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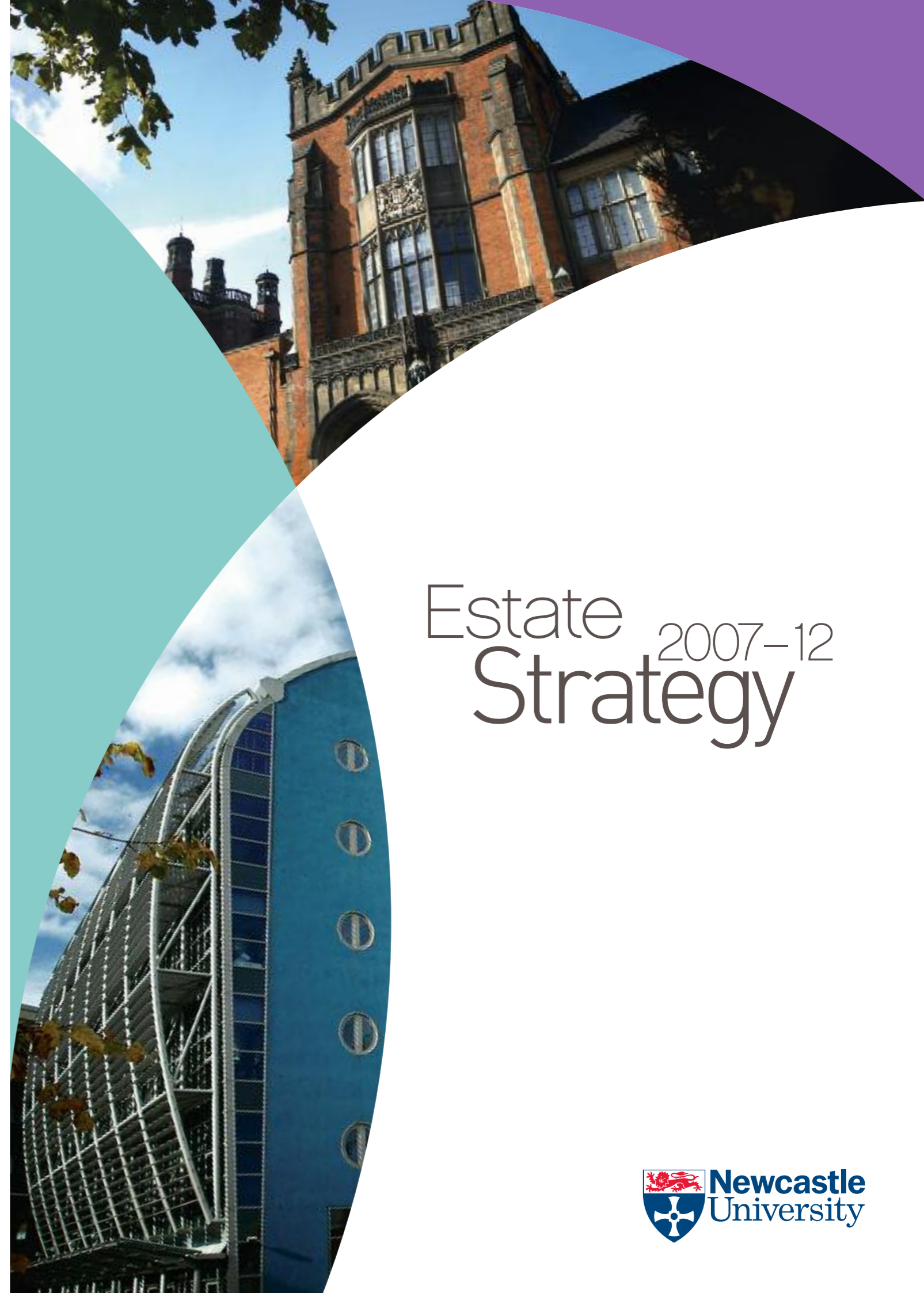
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The University of Newcastle upon Tyne trading as Newcastle University.



Estate ²⁰⁰⁷⁻¹² Strategy



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Percy Quad.

Executive Summary

Newcastle University – Our Mission

'To be a world-class research-intensive university, to deliver teaching of the highest quality and to play a leading role in the economic, social and cultural development of the North East of England.'

Estate Strategy

The Strategy for the University's estate is to develop and maintain an attractive, cohesive, financially sustainable environment supporting the provision of a high-quality student experience and internationally renowned research. This will be delivered through a comprehensive and integrated approach to capital investment, maintenance and space utilisation.

Space – Quality and Usage

The King's Campus is large and insufficiently fit for purpose. It lacks cohesion due to its disparate buildings and intersecting roads.

Core elements of the Estate Strategy seek to improve quality and utilisation while controlling overall floor space. We will do this by:

- improving quality and fitness for purpose to support business needs, through investment in refurbishment, leasing or new build;
- reducing poor floor space and buildings through demolition or disposal;
- actively managing space utilisation;
- using space as a cost driver;
- co-ordinating local authority/university highway intervention;
- improving the estate environment, including landscaping, signage, sustainability and biodiversity.

Our plans will reduce existing net internal floor space by approximately 29,900m² over five years, while currently approved capital developments will add 22,000m². Together with lettings to third parties and modest additional space savings, the net reduction is approximately 10,900m² (excluding potential developments at Science Central and the Campus for Ageing and Vitality).

Capital Plan

- **Confirmed** – the Capital Plan projects expenditure of approximately £140 million over the next four years. (£40 million for Student Residences and £100 million for the academic estate.)
- **Potential** – the University with its partners is considering Science City investment in the development of the Science Central site. This component of the Capital Plan has yet to be agreed and depends on a range of potential outcomes and level of external funding.

Development to support Science City includes expansion of the Campus for Ageing and Vitality at the Newcastle General Hospital site and growth at the International Centre for Life while optimum locations for Stem Cell and Molecular Engineering are considered. The Business School's major property requirement will be met by commercial leasing.

The Environment

The Strategy sets specific annual targets to measure continuing success including for carbon, waste and travel management.

Service to our Customers

Estate Support Service will continue to work closely with customers to meet their needs through agreed service level standards. Our planned approach, operational strategies and investment in staff will ensure professional delivery of the strategy.

1.0 Introduction

The Estate Strategy supports the delivery of the key objectives in the University's Strategic Plan.

1.1 Summary of University Strategic Plan

The University Council approved the Institutional Plan in July 2006 confirming the University's mission:

'To be a world-class research-intensive university, to deliver teaching of the highest quality and to play a leading role in the economic, social and cultural development of the North East of England.'

Strategic Objectives

The Plan identifies five strategic objectives:

- 1 to make Newcastle a world-class research-intensive university;
- 2 to deliver international excellence in our learning, teaching and scholarship activities while providing an excellent all-round student experience;
- 3 to support the commercialisation of our research and teaching activity for social and economic benefit;
- 4 to play a leading role in the economic, social and cultural development of the North East of England;
- 5 to manage the Institution in a sustainable manner.

In order to measure performance, specific aims and targets have been set for each strategic objective at institutional level including estate investment and performance.

Key aspects of the Plan are:

- the development of entrepreneurial and collaborative opportunities with other universities and commercial organisations;
- controlled growth in home students and commitment to widening participation;
- recruitment of international students and staff, with global engagement and delivery;
- optimising the use of physical assets, particularly through the controlled management and development of the estate, infrastructure and information systems;

- delivery of excellence measured against international standards in research, teaching and learning, informed by Newcastle's particular strengths in institutional research and entrepreneurship;
- sustaining the breadth of academic provision while continuing to assess its mix, balance and performance, and adjusting these in pursuit of strategic objectives.

Institutional level objectives, aims and targets, including estate-related targets, are set out at Appendix 5, available online at www.ncl.ac.uk/estates Performance against these is reported annually to Executive Board and Council.

The aim of this document is to:

- link the University's mission and objectives to the development and maintenance of the estate and the associated Capital Plan;
- describe and evaluate the performance of the estate;
- identify key estate issues and objectives and confirm that these are being addressed.

