Limerick city. Since its foundation in 1972, the University’s built space has increased at a rate of almost one new building per year and now exceeds 235,000m² spread across 39 buildings.

From 2012 to 2016, B&E delivered campus infrastructure improvements totalling €100 million. During that period, projects completed in support of the University’s overall strategic goals included new teaching, research, sporting and accommodation facilities and significant refurbishment works.

To further accentuate UL’s distinctiveness through the development of campus infrastructure, B&E will complete its ambitious €224m capital development plan of delivering new and improved sporting facilities (including a 25m diving pool, PGA-accredited golf academy and Arena climbing wall), a new student centre and a new grounds maintenance compound. A further €6m worth of refurbishment works has been prioritised for completion subject to funding.

The campus development plan will be reviewed and revised in 2017 to ensure that UL’s spectacular physical environment continues to attract students and staff to the University and provides a recreational destination of choice to the wider community. Highly pedestrian-trafficked areas will continue to be prioritised, and campus signage, both external and internal, will be overhauled.

B&E will implement its 2017–2012 strategic plan with respect to the following five pillars:

1. Infrastructure improvement plan
2. Space strategy
3. Vehicular access strategy
4. Sustainability strategy
5. Excellence

Pillars (i) to (iv) relate directly to specific aims or objectives in Broadening Horizons. The fifth pillar, Excellence, is one of the core values specified in Broadening Horizons and is included in this strategic plan to drive improvements in the operational performance of the B&E Department.
To alleviate acute parking difficulties on campus, new coach parking facilities will be provided and will be used for overflow vehicular parking when not in use for special events. The relocation of the existing grounds management facility will provide additional car parking for up to 80 vehicles.

Based on expected organic growth and the University’s intention to increase both international full-degree student numbers and postgraduate/doctoral enrolments, B&E has devised a space strategy to cater for an additional 3,500 students. This will involve improving the operational efficiency of existing teaching spaces. B&E will continue to meet regularly with relevant unit managers to review short- and medium-term space requirements and will work with senior management to plan long-term space requirements. The department will consider the possibility of providing multifunctional spaces and repurposing the recently acquired Park Point and will continue to investigate the feasibility of providing city-based and additional on-campus student accommodation.

The University’s expansion in recent years has brought with it significant increases in the volume of traffic entering and exiting the campus, which gives rise to congestion, particularly at peak times. To alleviate this problem, B&E will work with Limerick City and County Council (and other stakeholders) to provide a 10-minute city-to-UL link and access to UL via a proposed northern relief road and to upgrade and realign the Troy Studios/Hamilton House exit road.

UL aspires to being a world leader in the area of environmentally friendly university management and seeks to undertake four new Green Campus initiatives over the lifetime of Broadening Horizons (2015–2019). B&E has led UL’s Green Campus drive since the inception of the campaign. Together with the Green Campus committee and other stakeholders, B&E plans to achieve ISO 50001 (Energy Management) certification, roll out an energy behaviour change campaign, obtain the ‘Green Flag’ for Waste, safeguard and enhance biodiversity on campus and continue to reduce UL’s dependence on water supplied by Limerick City and County Council.

B&E strives to achieve excellence in the services it provides and the way it operates. To enhance the quality and scope of its operations, B&E will recruit additional personnel to manage projects, safety and technical services, and security and events; improve the levels of customer and stakeholder engagement; benchmark itself with comparable institutions; and embrace technical advancements.
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<td>Buildings and Estates</td>
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<td>BIM</td>
<td>Building Information Modelling</td>
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<td>CERC</td>
<td>Clinical Education and Research Centre</td>
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<td>DCENR</td>
<td>Department of Communications, Energy and Natural Resources</td>
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<td>Department of Education and Skills</td>
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<td>Higher Education Authority</td>
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<td>IDA</td>
<td>Industrial Development Agency</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>km</td>
<td>Kilometres</td>
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<tr>
<td>m</td>
<td>Million/metres</td>
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<td>MSSSI</td>
<td>Materials and Surface Science Institute</td>
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<td>QMS</td>
<td>Quality management system</td>
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<td>SEAI</td>
<td>Sustainable Energy Authority of Ireland</td>
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<td>SI</td>
<td>Statutory Instrument</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>UL</td>
<td>University of Limerick</td>
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<tr>
<td>VP</td>
<td>Vice President</td>
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</table>
1 Introduction and context
1.1 About UL’s Strategic Plan

The strategic priorities of the University of Limerick (UL) are formulated and implemented in line with *Broadening Horizons*, UL’s strategic plan 2015–2019. *Broadening Horizons* specifies the following guiding principles:

- UL’s focus is to build on its achievements, accentuate its distinctiveness and raise its international profile.
- UL’s mission is to be a distinctive, pioneering and connected university that shapes the future through educating and empowering people to meet the real challenges of tomorrow.
- UL’s vision is to be internationally recognised as a distinctively progressive, research-led university that provides an engaging student experience, conducts world-class research renowned for its translational impact and is globally and locally connected in terms of its contribution to economic, social and cultural life.
- Reinforced by an abiding commitment to the principles of academic freedom, UL is guided by six core values in the realisation of its vision: excellence, creativity, ethics, sustainability, community and global focus.

