

Estates Strategy Guidance

Higher Education Funding Council for Wales

Cyngor Cyllido Addysg
Uwch Cymru
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hefcw



Swansea University
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Kilner
P L A N N I N G

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1. Introduction

This circular sets out new guidance to help HEIs to prepare Estate Strategies. It supersedes the Higher Education Funding Council for Wales (HEFCW's) last circular on Estate Strategies (W05/14HE) which was published in 2005.

1.1 Reasons for the new guidance

HEFCW has issued this updated guidance because of changes in the national and regulatory context which affect the timing and content of strategy development.

These are:

- New arrangements for the preparation of strategic plans are being finalised and will be published shortly; the next round of estates strategies will need to fit in with these. HEIs will be requested to submit their Strategic Plans on a rolling programme across the sector.
- Circular W09/20HE sets out the HEFCW's holistic institutional risk review approach which integrates financial health assessment with a range of other key risk areas including estates. New Estate Strategies will need to include reference to the key estate performance indicators referred to in that circular.
- Sustainability has now become central to estates strategy development. It has wide ranging implications for estate development and management, including standards for new building projects, and space planning and management measures to promote space efficiency and reduce overall levels of carbon emissions. Estates strategies need to demonstrate that they will assist HEIs to achieve carbon reductions in line with national and Welsh Government requirements.
- The Welsh Government's 21st Century higher education strategy and plan for Wales, *For our Future*, emphasises the importance of providing the infrastructure to deliver the twin pillars of social justice and supporting a buoyant economy. Many of the actions listed in *For our Future* will have an impact on the HE estate including developing a regional dimension to the delivery and planning of higher education, and increasing collaboration between HEIs and other providers particularly FE. The use and development of shared services both within and outside the education sector will also be an increasingly important aspect of future service development. There will also be an expectation that the role of HEIs as corporate citizens is demonstrated through their contribution to local communities and society. The estate has a key role in demonstrating this through its design and its ability to complement and support existing provision. *For our Future* also places great emphasis on the ability to integrate FE and HE provision to facilitate progression. This theme should be reflected in physical development and accessibility of the estate.

1.2 Priorities for future Estate Strategies

In response to these changes, HEIs will need to ensure that their future estate strategies:

- Support and are directly linked to, national and regional agendas and strategic institutional objectives;
- Help to deliver environmentally and financially sustainable estates;
- Deliver estates that are affordable;
- Provided framework for progressing individual projects and policies, targeting capital funding and providing value for money;
- Are integrated and consistent with other institutional planning documents, particularly carbon strategies, five years financial forecasts and action plans required in response to *For our Future*.

1.3 Scope of the guidance

The following sections of the guidance cover:

- Section 2: Estates strategy structure;
- Section 3: Method and timescale for strategy preparation;
- Section 4-8: Key Issues for each stage of strategy development;
- Annex 1 consists of checklist of actions for ease of reference;
- Annex 2 provides a commentary on the experience of Swansea University in the development of its 2010 Estates Strategy and includes the strategy document.

1.4 Actions by HEIs in response to the guidance

Institutions should note the requirement to submit new Estate Strategies in accordance with this guidance to HEFCW within one year of the submission to the Council of a new or significantly amended Strategic Plan. HEFCW will also expect to receive a brief annual report detailing progress and issues with the current estates strategy as part of the annual strategic planning process. The date of this requirement will be published as part of the strategic planning circular.

1.5 Contact

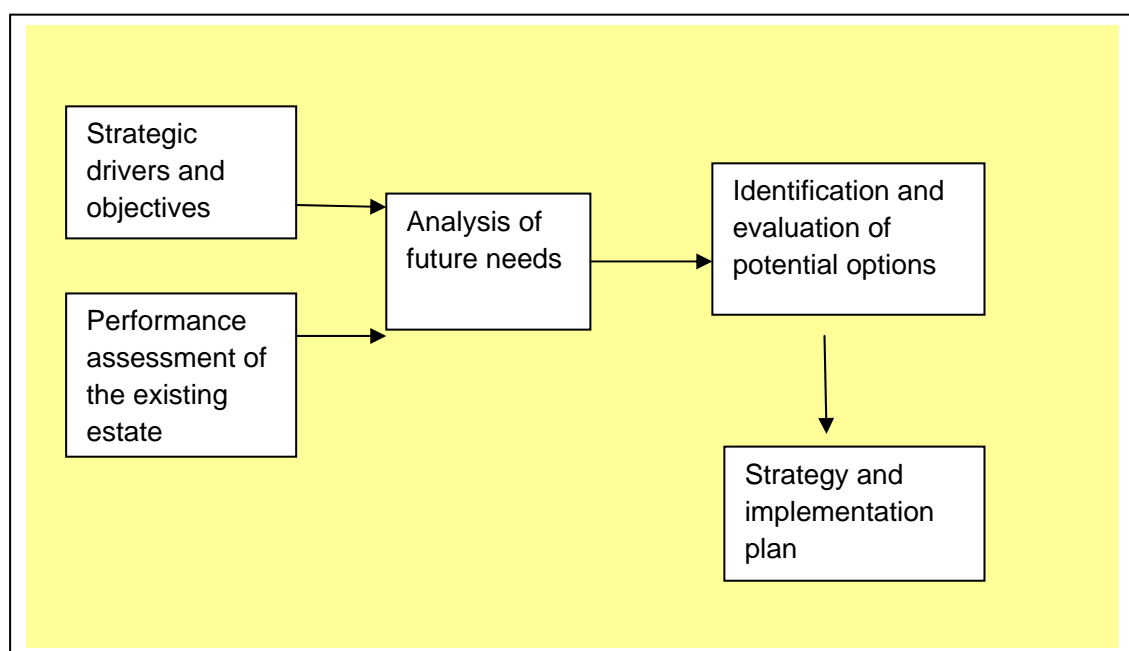
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2. Estate Strategy structure

The main stages in the development of an Estates Strategy are:

1. Identifying the estates impact of national and regional policies and institutional objectives together with the priorities highlighted by stakeholders;
2. Reviewing and benchmarking the performance of the estate;
3. Analysing the gap between performance of the estate and future needs;
4. Developing a series of options to meet future needs and deciding which option would be the best basis for the strategy in the light of factors such as quality, cost and feasibility;
5. Setting out the key elements of the Strategy and its implementation plan;
6. Reviewing and updating the Strategy.



