Estate Strategy
2013 - 2018
This strategy was completed and approved by the University’s Council on 23 November 2012. It was written by Patrick Finch, Sue Somerset and Martin Wiles, Bursar, Head of Space and Asset Management and Head of Sustainability at the University of Bristol. The contributions of many colleagues from within the Estates Office and the wider University community are gratefully acknowledged.
Introduction

The University of Bristol Estate Strategy is one of a suite of corporate planning documents. It seeks to map University policy objectives onto the physical assets available and to ensure that the Estate, one of the University’s key resources alongside people and finance, is capable of supporting academic endeavour over the plan period.

The Estate Strategy is designed to support the University’s corporate planning statements. Of particular relevance is the following extract from the University’s Vision document to 2016, relating to Estates Development;

- Provide all parts of the University with flexible accommodation which is of a quality, size and functionality appropriate to the activities to be delivered and which supports the University’s vision.
- Ensure the most efficient use of existing space and the development of capacity within the central Precinct area wherever appropriate
- Continue to work to reduce carbon emissions and improve the sustainability of the physical estate
- Provide residential accommodation which is attractive to students in form, service and location
- Deliver an ambitious capital programme in support of the renewal of accommodation and the creation of adaptive capacity
- Provide an attractive, safe, accessible and welcoming setting for University buildings that is sympathetic to the wider urban context

In addition, the strategy addresses the University’s growth agenda established in 2011/12 and which requires a fresh look at the physical resources available.

The University of Bristol’s Estate Strategy has been in development over the period 2011 to 2012. In recent years, the University has also produced specific policies and strategies in a number of areas including teaching, research, enterprise, student experience and residential policy and the Estate Strategy seeks to underpin those policies where appropriate.

A number of core supporting documents have already been completed and they are being used to inform the current estate development programme (see Appendix J).
The Estate Strategy itself provides the overarching framework within which those
detailed policies and plans will operate.

This Estate Strategy has been developed following extensive consultation across the
University and with key external stakeholders. This process has included review at
the University’s Council and with members of the Estates Committee, with
representatives of academic schools and faculties and support services divisions,
with Bristol City Council and with the University’s health service partners. In
particular, the views of successive years of student representatives have been
greatly appreciated.

A schedule of consultation is included in appendix I.
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1. Description of the University of Bristol Estate

The University of Bristol Estate comprises the following:

- Two main academic campuses – the Clifton Precinct and the Langford veterinary site in North Somerset
- A third major landholding in Long Ashton, currently in limited use as an agricultural research site
- Two plots on the Bristol and Bath Science Park, Emerson’s Green, North Bristol
- Two significant residential sites at Stoke Bishop and Clifton
- A sports ground at Coombe Dingle
- Various outlying academic and residential buildings
- An extensive predominantly leasehold holding within the NHS Estate, focusing on the University Hospitals Bristol NHS Trust and the North Bristol NHS Trust

Some defining characteristics

The University of Bristol holds one of the largest estates in the HE sector, sitting in the top 15 by size in the UK. The Estate is around the median size when compared to Russell Group estate holdings.

The Estate is unusual in that over 21% of buildings are listed and over 90% are located within designated conservation areas. The age profile is also interesting, with 31% of the academic estate and 34% of the residential estate built before 1939.

The average building size is relatively small, which reflects the organic growth in the Estate throughout the 20th century, when many individual Georgian and Victorian houses were purchased for conversion for University use. These sit alongside the more traditional purpose built University buildings of the 20th and 21st centuries.

Wills Memorial Library

Wills Memorial Library
The University has a broad spread of activities and the Estate reflects this. The six faculties of the University each have particular spatial needs, as do the cross faculty institutes that are an increasing feature of academic life. Of particular note is the presence of the Medical School, Dental School and Veterinary School with associated dairy farm. Alongside these are a range of science and engineering buildings dating mainly from the period 1950 – 2000. The faculties of Arts and Social Sciences and Law typically occupy groupings of smaller, often historic buildings, which provide these subjects with an attractive setting which is very different in character to some of their peer institutions.

Much of the University’s estate holding is located in those areas of North Bristol where high land values are characteristic. While this has benefits for the balance sheet, it also means that land acquisition costs can be high. These are often coupled with high construction costs, which reflect both the topography and the conservation area setting.

Conservation area status also extends across the two main residential sites at Stoke Bishop and Clifton and the core of the Langford veterinary site.

The University Estate includes some of the most iconic and memorable buildings in Bristol. Examples would include the Wills Memorial Building, Goldney House and Gardens, the Victoria Rooms and Royal Fort House.

Perhaps the most interesting aspect of the University Estate however is the way that it is woven into the urban fabric of the city of Bristol. The University provides a unique backdrop to the city centre and has a significant presence within Clifton and Stoke Bishop. It is not a campus estate however and University activities coexist alongside a range of other public health, commercial and residential uses within the city.
2. Key data sets that inform the Estate Strategy

The following charts provide a more detailed analysis of the University of Bristol Estate and their data is used to inform the issues chapter of the Estate Strategy. Data is drawn from the 2010/11 University of Bristol Higher Education Statistics Agency’s Estate Management Statistics return.

<table>
<thead>
<tr>
<th>Data Set</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total land holding</td>
<td>700 acres</td>
</tr>
<tr>
<td>300 buildings</td>
<td>96% Freehold, Over 21% is listed, Over 90% in conservation areas</td>
</tr>
<tr>
<td>Estate Value</td>
<td>£790M (Insurance Replacement )</td>
</tr>
<tr>
<td>Rateable Value</td>
<td>£11.243M</td>
</tr>
<tr>
<td>Total area (GIA)— academic and</td>
<td>319000m²</td>
</tr>
<tr>
<td>administration</td>
<td></td>
</tr>
<tr>
<td>Total area – residential</td>
<td>110000m²</td>
</tr>
</tbody>
</table>

Primary use of the Estate

- Teaching
- Research
- Learning Space
- Other (support, catering, sports)
- Residential
### Residential Condition

<table>
<thead>
<tr>
<th>Percentage Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Bristol</td>
<td>3</td>
<td>45</td>
<td>50</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell Group Median</td>
<td>5.00</td>
<td>55.00</td>
<td>19.10</td>
<td>0.25</td>
</tr>
<tr>
<td>Russell Group Avg</td>
<td>11.54</td>
<td>50.93</td>
<td>25.65</td>
<td>3.55</td>
</tr>
<tr>
<td>HEI Sector Median</td>
<td>0.00</td>
<td>50.40</td>
<td>10.00</td>
<td>0.00</td>
</tr>
<tr>
<td>HEI Sector Avg</td>
<td>15.29</td>
<td>48.32</td>
<td>18.45</td>
<td>1.38</td>
</tr>
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</table>

### Non Residential Condition

<table>
<thead>
<tr>
<th>Percentage Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Bristol</td>
<td>2</td>
<td>78</td>
<td>19</td>
<td>1</td>
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<table>
<thead>
<tr>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell Group Median</td>
<td>13.3</td>
<td>61</td>
<td>19.5</td>
<td>1</td>
</tr>
<tr>
<td>Russell Group Avg</td>
<td>13.95</td>
<td>62.85</td>
<td>21.68</td>
<td>1.52</td>
</tr>
<tr>
<td>HEI Sector Median</td>
<td>14.85</td>
<td>60</td>
<td>18</td>
<td>0.1</td>
</tr>
<tr>
<td>HEI Sector Avg</td>
<td>19.49</td>
<td>57.73</td>
<td>21.38</td>
<td>1.41</td>
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</table>

### Residential Functional Suitability

<table>
<thead>
<tr>
<th>Percentage Grade</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>University of Bristol</td>
<td>54</td>
<td>39</td>
<td>4.5</td>
<td>2.5</td>
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<table>
<thead>
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<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell Group Median</td>
<td>35.50</td>
<td>39.00</td>
<td>4.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Russell Group Avg</td>
<td>37.96</td>
<td>42.12</td>
<td>9.65</td>
<td>1.94</td>
</tr>
<tr>
<td>HEI Sector Median</td>
<td>22.50</td>
<td>31.50</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>HEI Sector Avg</td>
<td>32.13</td>
<td>38.19</td>
<td>11.73</td>
<td>1.29</td>
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</table>

### Non-Residential Functional Suitability

<table>
<thead>
<tr>
<th>Percentage Grade</th>
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<th>D</th>
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</thead>
<tbody>
<tr>
<td>University of Bristol</td>
<td>36</td>
<td>46</td>
<td>16</td>
<td>2</td>
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<table>
<thead>
<tr>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell Group Median</td>
<td>34</td>
<td>50.35</td>
<td>13.3</td>
<td>1</td>
</tr>
<tr>
<td>Russell Group Avg</td>
<td>31.99</td>
<td>50.53</td>
<td>15.8</td>
<td>1.68</td>
</tr>
<tr>
<td>HEI Sector Median</td>
<td>32.1</td>
<td>49.8</td>
<td>12.3</td>
<td>0.6</td>
</tr>
<tr>
<td>HEI Sector Avg</td>
<td>34.85</td>
<td>48.93</td>
<td>14.51</td>
<td>1.71</td>
</tr>
</tbody>
</table>