1.2 Overview of the Estate

Estate plans are available on page 12 Appendix 2 and online at www.ncl.ac.uk/estates

King's Campus

The University traces its origins back to 1834. The campus has grown incrementally since, with buildings of varying styles and quality constructed in two phases between 1888–1914 and 1960–79. Located immediately north of the main shopping area, campus development is constrained by the physical barriers of the city centre, central motorway, Royal Victoria Infirmary and Leazes Park Conservation Area. The estate history is available online as Appendix 13 at www.ncl.ac.uk/estates

King's Campus contains 74 per cent of the University's non-residential floor space and is inefficient with a relatively low percentage of usable space. Of the floor space available on campus, 19 per cent is housed in listed buildings with a further nine per cent located in converted Victorian

houses. Their appearance, design and layout are not ideal for existing functions. We are working hard to improve our functional suitability relative to the sector median and over the last three years have increased the percentage of space graded as excellent or good from 56 per cent to 67 per cent of gross internal area. However, this is still below the sector median of 77 per cent.

The issue of inefficient space use is addressed by the University in its space management policy (Appendix 9, available online at www.ncl.ac.uk/estates). Biannual teaching room audits are undertaken to establish the frequency and occupancy of use of rooms. All teaching rooms are electronically timetabled and centrally co-ordinated, and we are growing the pool of high-quality centrally supported rooms. We intensify the use of 'best fit' rooms and remove the lowest utilised rooms from timetabling, allocating them to more productive uses.

We continually seek to match functions to the right type of space and wherever possible refurbish unpopular space to bring it into effective use. We are unable to accommodate the Business School appropriately on campus so will lease space in the city. Space on campus is managed so that buildings that have reached the end of their operational life can be decanted. We are regenerating the campus by clearing obsolete buildings to make way for new buildings that enhance the environment, student experience, and research, and support the University's space management policy. Sites/buildings capable of alternative use are either refurbished directly by the University or disposed of via leasehold sale with use restrictions to provide complementary uses.

International Centre for Life (ICfL)

ICfL is a purpose built Science Village in the centre of Newcastle dedicated to driving forward advancements in life sciences and popularising science through its visitor centre and outreach programmes. It opened in 2000 and since then the University has taken on several tenancies occupying approximately 5,000m² of laboratories and offices (2.3 per cent of our non-residential floor area).

Campus for Ageing and Vitality

This campus is based at Newcastle General Hospital, approximately one mile west of King's Campus. The Newcastle upon Tyne Hospitals NHS Foundation Trust is rationalising its service provision here, which has released land for the University to expand its campus, and created the opportunity to build a medical science park alongside the largest European research group studying the causes and consequences of ageing.

There are approximately 4,000m² of recently constructed, fit-for-purpose University laboratories and offices here (1.2 per cent of non-residential floor area). Terms are agreed with the Trust to lease additional sites; the next building is the externally funded Newcastle Clinical Ageing Research Unit (CARU – 850m²) whose development commenced in 2007.

Science Central

Science Central is part of the former Scottish & Newcastle Brewery located at Gallowgate, Newcastle, comprising 5.83 hectares and jointly owned by the Newcastle Science City Partnership (the University, Newcastle City Council and the Regional Development Agency, One NorthEast). This site will ultimately be at the heart of Newcastle Science City, creating a new environment to attract and develop world-class knowledge and business.

Demolition and site clearance was completed in December 2007 and master planning is well under way.

Outlying Sites

These include:

- Cockle Park and Nafferton Farms – 574 hectares;
- Dove Marine Coastal Laboratories – 896m² Net Internal Area (NIA);
- Close House (sports fields and biology research) – 10 hectares;
- Moorbank Botanical Gardens – 1,088m² NIA;
- residences – 4,290 bed spaces;
- sports facilities – 17.55 hectares.

An overview of estate data including information on ownership, condition, value, backlog maintenance, utilisation and running costs is contained within Appendix 8, available online at www.ncl.ac.uk/estates

1.3 Consultation and Approval

The Capital Planning governance structure includes an Estate Planning and Development Committee (EP&D), reporting directly to Council who have approved a capital planning, business case appraisal and project management process (set out in the Guide to the Capital Planning and Management Process, Appendix 12, available online at www.ncl.ac.uk/estates).

Together the Committee structure and the process ensure the full involvement of Executive Board and faculties in scrutinising proposals against strategic priorities, prioritising, option and investment appraisal, and good project management.

An Environment and Sustainability Committee guides sustainability strategy, reporting to Executive Board and Council; delivery is largely through the Estate Support Service Sustainability Group working with key estate services.

1.4 Implementation

Decisions on estate strategy are made following consideration of the University's business plans and in the context of the King's Campus land use Masterplan (in place since 2002). To ensure that estate investment supports institutional objectives, each proposal is appraised against its delivery of University-level strategic objectives underlying the project as well as estate strategic objectives.

Following a defined planning process (including a robust business plan) Council will agree the Capital Plan which is then implemented by the Capital section of Estate Support Service. Schemes over £2 million are approved individually by Council. The current plan (2006–07) is in Appendix 6, available online on page 17 and at www.ncl.ac.uk/estates

The Strategy translates Strategic Plan objectives into actions that support the mission through the operation, development and financing of the estate. Quality is being improved through refurbishment and developing new fit-for-purpose buildings while poorer existing academic and administrative floor space is being reduced, over time, through leasehold disposals for complementary uses and introducing different embedded uses.

To respond to learning, teaching and research needs, and to ensure good space utilisation, our Pro-Vice-Chancellor (Planning and Resources) chairs a Space Utilisation Committee. Its remit is to increase utilisation, control estate size and consider space allocation issues. A sub-group of University Teaching and Learning Committee identifies learning and teaching infrastructure needs. Each faculty has an Estate Co-ordinator to help deliver academic objectives through estate strategy.

All significant estate services have service level standards. An Estate Forum (client consultation group) discusses user requirements. Allocated budgets are predicated on this level of service and performance against agreed standards is monitored and reviewed by the service teams and Senior Management Team.



Newcastle Clinical Ageing Research Unit (CARU).

2.0 Estate Strategy

3.0 Estate Performance

4.0 Future Requirements

2.1 Key Estate Issues and Objectives

While this Strategy mainly concerns the academic estate, residential requirements and academic targets are interdependent. We want to increase our available student accommodation to support our plans to increase student numbers, which in turn will help to make more efficient use of the estate.

It is essential to have an attractive, consolidated, pedestrian-friendly estate that is of appropriate size, fit for purpose, safe, of appropriate quality, that is financially and environmentally sustainable and suitable for a diverse group of students and staff.

Essential requirements to achieve this are good governance and management, adequate investment, clear business direction, a capital planning process, an adopted strategy with integrated master plans and policies for delivery, robust processes eg space allocation and space charging, responsiveness to need (through consultation), good communications, and professional staff to plan and provide fit-for-purpose facilities.

The key estate strategic objectives are therefore:

- improved appearance of buildings and integration of highways to achieve a consolidated estate with pedestrian priority;
- excellent teaching and student facilities in a high-quality learning environment for enhanced student experience, supporting interactive teaching and learning in flexible spaces;

- appropriate, fit-for-purpose facilities to support world-class research;
- good working facilities and a high-quality environment for staff and students;
- effective and good utilisation of space that is responsive to changing patterns of teaching, learning and research;
- reduced, better utilised academic/administrative floor space (to peer benchmark levels);
- rationalisation of the faculties/services (co-location where possible, with access to local teaching rooms, and centralised locations for quality student support services and facilities);
- integration with the city (an open and inclusive campus, which is clearly defined, welcoming to local people and accessible; the cultural quarter and museum);
- a top-class public realm (landscaping/signage improvements);
- improved condition and functional suitability of estate, through new development and refurbishment, while controlling estate size through floor space reduction;
- carbon reduction and environmental sustainability objectives including the Travel Plan;
- a safe environment through design and security;
- excellent communication of vision to all stakeholders.

