

State of the NHSScotland Estate 2011

(Incorporating an update on NHSScotland Facilities Services)



08 February 2012

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1.0 Introduction

1.1 Purpose

A substantial property and asset base worth around £5 billion underpins the delivery of NHSScotland's wide range of healthcare services. This substantial asset base needs to develop to enable it to better support existing services and to reflect evolving new services. Even modest improvements in performance of these assets have the potential to deliver significant benefits for patients and staff as well as efficiency savings. The Scottish Government's strategy for increasing efficiency in the public sector gives further impetus to effectively managing property and asset performance. Managing property and assets more efficiently is a win-win – NHSScotland saves money, which it can invest back into services, while property and assets perform better and more sustainably for the benefit of patients and staff.

It is important that we do not consider assets in isolation from those Facilities Management services that also support the delivery of high quality healthcare. This report therefore also introduces an overview of work underway to consider the potential for improving both the efficiency and quality of Soft Facilities Management Services.

Over recent years there has been significant investment in the modernisation of NHSScotland's estate and related services to support "Better Health, Better Care". It is right that the Scottish Government knows the extent to which this investment is delivering best value and making a real difference to the quality, effectiveness, efficiency and sustainability of services. The Healthcare Quality Strategy for NHSScotland is a development of Better Health, Better Care (2007) which aims to deliver the highest quality healthcare services to people in Scotland and through this to ensure that NHSScotland is recognised by the people of Scotland as amongst the best in the world.

This national 'State of the NHSScotland Estate' report is a new annual report being developed by Scottish Government with support from the territorial NHS Boards and Health Facilities Scotland (HFS). It will report on asset management performance, highlight areas of best practice, and set target areas for improvement which align with the aims of the "Better Health, Better Care" and the "Healthcare Quality Strategy".

This 2011 report is a first step to measure and explore differences in asset performance across NHSScotland, seeking explanation for these differences and highlighting areas for further investigation. The aim being to establish a framework and consistent method for measuring asset performance and efficiency that can be

built on in future years so that subsequent reports are able to make a comparative assessment of progress as against that published in the previous reports.

The report confirms good progress in recent years on improving the performance of the estate with pockets of emerging best practice on collaborative working, use of new technology, rationalisation of the estate and new healthcare facilities focussed on patient centred design.

1.2 Scope

This first report focuses on property & estate issues but from 2012 the report will focus on all owned and leased physical assets (property, vehicles, equipment, and IM&T).

1.3 Context

Changes are taking place across the country to make sure that NHSScotland is in the best possible shape to meet future health needs and improve people's well-being.

These changes to healthcare services are driven by:

- People living longer. In general, the older a person is, the more ill-health they suffer, and the greater their need for health and social services. Long-term chronic illnesses, such as diabetes and asthma, have replaced infectious diseases as the main work of the health service
- The way that people live is changing, as are their values. More people are living alone and in single-adult households. More women go out to work. This means that there are fewer family carers to look after the increasing number of older people
- People expect more than ever before from our health service – as they do from every other aspect of life. They know much more about health, 'health scares', scientific breakthroughs and 'miracle cures'. Health stories are regularly the first item on the news
- Health and the NHS are of huge political interest. Scottish politicians take a very close interest in how the NHS is run, nationally and locally
- Advances in medical and nursing practice and changing service models enable patients to be treated in new and different ways
- Developments in medical, communications and information technology that make care closer to home a plausible reality and impact on the type and distribution of assets

- National policy and initiatives aimed at making the NHSS more effective and efficient such as *Better Health, Better Care: Action Plan* and *NHSScotland's Quality Strategy*.

The evolving patterns of care described in *Better Health, Better Care* and the three Quality Ambitions of “*patient centred*”, “*safe*” and “*effective*” described in NHSScotland’s Quality Strategy, clarify the overarching principles that need to guide the further development and management of the NHSS asset base. These are summarised as follows.

- Integration of health, social and individualised care
- Health improvement and inequalities focus
- Large scale application of best practice
- Re-allocation of resources to target need and deprivation.

There can be little doubt that the above will have significant implications for the NHSScotland property and assets and will drive change toward an overall more productive asset base that:

- Supports improved access and service user experience
- Provides accommodation and assets that are clinically suitable, effective and meet or exceed patient and staff expectations
- Minimises risk and promote safety for people who use our services, our staff and visitors and supports improved quality of healthcare
- Disinvests from assets with high operating costs, backlog maintenance requirements, or short remaining life where these do not meet future service requirements
- Seeks optimum solutions through co-location, integration and shared resources across service streams and with our partners in service delivery
- Improves property and asset performance on all key performance indicators
- Releases capital from the disposal of assets that are no longer required for current and future services to reinvest those proceeds for new developments
- Develops / procures flexible accommodation for locality based services
- Integrates services with other health and care facilities wherever possible and thereby improving inter-professional working

- Develops inherent flexibility in assets, to enhance responsiveness to service needs or activity adjustments, for both positive and negative variations
- Provides opportunities to rationalise the existing portfolio of buildings with the aim of reducing estate related ownership costs (energy, maintenance, capital charges etc) and avoiding the need for expenditure on backlog maintenance on buildings that are not fit for purpose.