1 Royal Institution of Chartered Surveyors definitions of estate condition
Utilisation of University of Bristol central teaching spaces of 50 seats and above

Frequency of usage of central teaching rooms
Russell Group* Comparators (less Oxford & Cambridge)
Non-Residential Income per Square Metre Non-Residential Space

Average
Upper Quartile
Lower Quartile
University of Bristol

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Upper Quartile</th>
<th>Lower Quartile</th>
<th>University of Bristol</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006/7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008/9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009/10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010/11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Carbon emissions from buildings since 2005/6

<table>
<thead>
<tr>
<th>tCO2 emitted by source</th>
<th>05/06</th>
<th>06/07</th>
<th>07/08</th>
<th>08/09</th>
<th>09/10</th>
<th>10/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>32,935</td>
<td>30,585</td>
<td>30,959</td>
<td>31,361</td>
<td>30,807</td>
<td>30,788</td>
</tr>
<tr>
<td>Gas</td>
<td>14,784</td>
<td>14,313</td>
<td>15,735</td>
<td>15,981</td>
<td>15,804</td>
<td>15,534</td>
</tr>
<tr>
<td>Steam</td>
<td>268</td>
<td>165</td>
<td>99</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oil</td>
<td>333</td>
<td>165</td>
<td>317</td>
<td>256</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td>48,320</td>
<td>45,228</td>
<td>47,110</td>
<td>47,598</td>
<td>46,718</td>
<td>46,429</td>
</tr>
</tbody>
</table>

Overview of operating costs as at 2011/12

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Cost Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical revenue costs</td>
<td>£25M per annum</td>
</tr>
<tr>
<td>Average capital expenditure</td>
<td>between £40 and £50M but peaking at £100M in current plan</td>
</tr>
<tr>
<td>Energy and utilities costs</td>
<td>circa £10M per annum</td>
</tr>
<tr>
<td>Estates Office workforce</td>
<td>circa 495 FTE plus consultants and contractors</td>
</tr>
<tr>
<td>External rent and service charges</td>
<td>circa £2M</td>
</tr>
<tr>
<td>Hospital costs</td>
<td>circa £1.5M</td>
</tr>
</tbody>
</table>
3. An analysis of the University of Bristol’s key sites

The University Precinct, Clifton. The primary academic and administrative site

The Precinct occupies a quarter of the city that lies north of the centre, west of St Michael’s Hill and east of Queen’s Road and Whiteladies Road. There is a clearly defined University quarter, although the University does not own every property [see appendix A]. The location is excellent, with close proximity to the city centre, Clifton and the main University Hospitals campus. 71% of our academic and administrative space is located in or in close proximity to the Precinct.

The following table summarises the advantages and disadvantages of the Precinct site:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location, in an attractive edge of centre position</td>
<td>Age of the estate is an issue for effective spatial use</td>
</tr>
<tr>
<td>Contains iconic architecture and history that provides a unique identity</td>
<td>Costs of maintaining historic estate and improving sustainability</td>
</tr>
<tr>
<td>Not a campus but close to being a coherent whole</td>
<td>Tight planning controls – whole of Precinct is covered by 4 conservation areas</td>
</tr>
<tr>
<td>Easily accessible within the city with good links to transport infrastructure</td>
<td>An expensive area of the city in which to acquire additional sites</td>
</tr>
<tr>
<td>Close to many student residential areas</td>
<td>New projects are expensive to deliver</td>
</tr>
<tr>
<td>Close links to University Hospitals Bristol campus</td>
<td>Legal compliance can be challenging, including accessibility</td>
</tr>
</tbody>
</table>
Precinct Outliers

The University Precinct has been defined in the University Masterplan, adopted by University and Bristol City Councils in 2006. However, there is a greater Precinct area which includes buildings that are not part of the Masterplan but which are clearly part of the coherent property holding [see map at appendix A]. These would include the Victoria Rooms, 35 Berkeley Square, the Dorothy Hodgkin Building and the Southwell Street veterinary facility.

There are a number of other outlying buildings which do not form a part of the greater Precinct but which in many cases will satisfy a key operational purpose. The Estate Strategy considers each of these properties to ensure that there is a valid reason for holding it in the long term. This group would include Oakfield and Barley Houses in Clifton, Canynge Hall and the Richmond Building. It is possible that some activities within this outer group might be better relocated to the Precinct as an appropriate opportunity arises.
Langford

The Langford estate is located in North Somerset, close to the A38 trunk road and about 12 miles south of Bristol [see location map, appendix B.1]. It comprises a listed country house and an assembly of academic and agricultural buildings, acquired from the Ministry of Agriculture in the 1940’s and now used predominantly as a veterinary school. The following table summarises strengths and weaknesses:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well located for rural activity, including farm as part of landholding</td>
<td>Separation of academic activity from the main Precinct</td>
</tr>
<tr>
<td>A coherent campus plan is achievable</td>
<td>Poor condition of much of the estate</td>
</tr>
<tr>
<td>Significant investment in modern buildings has been provided in recent years</td>
<td>Logic to main campus and farm but also a dispersed group of other buildings</td>
</tr>
<tr>
<td>Lower build costs and scope for further expansion</td>
<td>Lacks a coherent master plan for development</td>
</tr>
</tbody>
</table>

A rationalisation of the Langford estate has already commenced. It is clear that there is a core estate grouping at Langford around the main campus and the adjoining Wyndhurst Farm [see site plan at appendix C]. The academic future of the farm has been reviewed and it will be retained to support the University’s teaching and research efforts.

There are also outlying residential properties, former agricultural sites and parts of the current farm holding that sit outside of this core and an early evaluation of these properties suggests that there is some potential for disposal. This will be considered later.
Bristol and Bath Science Park

In 2010, the University agreed to take a long leasehold interest in a plot of 4.5 acres on the newly developed Bristol and Bath Science Park at Emersons Green in North Bristol [see appendix B.2]. The University holds an option on an adjoining plot. The site was acquired for the construction of the National Composites Centre, an open access research facility, owned by the University of Bristol but with occupation shared with a number of industrial partners on a formal or informal basis.

The site represents a valuable opportunity for the University of Bristol to extend its industrial and commercial partnership activity into the North Bristol high tech fringe, with an opportunity to develop further either on the option plot or by acquiring additional land.
Fenswood Farm, Long Ashton

Fenswood Farm and adjacent property at Long Ashton comprises over 200 acres of largely agricultural land on the southern edge of Bristol. There is residual academic use but it is now on a very limited scale compared to former times.

The University has, for some years, been pursuing the possibility of alternative use. Considerable time has been spent in seeking a residential planning consent. A recent review of the North Somerset core strategy lessened the likelihood of an early disposal for residential use but acknowledges the need for regular review as housing pressure from Bristol continues to spread.

It is likely that any residual activities could be moved and would most appropriately be placed in Langford.

Fenswood Farm
NHS Trust activities

The University’s teaching and research activities include important partnerships with a number of National Health Service trusts. As a consequence, the University occupies a significant amount of property on the estates of two NHS Trusts, the North Bristol NHS Trust and the University Hospitals Bristol Trust.

At the time of writing, the estate holding on the North Bristol Trust property is being consolidated into a single building, the Learning and Research building at Southmead Hospital. The University will occupy approximately 2600 (NIA) square metres of space in this building when it is completed in 2014. The University’s tenure here is long leasehold.

On the University Hospitals Bristol estate, the University occupies a myriad of different spaces in different buildings. The total holding is approximately 6000 (NIA) square metres. Although there are exceptions, these sites are typically not held on long leases. Rather, the accommodation is assessed annually and is then subject to an annual service charge. In practice the occupation of space on the University Hospitals Bristol estate varies year on year, dependant on the specific nature of research activities being undertaken.

While the total cost of occupying NHS Trust space is significant, being £1.4M in 2011/12, the holding is essentially of an operational rather than strategic nature. Space planning operates through a policy of regular review between the estates departments of the University and the two Trusts concerned.
Residential Sites

The University owns approximately 3850 bed spaces within the City of Bristol. It holds nomination rights over a further 1200 privately developed bed spaces. It also has a small portfolio of some 70 bed spaces on the Langford estate.

The majority of the University owned bed spaces are located either at Stoke Bishop (2100) or within the Clifton grouping (approximately 800) [see appendices D and E respectively]. Both of these sites are of high quality and located in Bristol’s best residential neighbourhoods.

The Stoke Bishop site encompasses the University’s Botanic Garden and generally enjoys a high quality landscape. Clifton has a number of historic gardens including the Grade I listed Goldney Garden.

