MANCHESTER 1824

The University of Manchester

The University of Manchester

estates strategy

2010-2020

contents

executive summary

The Estates Strategy sets out a development framework for The University of Manchester covering a ten year period from 2010 to 2020 focusing on providing the appropriate physical infrastructure to meet the University's vision Towards Manchester 2015.

- The University's estate is the largest single campus of any Higher Education institution in the UK providing 850,000 m2 with a replacement value in excess of £2 billion.
- The University has made good progress in its programme to create an environment that will attract and retain the best international scholars and students, as well as providing world-leading facilities for research and high-quality learning environments in line with the aims of the University's 2015 ambitions with more than £400m already invested in state-of-the-art buildings, major refurbishments and public realm works.
- The quality and the functionality of the building stock has improved since 2004 but further investment is required to bring the entire stock to condition A and B and functionality 1 and 2 (HEEMS definition)
- The consolidation of the campus following merger has resulted in the University holding more space than is needed against space standards and long term needs assessment. A planned programme of asset disposal will be prepared and implemented whilst taking account of land requirements for future needs.
- The principles of the 2004 Masterplan are reconfirmed but going forward we will reduce the size of the overall footprint by releasing property at the north end and periphery of the campus for disposal as new facilities are created south of the Mancunian Way.
- The University will not acquire additional land to relocate activities but will redevelop existing sites more intensively where property on those sites have reached the end of their physical and economic life
- All Health & Safety, statutory and regulatory requirements will be met through a programme of works which will be reviewed in the light of new legislation
- A planned programme of capital works, refurbishment and long term maintenance works will be drawn up and reviewed in the light of prevailing economic circumstances.
- We will retain flexibility to respond to changes in academic, support and social facilities to support University plans
- Emphasis will be placed on good space management with a view to reducing the overall buildings footprint and generating better space utilization
- The University will execute the Carbon Management Plan to meet ambitious carbon reduction targets
- Sustainability will be a key feature of estates developments in line with the University's goal on Environmental Sustainability.
- We will investigate alternative ways of procuring energy to supply the campus including the construction of a Combined Heat & Power installation

introduction and overview

The University of Manchester has made remarkable progress in its ambitious plan to become one of the world's top 25 universities, and following the latest Research Assessment Exercise, Manchester has already reached the Premier League, third in terms of 'research power' behind only Oxford and Cambridge.

Manchester is also the country's most popular University, receiving 53,900 undergraduate applications last year, more than anywhere else in Britain.

The merger of UMIST and the Victoria University of Manchester in 2004 provided us with a once in a lifetime opportunity to give our staff and students a truly world-class environment in which to study, live, work, play and learn. It triggered the biggest capital programme in the history of Higher Education in this country, creating new high-quality facilities worth £650 million.

More than £400 million has already been invested in state-of-the-art buildings and major refurbishments completed to programme and within budget, including University Place, the new £65 million flagship building for the University with its distinctive rotunda on Oxford Road, which has become a focal point for major events and a point of first contact for prospective students and members of the public.

The new environment will attract the best international scholars and students, as well as providing world-leading facilities for research and high-quality learning environments in line with the aims of the University's 2015 ambitions. The University already attracts world-renowned researchers and boasts 23 Nobel Prize winners amongst its current and former staff and students. A world-class campus will help us to continue this tradition.

The University of Manchester is Britain's largest single-site university with a proud history of achievement and an ambitious agenda for the future.

In the past year, Manchester confirmed its position as a world-leading research centre in the field of nuclear science when a consortium of Serco, Battelle and the University took over the running of the UK National Nuclear Laboratory (NNL). The Lab will play a central role in cleaning up the UK's nuclear waste legacy and developing a 21st century capacity for civil nuclear power generation that could prove vital in the transition to a sustainable low-carbon economy.

In health care, the University's research strength was recognised by the Government last year when the Manchester Academic Health Science Centre (MAHSC) was awarded official national status. We are one of just five national centres, and the only one outside London and Cambridge.

And The University of Manchester continues to lead the way in technology transfer and wealth creation; last year we launched a unique £32 million late-seed venture fund designed to boost investment in intellectual property generated by research at the University. The University now boasts an annual income of more than £700 million and a total research expenditure of £375 million.

As we look to build from this position of strength, we know the need to create a world-class campus for our staff, students and visitors. The concept that underpins all aspects of the University's Estates Strategy is the creation of the urban university, a place of fine urban architecture, civilised urban spaces, walks and streets that interconnect with all parts of the University and integrate us with the surrounding city.

The academic imperative - to generate new forms of knowledge through interdisciplinary research, and for this research to be embedded in the knowledge economy of Manchester - is also embraced by the concept of the urban university. The University of Manchester is evolving into a civilised, diverse urban district of Manchester, a place for research, learning, debate, conversation, culture and immense interaction both within the academic community and with the city at large.

estates strategy aims and objectives

The Estates Strategy aims to support the University's strategic plan, Advancing the Manchester 2015 Agenda:

- Research
- Higher learning
- Social responsibility
- Recruiting quality people
- Establishing a reputation for excellence
- Quality management
- Developing world-class infrastructure
- Environmental sustainability
- Contributing to the University's carbon reduction targets
- Securing internationally competitive funding

The Estates Strategy analyses the existing estate, identifying problems and opportunities, and prioritising major works. As we move into the next decade it is likely that we will not see major expansion of the University, indeed it is possible that we might see the institution becoming smaller but stronger, and we will plan to have an estate to support these needs.

We will therefore not be looking to expand the size of the estate but to provide the best quality environment that we can to support the University's needs.

In broad terms the aims of the Estates Strategy are:

- To provide a physical environment to create a sense of place and through the medium of architecture and urban design reflect the University's academic ideals.
- To ensure that the estate meets all Health & Safety, statutory, regulatory and HEFCE requirements.
- To ensure that all property comprising estate is properly maintained to an appropriate and agreed standard
- To obtain best value from and for estates assets
- To ensure that the estate and buildings meet the University's research, teaching and learning, academic, service and social needs
- To provide a basis for capital planning and to identify priorities for property investment
- To give the University the flexibility to adjust to changing circumstances and respond to external initiatives
- To provide a development context and urban design framework to manage future developments
- To complete development programmes to agreed time, cost and quality targets
- To ensure the University achieves targets as set out in its carbon management plans
- To increase the quality of the estate measured by the proportion being in category A or B (HESA Estate Management Statistics)
- To improve the functional suitability of the estate measured by the proportion being in category 1 or 2 (HESA Estate Management Statistics)

progress since 2004

The 2004 Estates Strategy and Masterplan was produced leading up to merger and was based on the concept of the creation of an urban university, a place of fine urban architecture, civilised urban spaces, walks and streets that interconnect all parts of the University and integrate it with the surrounding city.

The key drivers for the 2004 document were:

- to deliver a cohesive campus
- co-location of duplicate cognate units
- co-location of new academic groupings which promote an interdisciplinary agenda
- the development of new synergies for research and teaching by locating existing dispersed elements together in appropriate accommodation
- improving building condition
- improving functional suitability

The strategy represented the largest capital construction programme in the history of British higher education and has transformed a major part of the estate providing excellent buildings and infrastructure fit for a 21st century learning environment. The competed projects include:

- University Place – £65m
- Alan Turing Building – £60m
- John Garside Building (Manchester Interdisciplinary Biocentre) – £40m
- A V Hill Building - £40m
- Arthur Lewis building £32m
- Biological Science Unit - £30m
- Completion of the Michael Smith Building - £20m
- Relocation of the school of Pharmacy - £18m
- Refurbishment and extension of the John Rylands University Library, Deansgate - £18m
- Chemistry building refurbishment and extension - £14m
- Upper floors of the CTF - £10m
- Multi Story car park - £10m
- Infrastructure works - £8m
- Public Realm works - £8m
- Relocation of MACE - £7.5m
- Environmental Science accommodation - £2.8m
- Library/Archive refurbishment - £2.8m
- Central food preparation unit - £2.7m
- New sports pavilion - £2.5m
- Refurbishment for Computer science - £2.4m
- Rutherford building refurbishment £2.3m
- Electro-acoustics studio - £2.2m
- Biomedical Teaching laboratories - £2m
- Centre for Excellence in Enquiry Based Learning - £1.9m
- Centre for Educational Leadership - £1.5m
- Landscape depot - £1.5m
- Long term maintenance major projects - £50m

The overall programme of works was completed on time and within budget with some of the projects receiving critical acclaim in the following awards:

- Royal Institution of Chartered Surveyors Property Management of the Year Award 2006 for Property Strategy and Delivery
- British Council of Offices Regional Award Winner 2009 – A.V.Hill Building
- Greater Manchester Chamber of Commerce Building of the Year Finalist 2008 – A.V.Hill Building
- Greater Manchester Chamber of Commerce Building of the Year Finalist 2007 – Alan Turing Building
- Construction Manager of the Year Award Silver Medalist – Alan Turing Building
- Local Authority Building Control Award 2007 – Manchester Interdisciplinary Biocentre
- North West Regional Structural Award 2007 – Manchester Interdisciplinary Biocentre
- Greater Manchester Chamber of Commerce Building of the Year 2007 – John Rylands Library, Deansgate
- Greater Manchester Chamber of Commerce Building of the Year Finalist 2007 – Arthur Lewis Building
- Greater Manchester Chamber of Commerce Building of the Year 2006 – Manchester Interdisciplinary Biocentre
- HEDQF Exhibition 2007 – Manchester Interdisciplinary Biocentre
- NW Regional Construction Award for Sustainability Winner 2007 – Alan Turing Building
- Building and Engineering Energy Efficient Project of the Year 2007 – Alan Turing Building
- Building and Engineering Public Project of the Year Finalist 2007 – Alan Turing Building
- Royal Institution of Chartered Surveyors NW Sustainability Award 2008 Finalist – Alan Turing Building
- Manchester Society of Architects 2008 Commendation – Michael Smith Building
- HEDQF Exhibition 2009 – Public Realm

The 2004 Estates Strategy envisaged the construction of new buildings and, particularly following co-location, the strategic release of older buildings for disposal to reduce the overall size of the estate and realise assets to fund the ongoing development programme. This has resulted in the following properties being sold:

- Chandos Hall
- Echo Street Nursery and stores
- Fairbairn Building
- Manchester Conference Centre
- The Tabley Estate
- Weston Hall

the current estate

The estate comprises 850,000 sq m gross internal area (GIA) on grounds covering 288 hectares. There are 347 buildings, 144 of which form the residential estate. The main academic estate is located south of the city centre situated in an area known as the Manchester Corridor and its close neighbours are the Manchester Metropolitan University (MMU), the Central Manchester Healthcare Trust and the Royal Northern College of Music.

Most of the University estate is located within the City of Manchester with Manchester City Council being the local authority. Jodrell Bank is administratively within Cheshire East. Excellent relationships exist with both authorities.

The main campus is fairly compact in relation to the number of buildings situated on it but is severed by three major north-south arterial roads, a railway line, and the Mancunian Way, a dual carriageway which effectively creates a north and south campus.

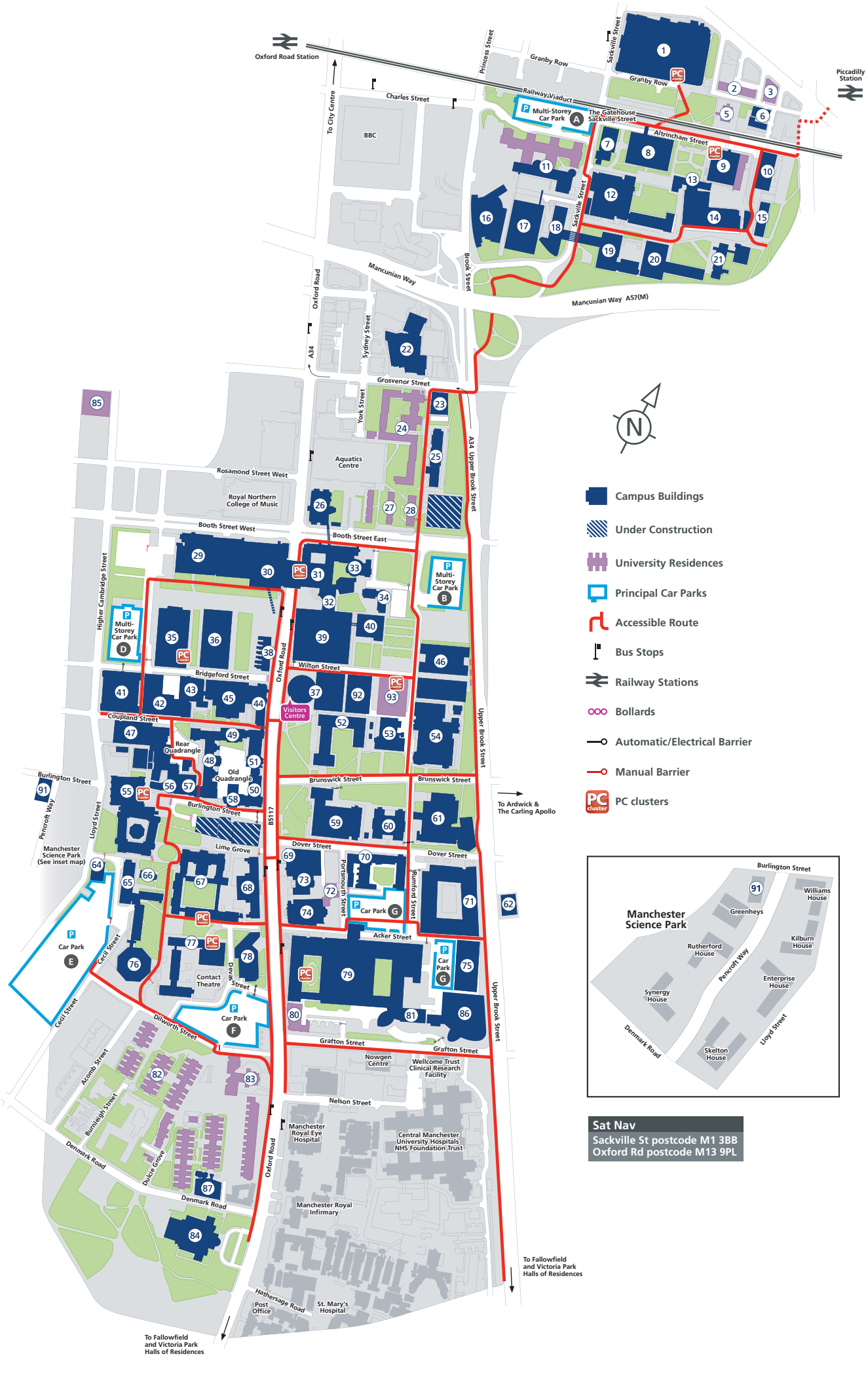
The estate also comprises five other sites, excluding accommodation embedded in regional hospitals, namely:

- Jodrell Bank
- Fallowfield residential campus
- Patterson Institute for Cancer Research, Didsbury
- Victoria Park residential campus
- Wolfson Molecular Imaging Centre, Didsbury

A sixth site will be added during 2011 when the Dalton-Cumbria Facility is completed at Westlakes Science and Technology Park in West Cumbria.