3.1 Current Position

The Estate Management Statistics (EMS) Institutional Report shows that Newcastle has moved towards the Russell Group median for floor space per student full time equivalent (FTE). However, as our useable space is only 67 per cent of our gross area, while we are close to the median per student FTE, we still have a relatively large and inefficient estate. The EMS data depend on the accuracy of individual submissions: it gives a broad basis for indicative comparisons. Estate Data and EMS benchmark data is in Appendix 8, available online at www.ncl.ac.uk/estates

We have used the HE Space Management Group's (SMG) Affordable Estate Model to help consider how big our estate should be. The SMG model is a planning and forecasting tool that uses EMS estate cost and floor space data to support institutional strategic development. It predicts the average floor space for five major space use types, based on the sector-wide relationship between size and drivers of size for each space category, assuming that the institution has introduced space charging and all teaching space is centrally timetabled. It is a theoretical model and there are arguments that specialist research and teaching may require more floor space, but we have found it useful in highlighting areas of under provision. It suggests that our provision of space for research and support space is over generous and efficiencies could be obtained. If updated user floor-space data confirms this, it will be investigated by the Space Committee, as the Transparent Approach to Costing (TRAC) requires that estate costs be directly allocated to all activities. The inclusion of estate and indirect costs in the full economic cost at a project level affects competitiveness, and is a major driver in reducing the size of the University estate and its running costs.

Our five-year plan delivers significant reduction of inefficient space to address functional suitability, but we have not adopted the SMG prediction as a target.

Knowing the full economic cost of activities enables identification and scrutiny of any subsidy as well as of the mix of activities undertaken. The size of the space occupied by faculties will become more critical and space management tools such as space charging will be required in order to reduce space and cost. A cost driver approach has been agreed for introduction in 2008–09.

3.2 Services Infrastructure

Electrical infrastructure – King's Campus has a University high voltage network connected to the National Grid. Overall capacity is adequate for our present needs, however some sections of the internal distribution network have limited capacity and must be carefully managed.

Water, sewage and gas supplies are supplied from the utility companies' distribution systems. There are no known local capacity issues.

Steam distribution – most main precinct buildings are steam heated from two central boiler houses. We are converting to smaller district heating systems and will take advantage of the development of sustainable power sources.

All utilities for new buildings will usually be provided direct from the utility companies' infrastructure.

Data network backbone – a fibre-optic based data network backbone serves King's Campus. Outlying buildings/sites are either connected via University-owned fibre-optic cabling, NorMAN-owned fibre-optic cabling or leased data-circuits. There is a phased plan to replace some of this cabling, over 2007–09.

Data network cabling within buildings – an ongoing programme is installing structured cabling systems to provide higher capacity for both data and telephony.

4.1 Academic Space Requirements (Teaching and Learning)

The University plans to maintain its market share of undergraduate home students over the next five years. Science City initiatives may offer opportunities for additional student numbers relating directly to the Science City themes. The low base (under 2,412) of international students is planned to grow to 3,800 by 2010 as a consequence of the creation of the joint venture with INTO. There will be physical redevelopment of the south west of the campus to support this.

Postgraduate numbers are intended to expand and existing supporting facilities need to be assessed for quality and spatial provision to ensure our competitive edge in support of the aim.

The provision of conferencing facilities will need to be examined.

Widening participation, the increase of part-time and mature students, changes in the school curricula, two-year degree programme short courses, continuing professional development provision, and the employer engagement agenda are all of key strategic importance for the University. High-quality, flexible, multi-purpose space with embedded learning technologies, linked to pedagogic developments articulated through the Learning and Teaching Space Group, is essential to attract additional students and businesses. These initiatives will affect the way we service and maintain buildings, and support strategies will be developed alongside the infrastructure.

It is vital that our learning spaces facilitate new modes of learning that are likely to take place in the next 10 years, with appropriate electronic, wireless and mobile technology embedded in design of new build and installed in lecture and seminar rooms. Increasing technology will influence the servicing, shape and size of spaces so it is essential that academic and support services work closely together to evolve articulated strategies for future teaching and learning developments, in consultation with the academic community. We need to examine and plan for the implications of student number growth for teaching and learning space and facilities, including the type as well as quality. Strong demand for boardroom-style seminar rooms, well-equipped rooms for small group teaching (20–25 people), and rooms for block booking, has been identified. Students will be involved in teaching space and learning resource issues, especially as learning resource scores in the latest National Student Survey have shown a marked decline.

The plan to accommodate Business School teaching off the main campus has implications for access to student services, library, ISS support and timetabling. Where we are introducing open plan academic offices, the issues of student access to staff, storage and security for staff books and papers and the likelihood of more staff working at home, need to be considered.

Generally expansion of wireless networking zones requires student consultation to inform the IT strategy.

The new Learning and Teaching Strategy and government policy focus on more flexible modes of delivery. This might mean more evening and weekend opening with supporting infrastructure eg porters, catering, IT support.

4.2 Research Space Requirements

To attract world-class staff, research infrastructure needs to be built up through Science City and the Northern Way. Science City will integrate science, business and economic activity over the next 10 years and beyond and aid the regeneration of the region. Four principal themes have been selected:

- stem cell biology and regenerative medicine, based at the International Centre for Life, is likely to expand and options for its relocation are being explored;
- ageing and vitality, based at the Newcastle General Hospital site;
- molecular engineering, currently based in various locations within King's Campus, will be accommodated here and at Science Central;
- environment and energy, currently based in the Devonshire Building within King's Campus, will be accommodated here.

In addition, the SAgE Faculty sees a need for a new 'Engineering Institute' building to accommodate 'heavy' engineering teaching and research, release substantial sub-optimal space, and provide more efficient purpose-built laboratories commensurate with its strong reputation in the engineering sciences.

Science City could have substantial effects on the existing estate. Different future scenarios are being considered. Master plans for Science Central and the Newcastle General Hospital are being prepared, and as the details emerge (functions, massing, funding, infrastructure, management, etc) Estate Support Service will review and reassess any changes in the strategic direction.

New medical institutes and centres (Health and Society, Bacterial Cell Biology) will be accommodated in the Medical Sciences New Building within two years (see page 7).



The new Claremont Quadrangle.

5.0 Influences and Required Estate

4.3 Student Enterprise and Entrepreneurship Space Requirements

Newcastle University Careers Service supports the development of 12 to 18 student/graduate start-up businesses per year. Much early stage enterprise-focused work occurs in existing teaching, learning and research space. When the student/graduate commits to develop a business idea, specialist ideas incubation space is provided such as the Careers Service's Hatchery Space. This contains what might be expected from general, open plan, office space (desks, computers, telephones, printers etc), together with space for members of development staff, peer-to-peer animators, entrepreneurs in residence and volunteers from regional professional services to interact with the students/graduates.

The Regional Economic Strategy (2006–16) puts great emphasis on attracting and retaining alumni talent through third-strand work. To manage natural increases in demand for such services, and meet regional and national desires for growth in demand and outcomes, the University will need to expand idea incubation space and create business incubation space.

For progression into entrepreneurship to work, whatever and wherever the physical incubators are, the management of the space needs to be co-ordinated by a hybrid structure of the various University stakeholders.

4.4 Residential Space Requirements

A sufficient range and diversity of accommodation must be available to meet the changing demands and expectations of students. This assists the University in meeting and maintaining recruitment targets while contributing positively to the University's reputation as an institution of excellence.

The residential estate has 4,290 owned and leased bed spaces across a range of sites and 90 nomination agreement bed spaces. In 2006 the number of student applications exceeded the number of rooms directly available. To maintain our competitive position in the market place against other institutions, a guarantee of university accommodation for first-year undergraduate and

international postgraduates is vital. The University needs 1–2,000 additional bed spaces by 2010; beyond this date, with the realisation of the Science City initiatives, a further 1,000 will be required.