Much of the remainder of the freehold estate is located within a scattered portfolio of student houses, some forming part of the main University Precinct and others spread across North Bristol. These are variable in character and quality but generally well located and accessible to the Precinct.

The University’s commitment to student growth in the period 2012-15 has led to a review of student housing needs and the situation is still evolving. However, it is clear that a further 1200 bed spaces will need to be provided over that period.

The University's residential strategy[2] seeks to try and house all accommodation guarantee students in bedrooms owned and managed by the University itself. The

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2 [http://www.bristol.ac.uk/planning/programmesandprojects/residences/](http://www.bristol.ac.uk/planning/programmesandprojects/residences/) 2010
The majority of other students would be housed in the private sector, either in purpose built halls or in student houses.

While there will be further private development within the city, if the University is to maintain the accommodation guarantees it offers for its own halls, the additional 1200 bedrooms will need to be developed by the University in the next 4-5 years. In the interim, there will be an inevitable reliance on private sector short term lets and nomination agreements.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good transport links or close proximity to campus</td>
<td>Poor condition of much of the Estate</td>
</tr>
<tr>
<td>Attractive locations</td>
<td>Neighbour management issues in Stoke Bishop and Clifton</td>
</tr>
<tr>
<td>Coherence of main sites</td>
<td>Limited opportunities for further development – is there enough capacity for growth?</td>
</tr>
<tr>
<td>Buildings of good quality, although caution on condition</td>
<td>Management costs for dispersed student houses</td>
</tr>
<tr>
<td>Residential estate is seen as an integrated part of student support, particularly for first years</td>
<td>Not enough current beds to meet accommodation guarantees. Reliance on external providers, sometimes using inferior quality stock</td>
</tr>
</tbody>
</table>
Sports Facilities

The University provides sports facilities for its students and staff in a number of different locations. The main sports centre is located at the heart of the Precinct in Tyndall Avenue. The University swimming pool is in the Richmond Building in Queens Road, Clifton.

In addition, the University operates a major sports venue at Coombe Dingle, approximately half a mile from the main residential site at Stoke Bishop. This site provides a comprehensive range of facilities including the majority of the University’s grass pitches. Although in the ownership of the University, the site is operated by a Trust which includes a number of partners.

There are also sports facilities on the main residential sites and on the Langford campus.

In addition to the above, the University relies heavily on the use of external facilities, notably Stoke Lodge, the Downs and the facilities provided by local schools, with which it has reciprocal arrangements.

While the University offers a comprehensive package of sporting facilities, the majority of them are heavily oversubscribed. As the University grows, the provision of additional sports facilities, whether through direct development within the University estate or by making use of others facilities will be a priority.
4. Major issues facing the University of Bristol Estate

The key requirement of this strategy is to assess whether the University of Bristol Estate is fit for purpose for the University’s needs, taking a detailed look at the 5 year period to 2018 and in broader terms to 2023 and beyond.

This evaluation of the Estate’s ability to meet the University’s needs focusses on eight key questions, which have emerged from the analysis and during the consultation process.

i) Is there a logic and coherence to our sites that properly supports our academic mission?

ii) Do we have the right volume of accommodation to meet our needs, now and looking ten years ahead?

iii) Is our Estate in satisfactory condition?

iv) Is our Estate fit for purpose?

v) Is the Estate financially sustainable?

vi) Is the Estate environmentally sustainable in the short and longer term?

vii) Do we have effective strategies in place to ensure adequate provision of public and private transport options to and between our sites?

viii) Does the Estate contribute to defining and supporting the Bristol brand and does it help attract and retain the world’s best students and staff?

Each of these issues is examined in turn in the sections below.
i) Is there a logic and coherence to our sites that properly supports our academic mission?

As the analysis in chapter 3 has shown, the bulk of the University’s academic activities take place on the main Precinct. The plan at appendix F shows the spread of activity on the Precinct by Faculty.

From this it can be seen that there is a reasonable coherence in location for most of the Faculties, although there are some significant exceptions. In the case of the Science, Engineering and Medical Sciences Faculties, properties are generally well located both in relation to each individual Faculty and to the cross fertilisation of activities between them. An exception would be Experimental Psychology within the Science Faculty which is currently located in Priory Road, in a zone otherwise occupied by Social Sciences and Law.

Faculties of Arts and Social Sciences and Law have most of their accommodation located within the smaller villas and properties in Woodland Road, Priory Road and Tyndalls Park Road. There are exceptions, including Drama on Park Row, Law in the Wills Memorial Building and the Graduate School of Education in Berkeley Square.

The Faculty of Medicine and Dentistry is an exception to the above, having much of its operational property located within NHS sites. The remainder is scattered across the Precinct and whilst much of that comprises administrative offices, the School of Social and Community Medicine is something of an outlier, located at Canynge Hall and at Oakfield and Barley Houses in Clifton.

Over the plan period, the University would need to consider whether any of these exceptions are sufficiently dysfunctional that provision needs to be made within the Estate for relocation. Where this is an obvious case, potential solutions have been identified and these are covered in chapter 5.

The major activity not located on the Precinct is the Bristol Veterinary School, a part of the Faculty of Medical and Veterinary Sciences. While pre-clinical teaching is carried out on the Precinct or immediately adjacent, the majority of clinical activity takes place on the Langford campus in North Somerset. This has not proved to be problematic in the past and indeed the Langford campus is very well placed for many of the activities of the veterinary school which are simply not consistent with the city centre location. However, like all University Schools, the Veterinary School works closely with other academic areas and there may be opportunities to locate additional activities on the Langford site. There are always tensions about distance between Langford and the main Precinct but while the Precinct is intensively used, the Langford site is
underdeveloped. The opportunity to locate more activity at Langford is one that the University should consider.

The recent acquisition of land at the Bristol and Bath Science Park offers similar opportunities to Langford but again will require a careful balance to be taken between the opportunity available and the potential segregation from mainstream University activity. Although the site is only 4 miles distant, the current public transport links are poor and main routes very congested during peak times.

For residential sites, the University is fortunate. The Clifton residences are within easy walking distance of the Precinct and whilst the Stoke Bishop site is 1.5 miles distant, there is now a very successful bus service which links Stoke Bishop with the Precinct and the city centre. The further concentration of leased Halls of Residence in and around the city centre and lower Park Street are also reasonably accessible to the Precinct.
ii) Do we have the right volume of accommodation to meet our needs, now and looking ten years ahead?

The key questions here are:

- Do we use our space efficiently?
- What are our identified teaching and research requirements, noting in particular the current phase of growth, predominantly in Home/ EU undergraduate numbers?
- Are we meeting all of the reasonable spatial aspirations of our student cohort?
- How far will the current capital programme meet those requirements?
- Can we meet capacity for further residential growth?
- What is our long term potential for further development on our strategic academic sites?
- Should we be targeting further acquisition and could this be balanced by selective disposal of assets?
The commitment to growth of undergraduate numbers by up to 2200 is driving a very specific review of the ability of the Estate to absorb this capacity. This review includes teaching space, student study space, social space, sport activity and the residential base.

We need to identify ways of dealing with selective expansion of activity in certain zones of the Precinct and at Langford. Student growth will exacerbate spatial shortfalls in key areas, for example in Arts, Socials Sciences and Law, Earth and Geographical Sciences.

One of the consequences of increasing undergraduate numbers is that the undergraduate/postgraduate ratio is impacted. It is therefore likely that there will also be a growth in postgraduate numbers, particularly PGR and this will also impact on space requirements. The recent growth in Doctoral Training Centres points to a trend in this area.
iii) Is our Estate in satisfactory condition?

80% of the non-residential estate is classed as being in condition A and B (HESA EMS statistics 2010/11) which can be taken to be in good or satisfactory condition. This is in line with Russell Group averages.

Only 48% of the residential estate is classed in categories A and B meaning that over 50% of the estate is classed as not being in good order. This is poor in relation to our peer group and Russell Group norms.

These statistics represent an accurate cross section of the Estate but they do mask very significant differences in condition from building to building.

Therefore the key issue is how can we plan to improve the quality of our buildings and in particular our halls of residence to achieve satisfactory standards, measured progressively in 2017 and in 2022.

iv) Is the Estate fit for purpose?

- 82% of academic and administrative space is broadly fit for purpose. This is broadly in line with Russell Group averages.

- Buildings may be in good condition but are not necessarily ideal for their specific use

- Smaller villas can be challenging – we need to find innovative ways of using space – possibly adding small extensions to enable better use of the main building

- Historic buildings are always challenging and some limitation is inevitable. An example of a poor match is Biological Sciences in Woodland Road.

- Specialist research spaces require regular renewal

- The recent support process review has exposed the general need for more large floor plate office space

- Many of the buildings do not meet current best standards of accessibility, despite recent investment.
v) Is the Estate financially sustainable?