1.4 Estate Policies and Standards

A number of recently developed national policies and standards will provide a framework for the development of the future property and asset base:

Policy for Property and Asset Management in NHSScotland (CEL 35(2010))

The Scottish Government Health Department's "*Policy for Property and Asset Management in NHSScotland*" encompasses strategic property and asset management and covers the four key stages in the asset management process:

- Planning
- Acquisition
- Operations and management
- Disposal.

The policy establishes a robust framework against which the planning, delivery, management and disposal of property and other assets is undertaken and assessed. The policy seeks to establish asset management excellence in NHSScotland.

The Scottish Capital Investment Manual (SCIM)

The main purpose of the Scottish Capital Investment Manual (SCIM) is to support the effective delivery of infrastructure programmes and projects within NHSScotland and to provide clarity over the decision making and approvals processes within NHSScotland.

Sustainable Development Strategy for NHSScotland

The Sustainable Development Strategy for NHSScotland draws on the principles and commitments arising from relevant international and national sustainable development and environmental management policies, including those of NHSScotland. It also draws on the Sustainable Development Commission's (SDC) Good Corporate Citizenship Assessment Model (GCCAM), which identified six priority areas for action. This strategy pulls together the key strands of policy, and the

opportunities to deliver those policy objectives that will make NHSScotland more sustainable in its delivery of healthcare service

Single Room Policy

NHS Scotland has adopted a policy that presumes that all patients will be cared for in single rooms for all new-build hospitals and a minimum of 50% single rooms for refurbishment projects.

Property Transactions Handbook 2011

NHSScotland's Property Transactions Handbook 2011 promotes sound governance and management for all property transactions. It is intended to ensure that NHS property is bought, sold and leased at a price and on other conditions which are the best obtainable for the public interest at that time.

Improved Asset Management and the Location of Public Sector Organisations

A policy published in March 2009 which applies to Scottish Government departments, including those parts of the Health Service, with a national remit and relates to asset management plans for their office based headquarters accommodation. It includes a presumption in favour of suitable solutions from within existing Government estate.

1.5 Infrastructure Investment

Capital investment in assets in the NHS has more than trebled in recent years from £132.5 million in 2003/4 to £557.4 million in 2010/11. This investment programme has also been supplemented by the use of revenue finance for large infrastructure projects where, in the same period, over £500m of additional investment has been made.

After a lengthy period of significant growth in the level of capital resources available to NHSScotland, the short to medium term outlook will see those capital resources under severe pressure given the 32% real terms reduction in capital resources available to the Scottish Government over the CSR period. There will still be a capital investment in the four years of the CSR of £2 billion. However, in response to the situation the Scottish Government has also put in place arrangements to support a programme of £2.5bn of revenue financed investment across Scotland to boost infrastructure investment. Of this total investment, £750m is to be directed towards projects within NHSScotland whether as standalone Non Profit Distributing (NPD) projects or delivered via the hub initiative.

Given the scarcity of capital resources it is even more imperative that those capital resources available, and revenue applied to support those projects being taken

forward using revenue finance, have maximum impact in providing quality health services and at the same time drive and facilitate increased productivity and efficiency in service provision. NHS Boards' Property and Asset Management Strategies will need to clearly demonstrate the need for, and priority given to, investment proposals and the opportunities to maximise the proceeds from disposal of surplus assets to support reinvestment in NHSScotland infrastructure. All proposals for capital investment will be subject to a high degree of scrutiny both locally and nationally prior to approval and NHSScotland will need to ensure it has the necessary skills and capacity to deliver the investment programme as efficiently as possible.

1.6 The Hub Initiative

The new national hub initiative offers a flexible financing and procurement route for community healthcare projects which may otherwise not have happened because of the decline in available capital. A portfolio of healthcare projects to the value £200 million is earmarked for development through hub over the next five years.

The South East and North hubco's are now operational and East Central Territory announced its preferred bidder in November 2011 with financial close expected in February 2012. The West Territory announced its preferred bidder in January 2012 and aims to reach financial close in March 2012. The South West is in competitive dialogue and aims to identify preferred bidder in August 2012 and financial close by end of October 2012.

As the initiative progresses, hub will become a key mechanism for delivering and managing assets more effectively, with continuous improvement leading to better value for money, which will be measured through detailed key performance indicators.

Further details on the Hub Initiative are included in a Best Practice Case Study in this report.

1.7 Frameworks Scotland

A further initiative delivering £400m worth of infrastructure projects is Frameworks Scotland. This is a strategic and flexible partnering/collaboration approach to the procurement of publicly funded construction work and complements other procurement initiatives, including hub, for the delivery of new build and refurbishment health facilities in Scotland.

Further details of Frameworks Scotland are included in a Best Practice Case Study in this report.