Mindful of new student preferences (borne out by application data) the University has examined sites at Castle Leazes Halls, Henderson Hall, Jesmond Road and Richardson Road for possible expansion/redevelopment (all subject to planning consultation/negotiation). Kensington, Park and Windsor Terraces are also earmarked for conversion/development. Redevelopment of these sites could potentially yield 700–1,000 additional bed spaces in the short to medium term. Any further shortfall of bed spaces will need to be met by the private sector, for example, nomination agreements with third parties are part of the 'mixed economy' for accommodation; several are either in place or agreed, to provide 500 beds.

Newcastle City Council (NCC) has adopted, in consultation with Newcastle University, an Interim Planning Guidance on 'Purpose Built Student Housing' (November 2007) for the Local Development Framework. NCC recognises that the student population makes a valuable contribution to the city's economic, social and cultural wellbeing. The Directors of Accommodation and Estate Support Service are working closely with the NCC regarding the impact of students living in local communities and how this can be managed, including close liaison regarding development proposals.



Student and Administrative Services Building – started on site April 2008.

4.5 Sports Space Requirements

The Strategy for Sports and Wellbeing aims to: raise the profile of the University by raising awareness of the role university sport plays in regional and national strategic agendas; enhance the student and staff experience by widening participation, improving facilities and through high-performance university sport; support excellence in academic performance by developing excellence in sports-related learning, teaching and research; and build and sustain regional partnerships and developments through widening engagement in the community through university sport.

The strategy includes auditing existing sports facilities to assess fitness for purpose and future requirements. This will identify any areas where facilities fall short of expectations and inform a plan for development. In addition to our own facilities the plan will include continued hire of specialist facilities at Gateshead International Stadium, Puma Sunderland Tennis Centre, Whitley Bay Ice Rink and artificial pitches for club training.

4.6 Support Space Requirements

The new Student Services Building will be a 'front door' uniting the University with the city, co-locating student services from six separate locations and providing a prestigious addition to the city. The support services will have more flexible, integrated space and working arrangements, to accommodate administrative roles that have evolved in response to student needs with increased use of the Internet as the first point of contact and source of information.

5.1 Trends in Higher Education, Social Trends and External Influences

The role of North East universities in the knowledge-based economy is critical as private sector research and development is amongst the lowest in the UK.

The downturn in the national number of 18–20 year olds beyond 2009–10 led to predictions that by 2015 numbers in higher education may only be slightly more than in 2005–06. However the latest research on the demographic decline forecasts less severe reductions, as population decrease is concentrated in the social classes with the least proclivity to enter HE. Increases in the participation rate and EU recruitment might also help counteract any downturn. The impact of INTO recruitment and partnership arrangements need to be factored into numbers planning more explicitly, as student numbers should rise, with the rise likely to be concentrated in a limited number of areas.

Top-up fees mean a more customer-focused approach, especially if the fee cap is lifted after 2009 and a market in higher education develops. Widening participation, an essential agenda in the North East, will be even more difficult as student debt increases.

In many areas external pressures are forcing universities to be more selective. The Higher Education Funding Council for England removed virtually all research funding for subjects graded below four in the 2001 Research Assessment Exercise (RAE) and there are clear signs of increased competition for research funding. When these factors are coupled with poor recruitment, institutions clearly have to question the long-term viability of some areas of activity, to maintain institutional sustainability.

North America, Europe and Australia are competing more vigorously for English-speaking international students. In support of our recruitment strategy we are an active participant with INTO and other universities in a joint venture to provide pre-university access routes for overseas students. Newcastle University's offer to students has to be distinctive and better than our competitors. The concept of a 'degree +' will become a nationally and internationally recognised reality.

The Local Development Framework is a new form of city-wide development plan, which is being introduced nationally as the official plan for land use, development, transportation and protection of the environment. It is an important document because it has force in law, ie planning decisions must normally be made in accordance with its policies and proposals. We are working closely with Newcastle City Council on this.

All these factors affect the way in which the estate functions and emphasise the need to design buildings flexibly to meet the changing political, economic and social environment and to create new ways of thinking in relation to our asset base.

5.2 Planned Position in Five Years King's Campus

Most faculty, administrative, and student support activity will still be located on King's Campus; development will have progressed as envisaged in the Master Plan, its subsidiary documents and the Capital Plan; the environment, buildings and infrastructure will be upgraded and space will be utilised more effectively.

The open-plan Student and Administrative Services (SAS) Building will provide an impressive and welcoming University front door, quality one-stop services for students, efficient co-location for the Executive Office and administration, a public Visitor Centre and foyer space for events. Using a planning

contribution, NCC will improve Barras Bridge and its pedestrian crossing by 2017. Pedestrian access into the University via the re-landscaped King's Walk will be attractive and accessible. City integration and campus cohesiveness will be improved through access to cultural facilities and highway/campus integration. Other buildings will have design interventions to improve appearance, while the campus environment will be improved.

The landscaping master plan, signage improvement, and travel plan implementation will all be well advanced, with a higher-quality pedestrian priority environment and significantly fewer parking spaces and car journeys, due to discounted travel and car sharing schemes and better cycling amenities.

Improved landscaping will include the Percy Quad, the environs of the SAS Building and Great North Museum, the new Herschel Quad and INTO Courtyard, and the creation of a new King's Quad (following the demolition of the Museum of Antiquities). The King's Road vehicular entrance will be safer and more attractive.

Transport House will complete the Medical Research Village, continuing the theme of largely open plan, multi-user lab research buildings, hence leading the HE field in creating flexible, efficiently utilised space for integrated working. The Medical School will be refurbished.



The Medical Sciences New Building.

The University's 'Cultural Quarter' will welcome the public on to the campus. It will include the refurbished and extended Great North Museum project, and the Northern Writers' Centre in the refurbished/extended Claremont Building (both are in listed buildings). The new International Centre for Music Studies Building will be close by the Culture Lab. Refurbishment and reorganisation of the original students' Union Society Building, together with potential use of the King's Road Centre, and possible extension, will provide a student social heart for the campus and adequate, quality floor space for the new Union Society Centre. The scope and cost will be agreed and funded between the University and the students' Union to deliver the Union's business plan.

Increased student numbers will be taught in refurbished lecture theatres that achieve 60 per cent frequency of use, minimising wasted space and cost thanks to efficient management systems with centralised control of timetabling. Isolated rooms with previously poor quality amenities and low utilisation will have been reallocated to other more productive uses.

Over the period, approximately 23,000m² of non-fit-for-purpose buildings will be redeveloped either by joint ventures on a leasehold basis, using private

capital (the INTO joint venture), or converted to student residences. This key strategy achieves complementary facilities while minimising University capital cost, generates rental revenue or profit sharing, and reduces poor space that is a maintenance liability contributing to the problem of over-large and under-productive floor space. These include the Porter, Joseph Cowen, Old Forge, and Haymarket Lane/Line West buildings, redeveloped for the INTO joint venture for international students; Kensington and Park Terraces, redeveloped as student residences; Claremont Place and Terrace may be student or private residential; in the longer term Windsor Terrace may be student residences. INTO will provide more than 500 bed spaces for international students, as well as a teaching and social centre on the Haymarket frontage.

Third party occupiers, including translational research and incubator space, will occupy approximately 2,000m² more estate floor space with the advantages of co-locating business and introducing economic uses, allowing significant growth in activity and income without the need for new development.

To ensure it is competitive and has quality space, the University will utilise space at least as well as its peers, both for teaching and occupation,

developing space/person utilisation targets through its Space Utilisation Committee, and engaging school and service managers through an integrated approach to finance and space. It is an institutional target for financial outputs per square metre to improve against comparator universities over time. Space will be a cost driver in the resource allocation model, and an explicit part of each occupier's annual plan and budget process.

Planned increased investment in maintenance and capital projects will direct funding to top priorities for infrastructure and business plan delivery, ensuring a competitive fit-for-purpose estate. Investment in boiler plant renewal will provide a more efficient, environmentally friendly system, while the ongoing environmental strategy will explore low carbon energy sources. Careful business decision-making in accordance with rigorous process will maximise the effect of HEFCE funding to create a sustainable estate and invest in institutional strategic priorities.