The diagram shows that strategy preparation is a structured and interlinked process. It starts with an assessment of what will be needed to support institutional objectives. The performance assessment of the estate can be done in parallel. By the end of Stage 2, HEIs should have a clear picture of how their estates are performing and what will be needed in the future.

The output of the first two stages is brought in Stage 3. This is the analysis stage which identifies the gap between what is available now and what needs to be delivered in the future. This stage is the foundation for deciding on what the priorities are for the new estates strategy. However, if Stages 1 and 2 are done only on a cursory basis or use incomplete or inaccurate information, there will not be a robust basis for the analysis, which in turn would have an impact on the development of options for the future and on the selection of the final strategy.

Stage 4, the definition and appraisal of options, is underpinned by the analysis of future needs. It consists of identifying a range of options and appraising them using costed and non-costed criteria. The aim is to select the best performing feasible option to be the basis of the selected strategy defined in Stage 5 and accompanied by an implementation plan.

The stages are equally important. Stages 1 and 2 can be carried out at the same time, but the remainder need to be approached in sequence, because the conclusions of each will feed into, and have a direct bearing on, the next.

3. Method of preparation

The objective is to prepare a robust and feasible estate strategy which is clearly owned by the institution and will be used as a practical tool for funding and guiding decisions on key estates issues. This section looks at ways to do this, both in terms of getting the right strategy and securing support for implementation. Given the wide range of issues that estate strategies encompass and the many stakeholders involved, however, it is not uncommon for there to be problems.

3.1 Common problems

Typical problems include:

- Finding that the strategy rapidly becomes outdated;
- Strategies that are only tenuously linked to strategic objectives;
- Inadequate analysis of estate performance, leading to sites and buildings which are wither over or under-used and no longer suited to current and future requirement;
- Lack of support for implementation from stakeholders;
- Danger that major investment decisions may not be based on sound information and that capital funding may not be targeted to best effect;
- HEIs may not know what financial planning is needed to allow for sustainable programme of maintenance, upgrading, renewal and carbon management.

Difficulties such as these tend to arise when:

- There has not been enough time to do the job properly;
- Stakeholders have not been engaged in the process;
- There is a lack of data to assess how well the estate is actually performing;
- Senior management, Estates and Finance Committees and the Governing Body have been insufficiently engaged in strategy development.

3.2 Ways to avoid these problems

It is recognised that each HEI will have its own approach, but problems are often minimised when the following steps are taken.

3.2.1 SMT leadership

A member of Senior Management Team should take the role of leading the development of the estates strategy. He or she will not necessarily have an estates background, but they will need to take on overall responsibility for championing the formulation and implementation of the strategy. In order to do this, they have to be prepared to be involved from the outset with the working group and to take an active role in decision making as the strategy progresses from one stage to the next.

3.2.2 Estates strategy working group

Strategy preparation often works well when a working group is established with members including the estates strategy leader and senior representation from estates and facilities, strategic planning and finance. This range should mean that the working group will have a good overview of the issues to be addressed and to ensure that the strategy responds to both key institutional objectives and the wider policy agenda.

3.2.3 Involving stakeholders

Consultation with stakeholders will also be important at this stage. While the exact extent and nature of the consultation will vary between HEIs, it is often helpful to involve a wide range of internal and external stakeholders including:

- Heads of schools/faculties and services;
- Representatives of the governing body;
- Student representatives;
- External stakeholders, such as the local planning authority, existing and potential partners, community representatives and neighbouring land users.

Workshops can be valuable in bringing the key stakeholders together to provide feedback on the consultations and have group discussions on the emerging findings. These provide opportunities for staff to engage in a debate about the space implications of learning and teaching and other academic objectives and to discuss the types of space that perform well and those that do not and the reasons for each. In general, workshops work well at after Stages 1 and 2 have been completed and again at the outset of stage 4 when the range of future options is being developed. The workshops can be run in a variety of formats, but work particularly well when done on an interactive basis.

Web based opportunities for comment and contribution can extend the scope of consultation and engagement and avoid people feeling disenfranchised if they have not attended either meetings or workshops.

3.2.4 Data

It is essential that Estates Strategies are based on up to date, robust and complete information about the performance of the estate. This will include data on:

- Size, composition and occupancy;
- Building condition and compliance;
- Carbon performance;
- Functional suitability;
- Space utilisation;
- Tenure and values;
- Operational costs.

3.2.5 Reporting to SMT and the governing body

HEFCW will continue to require all estate strategies to be approved by institutional governing bodies before they are submitted to HEFCW.

Support from the highest level of institutional management and governance is a critical success factor. Regular progress reports to the senior management team, estates and finance Committees and governors in advance of requests for final approvals help to realise this.

3.3 Time for strategy development

It takes time to prepare an estate strategy following these steps. The exact timescale will vary between HEIs depending of factors such as the adequacy of the information they have to start with, how long it takes to consult and work with stakeholders, and the complexity of their estates issues. It will also have to take account of the timing of committee and board or council meetings.

However, as a general guideline a timescale of six to nine months may well be required. A broad indication of how this could break down across each stage of strategy preparation plus time for final approvals is shown below.

Key Stages in Strategy Preparation	Stage 1	Stage 3	Stage 4	Stage 5	Stage 6
	Strategic drivers and objectives plus consultation	Core issues	Option definition and appraisal	Strategy selection and implementation plan	Final approvals
	Stage 2 Performance assessment of existing estate				
Indicative Timescale	3 Months	1 Month	1-2 Months	1 Month	1-2 Months

Given this indicative timescale and HEFCW's requirement for estate strategies to be submitted within one year of the submission of the delivery of the strategic plan, it is likely that HEIs will need to start planning the preparation of their estate strategies before the strategic plan has been sent to HEFCW. This is particularly the case where core pieces of information need completing or updating, such as condition surveys, carbon performance assessments and space utilisation surveys.

The following stages of the guidance look at each of the main stages of strategy preparation in turn.

4. Stage 1: Drivers and objectives

This important stage focuses on identifying the estates needs stemming from the national agenda and policies, the institution's strategic plan, and the feedback and priorities highlighted by stakeholders.

4.1 National agenda and policy

There will need to be an assessment of the estates impact of HEIs' role in delivering the Welsh Government's higher education strategy and plan set out in For our Future, including the implications of greater interaction with the local and regional community and economy.