1.8 Information Sources

Measuring efficiency and effectiveness of property and assets is a critical component of better asset management and should identify opportunities for maximising the benefits from investment in assets, increased productivity and delivery of savings. It should allow NHS Boards to benchmark property and asset performance against best practice across NHSScotland, informing strategic decisions about assets and their impact on delivery of NHSScotland services. For NHS Boards to succeed in effective management and rationalisation of the estate and assets, access to well defined, consistent and accurate information is fundamental.

This first State of the Estate Report has reviewed and examined the information that is currently available from a number of information sources including:

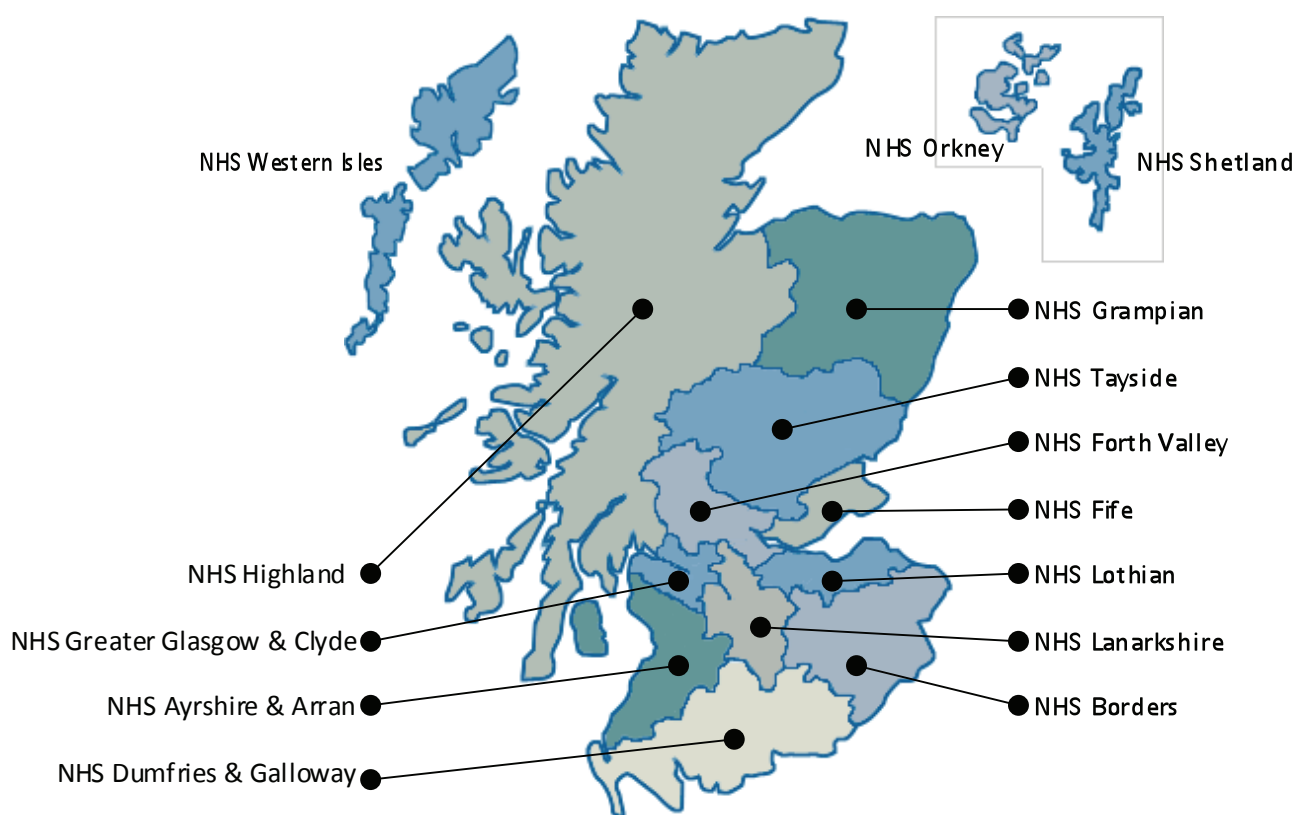
- ISD Cost Book 2009/10
- 2009/10 National Environment Report and supporting eMART data
- Property and Asset Management Strategies (PAMS) completed by NHS Boards
- A high level estate information proforma completed by NHS Boards for this exercise
- Annual Reports and Accounts of NHS Boards 2009/10.

Efficient property and asset management depends on having good information available and being able to interpret it meaningfully and use it effectively. As this first report has been developed it has become clear that there is not currently a consistent format of information held and that improvement in accuracy will be achieved when the consistency is better. Work will be undertaken to make the necessary adjustments

2.0 The current state of the estate

2.1 Overview

The responsibility for the management of the NHSScotland estate is split between 14 NHS Boards and a further 8 Special NHS Boards. The information presented in this section of the report includes financial information taken from ISD Cost Book 2010 and other property related data from 16 NHS Boards i.e. all 14 territorial NHS Boards and two Special NHS Boards (i.e. those which provide patient services); namely NHS National Waiting Times Centre (Golden Jubilee) and The State Hospitals Board for Scotland. Information relating to the Special NHS Boards is presented in Section 2.5.