More detail is available in the King's Campus Building Development and Landscape Strategy Plan, Appendix 3, available online at www.ncl.ac.uk/estates

Campus for Ageing and Vitality at the Newcastle General Hospital Site

Development will be progressed in accordance with the Campus for Ageing and Vitality Master Plan, with existing and new University research buildings and infrastructure (including clinical research in the new Clinical Ageing Research Unit building). The wider emerging General Hospital Site Master Plan will retain healthcare facilities and may include a Science City Zone, with a Research and Innovation Care Village. Business development may include a retail interface.

For more detail, see the Campus for Ageing and Vitality Master Plan, Appendix 7.4, and Newcastle General Hospital Master Plan, Appendix 4, available online at www.ncl.ac.uk/estates

Science Central

Science Central development will advance in accordance with its master plan over a 10-year period due to its huge scale; delivery is likely to be via a joint venture science property company that holds and develops assets. University-occupied buildings will be adjacent to business buildings to aid commercialisation of research; stem cell, molecular engineering, energy and environmental translational research. Science Central is to be a mixed-use city centre extension and will include student residences. It will be environmentally friendly, making use of ground heat from geothermal sources.

International Centre for Life

Working collaboratively with the International Centre for Life, we are seeking to expand human genetics research and identify the optimum location for this work.

Other Major Developments

The Business School will be located in a commercially leased development close to Science Central. Citygate will be sub-let from 2009 until surrender at lease expiry in 2016, or put into an income generating University-related use requiring open plan offices with dedicated teaching/meeting rooms.

Cockle Park Farm is proposed to be developed as a Centre for Renewable Energy from Land in an emerging, largely externally funded, initiative.

Many of the above are dependant on gaining planning permission within acceptable timescales at budgeted cost to minimise abortive expenditure. While these are carefully planned and there is close liaison with City Council officers to minimise risk, the nature of the political process is unpredictable.

5.3 Sustainability Strategy

The University is developing a Sustainability Strategy to set out its approach to integrating sustainability principles in all activities.

Energy, Carbon Management and Water – the University is defining its carbon footprint to set a target for reducing carbon emissions and develop an Implementation Plan. One hundred per cent of campus electricity is provided from renewable sources, and the energy efficiency team monitors, controls, and influences energy usage.

The issues of climate change and energy security are forcing energy efficiency and carbon emission reduction up the political agenda, with an ever increasing body of environmental legislation. Estate Support Service administers the University's participation in the EU Emissions Trading Scheme (EUETS), which covers the carbon emissions arising from combustion of gas (and oil) on the central campus. Upcoming legislation includes a requirement to display building energy performance certificates and a new emissions trading scheme, which will capture the majority of University emissions not currently captured by the EUETS. The ESS energy policy includes incorporating energy saving measures (such as motion-activated light switches) into refurbishment and new-build projects.



Business School.

Waste Management – sustainable waste management principles are being adopted and developed. These include: waste minimisation, reuse and recycling; reducing raw material use through sustainable procurement and an alteration in process design; saving on material and waste disposal costs, all greatly reducing the University's 'ecological footprint'. Reuse and recycling are undertaken wherever material enters the waste stream and appropriate sustainable collection facilities exist.

Grounds Maintenance – we are improving our environmental performance by expanding our range of environmental initiatives and engaging with students, researchers and external agencies in the development of sustainable environments to encourage biodiversity.

We will introduce alternative methods of managing areas of the soft landscape at both on- and off-campus sites, planting areas with indigenous species to encourage diversity of wildlife in areas currently under grass, that will require limited intervention to maintain.

Transportation – the largest transportation challenge facing the city will be controlling the increasing road traffic and congestion arising from continuing growth in car ownership and on a wider scale we seek to work towards a carbon neutral environment.

The Travel Plan (Appendix 14, available online at www.ncl.ac.uk/estates) sets out objectives and targets to address all campus-related transport issues, from staff and student commuting patterns to business-related travel, the use of University fleet vehicles and delivery traffic. The University is committed to bringing together land use and transport planning through its Master Plan and future developments to reduce the need to use private cars, make the best of existing infrastructure, manage travel demand and promote the use of more sustainable modes of transport.

5.4 Commercial Strategy

The University has 1,950m² of dedicated commercial space, forming an active frontage to the city's Haymarket, with occupiers ranging from sole traders to national chains. We place importance on maintaining the right tenant mix to complement the facilities and services on the main campus. Vacancy rates are low owing to the proximity to the city centre. The properties are let on short leases except for the public houses, which need longer leases for investment purposes.

A variety of space is available to spin-out/spin-in businesses in order to develop third-strand activities. It is either managed directly by the University where companies are located in school space, or indirectly through agreements with specialist providers who supply incubator space on campus. Our procedures ensure that risk assessments and insurances are in place before a company moves in and that there is a sound business plan that clearly demonstrates alignment with University strategy. Occupiers are required to meet the running costs of servicing their accommodation, whilst an additional charge by way of rent may be made at the discretion of the hosting school.

The University leases vacant office space to third parties on a commercial basis. For operational reasons space within the centre of a campus is reserved for our strategic partners only, whilst properties on the periphery of the estate are available to all. However, as more space is released on campus through space management initiatives, the University will be looking to find alternative uses for vacant space, including making the space commercially available where appropriate.

The University leases just under 13,000m² to third parties.



The International Centre for Music Studies – started on site 2008.

6.0 Capital Plan Affordability and Key Targets

6.1 Capital Plan Affordability

It should be noted that funding is indicative and dependant on business cases.

Key Assumptions in Terms of Affordability:

- the continuance of the current financial strategy which creates headroom and planned surpluses of four per cent of income each year;
- the allocation of a substantial proportion of those headroom funds being available to fund in whole or in part, on a case-by-case basis, items in the plan;
- the continuance of the current financial strategy under which long-term borrowing is only used to fund new and additional land purchases and buildings;
- successful philanthropic giving for appropriate projects;
- the continuation of a capital funding stream from HEFCE;
- the use of accumulated income and expenditure reserves to fund items which, on a statutory accounts basis, can be classed as capital;
- successful applications to grant-funding organisations for appropriate projects;
- the realisation of appropriate amounts from sales of assets;
- the use of long-term maintenance funds in appropriate cases.

While the University has substantial capacity for external long-term borrowing, the presumption is against it unless there is a good business case. The issue is the capacity to generate schemes which accord with our financial strategy and cover their debt servicing and other costs from increased net earnings. Many of the items in the plan, whilst desirable, do not generate new and additional income. In the case of the student residential developments a key assumption is that, as now, these operations will fund the loan and associated costs from student rents.

Total Spend

In terms of the Plan, which looks at the next four years, the total spend is some £138 million, although some items are not yet costed. Of this, £38 million is for student residences and £100 million for academic and services cases.

Assuming that the student residences capital cases will be funded from reserves, in the case of smaller schemes, and by long-term borrowing for the larger schemes, we must then determine robust funding sources for the other schemes.

The Plan indicates possible sources of funding for each scheme as follows:

Internal resources	£31.6 million
External funding	£26.3 million
HEFCE capital	£13.0 million
Borrowings	£16.3 million
Asset sales	£11.0 million
Total	£ 98.2 million

Headroom funding is approximately £10 million currently (2007–08) and provided that our income targets are met we can assume that over four years some £45 million will flow into this pot. If approximately £20 million was used for Capital Plan purposes with long-term maintenance, and faculty and services reserves providing say £11.5 million, then the internal resources would be realised.

External funding is primarily grant and philanthropic resources, but includes the contribution to fit-out in respect of the Business School's new premises.

HEFCE capital is currently under review but is running at approximately £13 million per annum.

Asset sales include reserves generated by the disposal of Close House.

If this plan was realised, then new and additional borrowings would be needed of approximately £54 million, broken down as £38 million for residential purposes and £16 million for non-residential. If HEFCE capital exceeds the assumed spend, it will offset non-residential borrowing.

