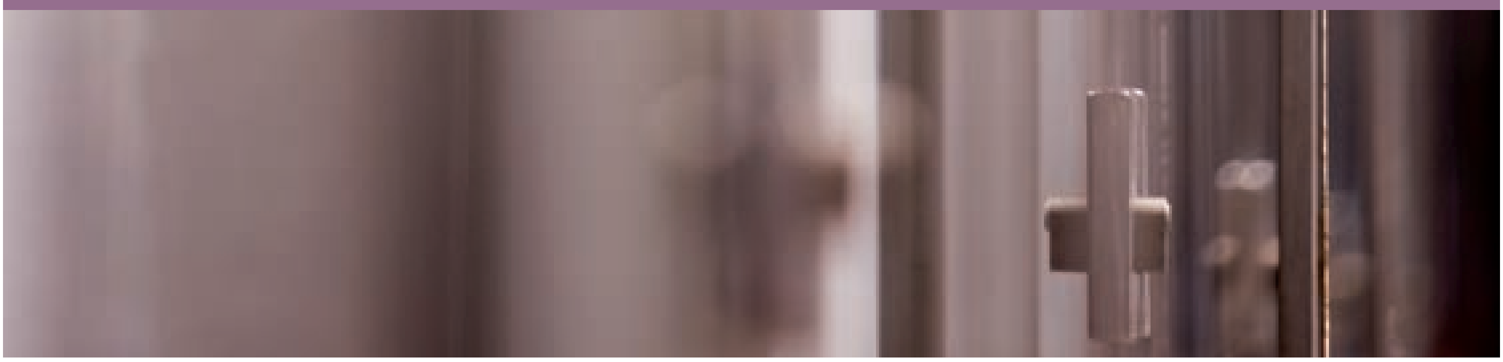
Key messages

Estate management in higher education

Audit Scotland

Prepared for the Auditor General for Scotland
September 2007



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Key messages

Introduction

1. Effective estate management should result in estates which are financially and environmentally sustainable, with buildings that are fit for purpose. Higher education (HE) institutions need to ensure that their estates are used efficiently and effectively to deliver their strategic objectives.

2. There are currently 21 HE institutions in Scotland. These range in size from the Royal Scottish Academy of Music and Drama (RSAMD) with 580 students and 209 staff to the University of Edinburgh, with almost 20,150 students and 6,500 staff.[1]

3. The Scottish HE estate is large and diverse with almost 1,000 non-residential buildings spread across 72 sites. The estate is valued at almost £5 billion.[2]

4. Proportionately, Scottish institutions generate more income from research than their UK counterparts. This has important implications for the type of estate required and contributes to higher estate maintenance costs in Scotland.

5. The Scottish Executive sets the overall policy direction for the HE sector and provides funding to support its priorities. The Scottish Funding Council (SFC) distributes public sector funds to most institutions and sets the strategy for the sector.[3] Institutions use these funds and funding from other sources to deliver higher education.

6. This study examines the impact of public sector capital funding on the HE estate. It also reviews the SFC's role and how individual institutions manage their estates.

7. The study focuses exclusively on the non-residential estate as public sector funding is not available for the residential estate.

Key messages

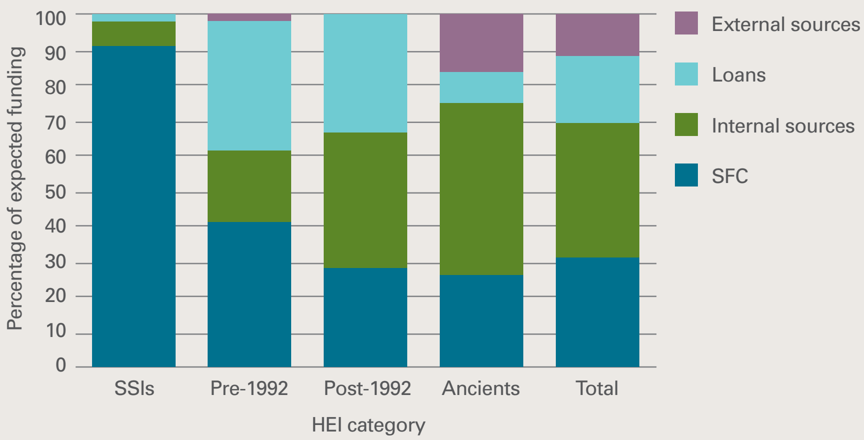
1 Capital expenditure in the HE sector is financed from a range of sources.