4.2 Institutional policy

To ensure that the estate strategy is firmly linked to the strategic plan, it is useful to have clear references to the vision and mission and to the main strategic objectives in the plan, such as:

- Student numbers;
- Staff numbers
- Academic portfolio;
- Organisational structure;
- Research initiatives and plans;
- Third mission activities;
- The local, regional, national and international context;
- Financial strategy and plans
- Collaboration and partnerships with other providers;
- Links to the regional economy;
- Reference to requirements under For our Future to provide single unified regional plan of HE/FE provision.

4.3 Stakeholder priorities

As well as considering policy and institutional objectives, it also important at this stage to draw together feedback from stakeholders in connection with issues such as:

- Learning and teaching methods and exploring how these might change the space needed for the future;
- Location, adjacencies and interdisciplinary activity;
- The balance between virtual and physical environment and its impact on the amount and type of space which may be needed in the future;
- Student support services;
- Social, recreational and support needs;
- International and graduate student needs;
- Location and distribution of activities;

- Quality of the existing estate and views on which buildings and space perform well and which are poor.

4.4 Estates impact of drivers and objectives summary

A summary of the main conclusions is useful at the end of this stage. One approach is suggested below. This approach has the advantage of providing a simple way of checking that the later core issues and options stages do not miss out any of the important needs for the future. When the strategy is being updated in the future, it can also be a helpful source to check to see whether and how institutional objectives have changed and, if so, what adjustments should be made to the Strategy.

Drivers and objectives	Source: e.g. strategic plan reference or stakeholder perspective	Estates impact: e.g. on location, changing space needs or new requirements for new types of facilities
Academic portfolio		
Research agenda		
Collaboration and partnership		

5. Stage 2: Estates performance assessment

The purpose of Stage 2 is to review the existing estate and assess how well it is performing, for example in terms of building condition, fitness for purpose and levels of utilisation. This stage identifies whether there are significant problems and opportunities associated with the estate, both in total and in relation to individual sites and buildings.

For the performance assessment to be effective, HEIs must have accurate and up to date information. For example, if building condition surveys are out of date or inadequate, it will be difficult to give a realistic assessment of the cost to bring the estate up to RICS Condition Code B and to have a sound basis for future maintenance planning and prioritisation of works.

HEIs have a lot of detailed information about their estates, but not all of this need be rehearsed in the Estate Strategy report. Sometimes key messages can be lost in too much detail. The main objective is to identify the key conclusions about estate performance and to make reference to the supporting evidence either in a separate accompanying report or technical appendices.

5.1 Key elements of performance

As a minimum, this stage should address the following elements of performance.

5.2 Overview

It is useful to include a concise profile of the estate in terms of:

- Summary of profile, location, size and composition of the estate;
- Planned projects and their impact on estate size and composition;
- Identification of key changes in legislation and regulations likely to have an impact on the estate over the strategy period.

5.3 Benchmarking, strategic ratios and key performances indicators

It is recommended that the overall performance of the estate is benchmarked against a selection of EMS and other ratios. A range of suggested ratios is as follows:

- Net internal area per student FTE;
- Property costs per student FTE;
- Income per square metre (GIA* and NIA);
- Total property costs per square metre;
- Total property costs as a percentage of income*;
- Space utilisation including frequency and occupancy rates;
- Proportions of space in Building Condition Code A and B;
- Backlog affordability score*;
- Ratio of maintenance and capital expenditure to insurance replacement

- value*;
- Proportions of space in Functional Suitability Categories 1 and 2;
 - Environmental sustainability indicators, such as energy costs and consumption* and notional energy emissions per square metre and per student FTE as well as water consumption, waste disposal and the percentage of waste that is recycled. (The environmental indicators in EMS are likely to be reviewed and expanded, and HEIs should look out for changes).

Indicators marked * cross refer to institutional performance indicators in Circular W09/20HE, Strategic Engagement.

5.4 Key Performance issues

In addition to benchmarking performance, it is useful to provide a commentary on key performance issues including:

5.4.1 Condition and legislative compliance

The assessment here will summarise the overall condition of the estate as a whole based on an up-to-date condition survey with the findings broken down using RICS definitions:

Category A – as new (space typically built within the last 5 years, or which may have undergone major refurbishment within this period).

Category B – sound (operationally safe and exhibiting only minor deterioration).

Category C – operational (space for which major repair or replacement is needed in the short to medium term – within 3-5 years).

Category D – inoperable (space at serious risk of major failure or breakdown).

This section should include reference to the annual and total costs of bringing the estate up to the desired condition – at least Category B. It should also identify the cost of upgrading from Category C and D to B and provide a commentary on whether the planned maintenance programme will satisfactorily address these needs.

Similarly, it should also provide a summary of up to date survey findings on legislative compliance and the costs of complying with legislation, such as disability discrimination legislation and asbestos management and monitoring.

The subsection should also include a commentary on whether all the condition and legislative compliance costs are provided for within financial forecasts for estates spending.

5.4.2 Functional Suitability

A similar assessment is needed for functional suitability. It will summarise the overall grading of the functional suitability of the estate and the grading of each individual building using RICS functional suitability definitions:

Category 1 – very good (space that is very well suited to its purpose).

Category 2 – good (space that is suitable for its purpose despite minor weaknesses).

Category 3 – satisfactory (space that is less than ideal but any disadvantages are judged either to be not serious enough to create real problems or are capable of being remedied using current resources).

Category 4 – unsatisfactory (space for which the disadvantages are such that use is possible only at excessive cost or with extreme difficulty or is limited in time).

This section should include a commentary on whether the levels of functional suitability are considered to be appropriate for current and future use. If there are certain types of space or individual buildings which are unsatisfactory, these should be identified together with an estimated cost of upgrading to a satisfactory standard of functional suitability.

5.4.3 Age of buildings

A profile of the age of buildings should be provided using the age bands given in EMS data definitions. This will help to inform decisions about the economic life of buildings and whether it would be value for money to continue to invest in the existing stock or to plan for replacement.

5.4.4 Space utilisation

Data on utilisation provides information on how intensively space is being used and whether there are mismatches in supply and demand for certain types and sizes of rooms. It can also provide information on whether there is any significant difference between timetabled rates of utilisation and what is actually found during surveys, which in turn can inform space management policy and practice designed to optimise effective utilisation.

This section should include a commentary on the numbers of workplaces and areas per workplace by building, room and by type of space.

Space utilisation information should be analysed based on the most recent survey carried out by the HEI to cover the:

- Percentage of the total net internal area used for teaching which is timetabled;
- Percentage of this area which was included in the survey;
- Timetabled frequency rate;
- Surveyed frequency rate;

- Planned occupancy rate;
- Surveyed occupancy rate.