Approximately 50% of space occupied by the Faculty of Medical & Human Sciences is embedded in hospitals as follows:

Building	Area m2
Ashworth Hospital	154
Christie Hospital	480
Core Technology Facility	1,876
Dental Clinics	332
Lantern Centre, Preston	48
Manchester Royal Infirmary - Phases 01 and 02	480
Manchester Royal Infirmary PFI - New Rawnsley Building	76
Norfolk & Norwich University Hospital	35
Prestwich Hospital	99
Royal Manchester Childrens Hospital PFI	2,081
Rusholme Health Centre	707
Rutherford House	439
Saint Mary's Hospital - Clinical Sciences Building	797
Salford Royal Hospital	2,048
University Dental Hospital	812
Wellcome Clinical Research Facility	639
Wythenshawe Hospital	1,103
Total	**12,205**



Sat Nav
Sackville St postcode M1 3BB
Oxford Rd postcode M13 9PL

the future and proposals - masterplan

The 2004 masterplan set out a number of overriding principles for the development of the new University. Those principles established a set of urban design and masterplan 'rules' developed through a process of discussion and close collaboration with the Manchester City Council and they have been successfully adopted as the capital programme has been implemented. In 2010 the guiding principles remain valid and will be adopted for the current strategy (appendix A).

The creation of three major zones – Biomedical, Engineering & Physical Sciences and Humanities – was a key concept underlying the 2004 plan. The concept still holds good with two major changes relating to the north campus and Whitworth Park residences.

The concept has been reinforced as the capital programme has developed and has seen a planned geographical shift for a number of Schools. This has meant that there are fewer Schools in that area of the campus north of the Mancunian Way and they are, in the main, occupying buildings with significant problems in respect of condition, functionality and space utilisation.

North campus

The north campus constitutes a range of buildings situated on land holdings that are nearest to the city centre and Piccadilly railway station and consequently having the highest land value of any part of the property portfolio. The values in this area are likely to increase with the implementation of the City Council's strategic planning policies, notably the development of the Mayfield Goods Yard and derelict former London Road Fire Station.

The gradual move away from the north campus has left residual management problems resulting in that part of the campus feeling less vibrant than those areas south of the Mancunian Way.

A long term aspiration exists to remedy these problems by relocating those Schools at the north of the campus onto land already owned by the University. This will have many benefits including:

- improving the condition and functionality of the building stock
- improving space utilisation
- co-locating Schools by complementary disciplines
- releasing land for disposal as planned in the initial business plan.

The land for the relocations is already in the ownership of the University either on existing greenfield land or by demolishing the student residence area at Grosvenor Place which will have reached the end of its useful life (shown hatched red on the plan in Appendix B) This site would have the benefit of creating an engineering 'campus' to foster close working and interdisciplinarity.

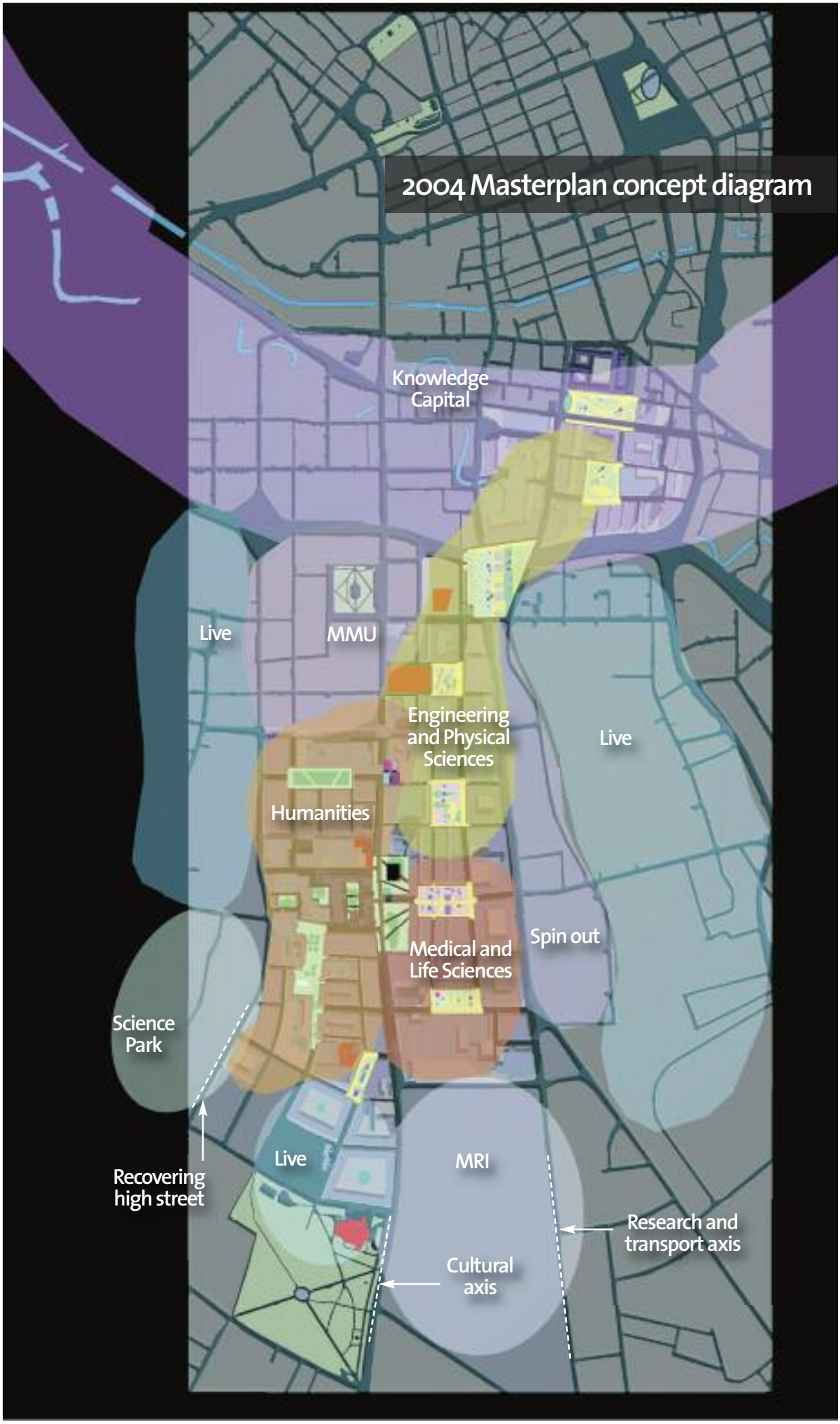
As the current phase of capital works is concluded a number of buildings will be vacant namely:

- Faraday and Faraday UG
- Maths and Social Sciences
- Moffat
- Morton

To execute this plan the following projects will be necessary:

Stage 1	Refurbishment of Dover Street new wing for Optometry to vacate Moffatt building (completion Easter 2011) Phase 1 CEAS Upper Brook Street/Booth Street East to vacate the Morton Laboratories and part of the Mill (completion summer 2011)
Stage 2	Phase II CEAS, Upper Brook Street/Booth Street East to vacate part of The Mill
Stage 3	Extension to the Materials building, Upper Brook Street to relocate the remainder of the School of Materials from The Mill, Sackville Building and Paper Science
Stage 4	New build or refurbishment for Electrical & Electronic Engineering to vacate Sackville Building and Ferranti building
Stage 5	New build for MACE to vacate George Begg and Pariser buildings

The completion of these phases will vacate the land north of the Mancunian Way and the property can then be sold.


2004 Masterplan concept diagram
Knowledge Capital
Live
MMU
Engineering and Physical Sciences
Live
Humanities
Spin out
Medical and Life Sciences
Science Park
Live
MRI
Recovering high street
Research and transport axis
Cultural axis

These buildings will be in the first phase of properties to be taken to the market. It must be recognised that there will be issues in the transitional periods as Schools relocate. To alleviate this and bring some life and vibrancy into the area the first disposal will be Faraday and Faraday UG buildings for which a planning brief has been agreed with the City Council for the construction of up to 1900 student bedrooms (shown hatched blue on the plan in Appendix B).

The second phase of disposals will be for Moffatt, Morton and Maths& Social Sciences together with Barnes-Wallis and Wright-Robinson which have reached the end of their useful life. Negotiations are underway with the City Council with a view to these properties being taken to the market during 2010 (shown hatched green on the plan in Appendix B) .

It is not possible to predict a timetable for Stages 2 to 5 in the current economic climate as timing will depend on the availability of capital funding. For this reason full investment appraisals have not been undertaken at this time but before each stage proceeds a full business case and investment appraisal will be undertaken in line with the University's financial regulations.

Whitworth Park

The residences forming Whitworth Park are typically 1970's low density units that have seen some refurbishment but which will, within ten years or so, reach the end of their useful life (shown hatched black on the plan in Appendix B)

The masterplan envisages the area to be redeveloped to provide accommodation constructed to a much higher density thereby leaving the frontage land available for academic development.

The proposal has not been costed or appraised at this time due to the prevailing economic climate.

Further Disposals

As already stated the implementation of the masterplan will enable the University to sell property to both rationalise the estate and to generate capital receipts for other activities. We will keep the size of the campus under review and where opportunities present themselves we will consider other properties on the periphery of our landholding for additional disposals.

Estate data

The aim of this section is to give a view of the University's estate, its condition, and usage. The data set used is from the Higher Education Estate Management Statistics 2009.

Ownership

The tenure of the estate is predominantly freehold however there are a number of leases in place where specialist space has been required. An increasing amount of the residential estate is held on lease. Progress has been made through voluntary registration with the Land Registry to reduce the number of title deeds from 1100 in 2004 to 850 in 2010 and it is hoped to further reduce this to 75 as part of the ongoing voluntary registration process. (See figure 1).

Value

1. Insurance Replacement Value (IRV) - the estate was reassessed for insurance purposes in 2008 and this will be kept under review for the period of the Strategy.
2. There will be a revaluation for rating in 2010. Negotiations with the Valuation Office are ongoing but it is likely to result in an increase the Rateable Value (RV) by as much as 23%. The University has been successful in reducing the RV through appeals and will continue to do so as the opportunity arises. The impact of any increases will be softened, initially by the retention of a scheme of transitional relief and also by the fact that the Uniform Business Rate is actually reducing quite sharply in 2010/11. It is also worth noting that universities enjoy 80 per cent mandatory charitable relief on almost all assessments.

(See figures 2 and 3).

Figure 1

Tenure as a % GIA	
Freehold non-residential	98
Leasehold non-residential	2
Freehold residential	76
Leasehold residential	24

Figure 2

* Insurance replacement value £	
Non-residential	2,103,309,510
Residential	344,150,979
Total	2,447,460,480

**assessment includes fees, VAT, site clearance and statutory requirements*

Figure 3

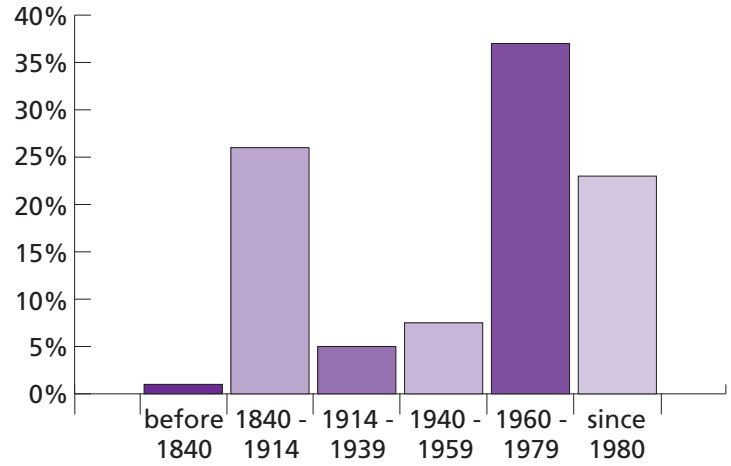
Insurance Replacement Values £/m2				
	Manchester	Russell Group		
		Upper quartile	Median	Lower quartile
IRV GIA m2 – total estate	2830.39	2812.71	2369.99	1916.46
Rateable Value £				
Non-residential				15,610,605
Rateable Value £m2				
	Manchester	Russell Group		
		Upper quartile	Median	Lower quartile
RV NIA – Non-residential	36.30	41.33	35.26	32.82

Age of Estate

Although the recent capital programme has changed the profile of the age range of the building stock there remains a considerable number of buildings built within the period 1960-1979. Buildings of this era can very often be of poor quality and whilst some of these have been refurbished there is still a significant amount of accommodation within the age range of buildings at the end of their physical life and major replacements are needed e.g electrical wiring, heating & ventilation systems. In addition, increasing statutory regulations has generated additional works. Planned disposals and the ongoing Estates Strategy will aim to address this.

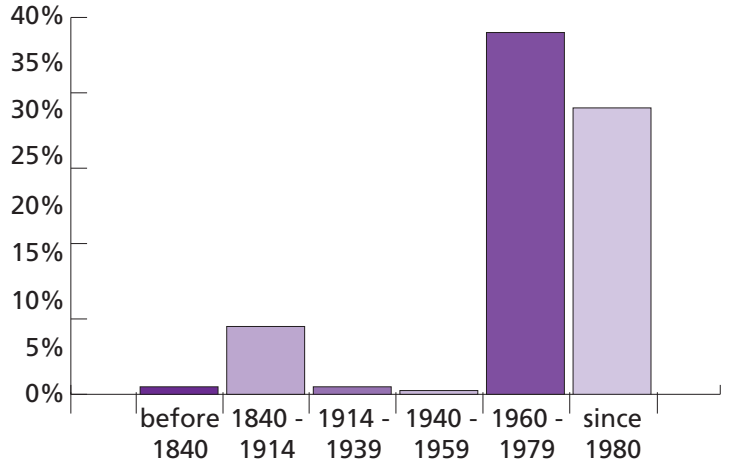
24 buildings comprising 111,554 m2 are listed and bring additional demands in terms of maintenance and the ability to adapt and remodel to increase functional suitability and improved space utilisation.