- JM Consulting on behalf of the Higher Education Funding Council for England (HEFCE) has demonstrated that historic investment in the UK higher education estate has failed to reach sustainable levels. The reports note that over 50% of the UK higher education estate has exceeded its original design life.

- Like many institutions, Bristol has a large backlog of work from limited past investment and stop start investment policies over many decades.

- HEFCE and JM Consulting suggest that institutions should be allocating 4.5% of their insurance replacement value for estate maintenance and renewal. For Bristol, this means approximately £35M per annum.

- This sum could be achieved by recurrent revenue expenditure on maintenance and by capital expenditure for replacement or renewal. Because much of recent capital planning has focused on replacing or renovating outdated facilities, the University has exceeded this total in the years 2010-11 and 2011-12 and will continue to do so for the next two years.

- In the longer term, how can we blend revenue and capital expenditure to ensure that we continue to invest at appropriate levels? We should note that many of our more recent buildings that were constructed in the 1980’s and 1990’s will themselves need significant expenditure for the first time during the plan period.

- Can we afford the increasing utilities and carbon costs associated with a growing estate and how do we seek to manage this risk? It now seems inevitable that fiscal regimes over the plan period will add at least as much to unit costs as will rises in commodity prices.

- Alongside building investment, how do we plan for the renewal of IT and research infrastructure? Capital planning needs to take account not just of the need to upgrade buildings and laboratories but regularly to replenish major IT facilities like the high performance computer centre and major research equipment, cleanrooms, autoclaves, scanners and similar.

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vi) Is the Estate environmentally sustainable?

For many years, the University has been developing policies and procedures for managing its environmental impact. The relevant documents that have already been produced include the University Sustainability Policy, the Carbon Descent Plan and the University Transport Plan.

46,500 tons of carbon are emitted from primary sources, giving Bristol around 2% of the HE sector total. We have proposed and adopted a carbon reduction plan that seeks to reduce this in absolute terms by 36.5% by 2020. This is in line with HEFCE and UK government targets. Does the evidence gathered to date indicate that this is achievable?

We have a good understanding of scope 1 and 2 direct carbon emissions, which are those emanating from use of power and primary heat sources, but we will need to develop a proper understanding of those indirect emissions which sit within scope 3, like the impact of construction work, water usage, waste, staff and student transport and procurement policies. How might we develop this?

Can we and should we develop a focus on renewable energy?

What about our biggest carbon challenge? Our core research business is the biggest driver of carbon. 40% of carbon at Bristol is produced from 5% of space typically in heavily serviced research led buildings. Can we seek to reduce emissions in this area while maintaining our research profile?

Will we face an increasing fiscal regime as well as higher utilities costs?

The sustainability and carbon policies support the Estate Strategy but will of course take a wider view of sustainability activities, striving to ensure that all members of the University community are playing their part in minimising the University’s environmental footprint.
vii) Do we have appropriate strategies in place for managing transportation

The University faces a number of significant challenges to its existing and well established transport plans, which cover both student and staff travel\(^4\).

Existing car parking capacity will inevitably reduce as development and estate improvement pressures build. We could lose in excess of 150 of our current 700 Precinct places if we pursue all current development options.

In recent years there has been a trend across city centres in the UK of reducing car parking spaces and making up the deficiency with improved public transport. Whilst Bristol has lagged behind, there is now some impetus in the city to introduce dedicated and faster bus routes and improved local train networks.

There remains a question mark however whether this can satisfy the University’s needs at a time when staff and student numbers may be growing and car parking availability declining.

The University has established significant improvements in bus services in recent years, most notably the newly established Precinct – Stoke Bishop service. We have also invested in measures to promote car sharing, cycling and walking.

How can we ensure a balance of private car, bus, cycling and walking access that will enable staff and students to access our campuses and travel between them?

How can we ensure that the physical characteristics of our campuses reflect the changing balance?

Is car parking reduction inevitable or should we be seeking new options, on or off campus?

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\(^4\) Staff travel plan - [http://www.bristol.ac.uk/transportplan/plan/theplan.html](http://www.bristol.ac.uk/transportplan/plan/theplan.html)
Student travel plan - [http://www.bristol.ac.uk/transportplan/plan/student/](http://www.bristol.ac.uk/transportplan/plan/student/)
viii) Does the Estate contribute to defining and supporting the Bristol brand and does it help attract and retain the world’s best students and staff?

The Bristol Estate is quite unique and the nature of its buildings and its locations within the city of Bristol clearly has an impact on perceptions of the University. The key issues here are:

- Do we properly understand the role that the Estate plays in attracting students and staff to the University?
- Are we maximising what we might see as a real position of strength?
- Are we achieving the safe, accessible and welcoming environment that our Vision seeks?
- How can we improve the public realm across all sites?
- Are we good custodians of our heritage and good neighbours in the city?
5. Options and solutions

This chapter takes the sequence of issues raised in the preceding pages and develops options and solutions.

i) Coherence and adjacencies

From the earlier analysis, there is a clear coherence across much of the Bristol Estate. Whilst the University Precinct is not a campus, it none the less provides for the majority of the University's academic and administrative functions to be carried out within a well-defined area in which the University is the majority land owner.

At the time of the 2006 Masterplan, a zonal system was introduced across the Precinct which still has relevance. The zonal plan is attached [see appendix G], showing that the main Precinct can be considered in five principal zones. The faculty plan [appendix F] also shows academic distribution across the Precinct.

There are a small number of activities which are clearly in the wrong zone and others that might benefit from relocation as the opportunity arises. Examples here would include a long term requirement to relocate Experimental Psychology to the Science zone of the Precinct, the desire to move Drama to a shared location with Music and closer to the Arts zone of the Precinct and a long term consideration of whether the current remote sites occupied by the School of Social and Community Medicine are appropriate.

The current development plan makes specific provision for the first two of these projects, albeit they are not currently funded within the capital plan. The collocation of Music and Drama in the Victoria Rooms would achieve a number of objectives both estate and academic. Renovation of the Victoria Rooms remains an estate priority and the project would release a significant site on Park Row for redevelopment. Experimental Psychology could be housed in a new building on the former Children’s Hospital site. This is turn would release Priory Road space for further growth in the Faculty of Social Sciences and Law. We should reflect these projects in future capital planning consideration.

We need to ensure that core activities are adequately represented in locations that are accessible to each zone of the Precinct. For students, that means sufficient teaching and learning space of appropriate quality in each zone, good access to computers and
docking stations and adequate informal and social space. Detailed plans will need to reflect this, for example learning facilities management (LFM) proposals for new centrally timetabled teaching rooms.

The University will need to think about the requirements of its libraries over the 5 year period and beyond. We operate multiple branch libraries across many subject areas, although Arts and Social Sciences are contained mainly within one library, with Law in a second. An academic evaluation of the benefits of continuing with this model or moving towards a more centralised library system, particularly for Science and Engineering libraries, is currently underway. The Estate will need to cater for a range of outcomes which might include the provision of a second large central library somewhere within the core Precinct area.

Managing the interface between Langford, the Science Park and the main Precinct needs further exploration if these two sites are to be used to their full potential. A Masterplan for Langford would be an early priority. This would ideally be accompanied by a review of academic or support services activity that might be well placed at Langford. Early options identified include use for Nanoscience ‘quiet’ labs, a possible Library bookstore and space for special collections.

ii) Capacity

Space utilisation and management

Before we commit to expensive capital projects, we should ensure that we make effective use of our existing buildings. The University already operates 320,000 m² of academic and administrative space and whilst much of this is used effectively, there are certainly areas for further improvement.

The data in chapter 2 shows how the University’s total income relates to its estates holding. Whilst there are inevitable differences between the University of Bristol and its peer group, this is none the less a useful indicator of how hard the Estate is working to support the University’s overall endeavour. Together with other information on space utilisation, this data set will be regularly reviewed and reported to see whether relative and absolute progress is being made.

The Estates Office is committed to carrying out detailed space reviews, particularly of those buildings which appear to be at capacity. In 2008, the consultants DEGW provided such a detailed analysis of the way that the University uses its villas in Woodland Road and Priory Road. This work is being used to inform future renovation plans for these properties. A similar exercise is now planned for the Medical Sciences

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building, which at 26,000m² is our largest property. The University should consider further detailed spatial analysis exercises over the course of the plan. Langford, Queen’s Engineering Building and Physics might be early priorities.

Regular audits of teaching space are being carried out and may need further refinement. These should be increased in frequency where feasible and consideration given to use of technology.

All central teaching spaces are now centrally timetabled and centrally managed, giving a good platform for assessing the ongoing needs of the teaching portfolio. This will need further testing in the light of planned growth to 2015.

The University has developed a range of space policies relating to teaching spaces, administrative offices and staff working environments. Further work will be needed to consider academic work space, with particular focus on research space which currently accounts for 30% of the University Estate and where utilisation is not well understood.