At a strategic level, it is also useful to refer to trends in utilisation to track whether rates have been improving over time and how rates vary between different types of space, sites and buildings.

5.4.5 Tenure and valuation

A summary of the tenure of the estate should be provided with a commentary on any restrictions on use and how these might affect future plans for the site or building. Any short leases should also be noted with information on when the lease is scheduled to end and what decisions will then need to be taken by the HEI. Information on tenure may affect decisions about whether to retain, redevelop or dispose of a property. In order to have a full understanding of the implications of any restrictions on tenure, it may be necessary to obtain legal advice.

A summary of up to date valuations is needed for each site with the basis of the valuation explicitly stated, for example whether it is open market value, depreciated replacement cost value or insurance replacement value. Valuations should be up to date and have been carried out by suitably qualified surveyors in accordance with the RICS Red Book¹.

There are many different types of valuations. For the purposes of the estate strategy, up to date open market valuations are required as these valuations will inform the option specification and financial appraisals. For example, there might be an opportunity cost in continuing to occupy a site with a poor quality building if it had a potentially valuable alternative use which would allow the HEI to invest more appropriately elsewhere.

5.4.6 Town planning

The strategy needs to consider the effect of planning policies on the estate and how these might change in the future with the introduction of local development plans. This is an important issue which can have an impact on strategy implementation in a number of ways. For example, HEIs will need to consider whether there will be enough flexibility to enable them to deliver projects. They need to investigate the scope for alternative uses of sites which might be available for disposal as well as assessing the implications of planning designations which might restrict how the estate can be used, such as the presence of listed buildings.

The planning system has undergone significant changes in recent years.² The traditional approach to development planning is being replaced with local

¹ The appraisal and Valuation Standards published by the Royal Institution of Chartered Surveyors.

² Universities Planning Guidance UUK April 2008

development frameworks, comprising a suite of planning documents providing guidance at a range of levels. HEIs should be prepared to engage with local planning authorities and other agencies to ensure that their needs are understood and incorporated into planning guidance wherever possible. They should consider proactive involvement from an early stage with local plan making processes to influence plan making and, where appropriate, to include their estates proposals as a formal part of plans. In doing so, HEIs need to be aware of the importance of sustainability in the new planning system, and demonstrate the sustainability benefits of proposals. The role of sustainability is emphasised in the Planning Policy Wales (Edition 2 June 2010)³ which sets out national planning policy with an increased focus on tackling climate change.

5.4.7 Sustainability

Sustainability covers a wide range of issues relating to the estate with financial, economic and social impacts. It is recommended that this subsection provides a strategic assessment of estate sustainability which would encompass existing policies and future plans for:

- The sustainable use of resources, such as energy, and plans to reduce consumption and eliminate wasteful practices;
- Carbon management and current performance;
- Compliance with environmental legislation;
- Sustainable construction and procurement;
- Transport management and travel planning, including the scope for sustainable modes of travel;
- Encourage biodiversity, where feasible, within the estate;
- Achieving a BREEAM⁴ excellent rating and meeting the requirements of the WG Sustainable Buildings Policy⁵ as a minimum for new buildings which utilise WG/HEFCW capital funds.
- Ensuring that the estate is financially sustainable over the long term and that efficient and effective use is made of estate resources.

5.4.8 Risk Register and Management

The performance assessment of the estate should cross refer to the risks identified in the institution's risk register which relate to, or have an impact on, the estate. It should also refer to the measures which are specified to manage these risks.

The purpose of this subsection is to identify actual and potential risks associated with the operation of the estate according to the probability of the risk occurring

³ <http://wales.gov.uk/topics/planning/policy/ppw2010>

⁴ Building Research Establishment Environmental Assessment Method

⁵ See HEFCW Circular W07/30HE

and the severity of its impact with the effects of mitigating action taken into account. For example, this could cover risks associated with the poor condition of parts of the estate, buildings that are not fit for purpose and any lack of legislative compliance. This information can be used to build up a summary risk profile, which in turn will feed into the next stage of strategy preparation, which is the analysis of future needs. It will be particularly important to highlight risks which are strategically important owing to their probability of occurrence, scale of impact (or both).

5.4.9 Property costs

A summary should be given of current and projected property costs, both in terms of annual operating expenditure (revenue) and capital expenditure. The total cost and individual cost components per square metre can be benchmarked against other institutions using EMS data to highlight any areas of significant divergence and to explore the factors that lie behind these.

5.4.10 Potential capacity and surplus property

In addition to assessing the performance of the existing buildings, it is important to gauge what the potential capacity of the estate might be to accommodate alternative or additional uses and also to identify whether any sites or buildings are surplus to requirements.

Capacity can be evaluated in the following sequence:

- Within existing buildings through improved utilisation or other space management measures;
- Through reconfiguration;
- On land within existing sites;
- Through redevelopment to create more efficient and versatile space;
- Through other strategic off-site opportunities.

Where it is considered that sites or buildings are now, or will become, surplus to requirements over the strategy period, these should be listed with their site and floor areas together with an estimate of the date when this will occur.

5.5 Summary of site and building performance

Stage 2 will have reviewed a wide range of aspects of estate performance. It can be helpful to draw the information together for in a summary table as follows. This will be a useful in identifying which buildings are priorities for action and why.

Site and Building performance summary	
Site A – Building 1	Area (GIAm ²)
	Area (NIAm ²)
	Net to gross ratio
	Backlog maintenance costs(total)
	Backlog maintenance costs(per m ²)
	Building condition code
	Energy costs (per m ²)
	Functional suitability grade
	Space utilisation rate
	Comment on capacity
	Comment on flexibility
	Valuation (noting the basis of the valuation)

6. Stage 3: Core issues

This is the gap analysis stage of strategy preparation which brings together the conclusions of the impact on the estate derived from the review of key strategic drivers and objectives (Stage 1) and the results of the performance assessment of the existing estate (Stage 2). Its purpose is to provide the foundation for the development of sound range of options. It is recommended that the analysis covers the following key issues as a minimum.

6.1 Location and distribution

The analysis needs to consider whether the institution is in the optimum location to fulfil its objectives and if it operates across split sites whether there might be scope for rationalisation to generate economies of scale in operations and to reduce any duplication of provision.

6.2 Collaboration and partnerships

Some future needs may be met in collaboration with other providers or through partnerships with other organisations. These can be an effective and flexible way of meeting future needs. The analysis stage should demonstrate that proposals have been considered. It should explore what the opportunities might be for doing this, and if it is not considered appropriate, explain the reasons behind this conclusion. HEFCW would expect that consideration should as a minimum cover local service boards, local authorities, NHS organisations, other FE or HE organisations on both a regional and national basis.