The key issue is growth in recurrent income, which will be essential if the University is to be financially sustainable. If this is achieved then headroom funding, which is a key item in many schemes, will be possible. In respect of external funding this is always easier if the funding organisations are asked for a proportion of the cost of a scheme, rather than the total.

HEFCE Capital Funding

A stream of capital finance will be available after the SRIF/PCA capital fund ends in March 2008. It is likely to be slightly lower than the current funding envelope, which currently contributes approximately £13 million per annum.

6.2 Option Appraisal and Business Case

Option appraisal is required for all Capital Projects and refurbishment works over a value of £2 million and all HEFCE-funded projects. The appraisal forms part of a draft business case prepared for internal scrutiny and Council approval, and subsequently (if successful) will be an integral part of the full business case.

The basic steps of the draft business case follow the HEFCE guide 'Appraising Investment Decisions' 1999:

- identify the need or problem and then consider the strategic context;
- decide the objectives;
- identify the range of realistic options (with outline costs and benefits of each);
- select the preferred solution;
- initial assessment of affordability (based on estimated financing costs);
- Newcastle University approval process (as Capital Planning and Management Guide);
- proceed to full business case.

It is important for major expenditure decisions to consider a wide range of options, even though they may be rejected at an early stage. While many costs and benefits will be difficult to define and quantify precisely, the primary objective is to select a preferred option that can be fully tested for affordability. All aspects must be scrutinised at draft business case stage, as the progression from draft to full business case takes up substantial time and resource across academic and central services departments and is expensive (in some cases, in excess of £1 million). Independent and careful option and benefit analysis is vital to ensure sound objectivity.

For appraisal and business case analysis purposes the physical life of a building is taken as 40 years, with major service refurbishment upgrades at 15 years to restore the occupational value.

At business case approval stage, a procurement strategy for the selection and appointment of contractors must be agreed. The design team can identify a preferred strategy at an early stage. A two-stage form of develop and construct contract minimises risk in the current economy, providing much greater cost certainty than traditional procurement and engendering good team working with contractors. Procurement strategies are always evolving in endeavours to improve value for money.

Feedback information is very important in aiding continuous improvement. Two distinct methods are normally employed, a technical review which happens directly after the completion of the project and a post-occupancy evaluation, which occurs

approximately one year after occupation of the building. The technical review covers the extent to which the project kept within the parameters set regarding cost, time and quality and how risks were managed/mitigated. The post-occupancy evaluation assesses how the building has performed in terms of the objective criteria set out at the briefing stage of the project; this information will be used to inform future project briefing and the Estate Support Service general specification.

6.3 Key Plan Targets

Performance against institutional targets (more detail in Appendix 5, available online at www.ncl.ac.uk/estates) is reported annually to Executive Board and Council. Additional targets to measure delivery of the Estate Strategy are summarised in the table below. Achieving these targets will support the University's aims and objectives. As before, some are dependant on gaining planning permissions.

Measure	Current Position		Targets			
	2007	2008	2009	2010	2011	2012
1 Reduce the net internal area of the existing non-residential estate (m ²)	218,918	204,500	199,000	217,500	209,700	208,000*
2 Increase the amount of floor space let to third parties (m ²)	12,955	13,350	13,750	14,150	14,600	15,000
3 Amount of floor area sold, demolished or changed to non-academic use pa (m ²)	0	13,470	5,400	4,310	6,830	700
4 Improve the planned frequency of use of all teaching rooms (% of usable time)	45%	47%	51%	54%	57%	60%
5 Increase the % of floor space in Condition Category A & B	78%	79%	80%	82%	83%	85%
6 Increase the % of floor space in functional suitability category Grade 1 & 2	67%	69%	71%	73%	75%	77%
7 Reduce the proportion of staff driving to the University	35%	34%	33%	32%	31%	29%
8 Reduce waste mass to landfill (tonnes per student FTE)	.06	.05	.045	.04	.35	.03
9 Increase proportion of recycled waste	17%	20%	25%	30%	35%	40%
10 Reduce carbon emissions from the non-residential estate	Adopted University Carbon Management Plan sets target of 10% reduction from 2005-6 baseline by 2012-13.					

* This figure represents the net effects of disposals/demolitions and new buildings, together with new commercial lettings and assuming modest additional annual space savings due to the work of the Space Committee.

6.4 Risk Management

The University has a formal risk management process for both strategic and operational risk. These are reviewed annually and reported to Council. Estate fitness for purpose is a University strategic risk; its management was audited in 2007. The Central Services Risk Register is actively managed.

If the strategy was not implemented, the University would be at risk of being too large, insufficiently fit for purpose to deliver its mission, and financially less sustainable, affecting the University's competitiveness in student and research markets and therefore in attracting employers to our students. The HEFCE Capital Investment Funding arrangement would be at risk as HEFCE will annually monitor key metrics designed to test for a strategic and sustainable approach to estate infrastructure including adequate investment, condition, functional suitability, utilisation and environmental sustainability.

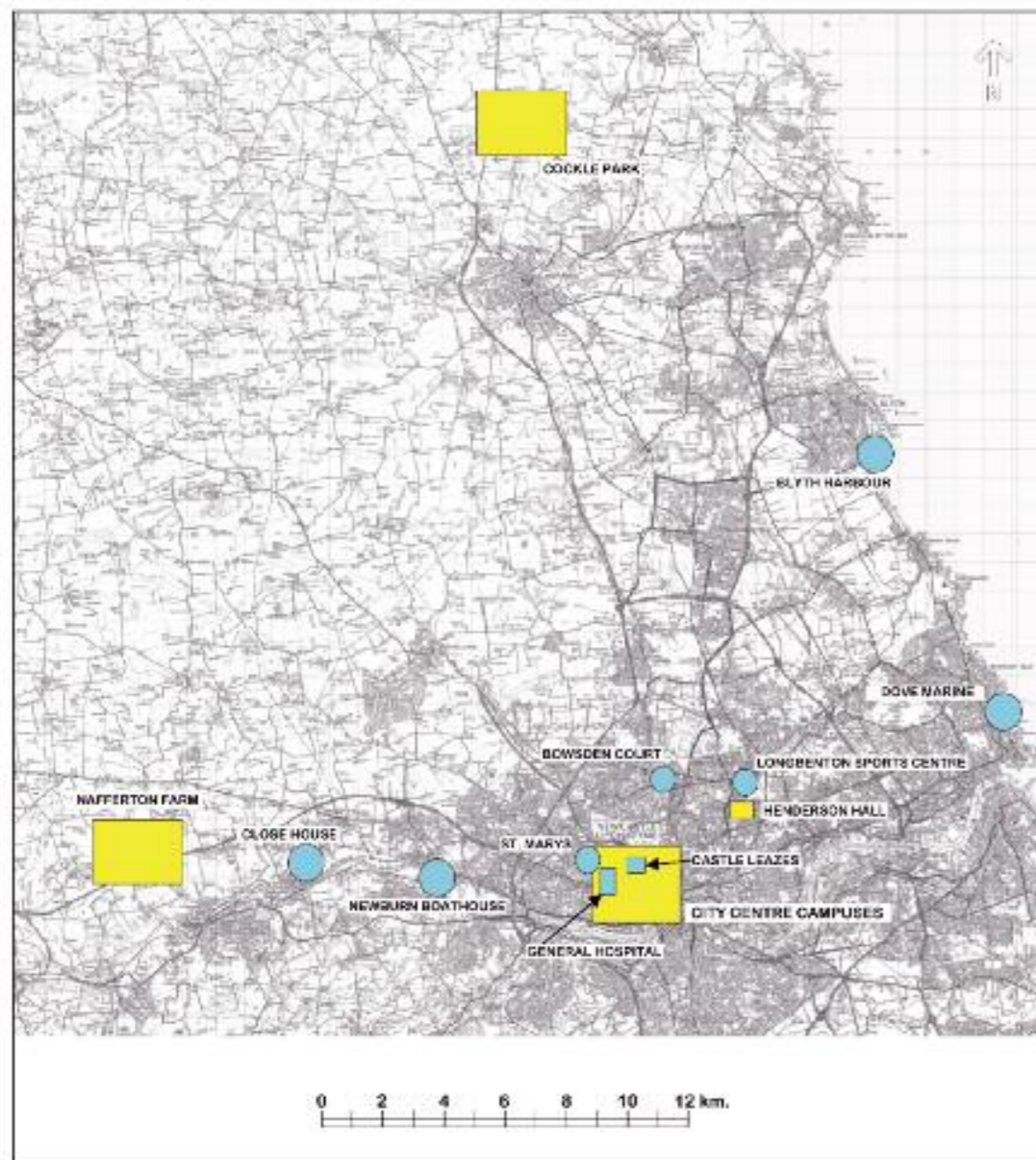
6.5 Monitoring and Plan Review

Progress with the Capital Plan, programme and other targets will be reviewed annually in October in accordance with the Estate Support Service Business Diary to follow the publication of HEFCE sector-wide Estate Management Statistics (EMS) data in May/June and the end of the financial year. Progress will be reported annually to the Estate Planning and Development Committee.