We will also need to consider the way that we use our circulation space, foyers and public areas. These have been underutilised in the past but work done in the Social Sciences entrance in Priory Road and in the Chemistry foyer demonstrate that these are valuable spaces which can be put to productive use. A review of opportunities should follow this strategy.

There are also opportunities to extend opening hours of various facilities. Trials in the Libraries and in student and staff catering venues have proved very successful and an exercise to identify further scope is a priority.
The role of the Capital Programme

The current Capital Plan

Ahead of this Estate Strategy, the University finalised a capital programme in 2010. This programme is informed by development needs perceived at the time and its implementation will be a core part of the Estate Strategy. The Capital Plan covers the period to 2020 but will need regular revision, particularly in light of student expansion.

The two current major projects, Life Sciences and Richmond Building, deliver major benefits but also open up further opportunity. Life Sciences construction will be followed by the renovation of the existing Biological Sciences Building (the Fry Building), to be occupied in major part by Mathematics. This in turn releases the Mathematics building for redevelopment or renovation.

The Richmond Building will help unlock the Victoria Rooms improvement, which is currently in feasibility stage. This in turn would lead to reorganisation in the School of Arts and release of the Park Row site.

The programme also meets other Estate Strategy objectives in improving fitness for purpose, estate condition and sustainability. Biological Sciences, Richmond Building and Victoria Rooms are three of the poorest buildings in each of these categories.

Principal projects included in Capital Plan 2010-2020:

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bristol Life Sciences building</td>
<td>£54million</td>
<td>Late 2013</td>
</tr>
<tr>
<td>Richmond Building</td>
<td>£28million</td>
<td>September 2014</td>
</tr>
<tr>
<td>Langford surgeries</td>
<td>£10million</td>
<td>2011</td>
</tr>
<tr>
<td>Renovation of Fry building</td>
<td>£10million (probably insufficient)</td>
<td>2016</td>
</tr>
<tr>
<td>Wills Memorial Library</td>
<td>£3million</td>
<td>Late 2013</td>
</tr>
<tr>
<td>Physics renovation</td>
<td>£4million</td>
<td>2013</td>
</tr>
<tr>
<td>Southmead – Learning and Research phase 2</td>
<td>£2million contribution</td>
<td>2014</td>
</tr>
<tr>
<td>1,11 Priory Road, 30-34 Tyndalls Park Road</td>
<td>£3million</td>
<td>2012-14</td>
</tr>
</tbody>
</table>
| Residential development at Hiatt Baker: Phase 1 - 327 beds plus transport hub | £25million | Summer 2014
The balance constitutes small projects and projects which have already been completed. In addition, rolling programmes of estate maintenance, IT infrastructure and equipment renewal, research equipment renewal and energy and carbon reduction consume significant capital sums and are generally funded at circa £20M per annum throughout the Capital Plan.

The review of the Capital Plan

At the time of writing the Estate Strategy, the Capital Plan itself is in review. There are a number of projects the University had aspired to deliver but which did not fit within the financial capacity of the original £415M capital programme. In addition, the advent of significant student growth means that there will be other projects that now need to be prioritised.

The University is therefore reviewing the Capital Plan. As a consequence of this review, it is likely that the following priority projects will be added:

1. Provision of at least one large lecture theatre, additional student social learning space and other student growth priorities
2. Provision for a further round of residential development, provisionally set at 400-500 beds.
3. A fuller financial allocation to properly reflect the full renovation costs of the Fry Building.
4. An allocation to enable additional property to be purchased to provide for consolidation of support services activities, provision for the relocation of support activities which occupy space that would be more valuable for academic use and acquisition of property to enable strategic growth in the Faculties of Arts and of Social Sciences and Law.

It is estimated that these requirements could add around £65M to the current plan.

Even with the expanded Capital Plan, a number of projects remain for the moment aspirational.

We need to resolve the future spatial plans for Drama and Music. A feasibility study for shared use of the Victoria Rooms is underway and the scheme will cost in the region of £26million. This project delivers a number of strategic Estate objectives including the
renovation of the Victoria Rooms, the co-location of the two departments in a more appropriate location and the release of a significant development site on the Park Row frontage. It is not however currently funded and will need consideration later in the Strategy period.

There has also been consideration of the provision of a second large central library mainly to support subjects in the Science and Engineering faculties. A site has been identified in Tyndall Avenue for this proposal, which would also have the benefit of freeing current branch library space for other academic priorities. Again, this proposal is not currently funded but remains a longer term aspiration and one that may be revisited during the currency of the Estate Strategy.

While the increased capital envelope may deliver a further 500 student bedrooms, this is still short of the likely target requirement by circa 400 beds.
Long term capacity

The bulk of the University’s academic and administrative space is provided on the main Precinct. The Precinct has a Masterplan, developed for the University by the architects, Feilden Clegg Bradley. This document was formally adopted by both the University and Bristol City Council in 2006. A review of the Masterplan has been carried out in 2012 and most of the key objectives set out there are found still to be relevant, although the pace of progress has not been as originally anticipated, mainly due to economic uncertainty over the past several years.

The Masterplan document was summarised in a series of strategic moves which are set out below:

1. To make Tyndall Avenue the social heart of the University
2. To continue and ‘complete’ University Walk on the east side of the Precinct
3. To create a new, identifiable entrance to the University at ‘Tyndall Place’
4. To create new routes, views and vistas from St Michael’s Hill to Royal Fort Gardens
5. To create new links between the University and the city
6. To improve the public realm in order to strengthen the identity of the Precinct
7. To provide a new department of Life Sciences on the east side of the Precinct
8. To create facilities for a New Learning Centre on the site of the existing Arts Library and IT Centre.
9. To re-develop the Hawthorns site
10. To provide a new building adjacent to the Lodge site

Most of the strategic moves are still largely relevant and address many of the issues set out within the Estate Strategy. The first significant project envisaged in the Masterplan, the Bristol Life Sciences building, is now on site.

The one Masterplan move that may no longer be relevant is the proposal to replace the Hawthorns building. The Hawthorns has been renovated for social and residential use.
and although it can still be considered a development site in the longer term, it currently serves its existing function well, with scope for further improvement.

There are some development opportunities which were not identified in the Masterplan but which can now be added. These include the Park Row frontage, assuming that current Drama activity can be relocated, the gap site on St Michaels Hill and the possibility of further limited development around Priory Road.

As a consequence of these changes, it may be necessary to agree an update statement with Bristol City Council, although it is not intended to formally review the Masterplan at this stage.

It is therefore clear that the University has significant development potential for the next 10 years and beyond, summarised as;

- Remaining undeveloped land at former children’s hospital
- Current Maths site, assuming Maths relocation to Fry building.
- Redevelopment of Computer Centre
- Redevelopment of Park Row frontage
- Longer term redevelopment of Hawthorns
- Possible long term development at St Michael’s Park
- Smaller sites – Priory Road infill, gap site on St Michael’s Hill

The plan at Appendix H illustrates these opportunities.

These provide circa 36,000m² of total capacity, excluding St Michael’s Park

There are also one or two sites within the Precinct area but outside of the University’s current ownership. It would be appropriate to acquire these as the opportunity arises to further increase development options.

None of these will be straightforward sites to develop and some will require the relocation of current activities. Together, they do however provide more than adequate capacity for current expectations of growth over the 10 year period.
Other academic sites

There are clear opportunities to make more effective use of the Langford site, although a masterplan for further development is needed and will be prioritised early in the planned strategy period. However, it is noted that the benefits of co-location mean that only selected activities could be based at Langford, where the primary occupier is likely to remain the School of Veterinary Sciences, with the associated Langford Veterinary Services, for the foreseeable future.

The University retains a development option adjacent to the National Composites Centre at the Bristol and Bath Science Park, Emersons Green. There may be further opportunities at the Science Park to acquire additional land.

Rationalisation of the North Bristol NHS Trust sites is currently underway. All academic activity from the Southmead and Frenchay site should be consolidated in an extension to the recently completed Learning and Research building by 2014. Further growth is not predicted at this time.

The University Hospitals Bristol (UHB) NHS Trust is also going through a period of rationalisation. The University has a very scattered holding across the various UHB buildings and will seek rationalisation of this space wherever possible over the coming 5-10 years.

It is highly likely that those activities currently located within the NHS estate will remain there and will not migrate to the University’s own estate holding. This is an important principle in allowing for the adequate planning of the University’s own holding.

Capacity for further residential development

The University has published a Residential Strategy and has carried out a recent review of projected capacity in the light of the home undergraduate growth agenda.

From this activity, it has been determined that the University would require at least 1200 additional bed spaces. In the interim, it is likely that the number of bed spaces held under nomination from private developers would also need to increase from recent levels, although the University strategy remains to provide its own housing for those students satisfying accommodation guarantee requirements.

Preliminary investigation has been carried out at Stoke Bishop and Clifton to determine future capacity. There is a possibility of up to an additional 800 beds in total at the Stoke Bishop site, of which 327 currently have planning consent.
A Masterplan for the Stoke Bishop site should be finalised shortly.