1.2 About this Strategic Plan

This strategic plan aims to provide a medium-term development and management plan for the UL estate and the Buildings and Estates (B&E) Department over the next five years in support of *Broadening Horizons*. Whilst the activities of B&E have always supported the strategic direction of the University, this is the first strategic plan produced by B&E.

1.3 About Buildings and Estates

B&E is a customer-driven department that aspires to provide an excellent service to the UL campus and wider community. The B&E mission is to support the University to achieve its goals; its vision is to provide outstanding physical facilities for the pursuit of academic, cultural and recreational activities; its ethos is to sustain and seek to continually improve the quality of all services that it provides to the campus community.

B&E is responsible for, amongst other things, new buildings and works projects, maintaining the campus buildings fabric and associated building plant, maintaining all campus grounds, cleaning, waste management, portering, traffic and parking management, space planning and management, the safety of the built environment, security and energy management.

B&E comprises 35 full-time UL direct staff, 39 full-time contract maintenance staff, 45 full- and part-time security staff and 52 full- and part-time cleaning staff. In addition to the full-time contract staff, B&E hires specialist contractors to maintain items such as safety systems and other mechanical and electrical systems. Following a recommendation from a peer group quality review in 2014, B&E reassessed its organisational structure and put in place a number of new positions to enhance the quality and scope of its operations. B&E’s revised organogram is depicted in Figure 1.1; the new positions are shown with a purple frame. Further details on the B&E staff plan are presented in section 2.6.1.

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Figure 1.1 B&E Organogram (revised July 2016)
B&E will hire 7 additional staff to improve the quality and scope of its operations.
1.4 The UL Estate

UL is located about five kilometres east of Limerick city on a stunning 148-hectare (366-acre) riverside campus. Since its establishment in 1972, the University’s built space has increased at a rate of almost one building per year and now exceeds 235,000 m². UL’s portfolio of 39 buildings is a mix of didactic teaching spaces, research facilities, offices, recreational and sporting facilities and student accommodation. As well as boasting 427 different wildlife species, UL’s spacious grounds contain riparian meadows and woodland, a protected herony, an arboretum, an orchard, an apiary, manicured lawns and high-quality pedestrian zones around the built environment. Meandering east to west through the campus, the River Shannon provides a unifying focal point for the University grounds situated on its north and south banks.
Some of the 427 different wild life species that choose to habitat within UL’s spacious grounds.
UL’s previous strategic plan, *Pioneering and Connected*², covered the period 2011 to 2015. That plan’s four main goals centred on (i) the student experience; (ii) research profile and impact; (iii) international focus; and (iv) contribution to the economic, educational, social and cultural life of Ireland and the Shannon region.

B&E contributed to the realisation of these goals by:

**Constructing new research facilities aimed at attracting and retaining world-class researchers:**

- In 2012, the Graduate Entry Medical School was completed at a cost of €16.3m.
- In 2015, the 7,651m² Analog Devices building was completed at a cost of €30m. The building comprises 10 research labs, offices and a lecture theatre.
- In 2015, UL took delivery of the €14m second phase of the Materials and Surface Science Institute (MSSI), which added 2,784m² of additional research space.

**Enhancing the student experience by delivering student-focused facilities:**

- In 2012, the 100-bed Quigley Residences were completed at a cost of €10.1m.
- In 2012, a pavilion and all-weather sports facilities were completed on the north bank at a cost of €10.3m.
- In 2015, the 140-bed Troy Student Residences were purchased and refurbished.

**Enhancing the student experience by investing significantly in learning resources in existing buildings:**

- In 2012, the PESS building was reconstructed and refurbished at a cost of €4m.
- In 2012, the B3-053 laboratory was refurbished.
- In 2015, refurbishment of the Schrödinger building was completed at a cost of €4.5m.

**Enhancing the student experience by providing additional facilities:**

- From 2012 to 2015, together with Limerick City and County Council, €1.5m was invested in the delivery of Smarter Travel facilities, including dedicated cycle paths, covered secured bicycle parking and additional shower facilities.
- In 2012, the Alumni Copse was completed for UL40 (UL’s celebrations in 2012 to commemorate its 40th anniversary).
- In 2013, a roof garden was constructed in the Main building.