6.3 Space assessments

In addition to the identification of changes in the type and location of space needed in the future, it is advisable to carry out a strategic level assessment of future space needs for the institution as a whole.

In order to do this, HEIs might find benefits in considering the space profile guidance developed by AUDE and linked to the UK HE Space Management Group's (SMG's) guidance and tools.⁶ The Space Assessment Models (SAMs) and Space Profiles guidance are one part of the AUDE Toolkit for a Sustainable Estate, and are designed to be used alongside the Model of Estate Costs (MEC). The toolkit aims to assist HEIs with planning and improving the management of space, in line with the national agenda for greater financial and environmental sustainability. Space profiles provide an indication of how much and what type of space an institution may need based on its numbers of student and staff and range of activities. Space assessment models are spreadsheet based tools for assessing academic space needs, which can be used to help assess the effects of changing numbers of students and staff, changes in the academic portfolio and alternative methods of delivery on the amount and type of space that may be needed over the estate strategy period.

⁶ http://www.aude.ac.uk/info-centre/aude_toolkit_forsustainableestate

As well as generating space profiles, this approach can assist HEIs in the development and implementation of carbon management proposals, by illustrating how choices about methods of delivery, and space standards have an impact on both running costs and projected levels of carbon emissions.

6.4 Financial sustainability

HEIs are referred to the Model of Estates Costs to give an insight into the future level of funding needed to support their estates. This model is available on the AUDE website and is also accessible from the SMG website. This model estimates the annualised cost of running and maintaining a fit for purpose estate, including the opportunity cost of funds tied up in the estate. It also considers the carbon emissions associated with energy use across the estate and the cost associated with these. As such, it is a valuable tool to assist in HEIs in deciding what size of estate will be financially sustainable in the future.

6.5.1 Carbon management

Estate strategies must aim to reduce carbon emissions from buildings consistent with the institutions own environmental management policy and associated targets. Institutions should also reflect on the current and future implications of the Carbon Reduction Commitment and the likely future cost of carbon as well as the Welsh Government's agenda in One Wales One Planet, which sets a target of reducing CO₂ by three per cent per annum from 2011 in areas of devolved competence.

HEIs are required by Circular W08/07 to develop externally verified environmental management Systems. As part of these systems, HEIs are required to take action to identify environmental impacts, including carbon, and to measure them and take action to eliminate or minimise them.

Key issues to consider and reflect within estate strategies are:-

- Improvements to the effective management and operation of the estate;
- Investment in more efficient plant, super insulation and/or switching to low or zero carbon fuels;
- Sharing space or using space more intensively.

Decisions on these issues are core to how an HEI functions, its cost base and its offering to students, and they can only be made effectively at a strategic level.

It is therefore essential that the estate strategy discusses and appraises the options for delivering carbon reduction in line with national targets, and compares the performance of the preferred option against the performance of the status quo.

6.5.2 Space management and utilisation

This heading is closely linked to the assessment of space need. It should focus on whether and how HEIs might address some of their future needs through space management measures to optimise the effective utilisation of existing space. Measures such as these have the benefit of relatively low capital cost and of reducing the opportunity cost associated with areas of poorly used space.

6.6 Age, condition and functional suitability

Part of the analysis of future needs should include an assessment of what level of investment will need to be provided to bring the estate up to a good standard of fitness for purpose. The assessment should comment on whether or not that level of investment can be sustained over the strategy period.

Key issues to consider here are whether, based on the profile of the age, condition and functional suitability of the estate, it is concluded that existing buildings can be upgraded and adapted to meet future needs or whether it might be better value for money to plan for replacement and rationalisation through the provision of new versatile accommodation.

6.7 Flexibility for the future

Estates strategies have to take a long term view of estates needs, and it is important to think about how best to promote and protect flexibility for the future to enable HEIs to respond to future changes in strategic planning. An important factor is the planning policy framework, and what steps can be taken to provide a supportive policy context in the Local Development Plan.

6.8 Core issues summary

In summary, at the end of this stage, there will be a list of strategic estates priorities which the estate strategy should deliver. For ease of reference, it is helpful to list them at the end of this section. The next stage will focus on developing a range of options exploring different ways for achieving these priorities.

7. Stage 4: Option definition and appraisal

Stage 4 defines options for addressing the core issues identified in Stage 3 and appraises their performance against a series of criteria.

7.1 Range of options

It is essential to have a range of options. Some may be dismissed at an early stage, because they are not feasible owing to factors outside the institution's control. However, there should be at least three which can be taken forward for full appraisal.

The first of these will be the "do minimum" option. This is the option which sets out what would happen if the HEI took no new steps to meet its future needs except for any proposals or projects which are already in hand or to which a firm commitment has already been made. The "do minimum" scenario must be included in the option range, because it acts as the baseline against which the performance of other options can be compared.

Other options in the range will encompass increasing degrees of change. At the other end of the spectrum from the "do minimum" option, options could include elements of relocation and rationalisation through consolidation or collaborating with other providers to provide joint solutions to future needs. The key requirements are to think broadly and innovatively about how strategic priorities could be met, and to focus on the estate as a whole and not be limited to specific projects or individual sites.

The reason for stressing the importance of a range of options and for broad thinking about them is that there is usually more than one way of solving a problem and meeting a need. An institution may have a strong initial preference for one option, but it is vital to test that course of action against others and to assess their comparative performance. This will help either to confirm the initial position or to highlight other potentially better value for money solutions.

7.2 Option definition

Once the range and the broad content of options are agreed, it is necessary to work up profiles for each of them based on the most robust information available at the time. The source of the information used and the basis of the assumptions made should be explicitly stated in each option profile. This will help both when it comes to implementation and also at the time of updating the strategy, because it will be possible to track easily how the options were compiled and what needs to be refined or updated.

The main items which need definition in the individual profiles are:

- Definition of each main component, e.g. relocations, remodelling, replacement buildings;
- Estimated timings for each main component;
- Capital costs of each main component;
- Changes in recurrent costs associated with any changes in amounts of

- space;
- other costs (relocation costs or the decant costs associated with transfer of functions to alternative buildings);
- Capital receipts;
- Other effect on income (from third party or commercial sources);
- Impact on total floor area and net reduction or increase delivered by the option.