Special NHS Boards

- | | |
|---|--|
| NHS Education for Scotland | NHS Health Scotland |
| NHS National Services Scotland ¹ | NHS National Waiting Times Centre (Golden Jubilee) |
| Healthcare Improvement Scotland | NHS 24 |
| Scottish Ambulance Service | The State Hospitals Board for Scotland |

¹ References to Special NHS Boards should be read to include NHS National Services Scotland, which is the common name for the Common Services Agency.

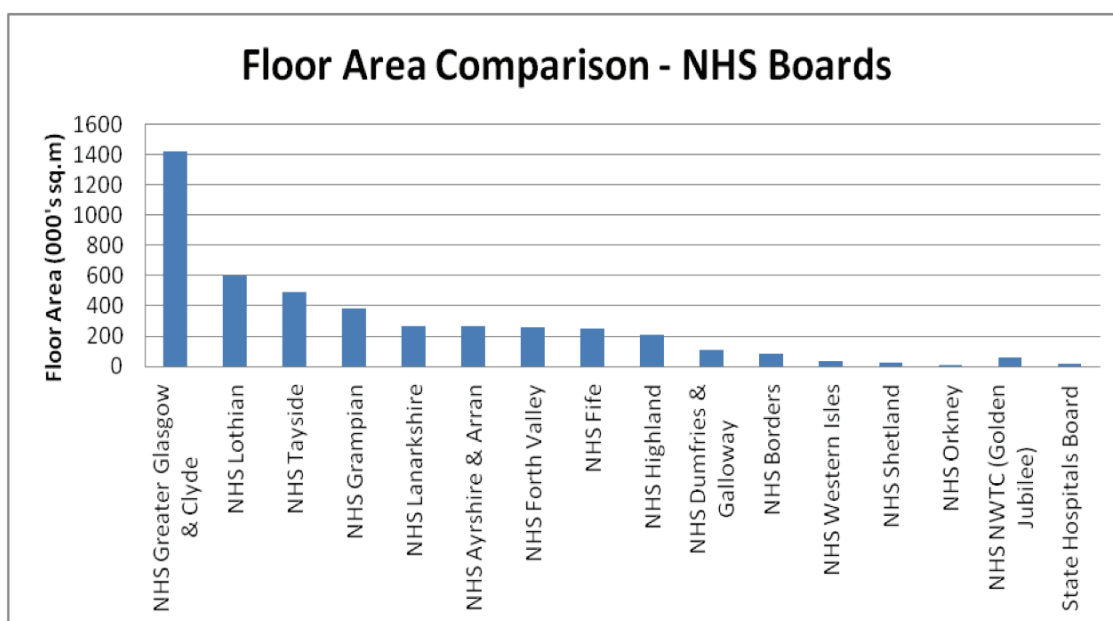
The asset base of NHSScotland is valued at approximately £5 Billion. Most of this value (£4 billion) is associated with land and buildings but other significant fixed assets include vehicles, medical equipment and information management and technology (IM&T).