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Combined with other works, these projects resulted in an investment of approximately €100m between 2012 and 2016 and provided much-needed jobs in the region.
Buildings and Estates
strategic plan 2017–2021
2.1 HOW THE STRATEGY SUPPORTS BROADENING HORIZONS

The Buildings and Estates (B&E) Department devised this strategic plan to support Broadening Horizons, UL’s highly ambitious and challenging strategic plan 2015–2019. To support the UL plan, B&E identified the following five pillars around which to formulate its own strategic plan:

i  Infrastructure improvement plan
ii  Space strategy
iii  Vehicular access strategy
iv  Sustainability strategy
v  Excellence

Table 2.1 specifies the pillars that correspond to those aspects of Broadening Horizons that apply to the work of B&E. As can be seen in the table, each B&E strategic pillar relates to a number of specific areas of work, which are elaborated upon in subsequent sections of this chapter.
### Table 2.1 B&E’s strategy in support of UL’s strategic plan

<table>
<thead>
<tr>
<th>UL strategic theme/core value</th>
<th>UL strategic aim/objective</th>
<th>B&amp;E strategic pillar (heading)</th>
<th>Targeted area (subheading)</th>
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<tr>
<td>BUILDING ON ACHIEVEMENTS</td>
<td>Increase postgraduate and doctoral enrolments</td>
<td>Space strategy (2.3)</td>
<td>Management of existing spaces (2.3.1)</td>
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<td>Space planning (2.3.2)</td>
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<td>Support the Limerick 2030 vision</td>
<td>Vehicular access strategy (2.4)</td>
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<td>Develop campus infrastructure</td>
<td>Infrastructure improvement plan (2.2)</td>
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<td>Student accommodation (2.2.5)</td>
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<td>Improve the experience of those living on and visiting the campus</td>
<td>Infrastructure improvement plan (2.2)</td>
<td>Refurbishment plan 2016–2018 (2.2.2)</td>
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<td>Develop Green Campus initiatives</td>
<td>Sustainability strategy (2.5)</td>
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<td>Ground water (2.5.5)</td>
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<tr>
<td>RAISING INTERNATIONAL PROFILE</td>
<td>Increase the number of music and arts events on campus</td>
<td>Infrastructure improvement plan (2.2)</td>
<td>Parking for special campus events and sports events (2.2.4)</td>
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<td>60% increase in international full-degree student numbers by 2019</td>
<td>Space strategy (2.3)</td>
<td>Management of existing spaces (2.3.1)</td>
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<td>Space planning (2.3.2)</td>
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<tr>
<td>EXCELLENCE</td>
<td>A performance-driven quality-improvement ethos</td>
<td>Excellence (2.6)</td>
<td>B&amp;E staff plan (2.6.1)</td>
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<td>Quality management system (2.6.2)</td>
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2.2 INFRASTRUCTURE
IMPROVEMENT PLAN

A key function of B&E is the development and maintenance of the physical environment and infrastructure to enable the University to realise its vision of conducting world-class research and providing an engaging student experience. This involves significant expenditure on capital developments and refurbishment works and requires careful consideration to be given to the development of the campus landscape to ensure its natural beauty and functionality are maintained.

2.2.1 Capital development plan

UL is currently undertaking a €224m investment in providing new infrastructure and improving existing infrastructure over the period 2014 to 2018. The implementation of this plan is being funded from UL funds, exchequer funds, private donations, commercial income and a loan facility from European Investment Bank.

Current major capital projects underway and/or completed include:

- Analog Devices building
- MSSI building extension
- Arena – diving/warm-up pool
- Arena – Munster Rugby Training Centre
- Library extension
- Clinical Education and Research Centre (CERC)

Current infrastructure improvement projects underway and/or completed include:

- Schrodinger building refurbishment
- PESS building refurbishment
- Smarter Travel facilities – cycle paths, cycle shelters, showers
- Traffic improvement plan (Phase 1) – car park upgrades, commercial/taxi set down

Funded capital projects – planned to commence over the lifetime of this plan:

- PGA-accredited golf academy
- New grounds maintenance compound
- New student centre
- Arena climbing wall and gymnasium upgrade
- All-weather sports facilities – south bank
- Fab Lab and Health Hub in city centre

Other projects in planning:

- Park Point facility repurposing
- City centre student residences
- Athletics track refurbishment
- City transport link
- Infrastructure improvements – three-year plan
- Infrastructure initiatives – self-funded (water supply, water conservation)
- Traffic improvement
2.2.2 Refurbishment plan 2016–2018

UL has expanded significantly in recent years, and current plans include further expansion of research, library, student and sports facilities on campus. Some of the UL estate has been in place for up to 40 years and, consequently, requires refurbishment to ensure it continues to be fit for purpose and compliant with current standards. In the last three years, the University has invested €10m in refurbishments/infrastructure upgrades. However, approximately €30m more will be required in the coming years to ensure existing facilities are maintained to appropriate standards. Unfortunately, the Higher Education Authority (HEA) has indicated that little or no exchequer funding will be available for refurbishment for the foreseeable future. Accordingly, the University will need to continue to fund these essential works in the medium term.