There exists a possibility of a further 150-200 beds at Clifton Hill, although there are many challenges in redeveloping this site. This requires more detailed evaluation.

Potential exists for further residential development at Langford if needed in future.

The analysis chapter has identified the need for up to 1200 additional bed spaces. Even if all available capacity at Stoke Bishop and Clifton is taken up, there is likely to be a shortfall of 300 – 400 beds. Early activity would therefore be focussed on completing the development at Stoke Bishop and considering the possibilities at Clifton in further detail. It is likely however that during the Strategy period the University will also need to consider the strategic acquisition of a further site if the total number of bed spaces is to be delivered.

The Estate Strategy needs to commit to continuous review of capacity for those meeting accommodation guarantees.
Potential acquisitions

There are strategic gaps in the University’s freehold ownership on the Precinct and we should continue to acquire key sites as opportunity arises. Other buildings which are clearly key to the Precinct are held on lease and again, opportunities to consolidate freehold ownership should be taken as they arise.

There is a clearly defined lack of modern open floor plate office space and selective acquisition might be desirable if the opportunity arises, although there is limited stock in the Clifton area in general. Other locations on the edge of the Precinct might be considered.

The future use of Senate House should be considered as part of any review of office space. Located at the heart of the Precinct, parts of Senate House might more beneficially be used for student activity. To facilitate this change, an office building or buildings would need to be acquired adjacent to the Precinct.

This might also bring longer term opportunities to collocate most support services activity in a more coherent manner than at present.

There may be larger scale opportunities to expand, although there are limited opportunities within close proximity to the Precinct. It is not clear that there will be any immediate need over the next ten years but as Bristol enters its second century, a longer term view may be needed. Langford and the Science Park may play an increasing role here.

Should we be planning disposals to balance the portfolio?

There are a number of off Precinct buildings, which should be reviewed to determine whether each one still plays a strategic purpose. The University has too many small and historic buildings and some rebalancing of the portfolio would make sense.

If such buildings generate a higher value for alternative use, the University should consider the options, recent examples being Burwalls and Rodney Place, both of which are being offered for sale. However, the current growth agenda now makes it less likely that the University can dispose of some its buildings previously considered to be potentially surplus, examples being Cotham House and Belgrave Road.

In the longer term, it may be possible to look at consolidating some of the academic activity based in Precinct outliers and property sales may help offset development costs.
There are significant opportunities to rationalise the Langford estate and work is underway to review the houses and parcels of land held there. Five houses and two small parcels of land have been identified for disposal and there may be longer term development potential to be explored on parts of the agricultural holding.

The University should continue to pursue a long term strategy for obtaining a valuable alternative use at Long Ashton, although interim use will also need to be considered.
iii) Improving Estate condition

The academic estate

The University has developed a programme for the next 5 years that will bring about continuous improvement in the condition of the academic Estate. This will improve the current unsatisfactory position and targets of 85% in good condition by 2018 and 90% by 2023 look achievable. The following components should play a major role:

- Ensure that major renovation projects are included in the capital plan.
- Continue the 5 year rolling programme for improvement to the remaining building stock.
- Selective disposal of smaller poor quality properties.

There are one or two large buildings which are currently classed as being in good condition but which would slip back if adequate funding is not allocated over the next 5 years. These would include the Medical Sciences building, the Physics building, the Queen’s Engineering building and the Wills Memorial building.

We will need to prepare adequate maintenance and improvement plans for villas and smaller buildings, which are currently very variable in condition and quality.

There are particular maintenance requirements for the historic estate and these should be developed within sound principles of conservation best practice. Guidelines are in consultation which would promote best practice in this area.
Improving accessibility

We need to ensure that we have a consistent approach to accessibility for both our buildings and the surrounding public realm which is;

• fully compliant with legislative requirements
• achieves current best practice whenever possible
• works with the historic fabric of the space

We should aim to ensure that all major projects meet stretching accessibility targets and that a register of buildings and external surfaces needing improvement is maintained. However, this will need continuous review as legislation, University policy and best practice develop.

Planning policy is often an obstacle here in dealing with the historic estate. We need to enlist support from local planning authorities and from English Heritage to help find a sensible balance.

Plan to improve condition in residential buildings

The earlier analysis section of the Estate Strategy identified that the biggest cause for concern at present is the condition of the residential estate. The following plans are therefore being developed to deal with the backlog in this area and to improve the quality of the student experience.

• A 10 year rolling programme has been established and the first 2 years of projects are now completed. The capital plan allocates a further £30 million up to 2020.

• Early projects were focused on the Hawthorns, 33 Colston Street and the Holmes at Stoke Bishop. Priorities in the rolling programme focus on Manor Hall at Clifton and Churchill, Wills, Hiatt Baker and Badock Halls at Stoke Bishop. A programme to improve student houses is also being developed.

• Alongside the major renovation programme, annual maintenance budgets need to be established at a level that ensures that ongoing reinvestment can be made to ensure that renovated Halls do not slip back to a poor state over a period of years.

• We should aim to have 70% of the residential estate in good condition by 2018 and 85% by 2023
Condition of Infrastructure

The earlier parts of this Strategy focused on the condition of the University buildings. A whole range of estates infrastructure supports those buildings and this too requires investment over the plan period.

This infrastructure includes high voltage electrical distribution, gas supplies, mains and waste water systems and data and telephony connections.

The University has control of much of the infrastructure across the Precinct, Langford, Long Ashton and the Stoke Bishop residential site. In addition, it maintains local connections to national distribution routes for all of its sites and buildings.

A major investment programme across the University Precinct was carried out in the period 2008-2011. Most of the infrastructure around the Precinct can now be considered to be in satisfactory condition, although local improvement is required.

Surveys identified a need to carry out similar improvements at Langford and at Stoke Bishop. These plans are now underway but will need continuing investment over the planned period. Langford infrastructure is particularly poor and upgrade works will commence in 2012.
There is a clear synergy between investing in infrastructure and improving sustainability. The replacement of water mains has led to significant reductions in water leakage and the introduction of voltage optimizing transformers has significantly reduced the power requirement across the Precinct and at Stoke Bishop.

We should set a target of all key elements of estates infrastructure being in satisfactory condition by 2017.

iv) Fitness for purpose

Functional suitability analysis has identified that 18% of the University’s non-residential estate is in the two lower categories of classification for fitness for purpose.

A significant amount of this accommodation relates to the Fry Building which is clearly not suitable for teaching and research in laboratory based science subjects in the 21st century. This deficiency has been identified in the commitment to the new Life Sciences Building. The reallocation of the Fry Building to more suitable academic purposes, notably occupation by the School of Mathematics will address this deficiency.

Similarly, space which is not fit for purpose in the Richmond Building will be addressed by the current reorganisation and renovation.

This will leave pockets of space scattered around the estate, often laboratory or other specialist space which need significant investment or in some cases an alternative home. For example, space in the Drama building is unfit for purpose and it is doubtful whether the building could ever be adapted to rectify this.

In other cases, it is probable that laboratory space could be upgraded and reprovisioned to address existing shortcomings.

The Estates Office will prepare a list of the major spaces which are not fit for purpose and put an action plan together, with the aim of achieving a target of 90% of space being fit for purpose by 2018.

While there is not necessarily a correlation between condition and fitness for purpose, the small amount of residential space which is classified as not being fit for purpose is likely to be improved by the agreed ten year renovation programme. Modest improvement should be achieved which will take the amount of residential space in the lower two categories to below 5%.
A key element in addressing fitness for purpose in the future is to try and ensure that new and refurbished University space is as flexible as possible and can be easily adapted for alternative purposes. For example, the laboratory space in the Life Sciences Building is reasonably generic and could be adapted for use by other Science and Medical Science based activity. Similarly, the renovation of the Richmond Building is producing a significant quantity of open plan office space which could be put to a variety of purposes in the future.

v) Financial Sustainability

The University has committed £415 million over the period 2010-2020 for investment in the Estate and its supporting equipment and IT infrastructure. As at 2012, this programme is fully funded, although it is clear that it does not cover all current University priorities. The current review may add a further £65M which will address key aspects of this shortfall.

The University’s Finance and Estates Offices will need to work jointly to prioritise University Estate requirements and to identify appropriate sources of funding if this programme can be expanded. It is recognised that HEFCE and Research Council capital funding will be greatly reduced and that the University will have to generate capital and revenue resource from its own activities.

Alongside new academic, administrative and residential initiatives, there is a need to ensure that the plan makes adequate allowance for essential maintenance and renovation.

The University has committed to improving its Estate through the HEFCE capital investment framework, which partly funds the capital plan and targets set out there will be regularly reviewed.

There is also a need to ensure that adequate revenue funding is available to support the Estate. The aspiration here must be to ensure that as buildings are improved, they can be maintained to an adequate standard to prevent premature deterioration. It is recognised that there is very little point in developing a capital plan if adequate maintenance is not in place to support the Estate into the future. JM Consulting
recommend a recurrent investment level of 4.5% of insurance replacement value and this should be considered an achievable target for the University.