Providing profiles on this basis will assist greatly at the option appraisal stage, particularly with the financial and carbon appraisals.

7.3 Option appraisal / Financial appraisal

The option appraisal exercise aims to identify a preferred option that maximises the benefits from the strategy at an affordable cost with acceptable risks and provides good value for money.

The appraisal needs to be thorough and objective. The appraisal methods should include:

- Financial appraisal;
- Net present values;
- Capital costs;
- Estimated recurrent annual property costs;
- Carbon performance;
- Non-costed benefit criteria;
- Risks.

7.3.1 Net present values

This type of appraisal takes the form of a discounted cashflow and the calculation of a net present value for each option. (It can also be used to calculate the payback period and the internal rate of return.)

The net present value is calculated as follows. The first step is to generate a cashflow projection for each option based on its profile of cost and income assumptions over the strategy period. The profiles described above will be useful for this purpose. This cashflow is normally projected over a period of at least 20 years.

The net cashflow for each year is discounted at a specified rate. Discounting is a technique used to compare costs and benefits that occur in different time periods. It is a separate concept from inflation and is based on the principle that generally people (both individuals and society as a whole) prefer to receive goods and services now rather than later. This is why the discount rate used in appraisals is also known as the social time preference rate. The rate is used to convert all costs and benefits to “present values” so that they can be compared. The Treasury’s current recommended discount rate is 3.5 per cent. Calculating the net present value of the differences between streams of costs and benefits for each option provides the net present value.

The results of the appraisals will then need to be compared to see which has the highest net present value. The “do minimum” option has an important role here. It acts as the baseline for the comparison of the other options. It is used to assess whether other options would deliver better value for money, on the basis of the assumptions used, than continuing with the status quo or “do minimum” scenario. As a general rule, options which perform comparatively well will have a higher value than the “do minimum” option and they will also have a positive value.

Further information about this method of appraisal is contained in the Treasury publication, The Green Book – Appraisal and Evaluation in Central Government. This is available at <http://greenbook.treasury.gov.uk>.

The results of the investment appraisals can be very sensitive to changes in the assumptions used to build up the profile of the options including the timing of incurring costs and receipts. Such changes can have a significant impact on the net present values of the options. They can alter the ranking of the financial performance of the options or can lead to an option having a negative instead of a positive net present value. For these reasons, it is recommended that sensitivity analysis is undertaken to test the effect of varying core assumptions, for example in terms of the costs, income and timing.

7.3.2 Capital costs

The capital costs will have been calculated to inform the net present value calculations. It is helpful to set out the principal costs and the likely timing that the costs will be incurred to assist with an assessment on the overall affordability of each of the options.

7.3.3 Estimated recurrent property costs

It is also the case that the effect on the estimated annual recurrent property costs will also have been calculated as part of the net present value calculations. Again, it is informative to set out the profile of estimated future changes in recurrent costs. This will principally be linked to any increases or decreases in floor area and to projected energy and maintenance costs.

7.4 Carbon appraisal

HEIs should provide a strategic level comparison of the carbon performance of the Estate Strategy options. The level of carbon emissions for each option should be projected against a base year of 2005-06. This will enable a comparison to be made of the relative performance of each option and will also assist with testing the scope of individual options to meet the three per cent year on year reductions in absolute carbon emissions set out in One Wales One Planet.

7.5 Non-costed benefit appraisal

Sometimes it is difficult to capture and express all the relative merits of the options in financial terms. An assessment of options against a series of non-costable benefit factors provides a method of assessment which is complementary to the financial appraisals. It can be particularly useful where the outcome of other appraisal methods is very close and other non-financial factors help to inform the decision on the preferred option.

The first step is to decide on the range of non-costed criteria to be used. The main sources will usually be the issues in Stage 1: the HEI's strategic objectives and stakeholder priorities. The next step is to decide on the weighting to be attached to the criteria to reflect their relative importance. The third step is to score each option in terms of how well it performs against those weighted criteria.

The criteria to be used will vary from institution to institution. It may be helpful to check back to the summary list of strategic objectives compiled at the end of Stage 1 on Strategy Drivers and Objectives.

Judgement will be needed about the range of criteria to employ, the weightings to be attached to each and the scores attributed to each option. The purpose of this part of the appraisal process is to make sure that important costs and benefits which are difficult to value in monetary terms are not ignored because they cannot be costed.

7.6 Risk Analysis

It is recommended that before a decision is taken on the preferred option, a risk analysis should be carried out on the main options. This could be presented in the following format:

Risk	General Impact	Specific impact, if any, on the NPV of the preferred option (to be rated as high, medium or low)	Likelihood	Mitigation

This step will help to inform the assessment of its feasibility and the uncertainties attaching to implementation.

7.7 Selecting the preferred option

The results of the investment appraisals and the qualitative appraisals should both be taken into account in selecting the preferred option. Ideally, it would be the option which performs best using both methods, but institutions may find that the option with the highest net present value has a low score against non-costed factors, and vice versa. The results will need careful comparison, but in general, substantial weight should be applied to the financial and carbon performance, and in particular to having a preferred option with the best net present value and one that improves upon the performance of the “do minimum” option.

The results will also need to be considered in the context of what is affordable. The preferred option may have a positive net present value, but there are often substantial funding gaps particularly where large capital projects are planned. Institutions must assess the opportunities for securing the funding needed to deliver the option.

7.8 Summary

By the end of the appraisal, institutions will have selected a preferred option to form the basis of the strategy. The report will have made explicit the method of appraisal used and the justification for the decision on which option is to be taken forward.

8. Stage 5: Strategy and implementation plan

The purpose of this stage is to set out the main components of the strategy based on the preferred option and to provide an implementation plan which includes all the main proposals and indicative timescales.

The strategy will be a key source of reference for future proposals for capital projects. It is important that it captures all the core components of the strategy and shows how they will contribute to the delivery of institutional and national objectives.

8.1 Definition of the Strategy

The strategy should be defined clearly and concisely. It should include statement of what the strategy will deliver together with a description of its main priorities, proposals and timescales. It will incorporate a summary of what the impact will be on the overall size and composition of the institution. It will outline the main costs and savings and the approach to implementation including securing necessary funding and managing risk.

8.2 Implementation Plan

The implementation plan will show the link between strategic drivers and objectives, key proposals and indicative timescales and costs. Its purpose is to provide a strategic framework for implementation and an overview of timescale for the delivery of all the core components.