8. In 2005/06, Scottish HE institutions spent a total of £211 million on their estates. Of this total, £145.6 million (69 per cent) was spent on major capital works, including new buildings and refurbishment, and £65.6 million (31 per cent) was spent on planned and reactive maintenance.

9. Public funds distributed by the SFC account for just under a third of total planned capital expenditure on the HE estate in 2006/07 and 2007/08. The remainder comes from institutions' internal sources, external sources and loans.[4]

10. Reliance on public funding varies considerably among institutions (Exhibit 1). For small specialist institutions (SSIs), the SFC is the main source of finance.[5] For ancient institutions, public funding accounts for only 27 per cent of planned capital expenditure.

Exhibit 1
Planned funding sources for higher education institutions, 2006/07 and 2007/08



Note: Total includes data for SFC-funded institutions plus data for Scottish Agricultural College. Although SAC is funded by SERAED, SERAED funding is included in SFC funding in the graph. Loans are shown separately to illustrate use of this as a method of finance. They will be repaid by institutions from their own resources.

Source: Audit Scotland

1 Two institutions were excluded from the study as they do not have significant estate responsibilities (The Open University in Scotland and the UHI Millennium Institute); staff numbers are full-time equivalents.
2 Estate Management Statistics (EMS) 2005/06; based on information from 18 institutions. The dataset excludes Scottish Agricultural College, UHI Millennium Institute and The Open University in Scotland.
3 The Scottish Agricultural College is the responsibility of, and funded by, the Scottish Executive Rural Affairs and the Environment Directorate (SERAED).
4 Internal sources of funding arise from operating surpluses, disposal of property and fundraising activities; external sources include investment and grants from Trusts, Research Councils and the private sector.
5 Institutions can be classified into four groupings: Ancient universities – St Andrews, Glasgow, Aberdeen and Edinburgh; Pre-1992 universities – Dundee, Strathclyde, Heriot-Watt and Stirling; Post-1992 institutions – Glasgow Caledonian, Napier, Paisley, Robert Gordon, Bell College, Abertay and Queen Margaret; Small Specialist Institutions (SSIs) – Glasgow School of Art, Edinburgh College of Art and RSAMD.

11. Across the sector as a whole, internal sources account for just over a third of capital expenditure. However, this is a more significant source of funding for current capital programmes in ancient and post-1992 institutions.

12. External sources and loans account for the remaining third. Ancient universities are the only group to make significant use of external sources while loans are an important planned source of funding for pre-and post-1992 institutions for 2006/07 and 2007/08. By contrast, SSIs do not plan to make use of external sources or loans to any significant extent in this period.

2 The maintenance backlog for the Scottish HE estate is almost £0.7 billion.

13. In 2005/06, it was estimated that it would cost almost £0.7 billion to bring the estate of 18 Scottish institutions up to at least a sound standard.[6] This is referred to as the maintenance backlog.

14. Almost 70 per cent of the backlog is concentrated in the estates of the Universities of Strathclyde, Edinburgh, Glasgow, Heriot-Watt and Dundee, reflecting the size of their estates (Exhibit 2).

15. As well as dealing with their maintenance backlog, institutions use capital expenditure to change their estates to meet their corporate objectives, deliver new courses and methods of teaching, and comply with new legislation. For example, since 2001/02, Scottish institutions spent in excess of £65 million to comply with legislation such as the Disability Discrimination Act.