2.2 The Size and Cost of the Estate

2.2.1 Estate size and distribution

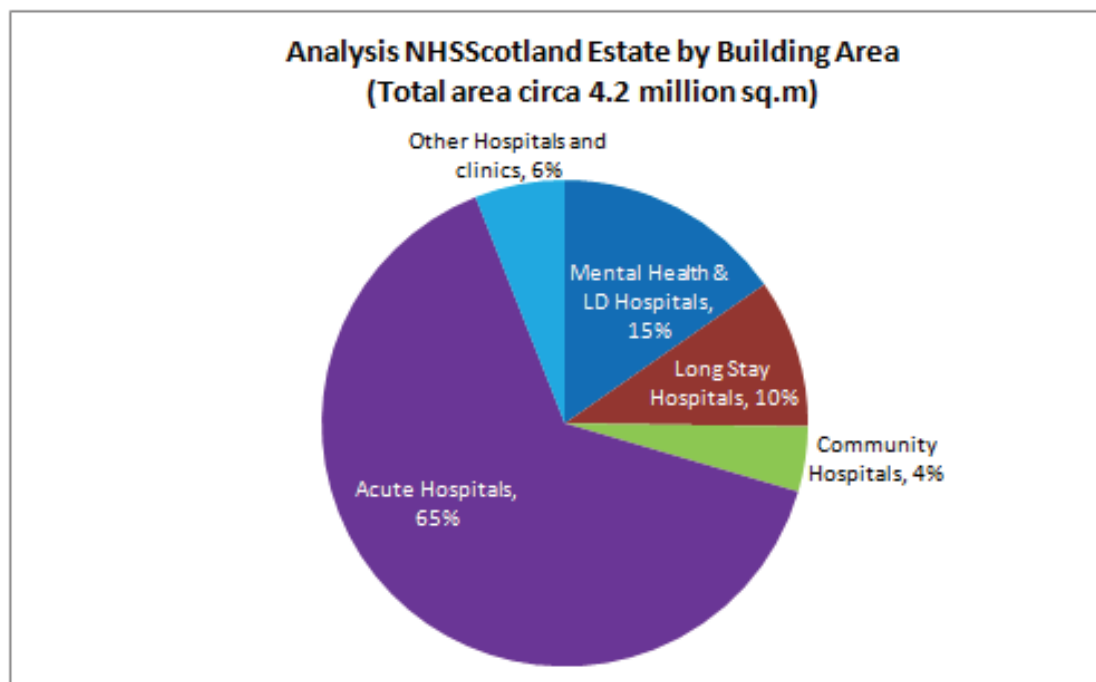
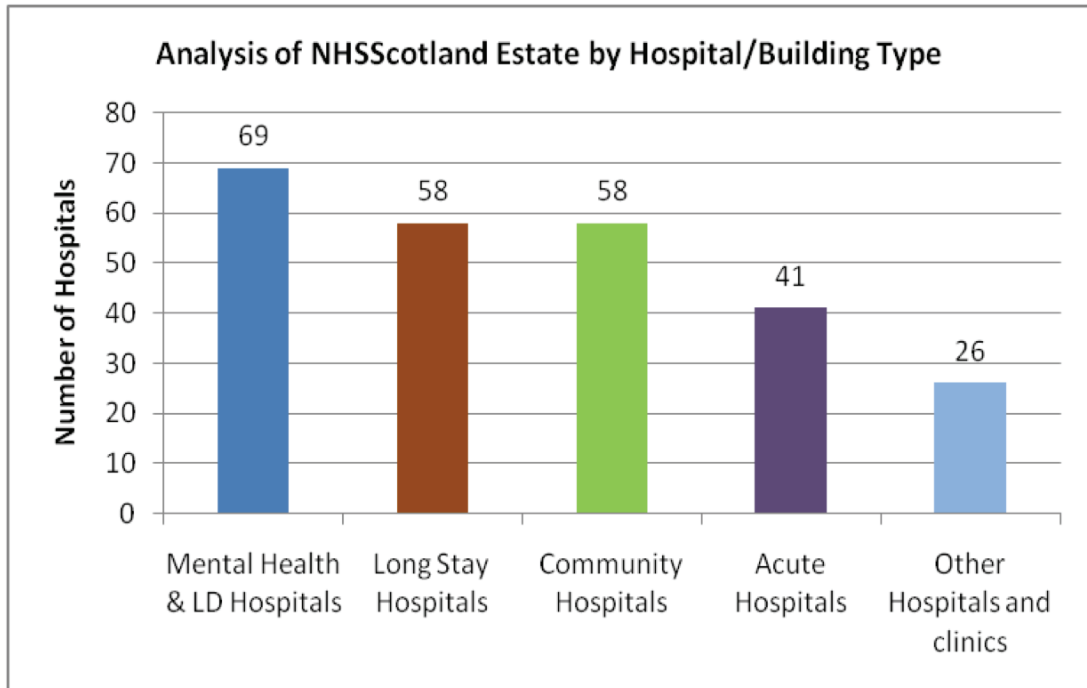
The NHSScotland estate comprises over 4.6 million sq.m of building floor area encompassing over 1,000 buildings / sites ranging in size from 40 sq.m to 200,000 sq.m.

The distribution of this estate across the NHS Boards is shown in the chart below (see Section 2.5 for information on Special NHS Boards):



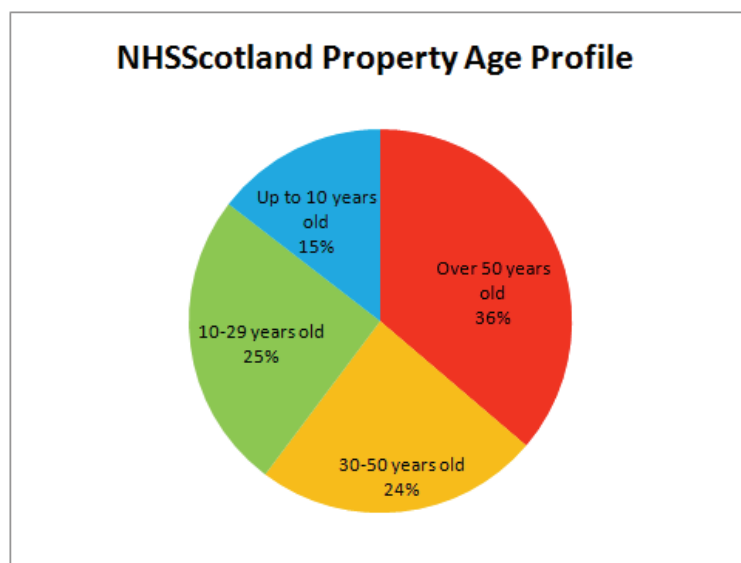
Note: each bar chart included that follows within this section of the report lists NHS Boards in order of the size of their estate, as identified in the above bar chart.