Some of the proposals will form the basis for working up the specification of individual capital projects. Others will be on-going strategic management issues across the whole life of the strategy, such as focusing on improving effective space utilisation across the institution or working to secure the necessary town planning support for implementation. A number of proposals will be interlinked, and any key interdependencies need be highlighted.

The core components of the implementation plan should be set out in the form of a table as shown below.

Strategy priority	Estates Strategy proposal	Estimated timescale	Indicative cost

8.3 Review and updating

This stage should also make provision for the timing and procedure for updating the

Estate Strategy and for ensuring that it stays closely aligned with overall institutional drivers and objectives.

It is recommended that there is an annual review with a full update every six years unless there has been a significant change of circumstances in the interim which would warrant an earlier revision.

Annex 1

Estates Strategy preparation

Guide for strategy preparation

Strategy Component	Yes/No	Comment
Method of Preparation		
Do you have an estate strategy leader?		
Do you have an estate strategy project manager?		
Do you have a working group?		
Is the strategy approved by the senior management team?		
Is the strategy approved by governing body?		
Were consultations carried out during strategy development? (please list stakeholders in Column 3 to the right)		
Stage One: Drivers and Objectives		
Has the estates impact of the following institutional drivers and objectives been assessed?		
Stage Two: Performance Assessment of the Estate		
Has the performance of the estate been evaluated in terms of?		
Profile of location, sites and areas		
Strategic ratios and benchmarking		
Condition and legislative compliance		
Functional suitability		
Age of buildings		
Tenure and valuations		
Space utilisation		
Town planning		
Sustainability		
Risk register and management		
Property costs and surplus property		
Capacity		
Stage Three: Core Issues		
Have future needs been assessed in relation to:		
Location and distribution		
Scope through collaboration & partnerships		
Space need		
Space management and utilisation		
Carbon management		
Investment needed in condition & functional suitability		

Flexibility for the future		
Has a list of strategic estates priorities been prepared to act as the basis for developing a range of options?		
Stage Four: The Range of Options		
Does the option range include at least three options?		
Does the range include the "do minimum" option?		
Is there a profile of the core components and assumptions about costs and income for each option?		
Do the appraisals include		
Calculation of net present values		
Calculation of costs		
Calculation of recurrent property costs		
Carbon comparison		
Non-financial/qualitative analysis		
Risk analysis		
Have the options be compared and assessed to decide which is the preferred option?		
Stage Six: strategy and implementation Plan		
Is the strategy based on the preferred option?		
Has a concise statement of the content of the strategy been prepared?		
Has an implementation plan been prepared?		
Are procedures in place for reviewing and updating the strategy?		

Annex 2: Example – Swansea University 2010 Estates Strategy

Introduction

This annex provides a case study based on Swansea University's recent experience of developing its new Estate Strategy. The University worked with HEFCW to develop an Estate Strategy which would be used as an exemplar for the sector. The strategy was prepared in line with the method set out in this guidance.

In providing the case study, it is recognised that not all aspects of Swansea University's experience will be relevant to other HEIs. Indeed, Swansea University was in the unusual position of progressing plans for a second campus at the time that it developed its new strategy. Accordingly, each HEI will need to target its strategy to meet its own particular requirements. Nevertheless, although there are differences in HEIs' individual circumstances, there is also a lot of common ground in terms of the method of developing an estate strategy, the issues to be addressed and the importance of linking it not only to an HEI's strategic objectives but also to the wider agenda of the Welsh Government's higher education plans.

The aim of this case study is to give an insight into how Swansea University approached strategy development and to share the Strategy that was approved in March 2010.

Contents of the case study

The case study comprises two parts:

1. The first part is a commentary on how the strategy was developed including consultations and debate, supporting data collection and analysis, option generation and appraisal, and the approval process.
2. The second is the Swansea University Estate Strategy 2010-2016 report, which is attached at Annex B and also available on Swansea University's website at <http://www.swan.ac.uk/media/Estates> Strategy 2010 -2016. In effect this is the executive summary of the Strategy. It sets out the direction for the University's estate over the next six years. The core proposals are to take forward plans for the second campus, the Bay Science and Innovation Campus, and to upgrade and enhance the existing Park Campus at Singleton to provide a parity of experience across the whole estate.

Commentary on strategy development

This section focuses on the following aspects of Swansea University's experience:

- A. Timescale and approach to strategy development;
- B. Strategy direction and management;
- C. Approval process;
- D. Stakeholder engagement;
- E. Capturing the key drivers and priorities;
- F. Assessing estate performance;
- G. Identifying key issues;
- H. Option generation and appraisal;
- I. Defining the core of the new strategy.

A. Timescale and approach to strategy development

Swansea University adopted a collaborative approach to strategy development. This included wide ranging consultations and regular liaison and reporting to senior management and governance groups.

This approach was taken for a number of reasons. The University was keen that the Estate Strategy should not be viewed as an isolated task, ring fenced to the Estates and Facilities Directorate and only of interest to estates professionals. It also wanted to ensure from the outset that the new strategy demonstrated clear linkages with the Strategic Plan reflecting the needs and objectives of internal and external stakeholders. In addition, it was essential that widespread participation by stakeholders took place to foster support and ownership for the content of the final strategy and to enable its implementation.

This approach helped to achieve these objectives, but it did have implications for the timescale required to complete the strategy, particularly given the extent of the consultations undertaken. Overall, it took just over seven months to complete the Estate Strategy, starting at the end of August 2009 through to approval by the full University Council at the end of March 2010.

B. Strategy direction and management

The University set up an Estate Strategy Working Group to direct the development of the strategy. The group was chaired by the Pro-Vice Chancellor with responsibility for Estates and Facilities Management. Membership included two other Pro-Vice Chancellors, the Director and Deputy Directors of Estates and Facilities Management, the Head of the Planning and Strategic Projects Unit, the University's Strategic Projects Manager and an external consultant with wide experience of estate strategy preparation. The Working Group liaised closely with the Director of Finance and with the University's Bay Executive Group which was focusing in parallel on securing the new Bay Science and Innovation Campus.

The Working Group met on average at least once a month. As well as keeping track of progress, it was active in debating and reaching agreement on each stage of strategy development. For example, it gave advice on stakeholder engagement, discussed fully the results of consultations, confirmed the priority issues that the new strategy needed to address and signed off the range and content of options and the results of the appraisals. The level of Senior Management Team and strategic planning representation on the Group also meant that from the outset the Estate Strategy was closely tied to the University's strategic thinking and future objectives.