Chart 1



Building age profile (non-residential)

Chart 2



Building age profile (residential)

Building Areas

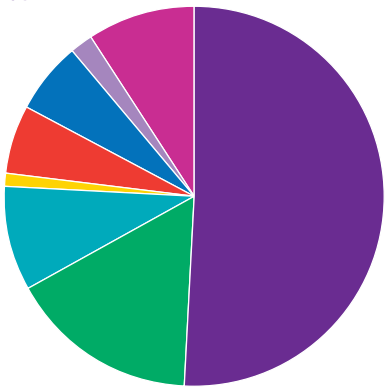
Figure 4

Building Areas m2	
Gross Internal Area (GIA) non-residential	622,234
Gross Internal Area (GIA) residential	232,245
Net Internal Area (NIA) non-residential	392,281
Residential NIA	173,256
Teaching NIA	99,023
Research NIA	140,163
Support NIA incl sport & catering	70,174
Vacant NIA	51,218
Other NIA	31,703

The allocation of space within the estate is represented in the following charts:

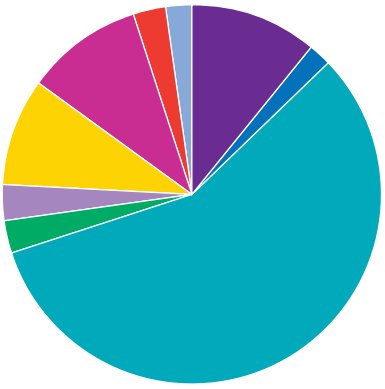
Occupied space by Faculties

Chart 3



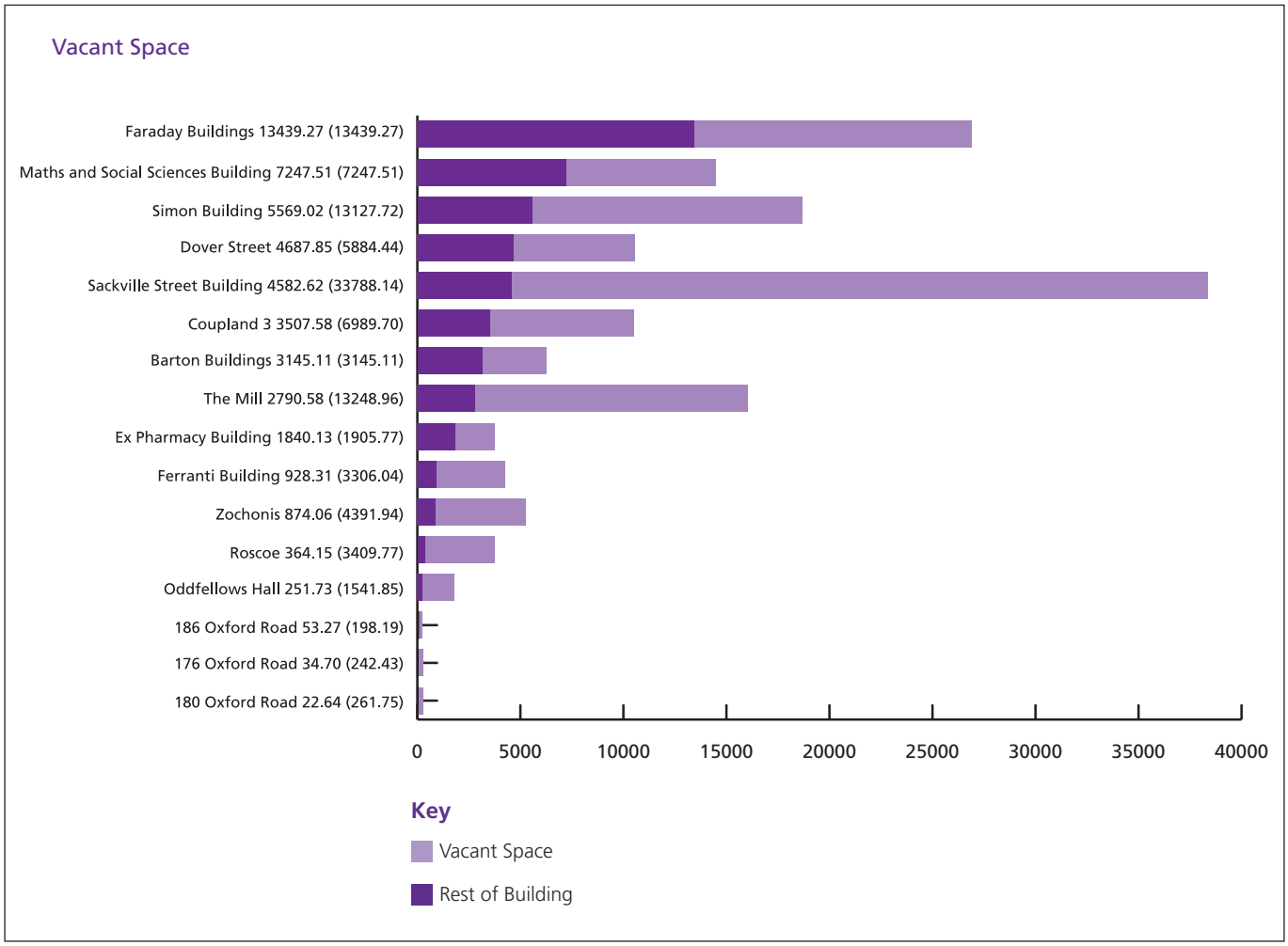
Occupied space by Other

Chart 4



Over 50,000 m2 net internal area is vacant of which 20,686m2 is in buildings to be sold and a further 2,584m2 will allow the relocation of Optometry. The remainder is space waiting to be refurbished and this is mothballed where possible to reduce running costs.

Figure 5



Comparative buildings data

The EMS data allows a comparison to be made between the University and other Russell Group institutions.

(i) The net internal area (NIA) is often referred to as net usable area and the figures show that the Manchester estate is broadly in line with the remainder of the Russell Group. As new and refurbished buildings are constructed the target will be to increase the ratio to give more efficient buildings.

(ii) The University is close to the median in comparison with other Russell Group institutions. Recent capital developments have enabled greater efficiencies to be made in the use of space and we have seen a reduction in the overall space per student FTE. This is also reflected in the recent growth in student numbers. The picture is not consistent across the University and this is addressed as part of the space analysis. There are physical restrictions preventing space reductions and further investment will be needed to achieve this there are opportunities for further space management opportunities.

(iii) (iv) and (v) The University is below the median for these measures. We have a significant amount of vacant space pending disposal and this will have a beneficial effect on this measure but it suggests that the University still has more estate than it can afford at the present time. The drivers going forward will be to reduce the estate even further or increase institutional income.

Figure 6

Measure	Manchester	Russell Group		
		Upper quartile	Median	Lower quartile
(i) Ratio NIA to GIA	0.70	0.73	0.72	0.71
(ii)Non-residential space per student FTE m2	12.48	14.97	12.45	11.08
(iii)Institutional income £ per sq m	1118.66	1727.93	1408.64	1118.72
(iv)Teaching income £ per sq m	2727.95	3261.32	2965.28	2236.25
(v)Research income £ per sq m	1616.48	2222.32	1971.04	1487.06

Figure 7

Building condition			
Condition	% Manchester 2005/06	% Manchester 2008/09	% Russell Group mean 2008/09
A	5	24	71
B	39	48	
C	56	28	29
D	0	0	

Royal Institute of Chartered Surveyors Building condition categories

A = as new

B = sound, operationally safe, exhibiting only minor deterioration

C = operational, but major repair or replacement needed in the short to medium term (generally 3 years)

D = inoperable or serious risk of major failure or breakdown

Building condition

Continuous improvement has been made in both the building condition and functional suitability of the estate since 2004. Much of this is due to the large number of capital projects described in the previous section but also to continuing investment in long term planned maintenance.

The condition ratings reflect the recent capital investments but also that a significant proportion of the building stock, predominantly from the 1960's and 1970's, is still in need of refurbishment (see section on age profile). The overall percentages for poorly rated buildings in condition C and D will be reduced following the planned disposal programme.

The University has a ten year long term maintenance (LTM) plan to address both backlog and known future maintenance requirements and the current estimate of cost to upgrade the non-residential estate from condition C to B is £170m. The Royal Institution of Chartered Surveyors (RICS) recommends a range of 1.5-2% of the portfolio replacement value to fund planned maintenance which, based on the recent revaluation for insurance reinstatement (IRV), would equate to £36 - £42m per annum for The University of Manchester. The assessment is based on the costs of rebuilding the estate and it is worth noting that this valuation took place at that point of the market when construction indices would have been at their highest. The IRV includes a number of listed buildings such as the cultural assets at the Whitworth Art Gallery, the Manchester Museum, John Rylands, Deansgate and the Lovell Telescope and the Lovell telescope which have a total IRV of £354,140,500. Many of these buildings have received significant capital expenditure in recent years and so will have few major investment needs in the near future.

The University has been unable to invest the RICS recommended level of funding in recent times, indeed it is arguable whether such levels of work could be dealt with each year without major disruption to the work of the University, and the current allocation for long term maintenance is £12m per annum split between capital and revenue items of work. In the current challenging economic climate it is unlikely that the level of funding can be increased in the short term and the allocation for long term maintenance represents an area of risk. This will be kept under review throughout the planning period. Condition surveys and other data gathering means that there is large body on information to assist in allocating resource and in the short to medium term it will be possible to manage the situation without catastrophic breakdowns or major

deterioration of the estate. This will be helped by also employing other measures such as:

- Improve space efficiency
- Vacate and dispose of poor and expensive to maintain properties where strategically possible
- Application of additional capital when available to consider costs in use
- Procurement measures to deliver best value
- Keeping planned programme under review.

The University's capital programme is aligned to the LTM plan derived from a comprehensive building and engineering infrastructure condition survey. The drivers for annual LTM expenditure include statutory compliance, health, safety and welfare considerations, functional suitability, environmental considerations, capital development alignment, budgetary limitations, and disruption to building occupiers. A new driver has recently been introduced, that of energy consumption reduction. This is now seen as a high priority when investment decisions are made in regard to LTM expenditure

Functional suitability

The definition of fitness for purpose is probably the most subjective measure and in part, time related. Recent developments have raised expectations across the University which can only be address with the availability of further funding. However, three quarters of the existing estate is assessed as being functionally suitable.

There remain some Schools who are accommodated in dysfunctional estate and this broadly maps on to poor building condition. As further funds become available we will bring more of the estate into categories A and B. (See Figure 8).

Figure 8

Functional suitability		
Functional Suitability	% Manchester 2008/09	% Russell Group mean 2008/09
1	21	75
2	56	
3	20	25
4	3	

EMS Functional Suitability ratings:

1 = Excellent- fully supports current functions

2 = Good- provides a good environment for the current function in all or most respects

3 = Fair- provides a reasonable environment for current functions in many respects but has a number of shortfalls

4 = Poor- fails to support the current functions and is unsuitable for current use. The operational problems associated with such space are major.

Figure 9

Measure	UoM £	Russell Group mean £
Total property costs per m2 NIA non-residential	118.62	140.35
Total property costs per m2 NIA residential	69.02	75.11
Ratio of total property costs to HEI income non-residential	0.08	0.08
Ratio of total property costs to HEI income residential	0.44	0.45
Estate Management costs per m2 total estate	1.25	4.22

Property costs

Total property costs include the cost of:

- Maintenance
- Energy
- Cleaning
- Rates
- Insurance
- Water
- Sewage
- Estate management costs

(See Figure 9).

The Estates Directorate is responsible for the maintenance of the infrastructure of the University and this can be defined in the following categories:

- Statutory
- Planned preventive – both short and long term
- Breakdown/reactive

All works will be carried out in accordance to standards set by the Estates Directorate which will be fully compliant with all statutory and regulatory requirements. All planned maintenance will be informed by detailed condition survey, 10 year rolling long term maintenance programme, and in compliance with the Design Team Guide.

Teaching rooms will come under close scrutiny so that we see significant improvements in both the condition and functionality of those spaces, making sure that we have the appropriate mix of sizes and types of teaching rooms. The capital programme will reflect the importance of providing good quality teaching spaces.

sustainability

In 2004 the University signed the Talloires Declaration and signaled its early commitment to sustainable development. The University understands the challenges posed by the threat of climate change/global warming and is committed to actions that respond meaningfully to these challenges.

This commitment has been underlined by the Board of Governors who have stated that 'The University of Manchester is

committed to inculcating the concept of sustainable development in all aspects of

education, research and business strategy and operations and, wherever possible, to influencing local, national and international debate and policies on sustainable development." The University's Strategic Plan ("Advancing the Manchester 2015 Agenda") was revised in October 2009, and included a specific Enabling Goal on Environmental Sustainability whose stated aim is: "To make environmental sustainability a key priority in the management and development of the University".

Carbon Management

The University's Carbon Management Plan (CMP) was approved in February 2010. It is a five year action plan which makes a significant contribution towards reducing the University's carbon dioxide emissions by 40% by 2020 (2019/2020 academic year) against a 2007/8 baseline. This target exceeds the HEFCE sector reduction target of 48% by 2020 against a 2005 baseline.

Comparative data in respect of energy consumption and emissions:

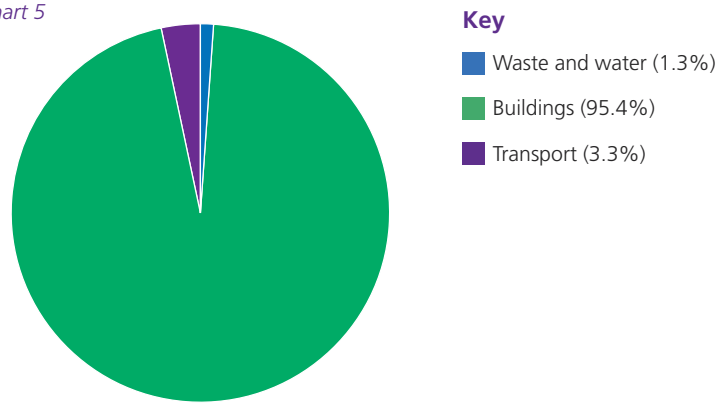
Figure 9

Energy emissions		
Measure	Manchester	Russell Group mean
Energy consumption kW/h per GIA (non- residential)	296.45	351.12
Energy consumption kW/h per GIA (residential)	294.01	259.92
Notional Energy emissions (kg co2) psm GIA (non residential)	87.20	87.51
Notional Energy emissions (kg co2) psm GIA (residential)	72.43	68.54

The University's CO2 total emissions for 2008/9 were 88,908 tonnes.