B&E has identified priority projects to be carried out over the next three years at a cost of €6m. This priority listing will be presented to UL’s Finance Department.
2.2.3 Campus and landscape development plans

2.2.3.1 Development of lands and grounds

B&E takes pride in managing the development of the campus, including the landscape and grounds (see Figure 2.1), a core element of which – the Plassey House estate – dates back to the 18th century. UL’s first campus development plan was published in 1973 (i.e. shortly after the institution opened) and has been carefully revised several times since in the context of the University’s expanding grounds and built space. Prior to the turn of the century, the development of lands and grounds on campus was largely centred on the south bank. The purchase of 23 hectares of land on the north bank in 1997 has facilitated significant development since then.

A review of the campus development plan for the entire campus will commence in 2017. This will include reviewing the physical development masterplan and devising a detailed plan for the campus landscape. This strategy will make sure UL’s spectacular physical environment continues to act as both a self-promoting tool for the recruitment of future students and staff and a recreational destination of choice for the wider community.

2.2.3.2 Pedestrianisation

Significant progress has been made by B&E in supporting the provision of outstanding physical facilities for recreational activities on campus. Initiatives completed include the pedestrianisation of the Arena entrance, main plaza and Bernal courtyard; the resurfacing of existing pedestrian routes; the installation of 1.45km of new shared pedestrian/cycling paths; and the installation of additional pedestrian crossings on campus roads. Highly pedestrian-trafficked areas, particularly those that traverse vehicular routes, will continue to be prioritised for pedestrianisation over the lifetime of this plan.
2.2.3.3 Campus signage

In support of UL’s goal of improving the experience of those visiting the campus, B&E intends to revitalise campus signage. This process has already commenced: car park signage and limited wayfinding signage have been installed; a wayfinding app has been developed; 3D models of the campus (at 1:1000 and 1:500 resolution) have been completed; and separate campus maps showing buildings, car parks and lecture theatres have been created. To further improve wayfinding on campus, a plan to completely overhaul both external and internal signage will be devised and implemented subject to funding.

2.2.4 Parking for special campus and sports events

It is recognised that acute parking difficulties arise on campus when conferences, open days, sports and other events occur, particularly during semester periods. To alleviate these difficulties, it is planned to provide specific new facilities for coach parking requirements that arise as a result of such events. These facilities will be incorporated in the development plan for new sporting facilities that have been approved for development.

Following UL and statutory approval, it is expected that the first of the new coach parking facilities will become available by the end of 2017 or early 2018. The facilities can be used for overflow vehicular parking when not in use for special events. The development of a relocated and centralised grounds management facility will provide additional car parking for up to 80 vehicles in the existing grounds management facility.

Figure 2.1 UL’s campus plan (revised March 2014)
2.2.5 Student accommodation

2.2.5.1 City centre student accommodation

Discussions have taken place with relevant stakeholders regarding the provision of city-based student accommodation. A site previously earmarked for this development is no longer available. This will have an impact on the potential delivery timeframe.

2.2.5.2 On-campus student accommodation

The feasibility of providing additional on-campus student accommodation is currently being investigated.
2.3 SPACE STRATEGY

Over the lifetime of this plan, significant increases in the numbers of undergraduate and postgraduate students studying at UL are expected. Recent projections from the Department of Education and Skills (DES) of the demand for full-time, third-level education places predict year-on-year increases to 2029, with undergraduate numbers forecast to grow by 2% to 10% between 2017 and 2021. Coupled with this are UL’s stated objectives (contained within its strategic plan 2015–2019) of increasing postgraduate student enrolments to represent 30% of the overall student population by 2019 and growing international full-degree student numbers by 60%. Accordingly, B&E envisages a maximum growth in student numbers of approximately 3,500 over the lifetime of this plan (see Table A.3). To accommodate the anticipated growth in student numbers, B&E will continue to proactively manage its existing spaces and will plan for the provision of additional spaces in collaboration with its stakeholders.

2.3.1 Management of existing spaces

B&E takes a proactive role in managing space. Over the lifetime of this plan, B&E will continue to closely monitor the use of existing teaching spaces and seek out ways of increasing efficiencies. In addition to formalising communication procedures between committees, faculties and departments, B&E will continue to meet regularly with faculty managers and heads of department to review short- and medium-term space requirements.

2.3.2 Space planning

As part of its stakeholder engagement plan (see section 2.6.4), B&E will work with the most senior academic and administrative management personnel to plan long-term space requirements and accommodate these needs. However, the uncertainty surrounding the growth in student numbers and their distribution across the four faculties makes the planning process more complex. Therefore, B&E will explore the possibility of providing the following multifunctional spaces to allow for more flexibility:

- A 550-seat (approx.) lecture theatre and a modest increase in additional teaching spaces as an extension to an existing building
- Large cross-functional laboratory facilities capable of accommodating large numbers of undergraduates, such as physics, chemistry and biology students

In addition, B&E will consider repurposing the recently acquired Park Point site to best meet the emerging space requirements of the University.