An analysis of the information in the ISD Cost Book 2010 identifies a range of different hospitals / building types as shown in the charts below:

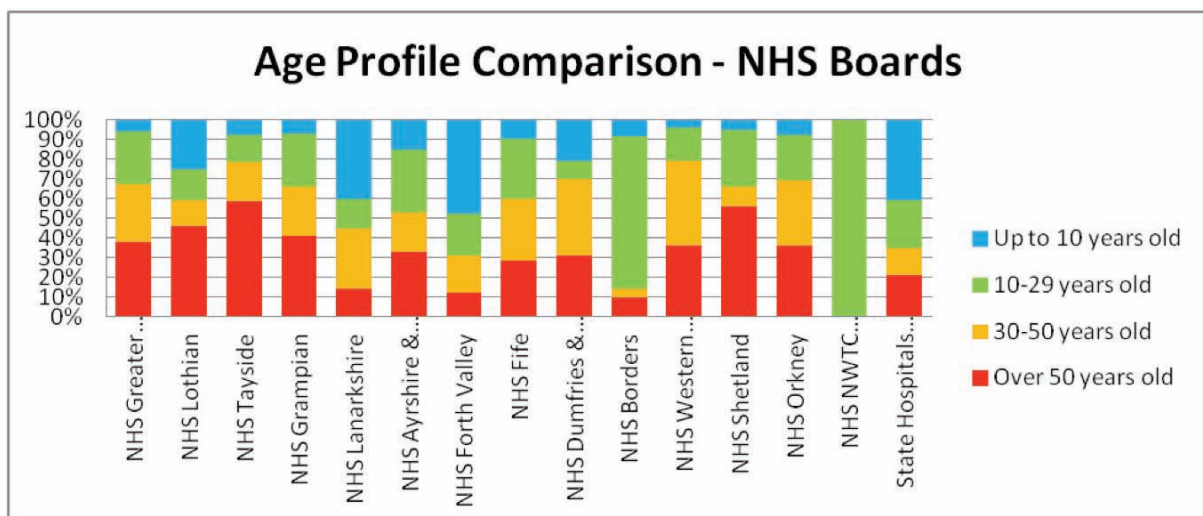


2.2.2 Estate Age and Tenure Profile

NHSScotland occupies approximately 690,000 sq.m (15% of the total) of relatively new / modern accommodation (i.e. less than 10 years old), which has been supported by significant capital investment in property assets over recent years. Investment in NHS assets, including investment in new properties, has more than trebled in cash terms in recent years, from £132.5 million in 2003/04 to £557.4 million in 2010/11 – plus £500m of additional revenue based investment. The following charts show the range of property ages for the NHS Boards and identify that 35% of the estate remains over 50 years old. This does not mean that properties are not functionally suitable but it does indicate that there may be more scope for improvement, further investment or disposal.