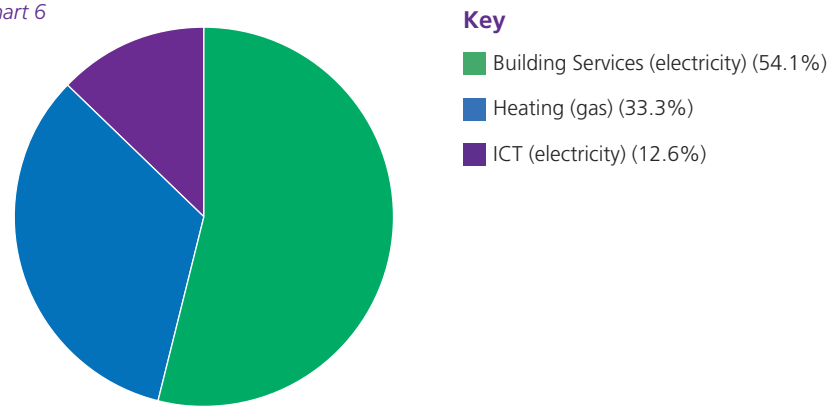
Percentage Breakdown of Carbon Footprint for 2008/09

Chart 5



Breakdown of Building Footprint for 2008/09

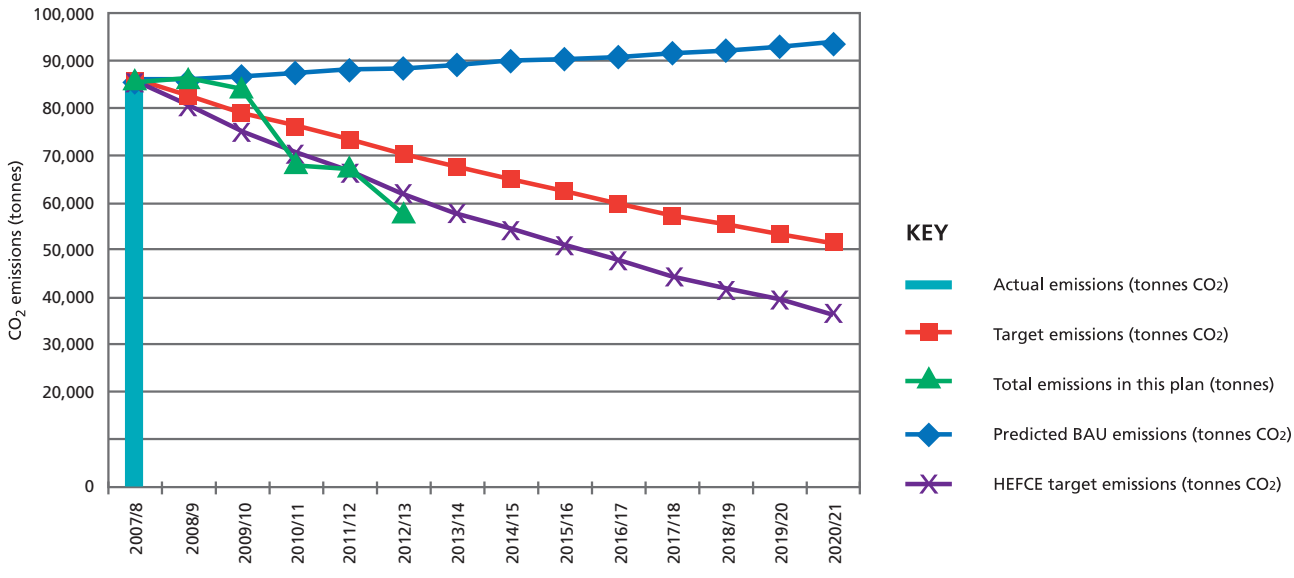
Chart 6



95% of the emissions relate to buildings and the operations carried out within those buildings. The decision to upgrade/refurbish, demolish, or dispose of buildings will be strongly influenced by what real energy efficiency improvements can be made on particular buildings. Direct, structured influence on the design of all new build and refurbishment projects of all sizes will ensure that development work optimises the opportunity to embed energy efficient solutions and technology in projects.

As indicated in the graph below, successful completion of all projects described in the five year period of the plan will reduce carbon emissions beyond the University's target, and indeed reach HEFCE's target. Thereafter, further planning will be required to maintain the trajectory of reductions beyond 2015.

Chart 7



The cost of implementing the CMP has been assessed as follows:

Figure 10

	Cost		Annual Saving	
	Capital	Revenue	Financial	CO2(t)
Existing funded projects	£23,123,821		£384,694	1,948
Planned projects for which funding is approved	£1,956,604	£1,511,000	£573,000	2,968
Near-term projects for which funds need to be identified	£18,151,575		£4,458,306	24,969
Medium-to-long term projects not yet planned in detail for which funds need to be identified	£1,350,000		£105,000	526
	£44,582,000	£1,511,000	£5,521,000	30,411t

Specific objectives contained within the CMP are:

1. Choosing energy options responsibly: As a major user of energy, the University will seek to ensure that its heating, lighting and other power requirements are met through environmentally sustainable options, will keep under regular review the extent to which current arrangements reflect best practice and will plan infrastructure investments around low carbon solutions. A feasibility study for the installation of a Combined Heat and Power plant (CHP), predicted to reduce carbon emissions by 12.5%, will begin in 2010.

2. Using energy responsibly: The University will encourage and reward energy efficiency by measuring energy usage building by building and, where possible, recharging energy costs to users. The £1.4m Revolving Green Fund awarded to the University for energy efficient projects will assist in bringing forward energy saving schemes.

3. Managing disposal prudently: The University is encouraging and assisting staff and students to reduce, reuse and recycle waste and is committed to best-practice standards of waste management.

4. Valuing sustainability in procurement: The University is committed to evaluating energy efficiency and taking account of ongoing energy costs as important considerations in all procurement decisions.

5. Facilitating sustainable travel practices: The University will seek systematically to reduce its carbon footprint by encouraging public transport options for travel to work and study, and by discouraging unnecessary national and international travel by staff on University business.

6. Exploiting in-house expertise: The University will seek to draw on its very considerable in-house research and teaching expertise on issues relating to climate change, energy efficiency and environmental sustainability, to contribute to national and international understanding of these issues, to educate current students, regardless of their discipline, and to inform and guide the University in its own international management of its environmental responsibilities.

Waste Management

Approximately 3,500 tonnes of general waste is produced per annum, mainly disposed to landfill (EMS 2008/9), as well as hazardous wastes, radiological/radiochemical wastes and construction waste. Significant investment has been made in the provision of recycling facilities across much of the campus, and encouraging and embedding behavioural change will be key to improving the current recycling rate of 24.6% (EMS 2008/9). Sustainable waste management practices have been introduced and the principles of "reduce, re-use and recycle" has been adopted across campus. Recycling schemes include batteries, cans, cardboard, glass, metals, paper products, plastic bottles, waste electrical and electronic equipment (WEEE) and wood.

The University is one of a small group of universities that have signed up to the Waste and Resources Action Programme (WRAP) "halving waste to landfill" scheme to start addressing waste produced as a result of the University's construction activities, committing to

"….playing our part in halving the amount of construction, demolition and excavation waste going to landfill by 2012. We will work to adopt and implement standards for good practice in reducing waste, recycling more, and increasing the use of recycled and recovered materials".

Specific objectives are now being set for major projects requiring designers and contractors to consider waste when designing new and refurbished buildings and will set targets for recycling of construction waste as well as the use of recycled materials in projects. Construction waste is also being addressed via the University's maintenance contract and all waste produced as a result of maintenance and construction activities is taken back to the contractor's own waste treatment site where it is sorted into different waste streams resulting in around 87% of materials being recovered/recycled.

Utilities Management

Flexible Purchasing Agreements for Gas and Electricity

The European energy market has been extremely volatile in recent years and a different approach to procurement has been adopted. Electricity and gas supply contracts are procured through a flexible purchasing product, rather than the more traditional fixed price contract arrangement, allowing direct purchases from the wholesale markets, daily, weekly or several months in advance during the contract period thereby spreading the risk.

Figure 11

Measure	Manchester £	Russell Group mean £
Energy cost per m2 GIA non-residential	13.18	17.46
Energy cost per m2 GIA residential	10.14	10.71

Metering

A programme of Smart metering has been completed which will provide valuable information in terms of consumption to inform the future management of utilities and identify areas of concern for further investigation.

Display Energy Certificates (DEC's)

The University has DEC's in place for all its buildings and these are used to identify buildings and operations that are both energy inefficient and energy intensive in their use. This information is informing the programme for expenditure of the Revolving Green Fund.

Carbon Reduction Commitment Energy Efficiency Scheme (CRC)

The CRC is a mandatory regulatory scheme for large public bodies, designed to improve energy efficiency and reduce carbon dioxide emissions in the UK. The University will monitor its emissions and purchase allowances, initially sold by the Government, for each tonne of carbon it emits. From the end of the first year allowances will be sold on the open market and the price per tonne is expected to rise. The University's aim is to be in a position to sell allowances producing financial benefits and making a significant contribution to the University's position in respect of CRC.

Development

University capital projects with energy consumption reduction benefits

The capital approval process requires a business case for each project including a section on carbon impact/reduction benefits. The amount of energy/carbon consumed/saved will be a primary driver in considering whether a project can proceed.

Salix Revolving Green Fund

The University has established a £1.4m Salix/HEFCE/match fund to support energy efficiency improvement and a full list of projects has been developed as part of the first phase of expenditure. All savings will continue to be ploughed back into the fund for new schemes as long as the University continues to invest in energy savings projects. Two dedicated Carbon Reduction Technicians have been employed to carry out the installation work of equipment purchased through the RGF and this is proving extremely successful and will continue. A programme of smart meters has been completed which will provided essential information in determining areas for action to reduce consumption.

Influencing Design and Construction – the Design Team's Guide

The University's Design Team's Guide prescribes the extent to which all projects need to introduce energy efficient measures into the design solutions, coupled with a strict project communication regime and key stage sign off process.

All new build capital developments are set with a minimum of BREEAM 'excellent' (BREEAM Higher Education).

All major capital refurbishment projects are set with a minimum of BREAM 'very good' (BREEAM Higher Education).

transport

The University is well served by public transport being very close to Piccadilly and Oxford Road mainline railway stations and Manchester International Airport is about 30 minutes away. A bus link between Piccadilly station and the Oxford Road has been commissioned jointly with the Manchester Metropolitan University, the Central Manchester Healthcare Trust and the Royal Northern College of Music. This service is well used and has helped to increase the numbers traveling to work by bus from 18% to 22%.

Oxford Road is an extremely busy arterial route and since the de-regulation of buses has seen a huge increase in the number of services. The positive side of this is that the frequency is excellent but the quality of the vehicles and the resulting quality of the environment has suffered. The University is engaged with the City Council, Greater Manchester Passenger Transport Executive (GMPTE) other partners in the Oxford Road Corridor to implement the Cross City Bus Package which will involve the closure of Oxford Road to vehicles other than buses, emergency and service vehicles. This will make for a safer, cleaner environment and also faster bus services to encourage greater use of public transport.

Large numbers of staff still use the car for journeys to and from work but this has decreased across the corridor from 57% in 1999 to 40% in 2005. It is likely that percentage will have dropped even further by the time the next survey is undertaken in 2010. The modal shift has been supported by the University's Green Travel Plan which is a set of initiatives to encourage employees and students to use modes of travel other than the single occupant private car., including:

- The Oxford Road Bus Link
- Online car share database
- Cycle Scheme
- Monthly Cycle to Work rides
- Free bus travel for new starters
- Interest free loans / discount ticketing
- Cycle route mapping project and off site infrastructure improvements
- Cycle parking, shower & changing facilities.

Measures to decrease the amount of on-campus parking have resulted in streets in local neighbourhoods becoming congested with commuter parking and the University is working with the City Council to address this including funding residents-only parking schemes. We will continue to consider ways of reducing car journeys including possible alternative charging regimes.

public realm

Significant investment has been made in public realm improving our links and boundaries with the local community whilst improving pedestrian and cycle routes, and upgrading lighting and security. There is now a distinctive corporate 'look' to the campus, enhanced by the design of items such as benches, signage and bins.

The environment around the campus is being softened with the planting of new trees and better landscaping. We have improved the quality of the route which connects the North and South Campuses, and we are creating a series of linked public spaces, streets and squares as part of our commitment to integrate into the developing urban and economic structure of the City of Manchester.

As a key partner in the Corridor Manchester project we are also looking at ways to give priority to public transport, cyclists and pedestrians as we enter a once in a lifetime opportunity to change the face of Oxford Road. Footpaths will be widened, new cycle paths installed and the size of the carriageway reduced.

The ambition is to look at how we can build on this activity and further improve the public spaces in and around Oxford Road through innovative, exciting, green and beautiful public spaces and transport links.

space utilisation

Space utilisation surveys are undertaken on the centrally booked rooms in each of the two semesters. There are 254 centrally booked rooms comprising a mix of tiered and flat lecture theatres and seminar rooms. The 'utilisation rate' is the ratio between actual and potential use and is calculated by multiplying the frequency rating (a number of hours used as a % of the number of hours available for teaching over one week), by the occupancy rate (the number of places occupied as a % of the capacity of individual rooms over one week).

The comparative data are:

Figure 12

Space utilisation		
Measure	**Manchester**	**Russell Group mean**
Occupancy rate	51%	49%
Utilisation rate	21%	20%

The reasons for poor levels of utilisation are complex and the following are seen as significant factors:

- Block booking to ensure that the room is available when required
- A reluctance to change teaching patterns
- Non standard teaching patterns
- Local management of rooms
- Bad fit rooms i.e. room sizes do not match class sizes
- Lack of suitable facilities in some rooms
- Unwillingness to move between north and south campus rooms. The utilisation rate at the north campus is lower than at the south. This is a combination of poorer quality rooms and time taken to move between areas.

The under utilisation of space is considered to be a serious issue and the University has tried to address the poor utilisation rate over a number of years with limited success. To understand the complexity of the issues and to consider alternative ways to looking at the timetable, a review group has been set up under the Vice-president for Teaching & Learning. The group will also consider the condition and fitness for purpose of teaching spaces and make recommendations with regard to the improvement of these rooms to improve the student experience.

The University has recognised the changing ways in which students learn and is investing £25m in the first phase of a Learning Commons building which will provide modern and flexible learning spaces.

Space supply and demand

The sector has not had a set of sector wide norms for many years and so the University has developed a set of Space Standards by which it will measure the supply and demand of space allocations. This is not intended to be a prescriptive tool but an indication of where apparent under or over provision of space can be examined in more detail. There are areas of the campus where bad fit space results in an overprovison and these will be improved as new or refurbished accommodation can be provided.

The overall position is one of overprovision against the standards and that the size of Manchester's estate is 117% of that predicted space by London Economics as measured against affordability. The current assessment of space demand v supply is broken down by School and detailed in Appendix C. Revised space standards and a model of the affordable estate are being developed through the HEFCE Space Management Group and the University's assessment of demand v supply will be reviewed in the light of this work. In the meantime we will continue to seek better use of space through the Faculties and the Space Management Group.

analysis of space

Faculty of Engineering & Physical Sciences

School of Chemical Engineering and Analytical Science

The School is housed in three locations; the Morton Laboratory, The Mill and the Ferranti Building in space which is of generally poor quality. As part of the current phase of capital works the first phase of a new building is being procured. A second phase to co-locate the School onto one site will be built as funds become available

School of Chemistry

The School has been co-located in the Chemistry Building on Brunswick Street. Recent capital works have seen the refurbishment of many of the research laboratories and a new extension provided excellent teaching facilities. The 4th and 6th floors (teaching wing) and parts of the research wing still require refubishment to improve condition and functionality

School of Computer Science

The School has been co-located into the Kilburn Building, parts of which have been recently refurbished. There remain however areas of poor space, particularly deep plan areas with low ceilings and little natural light, and an improvement in the accommodation for Computer Science will be needed in the medium term.