2.4 VEHICULAR ACCESS STRATEGY

The UL campus has expanded to a great extent in recent years. As a consequence, significant increases have occurred in the volumes of traffic accessing and exiting the campus.

**Taken together, three proposed measures will significantly improve traffic congestion:**

- Ten-minute city-to-UL link
- Northern relief road
- Upgrade and realignment of Troy Studios/Hamilton House exit

2.4.1 Ten-minute city-to-UL link

The University has permission to use, between 08:00 to 10:00 during term, a road from Plassey Park Road that serves a local authority waste water treatment plant. The use of the service road has been of great benefit in reducing queueing times on Plassey Park Road for entry to the University at this peak time. It is intended to upgrade this section of (currently private) road as part of a transport link from Limerick city centre.

The main thrust of the transport link will be to improve public transport travel times from the city to the campus (ultimately a travel time of 10 minutes being the aim). It is expected that greater use of public transport will mean that fewer cars are being used to travel to the campus. However, being mindful that a significant number of cars do not commence the journey to the University from the city, the final section of the link will accommodate cars as well as public transport vehicles.

The plan for the complete transport link will take many years to be funded and delivered. Accordingly, the critical section local to UL will be advanced first. The University is engaging with the local authority and local land owner in this regard.

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Over the lifetime of this plan, B&E will continue to closely monitor the use of existing teaching spaces and seek out ways of increasing efficiencies.
The University is working with IDA Ireland and the local authority to upgrade and realign the entrance to facilitate UL’s requirements and to improve traffic flow.
2.4.2 Northern relief road

Currently, traffic can access the campus via one of two existing entrances only (both located at Plassey Park Road). Given the additional traffic generated from the adjacent National Technology Park, the local community, a primary school and a church, very significant delays occur when exiting the campus at peak times.

A significant proportion of the traffic comes and goes between the north bank of the campus and Co Clare. After exited the campus, most of these drivers must then circumnavigate Limerick city centre before proceeding to Co Clare. This situation is unsustainable, and it is clear that a new northern gateway for the campus is required.

The existing road network bounding the north bank has been determined by Clare County Council to be unsuitable for accepting the volume of traffic that would emanate from the University. The weight-carrying capacity of existing road bridges is very limited, and the road widths and general condition are suitable for local use only.

Clare County Council has developed a plan to provide a dual carriageway northern relief road, principally routed in Co Clare, that would link at Coonagh with the N18 (route to Shannon Airport, Ennis and Galway) and join the R445 (leading to the M7 Limerick to Dublin motorway) near Annacotty. The scheme has a dedicated link to the north bank of the campus, which will be of enormous benefit to the University in alleviating traffic congestion on campus. The proposal has been passed by Clare County Council. While Limerick City and County Council has not approved the minority section that must traverse an area near Annacotty, relevant local councillors, IDA Ireland and UL are in discussions to clarify and alleviate concerns so as to re-present the scheme in the near future to all Limerick City and County Council councillors.

2.4.3 Troy Studios/
Hamilton House exit

The road serving Troy Studios and Hamilton House that exits onto Plassey Park Road forms part of the UL estate. Plans are being developed for the creation of new sports facilities on the UL playing fields adjacent to this road. Part of the plan will be to accommodate coach and UL sport and special-event parking in this area, thereby avoiding increased traffic on campus when these events occur. The University is working with IDA Ireland and the local authority to upgrade and realign the entrance to facilitate UL's requirements and to improve traffic flow from Troy Studios and Hamilton House.
2.5 Sustainability strategy

A key objective of UL’s strategic plan 2015–2019 is to accentuate its distinctiveness by further enhancing existing infrastructure and campus life. Specifically, Broadening Horizons envisions UL as a world leader of environmentally friendly university management and calls for at least four new Green Campus projects to be undertaken over the strategy’s lifetime. B&E has driven UL’s Green Campus since the inception of the initiative, and a key objective of this strategic plan will be to ensure that the vision for UL’s Green Campus put forward in Broadening Horizons is realised. Undertaking the actions specified below will ensure Green Campus remains an intrinsic part of B&E’s operations.

2.5.1 ISO 50001

Recognised as international best practice, the ISO 50001 standard is based on an energy management system that enables organisations to establish the systems and processes required to improve energy efficiency, use and consumption. B&E intends to adopt ISO 50001 within the lifetime of this plan. Embracing the standard will complement the current approach to managing energy on campus and assist UL in discharging its requirements under Statutory Instrument (SI) 542 of 2009, the public sector energy reduction targets of the Department of Communications, Energy and Natural Resources (DCENR), UL’s environmental protocol and UL’s partnership agreement with the Sustainable Energy Authority of Ireland (SEAI). Furthermore, by adopting ISO 50001, which is recommended for use in the public sector in Ireland by both the SEAI and DCENR, will bring UL in line with many of its Irish and UK peer universities, roughly half of which have already adopted some form of recognised energy management system.