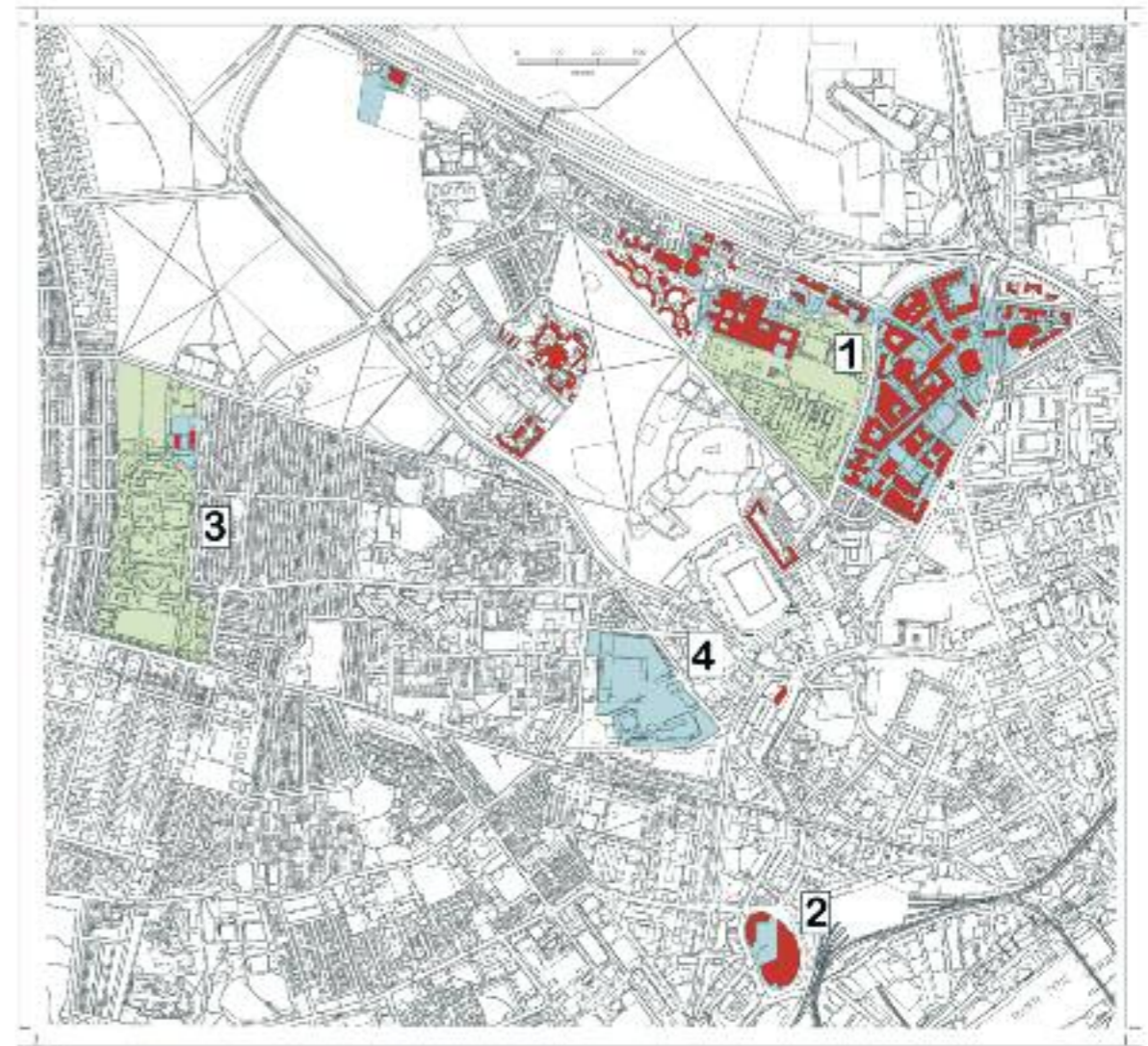
Measuring progress and reviewing targets relies on Newcastle cost and floor space data produced for the annual EMS benchmarking exercise and the performance data for our comparator universities. Our floor space data is held on the ESS Intranet Property Register and is regularly updated from occupier returns. Internal estate performance indicators are still developing and may be used to set targets and monitor performance in the future.