School of Earth, Atmospheric and Environmental Sciences

Accommodation is split between the Williamson and Simon buildings, the latter having been recently refurbished. The Williamson space is of poorer quality and in need of updating and refurbishment. Many of the elements of the building will be replaced through the long term maintenance programme

School of Electrical & Electronic Engineering

Electrical & Electronic Engineering are split between three buildings; the Sackville Building , the Ferranti building and the Joule Centre in the Pariser building. Some of the accommodation in the Ferranti building has been refurbished internally but there remain outstanding long term maintenance issues decreasing the functional suitability rating. The Sackville Building is a listed building in need of significant refurbishment and which presents problems in terms of providing modern accommodation because of the restrictions that the listing brings. The School would wish to be co-located which would achieve significant space savings.

School of Materials

The School is split across four buildings; the Materials building on Upper Brook Street, the Mill, the Paper Science building and the Sackville Building. The space in the Materials building is of reasonable quality but the accommodation in the Mill and Sackville buildings is of poor quality. Areas of the Paper Science building have recently been refurbished but elements of the fabric of the building are still in need of improvement. Co-location of the School on the site of the Materials building is desirable and would result in significant space savings.

School of Mathematics

Mathematics is located in new, purpose built accommodation on the Alan Turing building. No additional estates requirements.

School of Mechanical, Aerospace and Civil Engineering

The School is split between the Pariser, George Begg and Sackville buildings. Part of the accommodation was refurbished as part of the recent capital works and there are a number of work items in the long term maintenance plan. Local catering facilities have been requested. In the medium term the Lasers group would wish to co-locate from the Sackville building and in the long term an engineering 'campus' is envisaged requiring the relocation of the School.

School of Physics and Astronomy

The accommodation for the School is very good, either having new newly constructed space in the Alan Turing building or recently refurbished space in the Schuster building. The remaining area of concern is at Jodrell Bank and feasibility studies will be undertaken to assess the condition and future provision. A programme of window replacements will begin in 2010 to improve the thermal insulation of the building.

Faculty of Humanities

School of Arts, Histories and Cultures

Although the School is split across three buildings there are no major estates need from this School.

School of Education

The School is located in the Ellen Wilkinson building, a 1970's structure in need of some remodelling and refurbishment of office and teaching accommodation. A programme of window replacements is underway which will improve the thermal insulation of the building.

School of Environment and Development

New purpose built accommodation was constructed for the School in the first phase of the recent capital works. No major estates needs.

School of Languages, Linguistics and Cultures.

The School is located in Oddfellows Hall, Waterloo Place (Japan Centre) and the Samuel Alexander building, the old wing of which has been recently listed at Grade II. A scheme to remodel the space in Samuel Alexander would allow the relocation of that part of the School accommodated in Oddfellows Hall which could then be sold.

School of Law

Law is located in the Williamson building in space that for a large part is considered bad fit. The School would wish to relocate into a refurbished Coupland III building which is substantially vacant. The scheme would also facilitate the co-location of the Faculty administration which is currently dispersed across three buildings.

Manchester Business School

MBS is split across six buildings buildings; MBS West, Crawford House, MBS East, Devonshire House, Zochonis building and Sackville Street (latter two Manchester Science Enterprise Centre) The estate is of mixed quality and there are sections of the School urgently requiring improved accommodation, the most urgent being the provision for Executive Education. A partnership with a private sector developer is being explored under the OJEU Competitive Dialogue process.

School of Social Sciences

New purpose built accommodation was constructed for the School in the first phase of the recent capital works. No major estates needs but a small amount of remodelling of the space would allow the relocation of the Centre for Research on Socio-Cultural Change and release space in Waterloo Place.

Faculty of Life Sciences

The vast majority of the School is located in new purpose built, state of the art facilities. The remaining estates needs are to move the Professional Support Services team closer to the rest of the School and to improve some of the joint Life Sciences – Medical & Human Sciences teaching accommodation in the Stopford building.

There is a cohort of FLS staff located in the Core Technology Facility and the Faculty wishes to relocate them into the Michael Smith building to co-locate the group and reduce the amount of space occupied by the Faculty.

Faculty of Medical & Human Sciences

Manchester Academic Health Sciences Centre (MAHSC)

MAHSC was formally established in July 2008 to underpin the development of Greater Manchester as a world leader in health research. A hub and identifiable presence on campus is required for the senior officers of MAHSC.

School of Dentistry

The majority of the non-clinical accommodation for the School is located in the Dental Hospital. The space in this building is underprovided and of poor quality. The School has recently been allocated space in Coupland III to provide common room facilities for both undergraduates and postgraduates and this has improved the situation. The accommodation for Dentistry will be kept under review.

School of Medicine

The estate for the School is split between the Stopford Building on the main campus and a number of hospitals around the region. The School would wish to bring some of the hospital based staff onto the main site but to do so will need significant upgrading of the Stopford Building. The fabric of the building is of reasonable quality but large parts have not been improved since construction of the building in the 1970's. This is particularly true of the space for the Medical School and improvement in social space for undergraduates and accommodation for the administrative hub of the School are priorities.

The School of Cancer and Enabling Sciences

This School occupies space at WMIC and within the Stopford Building. WMIC is highly serviced good quality space, the estate in Stopford is generally poor quality.

The School of Biomedicine

This School occupies a large amount of space in Stopford of mixed quality and one floor within the Core Technology Facility which is electrophysiology space and of good quality. They occupy space at Manchester Royal Infirmary in both old space, the new Royal Manchester Children's Hospital and a small amount at South Manchester Trust.

The School of Translational Medicine

This School is probably the most geographically diverse in terms of estate. Occupying space in Stopford and AV Hill with the former being average quality space and the latter being high quality wet research space. They have a large off campus presence in a number of Trust owned locations.

The School of Community Based Medicine

Similar to the School of Translational Medicine, this School, as its name suggests, has a number of operations out in the community in Trust and commercial space. In terms of University space they occupy space in Stopford, Ellen Wilkinson, Dover Street, Simon and Williamson buildings all of which is reasonable quality space for the dry nature of the research undertaken by this School. They also occupy space in Jean McFarlane which is purpose built high quality office and dry research space.

School of Nursing, Midwifery and Social Work

The School moved into newly constructed purpose built accommodation as part of the recent capital works. No estates needs.

School of Pharmacy and Pharmaceutical Sciences

The School moved into newly refurbished accommodation in the Stopford Building as part of the recent capital works. No estates needs.

School of Psychological Sciences

The accommodation for the School is of mixed quality across three buildings on opposite sides of Oxford Road. Most of the School is housed in the Coupland I building, parts of which have seen some refurbishment, and is of reasonable quality. The rest of the School is located in the Ellen Wilkinson building and the Zochonis building and the School would wish to be colocated.

Interdisciplinary Institutes

Dalton Institute

The hub of the Institute occupies poor quality space in the Pariser building serving other spaces in the Mill and potentially the Sackville building. Plans are at an advanced stage for the Dalton Cumbria Facility, a purpose built facility undertaking specialist nuclear research on the Westlakes Business Park close to the Sellafield site.

Photon Science Institute

Occupies very high quality purpose built space in the Alan Turing building. No additional estates requirements.

Manchester Interdisciplinary Biocentre

Occupies very high quality space in the John Garside building. No additional estates requirements.

Patterson Institute for Cancer Research

The PICR is a leading cancer research institute core funded by Cancer Research UK.PICR occupies a building on the Christie Foundation Trust site and overall the space is good. No immediate estates requirements

Manchester Cancer Research Centre

The (MCRC) was established in The University of Manchester in close partnership with The Christie NHS Foundation Trust and Cancer Research UK, and has links to other Trusts conducting cancer research in Manchester. The MCRC follows a federation model which facilitates active participation and contribution from relevant research groups within the partnership. The aspiration to support one of the university's key strategic priorities is to build world class facilities on a site close to the Christie site and fund raising is underway to realise this aspiration.

Institute of Health Sciences

This is a largely virtual institute with a small administrative base in excellent purpose built accommodation within the Jean McFarlane building. No estates needs.

Teaching rooms

A full survey of teaching room condition and functionality will be undertaken and a programme of refurbishments and/or remodelling will be identified including upgrading the equipment to an appropriate level in those rooms.

Non-Academic Areas

Professional Support Services (excl Sport, Trading & Residential Services)

The PSS operates as a centre/devolved model. The space needs for the devolved teams is dealt with through the Faculties/Schools and the remainder of the Service is spread across a number of buildings with the hub being based around the Old Quadrangle. The quality of the space for PSS is of reasonable quality but in some areas is bad fit because of the nature of the listed buildings.

The areas of PSS indicating overcrowding or very poor accommodation are IT Services and Counselling. It will be necessary to relocate the Estates Measured Term Contract base to allow for the disposal of the McDougall Centre

Library

The Library has two main sites and a number of smaller satellite locations. The strategy is to optimize the footprint occupied by JRUL as a whole, rationalizing the number of sites and stores. Remaining estates will then be upgraded and remodelled in order to improve the student experience. This includes the physical environment (décor, sanitation and layout) as well as the effectiveness of relevant element of the infrastructure, such as heating, lighting & ventilation.

The demand for 24 opening of library buildings in line with student demand and university wide developments will be monitored and responded to accordingly.

Sport

After the completion of the Wythenshawe Ground Project and the recent artificial pitch refurbishment projects, Sports' focus is on the continued improvement of the Armitage Centre.

A project feasibility plan is in development to provide additional changing facilities, new squash courts, a third artificial pitch and an enlarged fitness suite. If this project cannot be delivered then investment will be needed to ensure the continued use of existing changing facilities within the Firs Pavilion and existing squash courts.

Catering

Most of the Food on Campus outlets have been refurbished since 2004 and require little or no investment in the medium to long term. The North Campus is in need of investment in the Renold Building with a refurbishment of the Rock Cafe to replace the Barnes Wallis Refectory which has been closed in anticipation of disposal, and consideration of new facilities for the School of MACE are in hand.

Ideally the cafe within the Stopford Building would also be refurbished in support of improving the student experience of the Faculty of MHS.

The Department also looks forward to creating a new innovative cafe outlet as a part of the Learning Commons Development.

Museum

The Museum was substantially refurbished and extended as part of an award winning scheme in 2003. Outstanding estates needs are in the older parts of the building where there are elements to be addressed through the long term maintenance programme. Galleries will continue to be improved as funds permit.

Whitworth Art Gallery

A scheme for major improvement and extension to the Gallery is currently the subject of a Heritage Lottery Fund bid having been successful at Stage 1. The scheme will not only create new internal and external spaces but will also address essential long term maintenance issues.

Jodrell Bank

An NWDA/ERDF bid is in progress to establish a new visitor attraction at Jodrell Bank. Construction should begin within 2010.

Residences

We guarantee accommodation to all first year home undergraduates and all international undergraduates and international post graduates for the duration of their studies. The current stock consists of 7,337 beds owned and operated by the University and 1,963 beds leased by the University. This provides 7,550 Undergraduate and 1,750 Postgraduate bedrooms split into:

Self catered standard	3,586
Self catered en-suite	3,200
Catered	2,355
Family	159 units

A five year long term maintenance plan has been developed to ensure the University residences are able to operate safely and the identified works will be funded through the revenue account. Large scale improvement projects at Hulme Hall, Owens Park and Oak House are all urgently needed and are reliant on significant capital funding. The Hulme Hall project will be re-presented for approval during 2010.

Investigations are in hand to examine alternative options to deliver refurbishment or rebuilding through private sector partnerships which will generate capital receipts to support the remaining residential estate. In this current planning period of financial stringency the policy will be to; maintain the residential estate for as long as possible from revenue, to maintain existing income streams into the University and to look for partnerships to deliver significant capital investment as needed.

Short term leases for over 1,500 beds are in place which could be released at intervals over the next three years as necessary. We will develop mutually beneficial nomination agreements with third party developers, particularly for new postgraduate accommodation, with the eventual development of the north campus disposal sites. A review of postgraduate accommodation provision is being undertaken with an aspiration to move out of peripheral properties back onto the main university campus.

estate priorities

Current schemes

The current fully funded priorities for the University are schemes that are in development or construction:

- Chemical Engineering & Analytical Science phase 1 new build - £16m
- Learning Commons refurbishment/new build - £25m
- Optometry refurbishment - £6m
- Dalton Cumbria - £7m
- Diamond Project - £3.3m
- Disability Discrimination Act works - £6.6m
- Fire Risk Assessment works - £2.2m
- Whitworth Art Gallery - £12m
- CHP feasibility study - £850k

Priorities 2011 onwards

The University plans to continue the rationalisation and improvement of the estate to achieve better use of space and to support institutional priorities. The goal is to provide world class facilities as follows:

Faculty priorities

Engineering & Physical Science

1. Completion of the CEAS new build project phase 2 (£25m)
2. Rationalisation of Materials onto one site, preferably adjacent to CEAS activity(£25m)
3. Rationalisation of Electrical & Electronic Engineering onto one site (£30m).
4. Review and rationalisation of Computer Science (£25m)
5. Review and rationalisation of MACE onto one site (£40m)
6. Refurbishment of 4th & 6th floors (Teaching Wing) plus all basement, part ground, part 1st, part 4th and part 5th (Research Wing) of original Chemistry Building (£5m)
7. Refurbishment of laboratory space for SEAES (£350K)
8. Rationalisation of Jodrell Bank space to centre around Control Building inclusive of demolition of unwanted buildings (£200K)
9. Refurbishment of office and ancillary spaces for SEAES (£800K)

Humanities

1. Relocation of the School of Law (£9m)
2. Remodel space in Samuel Alexander for Languages, Linguistics and Cultures (£1.3m)
3. Remodel space for CRESC in Humanities Bridgeford Street (£0.25m)
4. Refurbishment for the School of Education (£2.7m)

Life Sciences

1. Teaching schemes in the Stopford building (£10m)
2. Teaching related areas in the Stopford building (£0.5m)

Medical & Human Sciennces

1. Teaching schemes in the Stopford building (£10m – as FLS)
2. Teaching related areas in the Stopford building (£0.5m – as FLS)
3. Sub-station at WMIC (£1m)
4. Accommodation for MAHSC (£1.5m)
5. Refurbishment and expansion for Translational Medicine (£2m)
6. Relocation of the School of Psychology (£11m)

MCRC

1. New building for cancer research located adjacent to the Christie NHS Foundation Trust (two phases each £20m)

Non Faculty priorities

1. Combined Heat & Power installation (£15m)
2. Improvement of teaching rooms (£20m)
3. Learning Commons – phase 2 (£25m)
4. New large lecture theatre (£20m)
5. Review of car parking provision (£2m)
6. Continued improvement of the Public Realm (£6m)
7. Additional carbon reduction measures (£10m)
8. Additional LTM investment (£15m per annum)

funding

Funding

In order to implement the priorities in the Strategy, funding will be required from a number of sources:

- HEFCE – in the Capital Investment Framework 2008-11 the University received an allocation of £97m and investment at this level would meet around one-third of capital required for the strategy
- Disposals – the University will continue to rationalise its estate and generate funds for the improvement of the portfolio
- Grants– the University has been successful in obtaining grants from a number of sources e.g. CRUK, Wolfson, HLF and will continue to secure further grants where possible.
- Private partnerships – there may be opportunities where partnerships with private developers will facilitate the estates strategic goals and these will be investigated
- Own funds – the University will aim to generate surpluses from recurrent activity that can be reinvested into estate priorities

The current economic climate will present challenging financial pressures and in the light of this we have not planned an implementation programme for the Strategy. We will remain flexible and will review the Estates Strategy as the funding climate becomes clearer.

appendices

Appendix A

The masterplanning principles

1. University principles

- A world class centre of academic excellence
- A place of research and scholarship
- A multi-centres layout reflecting the decentralised structure of the University
- Flexibility to accommodate over time
- Co-location of academic activities to reflect the structure of the University
- External integration
- Deriving value from the university's estate
- Internal integration
- A safe, secure environment

2. Socio-economic principles

- Communication, consultation and dialogue
- Delivering social and economic benefits to the City
- Promotion of linkages with other organisations in the City
- Shared use of University facilities with the wider community

3. Concept Framework principles

- An urban university
- A world class part of a world class city
- The university quarter of Manchester
- A gateway to the City
- Permeable to the surrounding city
- Integrated and connected
- Flexible and responsive to change
- Intelligent and innovative
- Inspirational and stimulating to the mind and sprit

4. Spatial principles

- Flexible urban grid
- A clear sense of identity and place across the whole University quarter
- Linked public spaces
- An effective connection
- Clarity of connections, orientation and signage
- A green grid
- A vibrant, well lit part of the city
- Integrated virtual and real university

5 Movement principles

- Pedestrian priority throughout the University quarter
- Access for all to all parts of the University quarter
- Movement hierarchy – pedestrian, cycle, public transport, service, private car
- Integrated green movement plan
- Unifying the university movement plan with City wide plans
- Engagement with innovative city wide transport initiatives
- Car parking liked to spatial plan and pedestrian movement network
- Integrated transport information and signage systems

6. Environmental principles

- Working towards an environmental sustainable University
- Targeted reductions in energy use
- The use of renewable energy sources
- Sustainability audit of projects
- Waste reduction and recycling
- Enhancement of natural features
- Greening the university quarter
- Energy efficient building construction conservation of natural resources

7. Development principles

- Architectural quality
- Harmony in diversity
- Conservation and celebration of the best historic parts of the university
- Active frontages along principal streets and public spaces
- Entrances and public circulation at ground level
- Public facing common facilities
- Sense of enclosure of public space

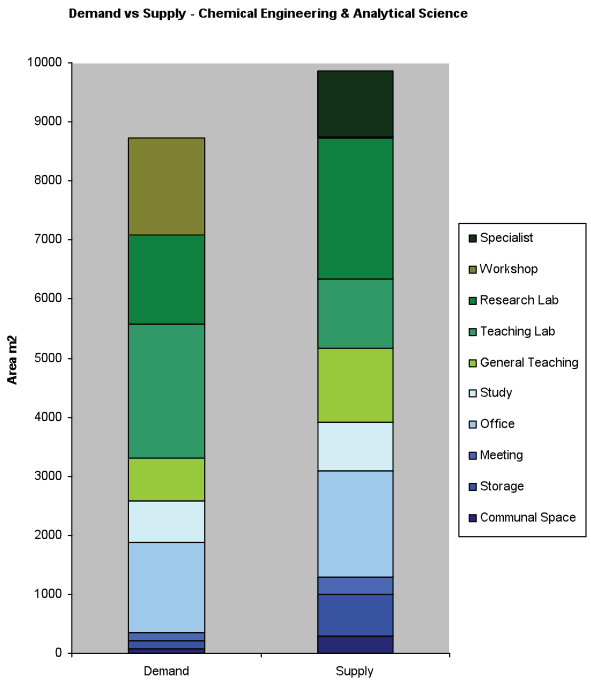
Appendix B

Appendix C

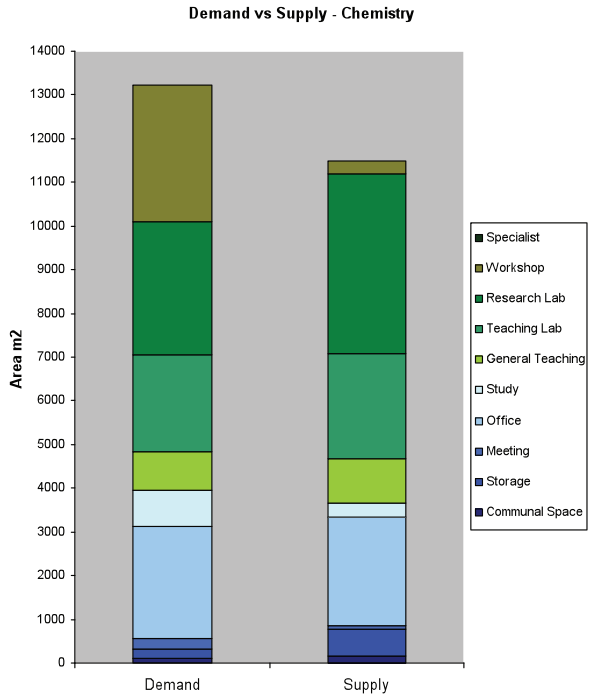
Demand vs Supply

Faculty of Engineering and Physical Sciences

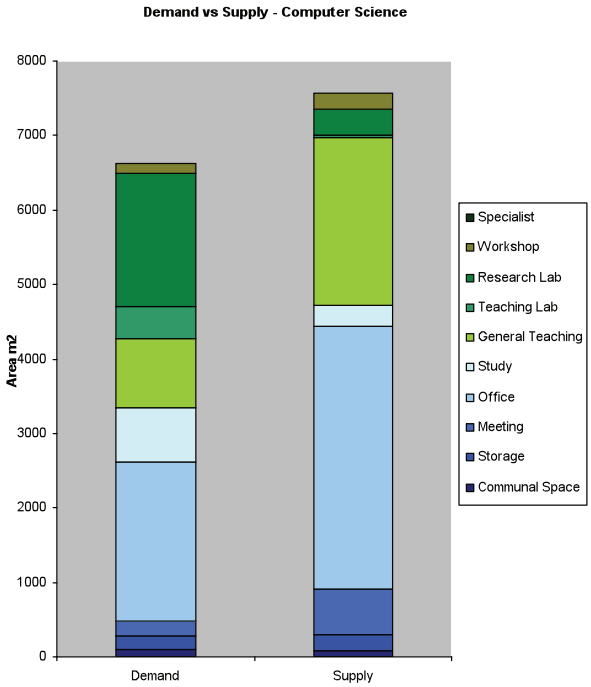
School of Chemical Engineering and Analytical Science



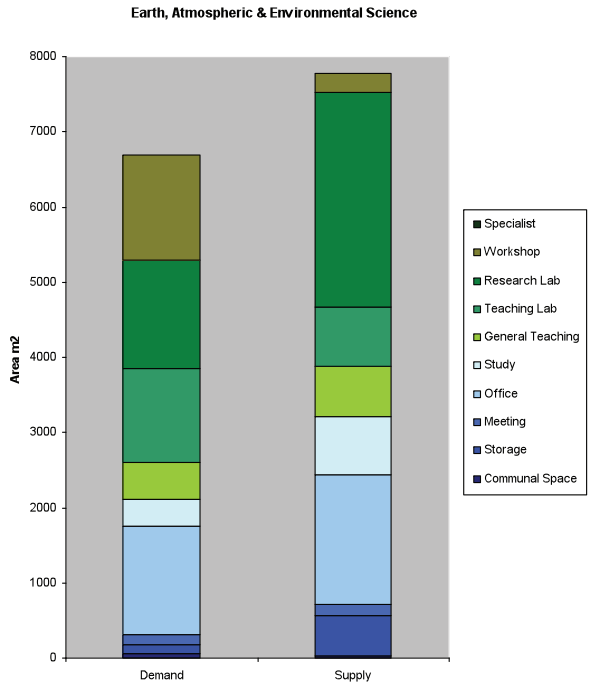
School of Chemistry



School of Computer Science

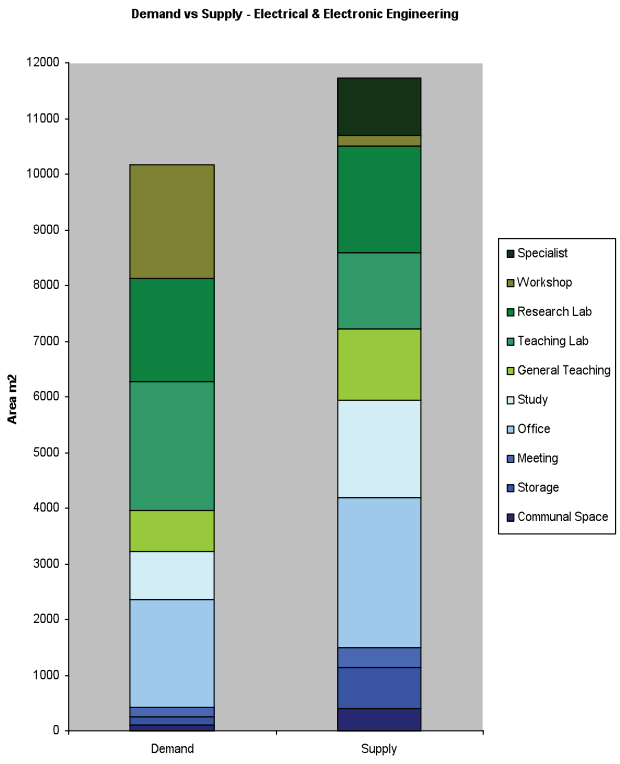


School of Earth, Atmospheric and Environmental Sciences

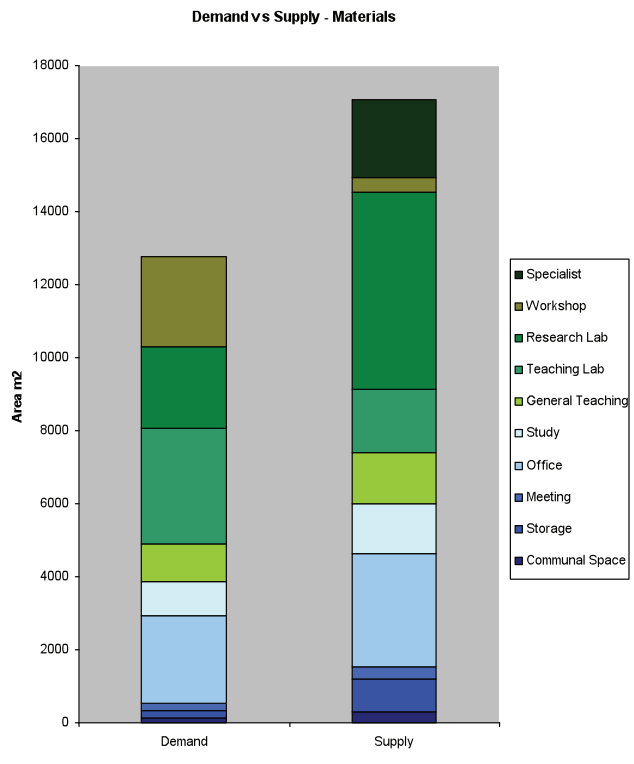


Faculty of Engineering and Physical Sciences

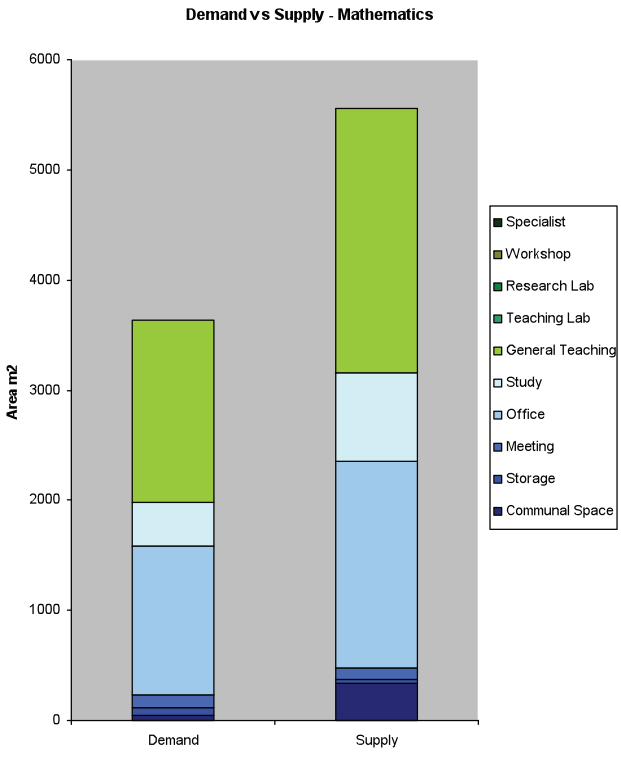
School of Electrical and Electronic Engineering