C. Approval process

Before final approval was given at the full Council meeting at the end of March 2010, the sequence of reporting included:

- Interim report to full Council in October 2009;
- Reports and presentations to the Senior Management Team in February

2010;

- Interim and further reports to Finance Committee in January and March 2010;
- Full meeting of consultees to review consultation feedback in January 2010;
- Periodic updates to the University Management Board;
- Period updates to the Administrative Directors.

As a result, the main decision making groups within the University were kept well informed of progress and of the key issues and priorities that the strategy would need to address. By the time the strategy was submitted to full Council for approval, its proposals had been fully debated in preceding committees and Senior Management Team meetings. However, one of the implications of following such a process was that the main content of the strategy and all necessary supporting information had to be complete some six to eight weeks before the date of the Council meeting at the end of March. Thus, although the timescale for strategy preparation was some seven months in total, the core work and analysis had to be finished in practice within five months.

D. Stakeholder engagement

Stakeholder participation was a key element in strategy development. In all, around 30 stakeholder groups were involved including the Senior Management Team, Heads of Schools, Administrative Directors, Students, and the City and County of Swansea. The groups had important messages about which facilities they considered were good, which needed to be improved and the reasons why, and how they anticipated that needs would change in the future. It was notable that despite stakeholders' wide range of interests and varying requirements from the estate, there was marked consistency in areas identified as priorities for action.

In line with the suggestion in this Guidance, a workshop was held on completion of the series of individual consultations to bring together all the stakeholders and provide feedback and the opportunity for general discussion and debate of the key issues that been raised.

The general view after the event was that the workshop was valuable, both from the point of view of consultees who could hear firsthand about their colleagues' views and opinions, and from the perspective of the Working Group. Its members learnt more about where there were areas of consensus and difference between participants. It also provided an opportunity to share the Group's thoughts on how options for the future were developing and to gauge first reactions from participants on the advantages and disadvantages of these.

E. Capturing the key drivers and priorities

An early stage of strategy development was the identification of future estates needs stemming from national and institutional strategic objectives. This was helped by the recent approval of Swansea University's Strategic Plan 2009-14. The Strategic Plan distilled its core messages into a series of key themes and enablers with a supporting implementation programme for each. The Working Group could then assess the main estates impact of each of these and tabulate the results

supplemented by the additional information gained from the consultation exercise. Collecting the information in this way was useful for the development and appraisal of options during the preparation of the strategy, and it will also help as a ready source of reference as and when the University's Strategic Plan is updated in the future.

F. Assessing estate performance

The Estate Strategy states that its central purpose is to enable and support the delivery of the University's strategic objectives, deliver parity of experience across the estate (encompassing the new Bay Science and Innovation Campus) and provide a consolidated, fit for purpose and sustainable estate.

The performance assessment of the existing Singleton estate highlighted a number of challenges that would need to be addressed if this central purpose were to be realised. Many of the challenges will be familiar to other HEIs to varying degrees:

- Much of the non-residential estate was constructed in the 1940s, 50s and 60s with an attendant legacy of poor condition, fitness for purpose and inflexibility;
- These constraints were compounded by the listed status of a number of buildings on site (i.e. the Fulton and Wallace buildings);
- The Singleton campus was already developed to a relatively high density with parts of the remaining open area subject to restrictive designations.

An essential part of strategy preparation was the collection and analysis of data to inform the scope, costs and priorities associated with improving the condition, functional suitability and carbon performance of the existing estate.

This was done by procuring advice to support the Estate Strategy Working Group from a professional team including building and mechanical and electrical surveyors, environmental, architectural and quantity surveying input. This team provided an updated condition survey and maintenance programme, advice on, recurrent building costs, carbon emissions and management, scope for additional or redevelopment within the campus and associated costs. These elements not only underpinned the assessment of the existing estate's performance, but it also contributed to the formulation and costing of options for the future. The comprehensive and up to date information provided during this stage was crucial to later decisions on which options to pursue and to assessments of feasibility and affordability.

G. Identifying key issues

The output from the performance assessment of the estate and the definition of the estates impact of the University's strategic drivers and objectives fed into the identification of the key issues that would need to be addressed over the estate strategy period.

One important issue was the extent to which relocations to the new Bay campus could provide opportunities for rationalisation and consolidation at the Park campus, and in turn creating scope for addressing carbon emissions and prioritising spend on

upgrading condition and generating potential savings in recurrent costs on buildings which might be freed up for demolition.

Key factors were the scale and type of planned future activity and numbers of students and staff who would be based on each campus. It had been evident from the assessment of strategic drivers and objectives that the University was planning to continue the expansion of its research activity and development of Innovation Hubs and inter-disciplinary work. Strategic level indicative space needs analyses were carried out and compared against available benchmarks and peer group data through EMS. This was not a detailed space planning exercise, but it was used as a means of assessing future needs and comparing them with available capacity.

H. Option generation and appraisal

The Swansea University Summary Estate Strategy refers to the development of a series of options to test how far each would address core issues affecting the estate. Given its summary status, however, it does not go into detail about them.

In fact, a total of five options were generated including the “do minimum” option which acted as the basis of comparison for the other four options. The options explored the scope for consolidation of the estate post-relocations to the new Bay Science and Innovation Campus including demolition and redevelopment.

The content of the options was agreed by the Estate Strategy Working Group and each was then appraised in terms of its:

- Projected capital and condition costs;
- Recurrent costs;
- Net present values following Treasury Green Book guidance;
- Carbon performance;
- Qualitative criteria linked to the University’s Strategic Plan objectives and consultees’ priorities.

The option which had the best combined performance was selected as the basis of the future Strategy.

I. Defining the core of the new Strategy

The aim in defining the core of the new strategy was to strike a balance between having a document that was specific in what it was aiming to achieve (and could act as a framework for a more detailed implementation plan) while avoiding creating a straight jacket that would not be flexible enough to accommodate the inevitable changes arising from internal and external forces in higher education.

The solution for this was to set out the following series of principles, each of which was supported by a set of proposals:

1. Consolidation to fit the future University profile at Singleton;
2. Accommodating strategic priorities;

3. Upgrading condition;
4. Maximising effective use of the estate;
5. Embedding sustainability;
6. Maximising flexibility for the future.

To assist with implementation, monitoring and review, the University has a schedule for each principle linking each proposal to its contribution to the Strategic Plan with an estimated timescale. When the Strategic Plan is updated, this will provide a ready source of reference for cross checking whether any proposals will require modification or adjustment.

The summary Estate Strategy 2010-16 is set out on the following pages.