16. A recent study commissioned by the SFC suggested that, by the end of 2007, Scottish institutions will need around £1 billion to deal with both maintenance backlogs and changing needs.[7] This figure is based on assessments of the investment needed to reshape the estate to meet changing needs, address maintenance backlogs and repay outstanding loans. This is in addition to expenditure already planned by HE institutions.

3 It is too early to establish the full impact of recent investment in the Scottish HE estate. With the additional investment planned, the effect should be evident in the next few years.

17. Total capital and maintenance expenditure on the HE estate in 2005/06 was lower than in the previous year. Slightly less was spent on major refurbishment and new build projects and more on maintenance activity (Exhibit 3).

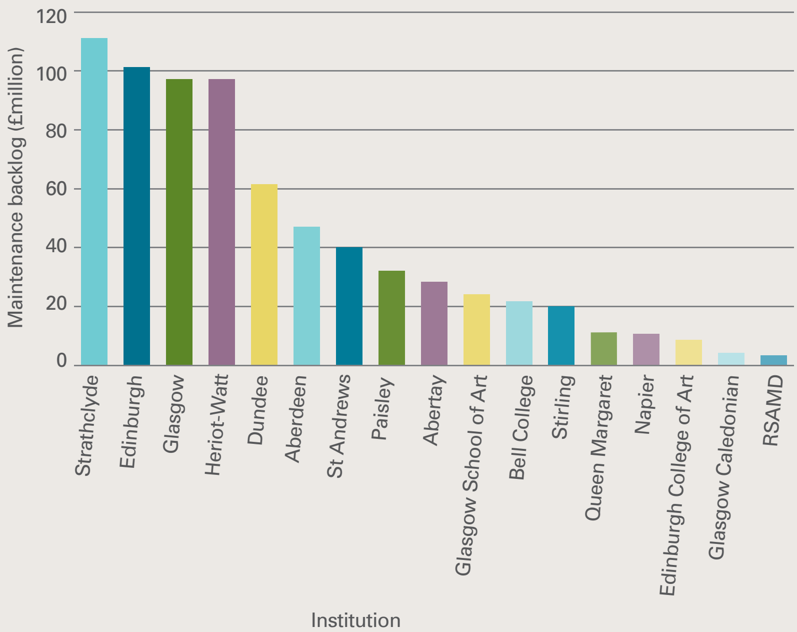
18. Dedicated public sector funding for capital projects began in 2001/02 when £15 million was allocated by the Scottish Executive.

19. Since then public capital funding has been provided through different channels including:

- the Science Research Investment Fund (SRIF) – this is a UK-wide fund introduced in 2002/03 and distributed according to criteria set by the Office of Science and Innovation (OSI) to improve the HE research estate in science, engineering and technology
- the Learning and Teaching Infrastructure Fund (LTIF) – this fund was introduced in 2005/06 to support projects that are not eligible for SRIF funding for example, facilities used for teaching rather than research purposes
- occasional one-off allocations, often for specific purposes.

Exhibit 2

Distribution of maintenance backlog across Scottish higher education institutions, 2005/06

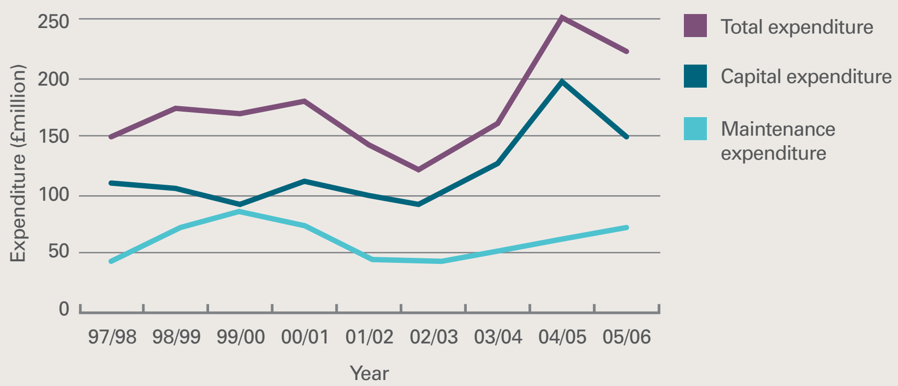


Source: EMS data 2005/06. Data for Dundee are provisional.