LOCATION & ESTATE PLANS

MAP INDICATING ALL NEWCASTLE UNIVERSITY SITES WITHIN NORTHUMBERLAND AND TYNE & WEAR REGIONS



NEWCASTLE UNIVERSITY SITES & NEWCASTLE CITY

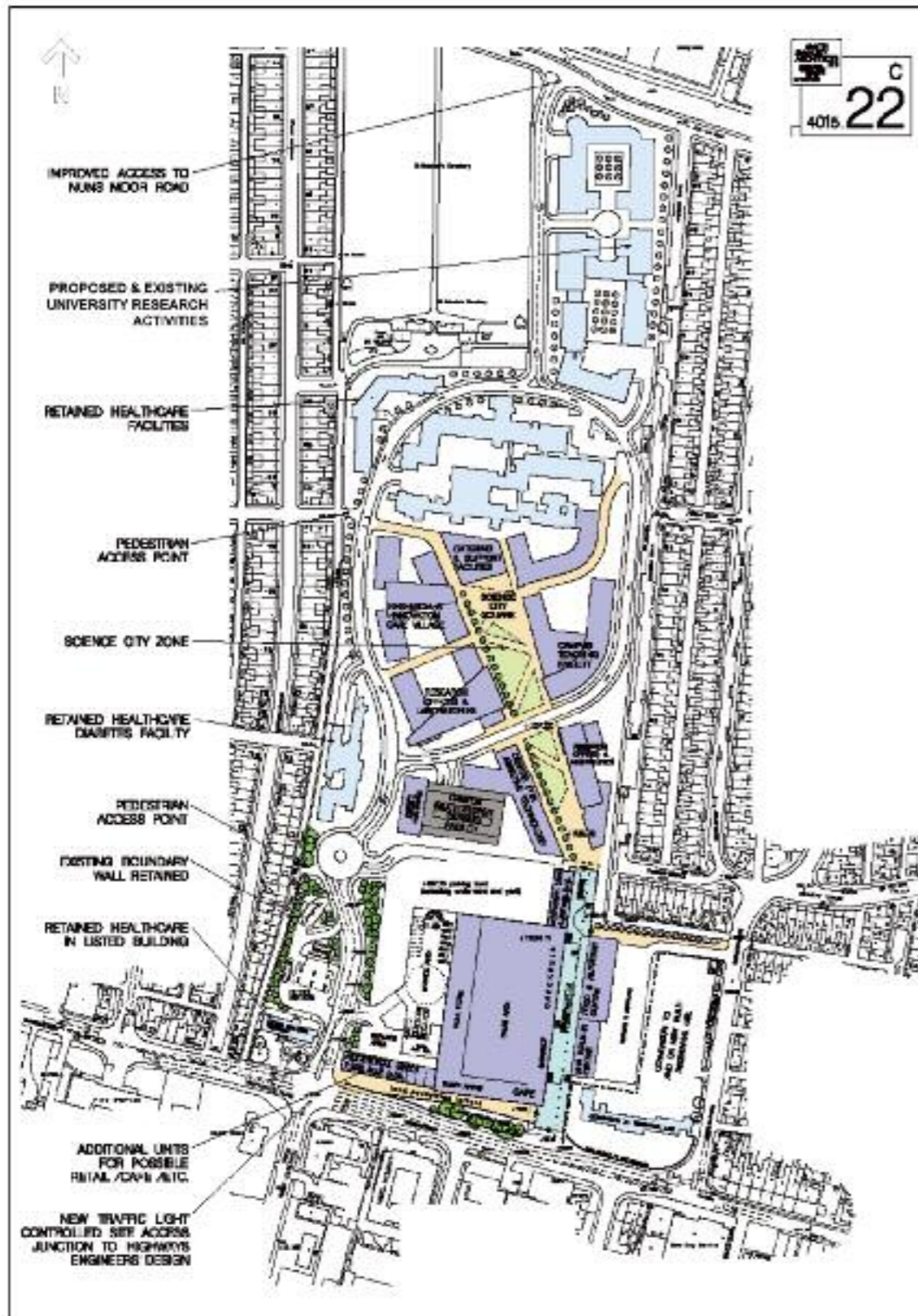


- 1. KING'S CAMPUS
- 2. THE INTERNATIONAL CENTRE FOR LIFE
- 3. THE CAMPUS FOR AGEING & VITALITY
- 4. SCIENCE CENTRAL

KEY

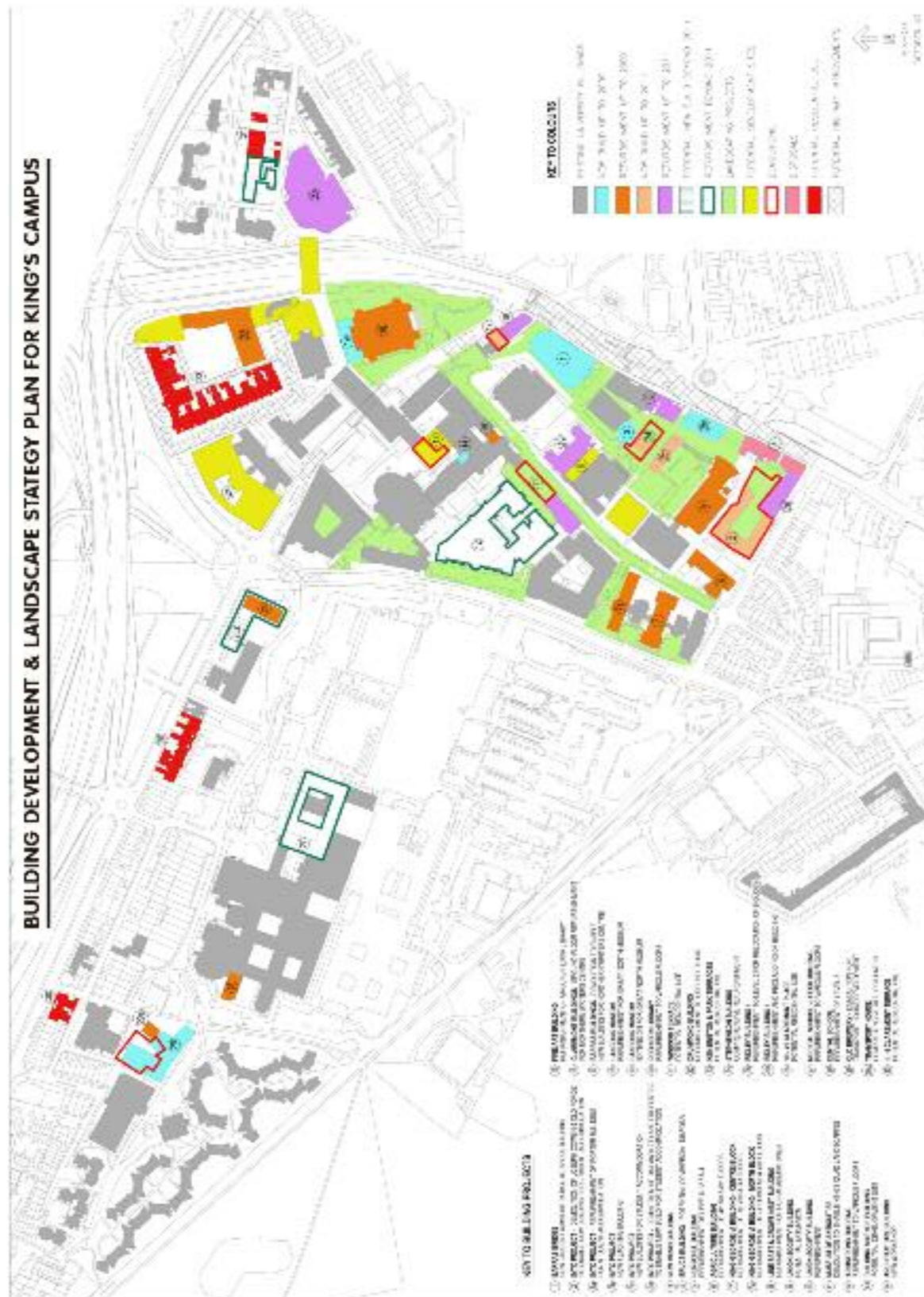
- UNIVERSITY ACADEMIC SITES
- UNIVERSITY RESIDENTIAL & ACADEMIC BUILDINGS
- NHS FOUNDATION TRUST LAND

NEWCASTLE GENERAL HOSPITAL (INDICATIVE MASTER PLAN)



THE CAMPUS FOR AGEING & VITALITY MASTER PLAN





Appendix 6 Approved Capital Plan 2007-12 – Financial Framework

Project Title	Proposed Sources of Funding £m								
	Estimated Cost	Internal funding already secured	External funding already secured	HEFCE Capital	External funding	Borrowings	Internal funding - Central / Faculty	Reserves	Asset Sales
Category 1	Projects costing over £2m that the University is (legally) obliged to carry out in the next 2 years								
Newcastle University Business School (NUBS) Fit Out	6.7		5.1		5.1		1.6		
INTO Enabling	0.3						0.3		
AFRD Relocation	1.5	1.5					0.0		
ECLS Relocation	4.4	0.5					3.9		
Boiler Plant Reversion	3.8	1.0					2.8		
Category 2	Projects costing over £2m that the University wishes to carry out in the next 2 years								
Student and Administrative Services Building	33.0			4.0		13.0		6.5	9.5
Barras Bridge Landscaping	2.0						2.0		
Transport House (Centre for Bacterial Cell Biology)	19.4	0.7		6.5	10.0	2.2			
Transport House (Institute of Health & Society)	10.4	0.3	1.0	1.5	6.0	1.1			1.5
Music New Build	4.5	0.1		2.8			1.6		
Category 3	Projects costing over £2m that the University wishes to carry out in the next 2 to 4 years								
Northern Writers Centre	5.1	0.2			2.7		2.2		
Newcastle Student Centre	8.5				2.5		6.0		
SUB-TOTAL CATEGORY 1 TO 3	99.6	4.3	6.1	14.8	26.3	16.3	20.4	6.5	11.0
Category 4A	Student Residence Projects that the University wishes to carry out in the next 2 years								
Castle Leazes New Build	4.0							4.0	
Henderson Hall New Build Phase 1	8.4					8.4			
Category 4B	Student Residence Projects that the University wishes to carry out in the next 2 to 4 years								
Henderson Hall New Build Phases 2-4	25.6					25.6			
Kensington/Park & Windsor Terraces									
Category 5	Projects costing less than £2m which are internally funded								
Faculty sponsored schemes	0.9	0.5					0.4		
TOTAL	138.5	4.8	6.1	14.8	26.3	50.3	20.8	10.5	11.0