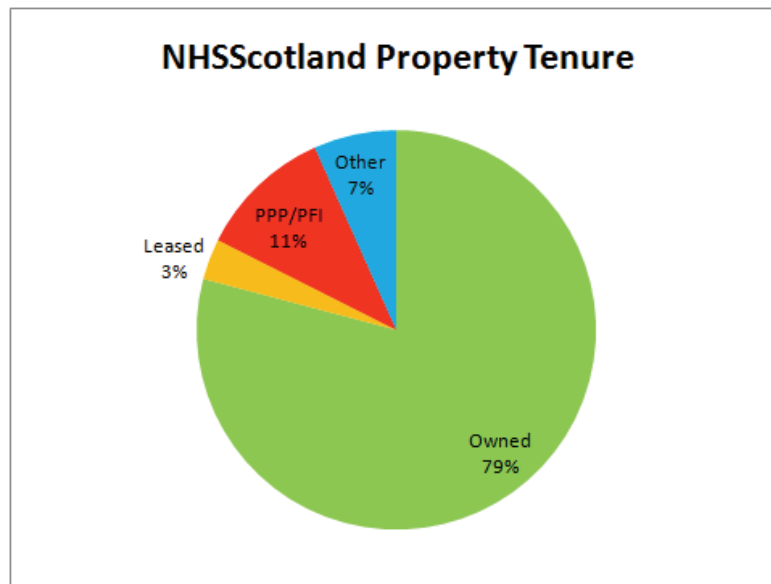


Age profile above includes all 22 NHS Boards

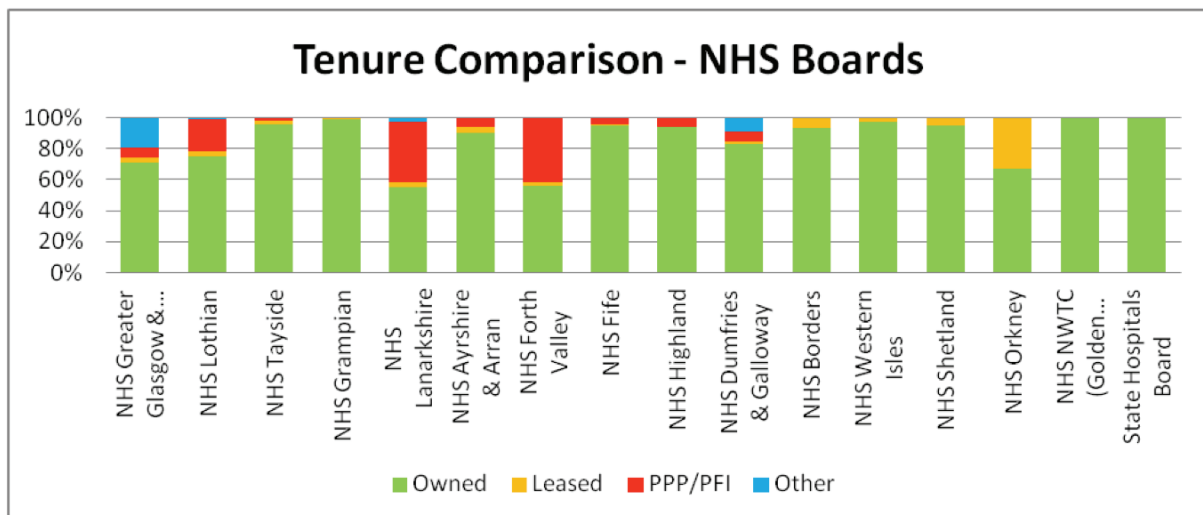


No data available for NHS Highland

The majority of the NHSScotland estate is owned (79%) but for some NHS Boards PPP/PFI and leased property is a significant proportion of their estate, as shown in the three charts that follow.



Tenure profile above includes all 22 NHS Boards, where information available



2.2.3 Cost of the Estate

The main direct costs associated with owning and operating the estate (property costs) are:

- Property Maintenance (Pay and Supplies)
- Energy Costs (Heat, Light and Power)
- Rent and Rates
- PFI Costs – Hard Facilities Management.

A breakdown of these Property Costs for the 16 NHS Boards is shown in the table that follows.

	Expenditure 2009/10 £			
	Pay	Supplies	Total	Percentage of Total
Property Maintenance	57,324,553	55,912,496	113,237,049	34%
Energy	0	68,354,326	68,354,326	20%
Rent & Rates	0	63,935,436	63,935,436	19%
Sub Total Property Costs	57,324,553	188,202,258	245,526,811	73%
PFI Costs - Facilities Management		91,038,648	91,038,648	27%
Total	57,324,553	279,240,906	336,565,459	100%

(Source: ISD Cost Book 2010)

Analysis of the PFI – Facilities Management Costs in the ISD Cost Book shows that the majority of the £91 million expenditure relates to Acute Hospitals as shown in the table below. Furthermore, over 90% of this expenditure is associated with just 13 Hospitals.

	2009/10 PFI Expenditure on Facilities Management	
	£	Percentage of Total
Acute Hospitals	60,974,704	67%
Long Stay Hospitals	5,015,378	5%
Mental Health Hospitals	4,695,454	5%
Other Miscellaneous	17,963,069	20%
Community Hospitals	2,390,043	3%
Total	91,038,648	100%

Interrogation of these PFI costs, undertaken as part of the development of this report, verified that the information submitted to the Cost Book may not have been collated in a consistent way and further work is needed to be confident that these costs represent only the Facilities Management element of the total PFI unitary charge. Furthermore, it is also evident from the interrogation that the various PFI contracts held by NHSScotland provide different ranges of FM services and therefore, the comparison of PFI costs may not be on a “like for like” basis.

2.2.4 Soft Facilities Management Services Costs

It is important not to consider assets in isolation from those Facilities Management services that also support the delivery of high quality healthcare. In addition to the estate costs which are directly associated with owning and occupying the estate there are range of soft facilities management services (Soft FM) services which have a significant impact on the patient environment. Soft FM covers:

- Portering Services
- Catering Services
- Domestic Services
- Transport
- Linen and Laundry Services
- Retail.