6 EMS data 2005/06; The £0.7 billion is the cost of bringing all buildings up to at least RICS category B. The Royal Institution of Chartered Surveyors (RICS) categorises buildings according to their condition, where category A is 'as new ', B is 'sound, operationally safe, exhibiting only minor deterioration', C is 'operational but major repair needed soon' and D is 'inoperable or serious risk of failure or breakdown'.

7 *Future needs for capital spending in higher education*, JM Consulting Ltd, September 2006.

Exhibit 3
Capital and maintenance expenditure in Scotland, 1997/98 to 2005/06



Source: EMAP reports, SFC HE/59/99, HE/45/00, HE/04/02; EMS 2001/02–2005/06

20. The SFC distributes all of these funds to institutions on behalf of the Scottish Executive and the OSI.

21. Public funds are mainly allocated to institutions on the basis of a formula, which reflects research income and the level of research grant (for SRIF) or the number of funded student places (LTIF formula allocations). Institutions provide details to the SFC of how they intend to use their funding allocations and the SFC assesses these proposals against set criteria.

22. Public funding has grown since 2001, with £236 million distributed by March 2006 and a further £223 million to be distributed by March 2008 (Exhibit 4).

23. Up to 2005/06 there has been mixed progress. Although the overall condition of the estate is improving, the size of the maintenance backlog continues to grow.

24. Incomplete data from institutions make it difficult to compare maintenance backlogs between 2001/02 and 2005/06. For a group of 14 institutions, the maintenance backlog in 2001/02 was £394 million at 2006 prices, and this increased to £453 million in 2005/06 for the same group of institutions.[8]

25. In contrast, the overall condition of the estate has improved since 2001/02. Around 48 per cent (by area) of the Scottish HE estate was classed as new or sound in 2001/02 and this increased to 55 per cent by 2005/06. At an institutional level, different patterns emerge. Estate condition

Exhibit 4
Public sector capital funding for the higher education estate, 2001/02 to 2007/08

Funding type	SRIF	LTIF	Non-recurring	Total	Cumulative total
2001/02	£15m (see note 1)	-	-	£15m	£15m
2002/03	£32.3m	-	£17.5m	£49.8m	£64.8m
2003/04	£32.3m	-	-	£32.3m	£97.1m
2004/05	£49.1m	-	£15.5m	£64.6m	£161.7m
2005/06	£49m	£25m	-	£74.0m	£235.7m
2006/07	£51.5m	£45m	See note 2	£96.5m	£332.2m
2007/08	£51.5m	£75m	Not known	£126.5m	£458.7m
Total	**£280.7m**	**£145m**	**£33.0m**	**£458.7m**	**£458.7m**

Notes:
1 The 2001/02 SRIF funding was a £10 million payment made by the SFC in advance of SRIF under the funding stream 'Scottish Higher Education Funding Council Research Investment Fund' (SHEFC RIF), and £5 million paid out by SFC as 'additional SRIF'.
2 Additional funding of £6 million was allocated for a range of purposes one of which was the development of high-quality buildings, facilities and equipment. Institutions will report to the SFC on how these funds were used by October 2007.