2.5.2 Energy behaviour change

The DCENR envisages that a targeted reduction of 33% in energy consumption in public sector buildings by 2020 can be achieved through a blend of retrofit/renovation strategies and behavioural changes. Most of the energy efficiency improvements completed by B&E in recent years have primarily been technology based. However, as the payback on viable technology-based projects diminishes, B&E is adopting people-based measures to adhere to binding energy efficiency targets. Research has shown that behaviour change has the potential to save as much, if not more, energy as technological solutions and has the added advantages of being inexpensive, not needing hi-tech knowledge and being readily applicable to both new and existing buildings. Specific research conducted in UL demonstrated that savings of 11% in energy consumption can be achieved through the use of behaviour change measures. Over the lifetime of this plan, a behaviour change campaign will be launched not only to increase awareness of energy use but chiefly to improve energy efficiency on campus.

2.5.3 Waste management

Over the lifetime of this plan, B&E aspires to further improving the management of waste on campus and obtaining the Green Flag for Waste. Current waste management practices will be collated and challenged, and waste streams will be catalogued and categorised with a view to putting in place the necessary management procedures and infrastructure to ensure that, where possible, waste is avoided, upcycled, reduced, reused and recycled. To make meaningful progress with avoiding and minimising waste, campus-wide engagement will be necessary; accordingly, this initiative will be pursued in conjunction with the Green Campus committee.

2.5.4 Biodiversity action plan

B&E views the campus grounds as a strategic asset to the University. With 427 expert-identified species of wildlife, including birds, mammals, insects, vascular plants and bryophytes recorded on campus recently in a single 24-hour period, UL’s 148-hectare parkland campus supports an abundance of biodiversity. The B&E landscape management policy defines the structured approach to be taken to successfully maintain and manage the campus lands and stresses the importance of protecting and enhancing biodiversity. Over the lifetime of this plan, B&E intends to safeguard, maintain and further enhance biodiversity at UL by supporting current measures (such as the apiary, roof garden and orchard) and good practices (such as using mulching deck mowers for lawn mowing and minimising intervention to wildflower meadows) and devising new measures (such as planting native tree species, particularly along the river corridor).

2.5.5 Ground water

Water is a very valuable resource. Currently, the water used to meet all the campus’s requirements is drawn from a public water main. The provision of potable water through a pressurised public main involves abstracting water from the River Shannon, pumping it through a series of filtration stages, chemically treating it and pressurising it into a water mains pipe for distribution by the municipal authority. Most of the water (probably more than 90%) used on campus is not required to be potable and is discharged into the foul sewer. In principle, this is a very wasteful use of the valuable resources expended by the water authorities to make the water potable. B&E will investigate the availability and use of ground water sources to meet the campus’s non-potable water requirements. The viability of any such water source for use on campus will be assessed.
B&E’s landscape management policy defines the structured approach to be taken to successfully maintain and manage the campus lands and stresses the importance of protecting and enhancing biodiversity.
2.6 Excellence

Whilst the first four pillars of this plan relate directly to specific aims or objectives in Broadening Horizons, the focus of this final pillar is to drive improvements in the operational performance of B&E. This will be achieved through the continued use of a quality management system (QMS), engaging more with customers and stakeholders, benchmarking operations and undertaking technical improvements where appropriate.

2.6.1 B&E Staff Plan

This section should be read in conjunction with B&E’s organogram, which is presented in Figure 1.1.

As specified in section 1.3 of this document, B&E has identified additional staff requirements to further enhance the quality and scope of its operations. In total, seven new positions will be created and two promotions will be made over the lifetime of this plan. Four of the new positions (i.e. projects manager, projects superintendent and civil technician and architectural technician) reflect the volume, complexity and scale of projects undertaken by B&E and the need for a dedicated team to manage these. Complementing these new roles will be the appointment of a safety coordinator to ensure B&E meets and exceeds the ever-increasing and evolving body of health and safety legislation requirements, statutory instruments and codes of practice. To ensure that the myriad of projects and services procured by B&E continues to adhere to public procurement guidelines, a senior administrator will be appointed. It is intended to streamline the porter/attendant service; this will be facilitated by promoting to senior porter two members of the porter/attendant staff.

The continuing delivery of new buildings and the significant refurbishment of existing buildings have expanded the mechanical, electrical and safety systems used on campus. Safeguarding the integrity of these systems will be the responsibility of a new technical services coordinator.

A specific objective of UL’s current strategic plan is to enhance campus life by increasing the number of events, including sports, music and arts events, taking place on campus. To manage the increase, B&E will recruit a security and events manager.