In this regard, it is recognised that the historic nature of much of the University’s Estate imposes particular constraints and requirements in terms of maintenance regimes. Similarly, the University operates a significant number of highly serviced research and teaching buildings which have higher than average maintenance and running costs.

The University will commit to regularly benchmarking its Estate condition against appropriate peer institutions and to reporting through the University Council on measures of continuous improvement.

vi) The challenges of improving environmental sustainability

For some years, the sustainability agenda has been pursued vigorously by the University of Bristol.

The United Kingdom has set exacting carbon reduction targets, with milestones to be achieved by 2016, 2020 and 2050. More recently, the Higher Education Funding Council has required that all Universities set their own carbon reduction targets.

The University has a Sustainability Policy and a Carbon Reduction Plan, both of which establish clear methodologies and targets for achieving environmental improvement.

We have also set, and are achieving, challenging targets for the reduction of use of water and the reduction in waste going to landfill.

In 2011, the University first achieved ISO14001 accreditation for environmental management and ISO14064 for carbon management.

The Estate Strategy focuses on those activities which are clearly relevant to the development and management of the University’s Estate.

Energy Management

The University has invested in a range of low energy technologies, including boiler and light controls, enhanced insulation, low energy boilers and lighting (including LED’s), voltage optimisation and Combined Heat and Power. As a consequence of these initiatives, the University has currently achieved a reduction in carbon usage of 4% from 2005/6 in relation to its updated 2020 target of 36.5%. There is clearly still much to do to achieve our desired targets, but the fact that carbon emissions have fallen since their
peak in 2008/9 despite a rise in student numbers and an expansion of facilities is a testimony to our determination to fulfill our targets.

The key areas of energy management for the University are: the continued investment in low energy technologies which will provide the bulk of the carbon reduction target; changes to operational procedures; behavior change campaigns; low energy building design using BREEAM excellent as the main standard; renewable energy.

We need to ensure that all buildings benefit from modern energy control systems and efficient boiler and air conditioning plant. These not only bring substantial energy and cost savings but provide a greatly enhanced user experience.

There will be further development of the programme of installing equipment that manages and monitors energy usage across the University Estate, including metering and BEMS. This will increasingly be captured via the recently installed secure data network.

Other policies within the Estate Strategy will play a role in achieving our sustainability target. Increased space utilisation and disposal of some older and smaller properties to develop a more balanced portfolio will mean that more efficient systems can predominate in providing heating and cooling.

Estate growth will provide a challenge to achieving our carbon reduction targets; the National Composites Centre for example has added 3% to our carbon footprint. This also illustrates the challenge of running a highly serviced scientific estate. Rising energy costs may well counter some of this growth by improving the cost effectiveness of energy saving projects.

It is clear that for the foreseeable future a focus on carbon reduction will be the main driver of sustainability policy. A complementary policy of developing renewable energy where possible will also be developed. There will be a focus on photovoltaic installations, which are easier to deliver within the constraints of the University of Bristol's main sites than many of the renewable energy alternatives. We currently have 166kW installed. Further exploitation could see 0.5% to 1% of our carbon saved in this way (1GWh), with perhaps a further 1% from Biomass (2GWh). In addition there are now 3 Combined Heat and Power installations delivering 2MW of power generation, with a fourth being completed in the Richmond Building.
The University has committed up to £20 million in the plan period to invest in carbon reduction technologies and projects.

**Water Management**

There has been significant investment in the University’s water infrastructure, which has saved on leakage and thus reduced consumption and cost, reducing consumption by about 15%. This programme will need to be continued, with further monitoring equipment installed. In addition, many of our processes are water dependent and the residences also use significant quantities. A range of options for reducing water consumption will be evaluated over the planned period.

**Waste Management**

The University will remain a producer of a wide range of waste streams, including chemical, hazardous and clinical wastes, which require meticulous oversight.

The sustainability team within the Estates Office has focused hard on reducing the University’s overall waste generation in recent years and has introduced a significant recycling capability. Over 70% of office waste is now recycled. The sustainability plan sets out clear targets for further improvement, in particular around the highly costly hazardous wastes produced from our scientific research.

**vii) Transport**

The University has an acknowledged sector-leading and successful Transport Plan which has delivered large reductions in single occupancy car use.

The sustainability policy sets out clear targets for reduction in the University’s carbon footprint caused by transport. This has to be balanced with the need for movement between our key sites on the Precinct, at Langford, in Clifton, Stoke Bishop and hospital sites. There is also a need to respond to the needs of students and the recent introduction of the University bus service linking Stoke Bishop and the Precinct is a major step forward in this respect. There has already been a measurable reduction in the number of students bringing their cars to University as a result.
The amount of the University’s Estate given over to car parking will need careful consideration, ensuring that there is an adequate balance between the needs of those who must arrive by private car and the requirements for sustainable means of transport including cycling, walking and public transport. The further development of the Precinct will need to ensure that all of these activities are prioritised and attractive facilities developed.

Following the analysis in chapter 4, the University will need to consider whether the amount of private parking it can retain is adequate for its future needs. A specific exercise will be undertaken to review this, to consider whether public transport alternatives and perhaps other initiatives like increased home working can make good the shortfall or whether the University might need to consider investment in additional parking facilities. The construction of a decked car park for example may be feasible but would be expensive and options for recovering the capital cost would need careful consideration.

Specific commitments:

i. A new public transport hub at Stoke Bishop for 2013

ii. Better public transport facilities on the Precinct by 2015

iii. Continuous expansion and improvement of cycle facilities on all campuses

iv. Provision of better public transport links to Langford and to the Science Park.
viii) The need for public realm improvement

While difficult to define in absolute terms, the unique location and attractive setting of the University’s Estate plays a key part in reinforcing its brand, both nationally and internationally.

The University’s Masterplan has identified major opportunities to develop and improve the public realm around the Precinct. The first of these major improvements is currently underway with the commitment to the Bristol Life Sciences building and the development of a new Royal Fort landscape to showcase the new building.

There are many further opportunities to improve the public realm on both a significant and on a smaller local scale. We need to identify the key spaces and develop an improvement strategy.

The University has developed both a public realm and a public arts strategy. The latter notes that good quality public art can make a major contribution both to public realm improvement and to the interior of buildings themselves. We need to ensure that aesthetic as well as functional improvement is included in our building and external spaces plans. Good quality public art has a clear role to play.

We need to improve pedestrian and cycle access and make our external spaces less vehicle dominated. We need to ensure that accessibility improvement is highlighted in all estate improvements. In particular, Tyndall Avenue, Priory Road and University Walk offer opportunities to transform the public realm and further exploration will be prioritised in the plan period.
The major capital projects also have a clear role to play. The Fry Building project could achieve a major new external space for the University, while also opening up a new link between the Wills Memorial Building and Tyndall Avenue.

The Priory Road mini Masterplan offers an opportunity to develop a real sense of University identity in what is currently a disparate group of property.

Subject to further acquisition, the Cotham House zone also offers major opportunity for public realm improvement.

The Langford estate is similarly in need of public realm improvement and the commitment to a new Masterplan will highlight this need. In particular, legibility is a major problem at Langford and coherence in this area is a priority.

The Stoke Bishop and Clifton residential estates generally have good quality landscaping, in some cases of great historic or ecological significance. There are however opportunities to improve the public realm on these two sites in line with overall policies. Effective conservation of key historic assets and further development of the Botanic Garden will assist this process.

The University should aim to be an expert custodian of its unique heritage. This applies to the public spaces as well as the buildings. The University’s historic gardens, notably the Royal Fort, Clifton Hill, Goldney and Stoke Bishop, the latter including the recently established University Botanic Garden, all merit detailed improvement and in some cases conservation plans. There are many other small but significant open spaces between historic buildings which can benefit from small scale improvement. The recent commitment to the centenary garden at Wills Memorial building is one such example and there are many further opportunities to be developed.

The University will commit to ensuring that further public art installations are a key component of its capital programme. Plans for Life Sciences and Hiatt Baker residences are already being progressed.
6. Executive summary of conclusions and objectives for the period 2013-2018 and beyond

The following summarises the key conclusions drawn from the Estate Strategy analysis and provides an overview of the Strategy.

Capacity

1. The University’s core academic and administrative capabilities are based on the Clifton Precinct and at Langford. This will continue for the foreseeable future, with opportunities taken to consolidate ownership wherever feasible.

2. Some expansion of ownership around the Precinct boundaries would be envisaged to meet key objectives, particularly those driven by the student growth agenda for 2012-2015. Opportunities for selective acquisition will be sought.