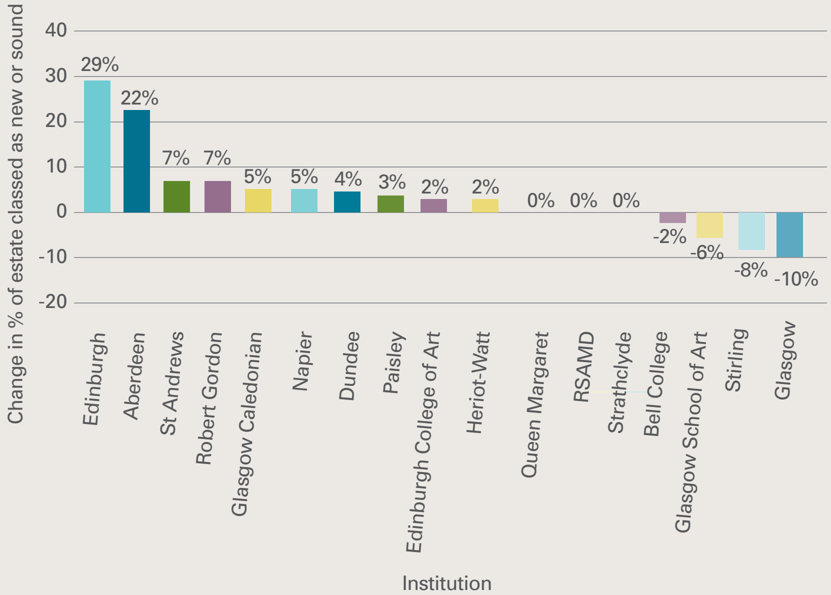
Sources: SRIF Funding – SHEFC circulars HE/05/01; HE/12/02; HE/05/03 and HE/02/05; LTIF Funding – SHEFC circular HE/07/05; SFC circular SFC/21/06; Non-recurrent funding – SHEFC circulars HE/37/02; HE/01/03; HE/36/04, HE/06/05 and SFC/08/2007

8 Excludes data from four institutions to ensure comparability; Dundee, Abertay, Strathclyde and St Andrews. The £0.7 billion figure reported earlier includes data from all 18 HEIs.

Exhibit 5

Change in percentage of estate classed as new or sound by institution, 2001/02 to 2005/06

Estate condition has improved at some institutions but, at others, less of the estate is now classed as new or sound.



Note: Figures are 'absolute' change in percentage of gross internal area (GIA) classed as new or sound between 2001/02 and 2005/06. Institutions starting with a high proportion of their estate in this condition will be limited in the amount of improvement they can make. The change measured for Queen Margaret and St Andrews Universities is from 2001/02 to 2003/04 as recent data are not available.

Source: EMS data; excludes data for Abertay as 2001/02 data are not available

improved at ten institutions but, at others, less of the estate is now classed as at least sound (Exhibit 5).

26. The phased distribution of funds and the long-term nature of capital investment programmes mean that it is too early to establish the full impact of the funding. From both public sector and other sources, some £589 million of investment is committed for capital programmes over the two-year period ending March 2008. Given this level of investment, we expect to see further progress being made on the quality of the estate in the next few years.

27. However, our analysis suggests that some institutions may have difficulties in financing investment in their estates.

> **4** Due to a combination of factors, the condition of the Scottish estate compares unfavourably with the UK estate.

28. Just under half (45 per cent) of the Scottish estate is in Royal Institution of Chartered Surveyors (RICS) condition categories C and D, compared with 36 per cent in the UK (Exhibit 6).[9]

29. The situation in Scotland is due to a combination of factors:

- The estate is older, with 29 per cent of internal area built pre-1940 compared to 25 per cent for the UK as a whole.
- A higher proportion of buildings are listed. Listed buildings account for a quarter of internal area compared with 15 per cent for the UK. They are often less flexible, costly to maintain and difficult to renovate.
- Scottish institutions offer more space per student (an average of 16.0 m^2 per student compared with 12.3 m^2 for the UK). This

Exhibit 6

Comparison of Scottish estate condition to other UK estates, 2005/06

Condition of estate[1]	Scotland	England	Wales	N Ireland	UK average
% in condition A (as new)	16	14	6	9	14
% in condition B (sound)	39	52	54	61	50
% in condition C (operational but major repair needed soon)	42	31	39	28	33
% in condition D (inoperable or serious risk of failure/breakdown)	3	3	1	2	3
Total A and B	55	66	60	70	64
Total C and D	45	34	40	30	36

1 Based on Royal Institution of Chartered Surveyors (RICS) classification.
Source: Data from EMS (weighted by GIA), based on all institutions replying in 2005/06

9 Based on EMS data for 2005/06.

reflects a range of factors, including the mix of activities carried out. For example, Scottish institutions conduct more research and this requires more space per student. However, it means that the funds available for capital investment are spread more thinly.