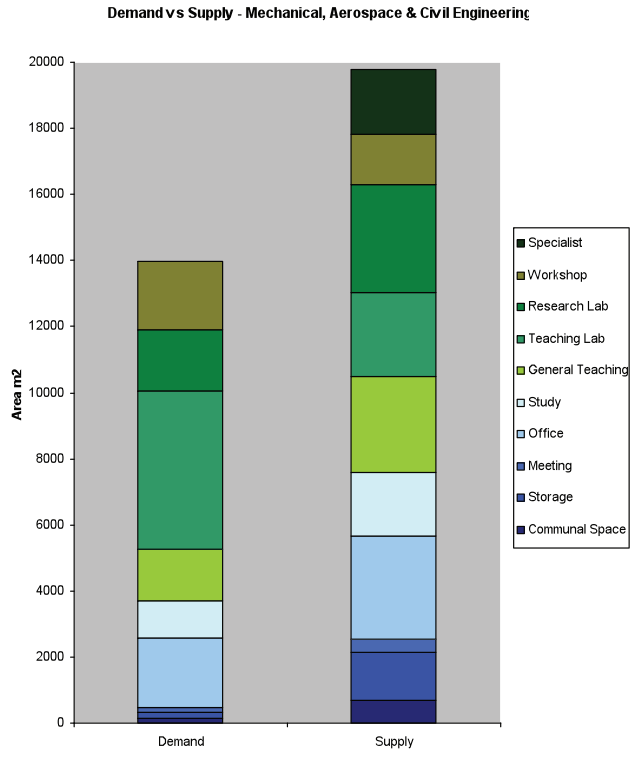
School of Materials



School of Mathematics



School of Mechanical, Aerospace and Civil Engineering

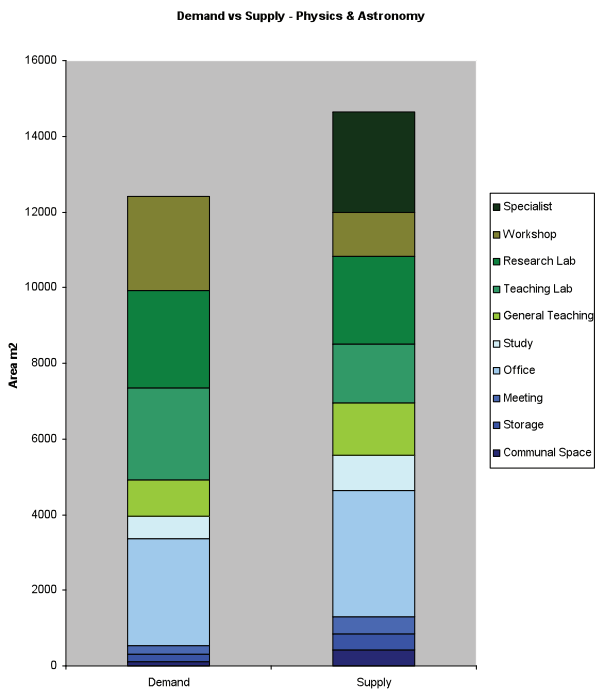


Appendix C

Demand vs Supply

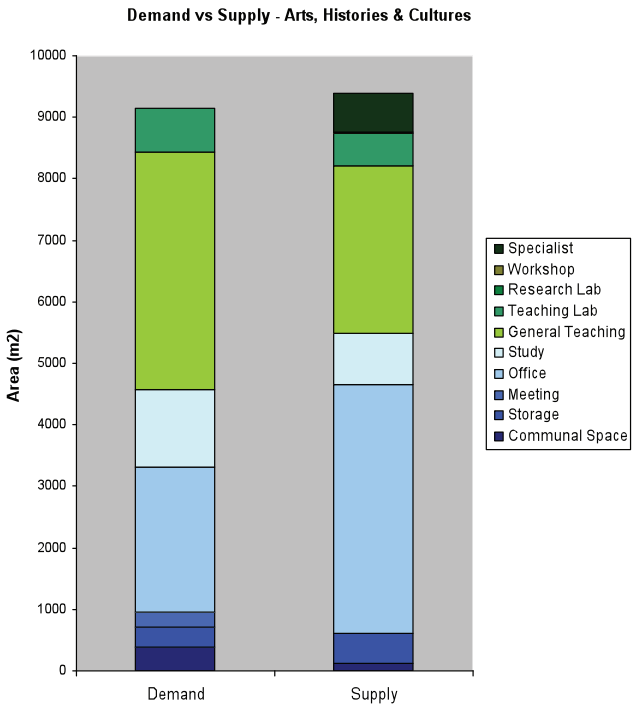
Faculty of Engineering and Physical Sciences

School of Physics and Astronomy

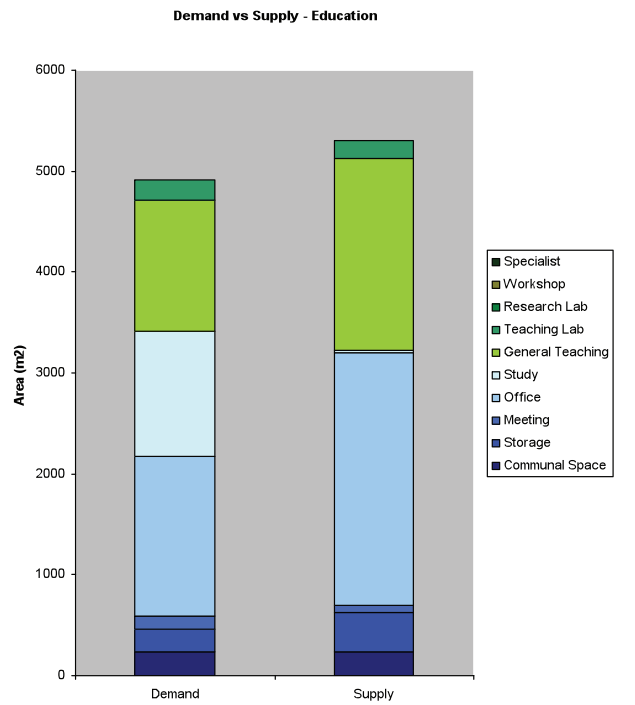


Faculty of Humanities

School of Arts, Histories and Cultures

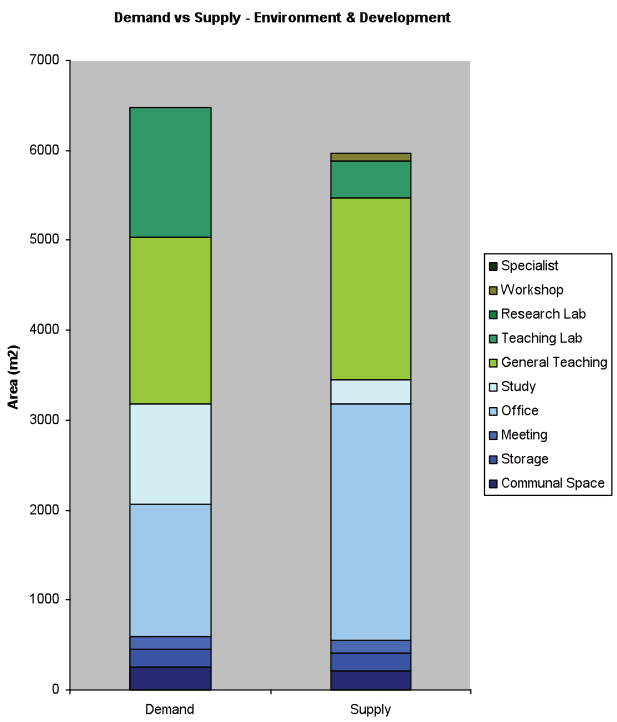


School of Education

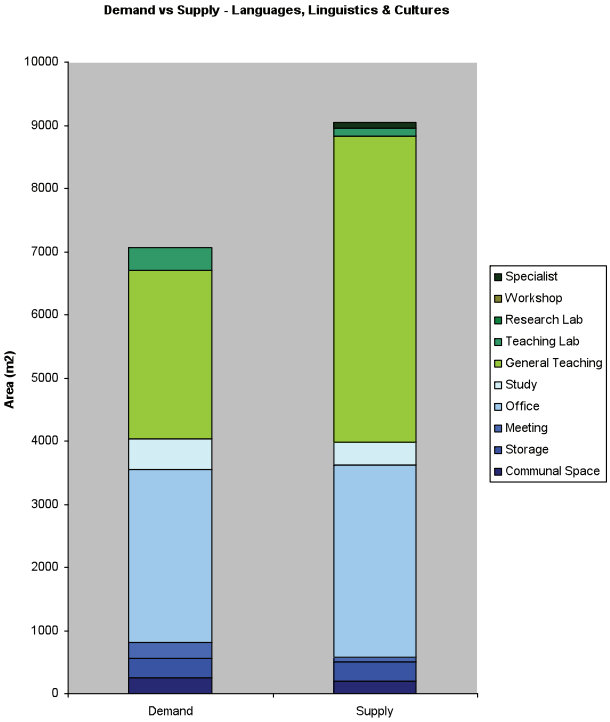


Faculty Humanities

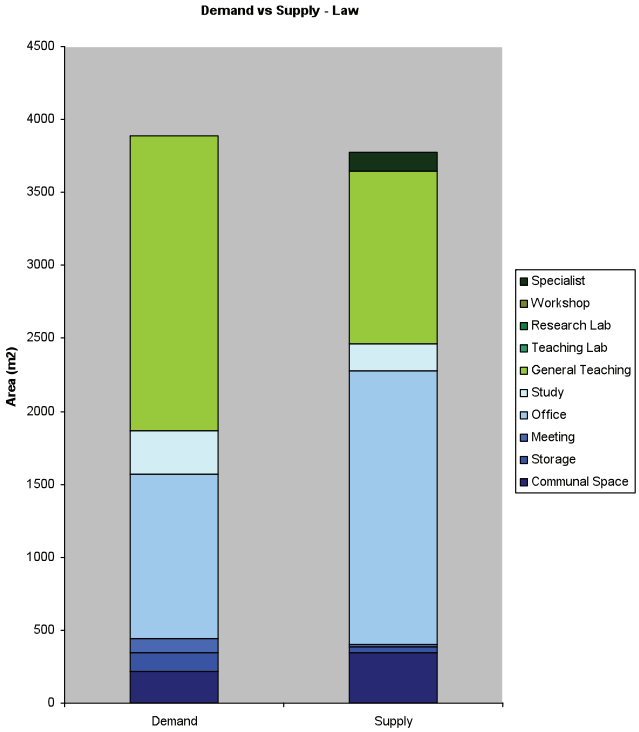
School of Environmental and Development



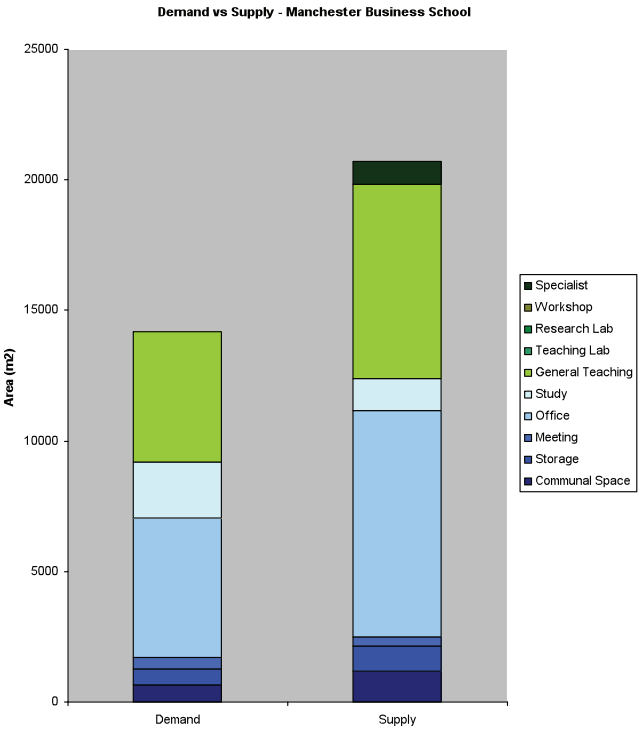
School of Languages, Linguistics and Cultures