2.6.2 Quality Management System

UL requires all support units (i.e. departments and divisions) to operate a quality management system (QMS) to manage and continually improve the quality of its activities and services. A central principle of the QMS is customer focus: to meet and strive to exceed customer requirements. To achieve this, B&E will aim to:

- Develop and continually improve processes to increase customer satisfaction with the department’s services
- Interact effectively with customers
- Have systems in place to measure performance
- Act on feedback from customers

2.6.3 Customer Engagement

B&E acknowledges its role as a key service provider on campus and is aware that its customers rely heavily on its services on a daily basis. We recognise that the key to an excellent service is customer engagement. Building on the department’s current processes, B&E is committed to responding to the changes and embracing the opportunities that have emerged in recent times with social media. In line with UL’s strategic goal of enhancing campus life, we plan to engage our customers through a variety of channels, including social media. The range of measures to be rolled out include improvements to communications on works and activities, further clarity on our key processes (such as buildings maintenance and minor works) and event notifications.

2.6.4 Stakeholder Engagement

In addition to improving the delivery and quality of information to its customers, B&E will host annual customer focus sessions with UL’s most senior academic and administrative management personnel on a one-to-one basis. Amongst others, the following key customers will be invited to participate in a focus session: the deans of the four faculties, the Vice President (VP) Academic & Registrar and direct reports, the VP Research and direct reports, the Director of Human Resources, the Director of Sport, the Chief Operations Officer and Finance Director of Plassey Campus Centre, senior reports of the Finance Department, and other senior academic and administrative management personnel. The purpose of the customer focus sessions will be to identify our customers’ short-term and long-term needs with a view to informing the department’s future plans.

2.6.5 Benchmarking

UL’s strategic plan emphasises the need for the University’s academic programmes to be benchmarked internationally to ensure they are of a world-class standard. B&E provides, manages, maintains and services the campus’s outstanding physical facilities, thereby enabling the University to deliver the diverse range of programmes on offer. To ensure UL’s facilities and their management are at least on a par with those of our peers, B&E will benchmark itself against comparable universities both at home and abroad and will take action if and when shortcomings are identified.
2.6.6 Technical improvements

B&E is cognisant that new technologies can be used to improve the efficiency and effectiveness of its operations. Accordingly, the following technologies will be reviewed with a view to implementing them as appropriate:

- Introduction of web-based access to the Building Management System (to expand the range of stakeholders and B&E staff who can access relevant parts of the system)
- A dedicated key-management software system to handle all aspects of key management
- NetAccess web-based improvements (not directly under B&E control but we might influence process)
- Smart information panels at key locations to share energy consumption data with the campus community in support of the ‘Hearts and Minds’ energy initiative
- Investigation of the use of ‘smart signage’ on campus
- Vehicle number plate recognition technology
- Online induction system for visiting contractors
- BIM (Building Information Modelling), e.g. CERC
- Electronic filing
- ‘The Internet of Things’
- Goods receiving – tracking, scanning, etc.
- Purchase of a drone for general aerial photography, recording progress of capital developments and providing information to B&E staff in relation to grounds and maintenance issues

The following landscape-specific technical improvements will be considered:

- GPS spraying technology for sports pitches
- Battery-operated maintenance vehicles and mowers
- New plant functionality to include built-in service computers
- Remote-controlled mowers for severe slopes and banks
- Computer-controlled irrigation systems with moisture meters for sports pitches
- Automated ball collectors for proposed driving range
- Robotic mowers for proposed driving range
- Smart phones for grounds staff
Implementing, monitoring and reviewing the strategy
3.1 Implementation and Challenges

The overall responsibility for the implementation of this plan rests with the Director of B&E with the support of senior B&E management. Delivering on this challenging plan will require financial support from the exchequer/HEA for ongoing maintenance and capital investment. Even with the funding in place, the timely delivery of large-scale physical developments within budget (further complicated by significant expected growth in student numbers) will be difficult.

The successful delivery of the University’s vehicular access strategy depends on external stakeholders (such as local authorities and IDA Ireland). This is a major challenge. B&E will continue to liaise with these bodies to ensure progress is made.

Achieving the sustainability measures identified in this plan will require the engagement of the entire campus community, which presents its own challenges.

3.2 Monitoring

Many of the actions included in this plan are quantitative (e.g. infrastructure improvements) and can be monitored by assessing progress towards their completion. Other actions are more qualitative in nature (e.g. customer engagement) and will need to be evaluated in terms of B&E’s commitment to delivering on each objective. To ensure that the plan is being adhered to, progress of its implementation will be considered at quarterly intervals by B&E senior management.

3.3 Review

This strategic plan will be reviewed on an annual basis to ensure its relevance in the context of the University’s emerging needs. A dramatic change in circumstances (e.g. a massive funding deficit) will trigger a fundamental review and update of the plan.