- Less income is generated per square metre (£781 per m^2 compared with the UK average of £949 per m^2). This disparity may increase with the introduction of tuition fees in England, Wales and Northern Ireland.

- Less money is being invested in the estate. Average yearly investment in the Scottish HE estate was equivalent to 3.7 per cent of the estate's insurance replacement value (IRV) between 2001/02 and 2005/06, compared to an average of 4.5 per cent for the UK.[10]

- There is less public sector capital funding. SFC funding commitments for the period 2004/05 to 2007/08 are equivalent to 7.5 per cent of IRV, compared with an average of 9.7 per cent for all UK funding councils.

5 The SFC has an important role to play in ensuring that public funds are used to meet key national priorities.

30. Although institutions are autonomous bodies, the SFC is accountable for the public funding that it distributes and has a duty to ensure that this funding supports Scottish Executive and SFC priorities.

31. The use of a formula funding approach to allocate SRIF and LTIF has a number of benefits. For example, it allows institutions to predict with some certainty the amount that they will receive. This helps with forward planning over the Executive's three-year spending review cycle and allows institutions to plan more strategically rather than on a project-by-project basis. It can also improve value for money by allowing institutions to take forward related projects at the same time.

32. The criteria for SRIF and LTIF funding reflect OSI and Scottish Executive priorities. Funds can be used for a wide range of purposes. However, the formula approach, combined with broad criteria for SRIF and LTIF funding, means it is difficult to assess if key national priorities are being met. A more rigorous assessment process with tighter criteria would ensure a closer link to key priorities.

33. For example, collaboration in the joint development of facilities is one way in which the sector could support the delivery of the Efficient Government initiative.[11] In a sample of over 100 projects receiving SRIF funding since 2002, less than two per cent involve collaboration with a partner in developing joint facilities. However, once completed, many of the facilities are subsequently used collaboratively.

34. Joint procurement of equipment is more common. Based on information provided by the Higher Education Funding Council for England, it is estimated that around £10 million of the SRIF money coming to Scotland each year is used for equipment which is procured on a collaborative basis.

35. Projects supported to date through the SFC's £20 million selective LTIF funding show a clearer link to SFC priorities. These projects deliver key benefits in line with the SFC's priorities to improve capital efficiency and sustainability or promote collaborative investment.

36. The SFC collects information that could be used to assess expenditure by institutions across key priorities and cross-cutting themes, but while there is some public reporting of capital investment activity, a comprehensive evaluation of the impact of this investment is not currently published. This makes it difficult to assess the extent to which public sector funds are supporting key national priorities or achieving the outcomes intended.

6 The SFC has committed to assessing the impact of capital investment in its corporate plan, but more can be done to assess estate management performance.

37. In its corporate plan the SFC identifies two high-level measures it will use to assess the impact of capital investment on the HE estate: the overall condition of the estate; and the total value of the maintenance backlog.

38. Other measures are also used or planned, but the SFC should consider supplementing its current reporting arrangements by using Estate Management Statistics (EMS) data to give a more regular and comprehensive picture of performance across the sector, bringing together:

- financial indicators to demonstrate the efficient use of assets

- space-use indicators to identify how efficiently space is used

- fit-for-purpose indicators that demonstrate the effectiveness of assets, (for example, buildings may have no maintenance backlog but still be unsuitable for their intended use)

10 Earlier work in 2001 by JM Consulting calculated the 'required investment' level for the HE estate to be 5.5 per cent at that time.
11 By 2007-08, annual savings of £10 million are planned through better use of the college and HE estate.

- environmental indicators, such as water and energy use. Environmental sustainability is an increasingly important aspect in assessing estate performance.[12]

39. A recent report published by the five audit bodies in the UK provides a core set of indicators for benchmarking estate management performance.[13] These could provide a starting point for developing a smaller core set of indicators tailored to the specific needs of the HE sector and based on existing EMS data.