School of Law



Manchester Business School

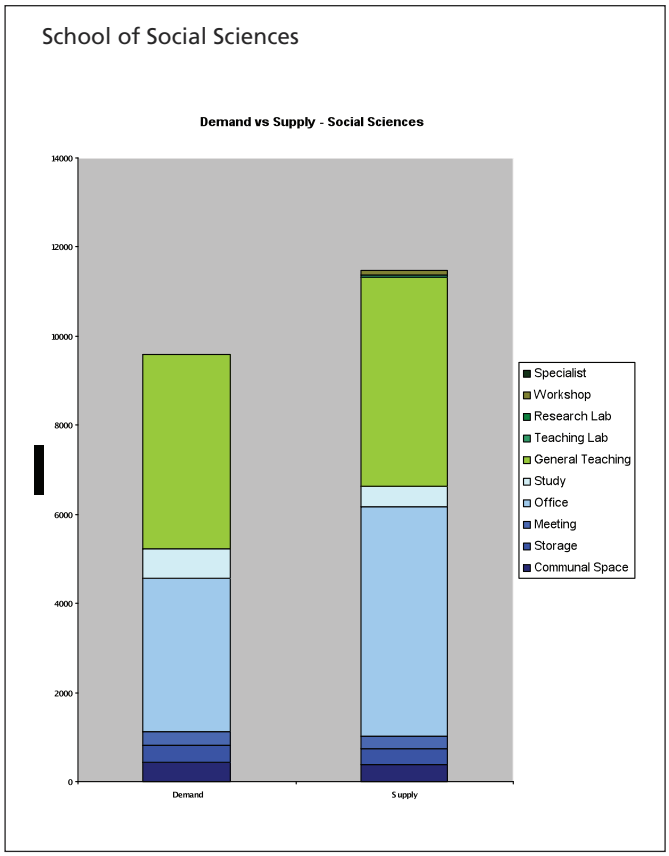


Appendix C

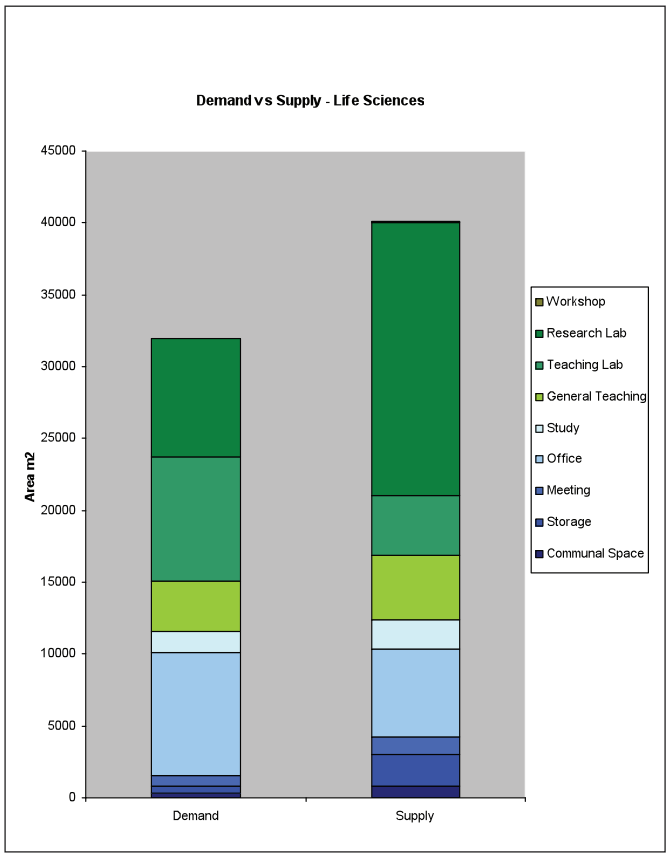
Demand vs Supply

Faculty of Humanities

School of Social Sciences

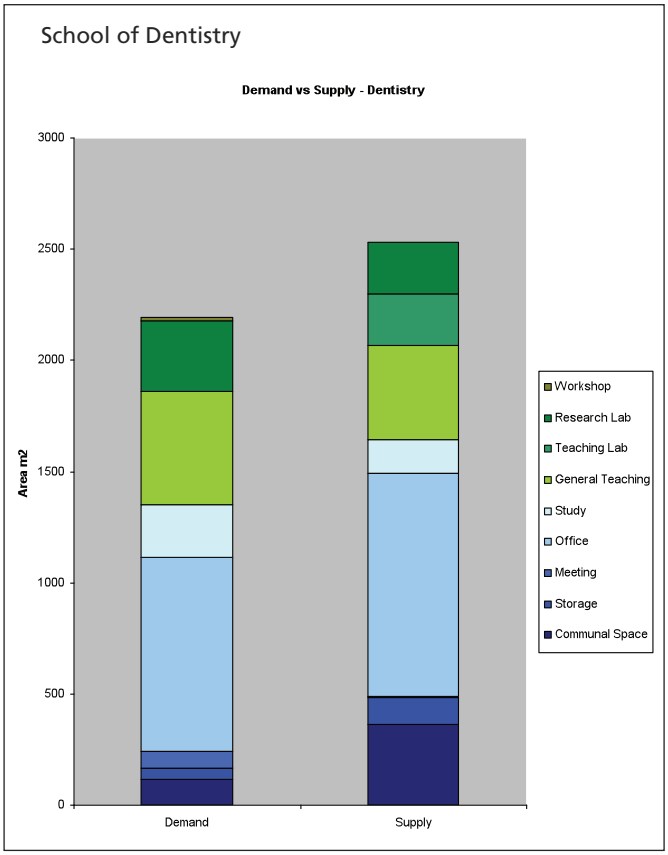


Faculty of Life Sciences

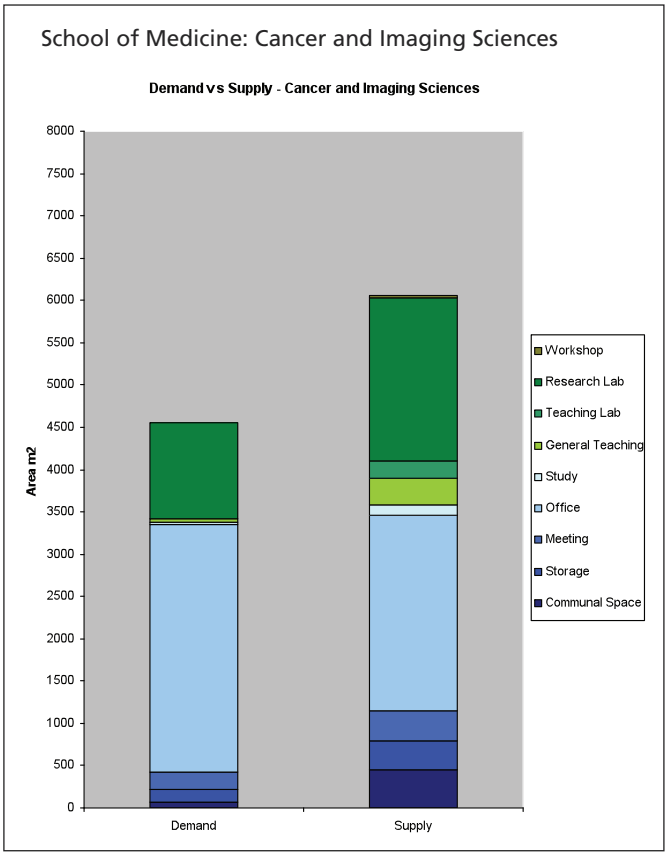


Faculty Medical and Human Sciences

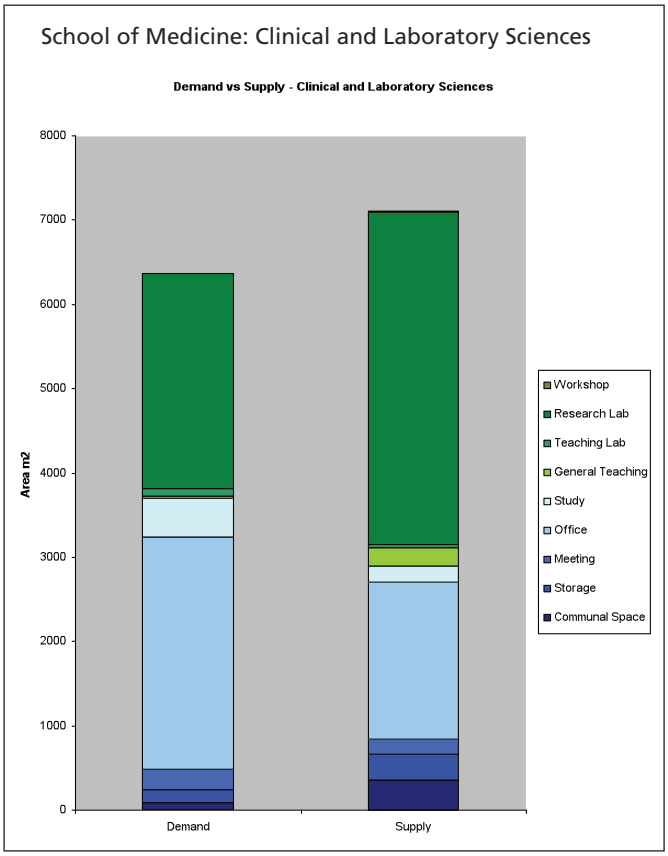
School of Dentistry



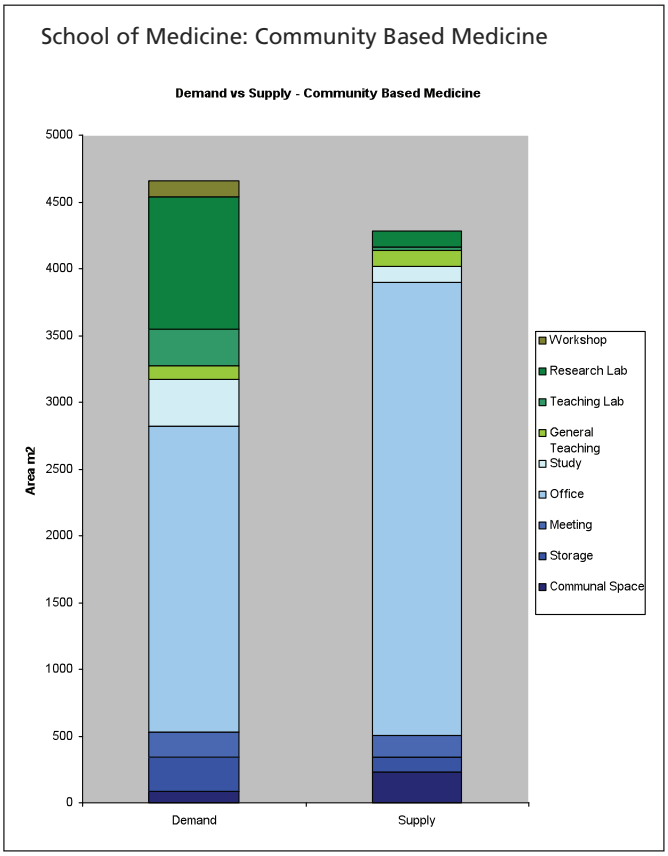
School of Medicine: Cancer and Imaging Sciences



School of Medicine: Clinical and Laboratory Sciences



School of Medicine: Community Based Medicine

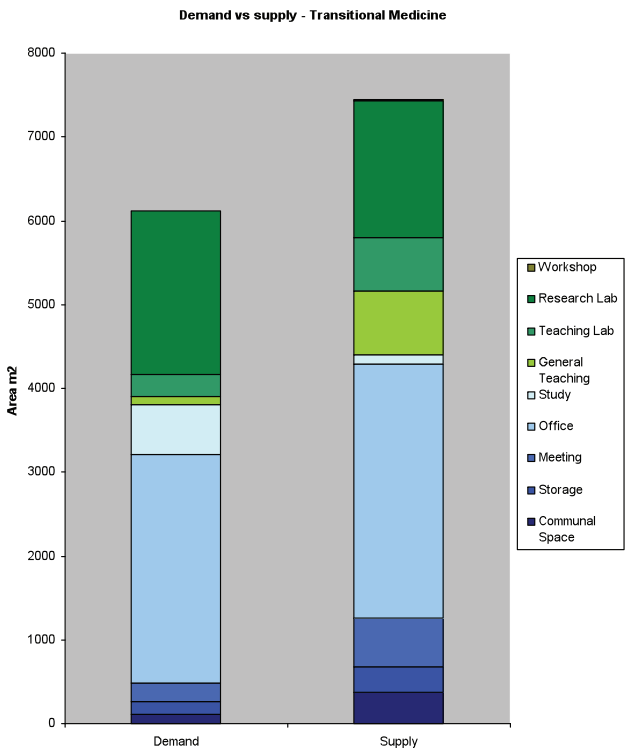


Appendix C

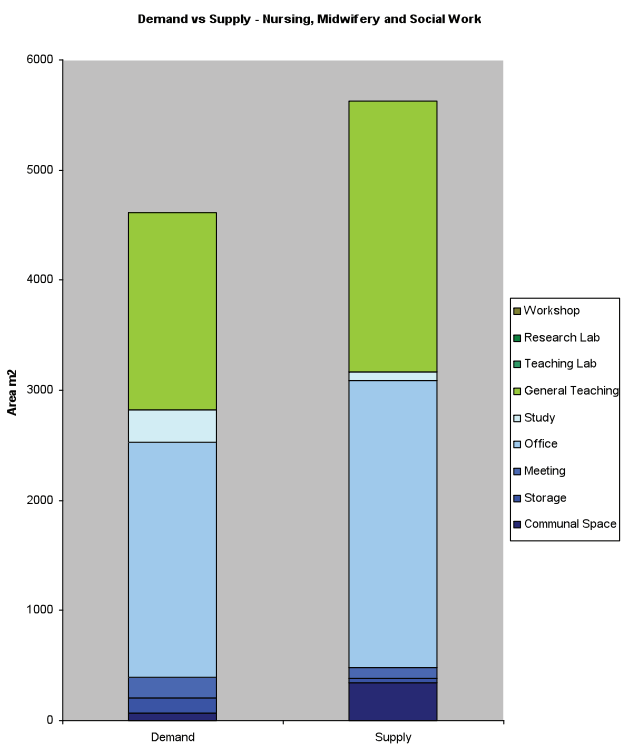
Demand vs Supply

Faculty of Medical and Human Sciences

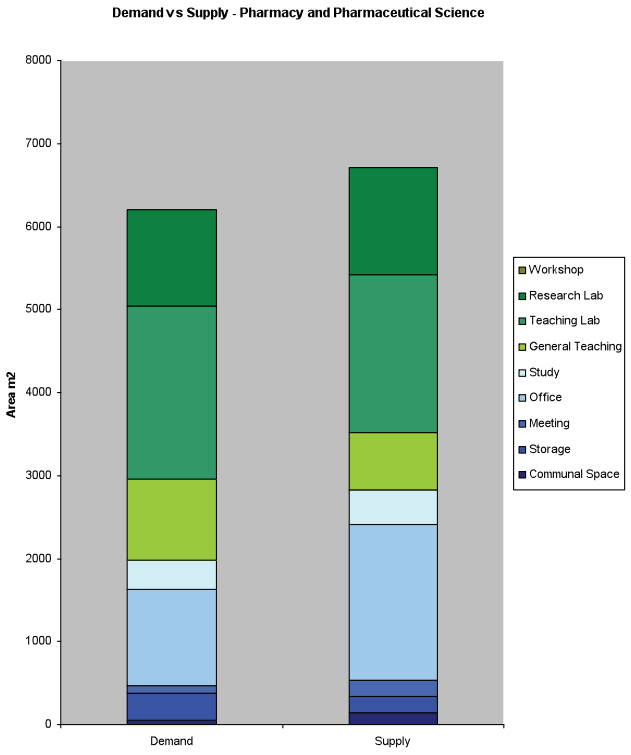
School of Medicine: Transitional Medicine



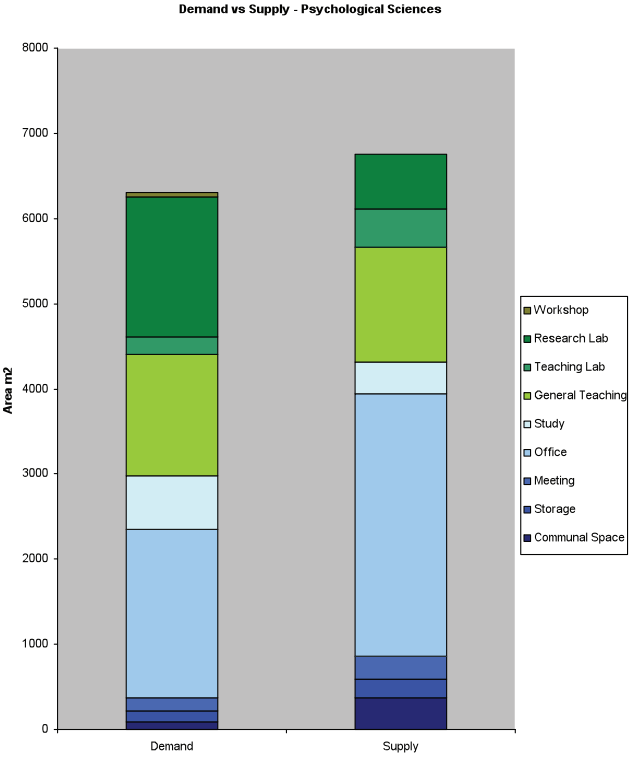
School of Nursing, Midwifery and Social Work



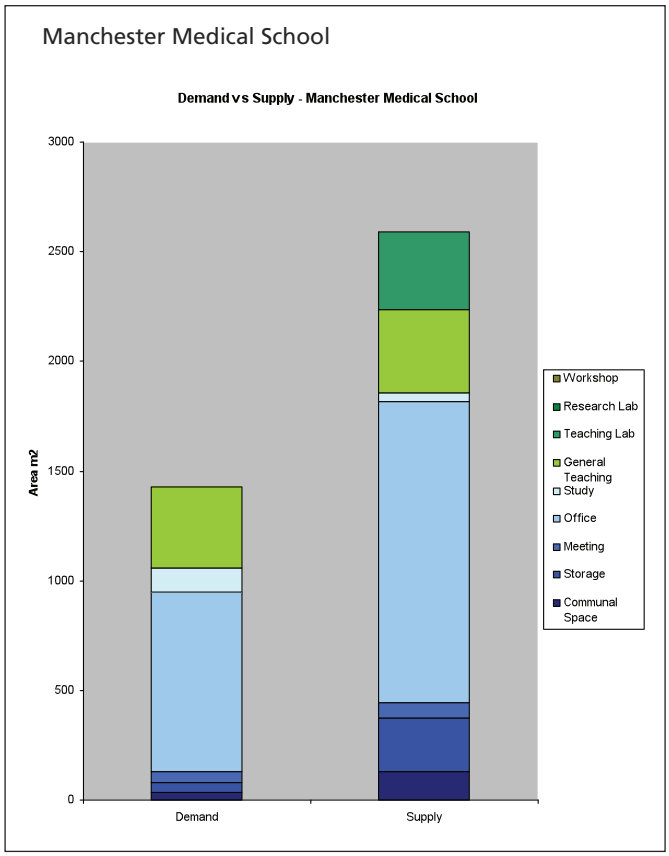
School of Pharmacy and Pharmaceutical Science



School of Psychological Sciences



Faculty Medical and Human Sciences



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