3. While early analysis indicated potential for some significant reduction in the portfolio, the commitment to an increase in undergraduate student numbers now makes this unlikely. However, there are limited opportunities to sell properties with a greater residual than current use value and these will be pursued where appropriate. In particular, there is a major opportunity to dispose of the Fenswood Farm site at Long Ashton for development purposes.

4. There is a need to analyse the spatial requirements across the Precinct by zone, ensuring that each of the five identified zones has an adequate supply of good quality and well equipped space to support student teaching, learning and social needs. This should be coupled with a review of opening hours of key facilities.

5. There may be a need to review library provision across the Precinct and at Langford and in particular further work would be needed on the benefits of consolidating library provision on fewer sites.

Masterplanning

6. The University’s Precinct Masterplan should continue to inform estate development. Its strategic moves largely remain relevant for the period to 2018.
An update statement will need to be produced for the Precinct masterplan and this can consolidate opportunities for further development, particularly at Park Row and on Priory Road.

7. A new masterplan will also need to be produced for the Stoke Bishop residential campus and for Langford and these will be early actions. The interface between the Precinct and Langford needs further exploration to determine whether there are opportunities to develop the Langford estate beyond its current prime purpose as a site for Veterinary studies.

8. The University should continue to work with the University Hospitals Bristol NHS Trust and the North Bristol Trust to seek opportunities to improve and rationalise the NHS holding.

9. The proposed development Masterplan for Fenswood Farm, Long Ashton will be updated as required.

**Space Management**

10. In managing expansion, space management will be of paramount importance and the Estates Office will undertake a series of further spatial studies of the major sites including Langford. The University will regularly review key space utilisation information, including income per square metre and utilisation of teaching, research and administrative space to ensure that we make effective use of our estate assets.

11. The student growth agenda will require additional teaching spaces to be provided. This will need to be modelled by the Estates and Timetabling Offices and an appropriate plan of development finalised.

**Capital planning**

12. The University has prepared a robust capital plan for the period 2010-2020. This will require regular review to ensure that it is updated to meet changing needs and that the development predicated is affordable. The Estates Office will deliver all major projects identified in the current plan by 2016.

13. The current capital plan review may add up to £65M of further development, also to be delivered by 2016.
14. While the capital programme should deliver new buildings and renovations that meet the University’s strategic purposes, it should also play a key role in improving sustainability, accessibility and in reducing the existing maintenance backlog.

15. The University plans for the delivery of up to 800 new bed spaces on the Stoke Bishop residential site. The University aspires to deliver up to 1200 new bed spaces over the Strategy period and further consideration will need to be given to where the additional numbers will be located and how they will be funded.

16. The Estates and Finance Offices will work jointly to ensure that estate development and management is financially sustainable in the short and long terms and that the necessary balance between capital investment and ongoing care and maintenance is established.

**Estate condition and fitness for purpose**

17. There is an on-going need to improve estate condition and fitness for purpose. This applies to all categories of space but there will be a particular emphasis on improvement in the residential estate. Specific targets are included within the Estate Strategy.

18. The University should develop a plan to improve accessibility both to its buildings and around its public realm. This would also include opportunities to make the estate more accessible to neighbours and visitors where appropriate.

**Sustainability**

19. Good transport links are essential to the University’s development and the availability of a range of modes of transport will be considered in all Estate Strategy proposals. In particular, the University should deliver a project to consider whether the reduction in private parking spaces is sustainable in the long term.

20. The entire Strategy should be underpinned by sound sustainability principles. The Strategy must enable a significant contribution to the University’s Carbon Management Plan and other key sustainability objectives. Whilst the University’s energy and carbon reduction targets are absolute, the current growth agenda means that we will also need to monitor carefully carbon reduction per square metre and per FTE headcount.
Overall perception

21. The Estate Strategy should deliver a significant improvement in public realm on all major sites, with a particular focus on the Clifton Precinct. Good quality public art would also play its role in meeting this objective.

22. The University should aim to be an expert custodian of its unique architectural and historic heritage, noting that this includes many public spaces and gardens as well as buildings and their contents.

23. This Estate Strategy aims to produce an Estate which meets the needs of the University's students, its staff, its visitors and its neighbours in the City of Bristol. The University is justly proud of its unique heritage and this Strategy will seek every opportunity to enhance it.
7. Specific targets for successful delivery of the Estate Strategy

There are a number of areas within the Estate Strategy where specific targets can be set. These can be monitored by the Estates Office, the University and the University Council on an annual basis.

Specific targets as follows;

1. The University is committed to the improvement of its Estate. It measures estate quality through HESA EMS statistics collection, which reference the RICS condition codes A, B, C and D.

The Estate Strategy targets for the academic and administrative estate are that 85% will be in condition categories A and B by 2018 and 90% by 2023. This is probably the most sustainable position achievable, given a degree of churn and major development within the estate programme.

Correspondingly for the residential estate, the University target is that 70% of its residential estate reaches categories A and B by 2018 and 85% by 2023.

2. The University non-residential estate currently shows 82% being fit for purpose. It is proposed that a target of 90% should be attainable by 2018. The residential percentage, currently 93%, will show marginal improvement over the same period to 95% plus.

3. All key elements of estates infrastructure should be in satisfactory condition by 2017.

4. The Estate Strategy commits the University to the delivery of a major programme of capital investment. It is not realistic to set targets over a 10 year period but it is sensible that this commitment is reviewed in 3 yearly cycles.

For the period 2012-2015, there is a commitment to deliver;

• a new Life Sciences building
• a major renovation of the Richmond Building (Home of the Students’ Union)
• the construction of 327 new student bed spaces at Stoke Bishop including a major public transport hub on the site

• the delivery of the Wills Memorial Library renovation

• working in partnership with North Bristol NHS Trust, a new facility at Southmead hospital that will rationalise all existing University activity at Southmead and Frenchay.

In addition, by the beginning of the academic year 2015/16, projects to renovate the Fry Building for Mathematics, Earth Sciences and Geographical Sciences and to deliver a further tranche of 400+ bedrooms should have advanced to a start on site.

5. By Easter 2013, there will need to be detailed plans in place to deal with the long term impact of student growth on the University estate. Additional small to medium teaching spaces will need to be provided and at least two projects delivering significant student social learning space completed by summer 2013.

By 2014, one major new lecture theatre should be commissioned and in use.

6. To reduce carbon dioxide emissions by 15% by 2016, from a 2005/6 baseline, aiming to achieve a 36.5% reduction in emissions by 2020.

Delivery of the Sustainability Policy by 2016 and with particular emphasis on its 24 stated targets.

BREEAM and energy ratings should be reviewed through the plan period and should aim to at least match recognized best practice in the sector.

Where appropriate, major projects should deliver up to 20% of energy through renewable sources from 2012 onwards.

7. By 2015, a public realm improvement strategy should be in place and at least one major improvement completed. Early priorities for major projects would include the creation of better environments in both Tyndall Avenue and Priory Road with a focus on pedestrian priority. This target is in addition to the delivery of a major public space improvement in Royal Fort as part of the Bristol Life Sciences project.
8. Supporting documentation and appendices
Appendix B

1. Location map – Langford

2. Location map - Bristol and Bath Science Park
Appendix C Langford Main site and Wyndhurst Farm
Appendix D Stoke Bishop Halls of Residences site plan
Appendix E  Clifton Halls of Residences site plan
Appendix F Precinct plan by Faculty
Appendix G

Precinct map by Zone
Appendix H  Planned and potential Precinct development plan
Appendix I

Schedule of consultation

Council – Presentation, 23 March 2012

UPARC – 29 May 2012

Estates Committee – 15 June 2012

Senate – 18 June 2012

Estates senior team – July/August 2012

Deans & Faculty Managers – on-going through consultation period, 2012

Student Union Sabbatical Team – 2011/12 team and also 2012/13 team throughout consultation period

Estates Committee, revised draft – 12 October 2012

Council – final approval, 23 November 2012
Appendix J

Supporting policies and strategies:

Precinct Masterplan, 2006
http://www.bristol.ac.uk/estates/masterplan/

Stoke Bishop Masterplan, 2012 in development

Sustainability policy
http://www.bristol.ac.uk/environment/policy/

Carbon Management Plan, 2012
http://www.bristol.ac.uk/environment/policy/

Transport Plan
http://www.bristol.ac.uk/transportplan/plan/

Capital Plan 2010-2020, in course of updating

Space Policy, 2010
http://www.bristol.ac.uk/estates/documents/space-policy.pdf

Capital Investment Framework (CIF 2), 2011

Residential Strategy, 2010
http://www.bristol.ac.uk/planning/programmesandprojects/residences/

Long Ashton Development Masterplan, 2009

Public Realm & Movement Strategy 2012, in development

Public Art Strategy
Key references:

HESA statistics

JM Consulting report

Bristol City Council Core Strategy, 2010

North Somerset Core Strategy, 2012 (subject to judicial review)

Overarching Policy:

University Vision and Strategy 2009 – 2016
http://www.bristol.ac.uk/university/vision/