40. The SFC is providing more strategic support for estate management in the HE sector. For example, the SFC's new estate strategy guidance suggests that it will be more rigorous in reviewing institutions' estate strategies.

41. The SFC played a key role in developing the EMS database which provides a valuable source of data for benchmarking and monitoring performance. The SFC can also help share good practice by supporting groups such as the Space Management Group and by conducting post-project evaluations.[14]

7 Some institutions have systems in place to support effective estate management, but good practice needs to be adopted across the sector as a whole.

42. The provision of funds specifically for capital investment allows institutions to focus on their infrastructure requirements.

43. The SFC has requested that all institutions submit an up-to-date estate strategy to it by the end of 2007. A few have already done so and others are revising their strategies to meet this deadline, but two will not complete this until 2008.

44. Estate strategies are supported by capital development plans which show how building and maintenance projects will be taken forward and financed. Estate strategies take a long-term view reflecting the lead times for capital projects in the sector. For example, it will take six years (from deciding to move to a single campus to occupation) to relocate the Faculty of Education from Jordanhill to another part of the University of Strathclyde's campus.

45. A clearer indication of future public funding for capital programmes for a longer period would help institutions in their strategic planning. For example, through the Strategic Waste Fund, indicative funding has been allocated for distribution to Scottish local authorities up to 2020 for infrastructure investments, providing assurance about the future availability of funds to support planned waste management projects in an area where long-term strategic planning is also critical.[15]

46. Most estate departments use performance information to monitor the quality of the estate. However, in a number of institutions, use of performance information is limited and management scrutiny of the performance of the estate could be improved. Our report identifies a range of value for money indicators for use by the public sector and contains a good practice example of performance assessment at the University of Edinburgh (see Exhibits 10 and 18 in the main report).

47. The structures used to deliver estate management vary among institutions, but a number of strengths are evident including:

- good strategic and operational links between the estate and finance departments ensuring that funds are used appropriately
- the involvement of staff and students in estate development activity
- the availability of good information about the estate and the sharing of knowledge within the sector and with the SFC.

Recommendations

48. The SFC should:

- consider with the Scottish Executive whether a clearer indication of the future public funding for capital programmes could be provided, to help institutions in their strategic planning
- report publicly on capital funding for the higher education estate, demonstrating the link between funding and national priorities
- with institutions, agree a small core set of indicators that will be reviewed regularly at an institutional and sector level
- encourage institutions to improve their scrutiny and reporting of estate-related performance.

49. The SFC should continue to:

- work with institutions to make greater use of EMS and other data to measure the impact of public sector capital funding on the HE estate and to focus attention on areas for improvement
- promote good practice and provide guidance and ensure that this is followed

12 The Scottish Executive announced in February 2007 that it was extending its Central Energy Efficiency Fund to cover further and HE institutions, making £4 million available to support the sector in improving energy efficiency.
13 *Value for money in public sector corporate services:* A joint project by the UK public sector audit agencies, May 2007.
14 The Space Management Group offers a range of support to estate directors to manage their space efficiently and sustainably.
15 *Building a Better Scotland – Infrastructure Investment Plan: Investing in the Future of Scotland,* Scottish Executive, 2005.

- undertake further research to better understand the role of the estate in influencing outcomes such as student experience or the attraction of international students and research funding

- ensure that SRIF and LTIF programmes work together to maximise the impact of the funding on the estate.

50. Higher education institutions should:

- develop realistic financial plans to support their estate strategies

- make use of performance information on the estate and ensure that it is reported to, and scrutinised by, management

- continue to work together to ensure that benchmarking data are relevant, consistent, comprehensive and reliable

- comply with SFC guidance and ensure this is reflected in revised documents and approaches.

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ISBN 978 1 905634 74 3 AGS/2007/6

This publication is printed on uncoated paper, made from 100% post consumer reclaimed material.