4 References


Appendix A: Projecting growth in student numbers at UL
Table A.1 Projected demand for full-time DES-aided places at third level, 2015–2029

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>S0</th>
<th>S1 (baseline)</th>
<th>S2</th>
<th>S3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>170,502</td>
<td>170,890</td>
<td>171,016</td>
<td>171,404</td>
</tr>
<tr>
<td>2016</td>
<td>171,644</td>
<td>172,716</td>
<td>173,058</td>
<td>174,130</td>
</tr>
<tr>
<td>2017</td>
<td>172,465</td>
<td>174,439</td>
<td>175,063</td>
<td>177,037</td>
</tr>
<tr>
<td>2018</td>
<td>173,123</td>
<td>176,166</td>
<td>177,118</td>
<td>180,161</td>
</tr>
<tr>
<td>2019</td>
<td>173,655</td>
<td>177,897</td>
<td>179,212</td>
<td>183,454</td>
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<tr>
<td>2020</td>
<td>174,314</td>
<td>179,873</td>
<td>181,574</td>
<td>187,134</td>
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<tr>
<td>2021</td>
<td>174,788</td>
<td>182,125</td>
<td>184,230</td>
<td>191,214</td>
</tr>
<tr>
<td>2022</td>
<td>175,909</td>
<td>184,535</td>
<td>187,057</td>
<td>195,528</td>
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<tr>
<td>2023</td>
<td>177,434</td>
<td>186,966</td>
<td>189,914</td>
<td>199,856</td>
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<tr>
<td>2024</td>
<td>179,104</td>
<td>188,796</td>
<td>192,175</td>
<td>203,487</td>
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<tr>
<td>2025</td>
<td>180,265</td>
<td>190,841</td>
<td>194,658</td>
<td>206,891</td>
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<tr>
<td>2026</td>
<td>181,667</td>
<td>194,465</td>
<td>198,722</td>
<td>211,696</td>
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<td>2027</td>
<td>184,582</td>
<td>199,092</td>
<td>203,791</td>
<td>217,351</td>
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<tr>
<td>2028</td>
<td>188,449</td>
<td>203,562</td>
<td>208,706</td>
<td>222,627</td>
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<tr>
<td>2029</td>
<td>192,156</td>
<td>207,544</td>
<td>213,134</td>
<td>227,244</td>
</tr>
</tbody>
</table>

Scenario | S0     | S1 (Baseline) | S2    | S3    |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Rate from Second Level</td>
<td>Decreasing to 60%</td>
<td>2014/2015 levels (63.8%)</td>
<td>Remain at 63.8%</td>
<td>Increase to 70%</td>
</tr>
<tr>
<td>Mature Entrants</td>
<td>2014/2015 levels (5,300)</td>
<td>2014/2015 levels (5,300)</td>
<td>Increase of 25%</td>
<td>Increase of 25%</td>
</tr>
<tr>
<td>International Entrants</td>
<td>2014/2015 levels (1,700)</td>
<td>2014/2015 levels (1,700)</td>
<td>Increase of 25%</td>
<td>Increase of 25%</td>
</tr>
</tbody>
</table>

*Source: Department of Education and Skills (2015)*

Table A.2 Extract from Table A.1

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>S0</th>
<th>S1 (Baseline)</th>
<th>S2</th>
<th>S3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (end 2016/ start 2017)</td>
<td>171,644</td>
<td>172,716</td>
<td>173,058</td>
<td>174,130</td>
</tr>
<tr>
<td>2021</td>
<td>174,788</td>
<td>182,125</td>
<td>184,230</td>
<td>191,214</td>
</tr>
<tr>
<td>Net increase 2017–2021 (number)</td>
<td>3,144</td>
<td>9,409</td>
<td>11,172</td>
<td>17,084</td>
</tr>
<tr>
<td>Net increase 2017–2021 (%)</td>
<td>2%</td>
<td>5%</td>
<td>6%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Table A.3 Projected increases in numbers of students at UL (including international students), 2017–2021

<table>
<thead>
<tr>
<th>Baseline student numbers¹</th>
<th>Forecasted undergraduate² and postgraduate³ student numbers (2017–2021)</th>
<th>Projected student number increases (2017–2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduates 11,381</td>
<td>12,178</td>
<td>797</td>
</tr>
<tr>
<td>Postgraduates 2,470</td>
<td>5,219</td>
<td>2,749</td>
</tr>
<tr>
<td>Total 13,851</td>
<td>17,397</td>
<td>3,546</td>
</tr>
</tbody>
</table>

¹ Numbers from the Office of the President for UL’s 2015/2016 full-time equivalent students

² The Office of the President forecasts a +7% increase in undergraduate student numbers between 2017 and 2022, which is in line with projections from the Department of Education and Skills (2015) (see Table A.2 above).

³ Aim 1.1.4 of UL’s strategic plan is to increase postgraduate student numbers to 30% of the overall student population by 2019.
To ensure that this plan is being adhered to, progress of its implementation will be considered at quarterly intervals by B&E senior management.