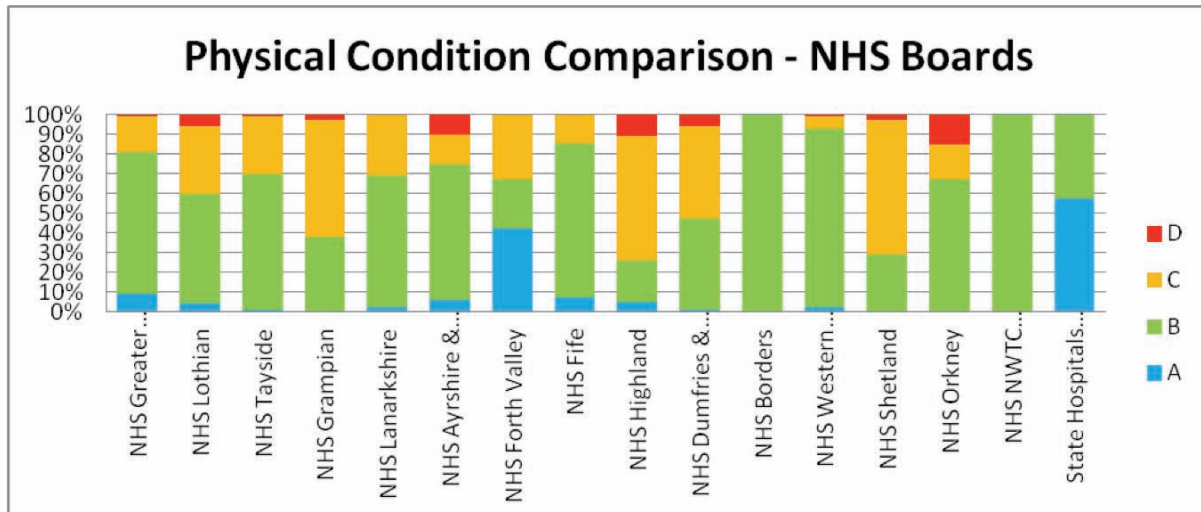
The costs associated with these Soft FM services are circa £400 million per annum.

Annex C to this report provides a summary of the service delivery issues and challenges for Soft FM services across NHSScotland. It highlights areas for further investigation which have the potential for improving both the efficiency and quality of service delivery.

2.3 Condition and Performance of the Estate

2.3.1 Physical condition

Analysis of the information contained within each NHS Board's Property & Asset Management Strategy (PAMS) shows that approximately 69% of the NHS Boards estate is in good physical condition (category A or B) but, as shown in the chart below, this can vary significantly across the NHS Boards.

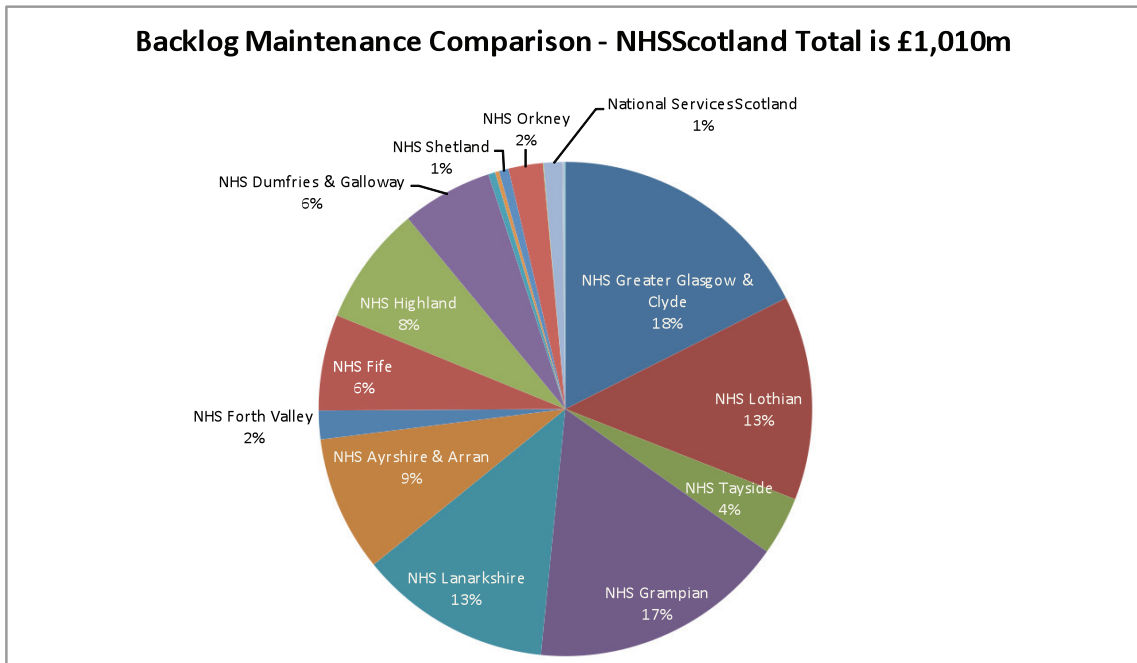


NHS Boards which have buildings assessed as category D – “unsatisfactory” have indicated that they have plans in place to either dispose or replace these buildings over the next 10 years. Hence, the overall amount of buildings in category D is expected to significantly reduce in these NHS Boards.

2.3.2 Backlog maintenance costs

Backlog maintenance costs arise from maintenance that has built up over a number of years and is now giving rise to poor condition and performance. These backlog maintenance costs have been identified as those required to bring the estate back to Condition Ranking B (satisfactory). It is an on-going challenge for the NHS to balance investment between that which is focussed on service improvement and development, and that which is necessary to ensure existing properties do not cause harm or undue disruption to service delivery.

An analysis of the distribution of backlog across NHS Boards is shown in the chart below.



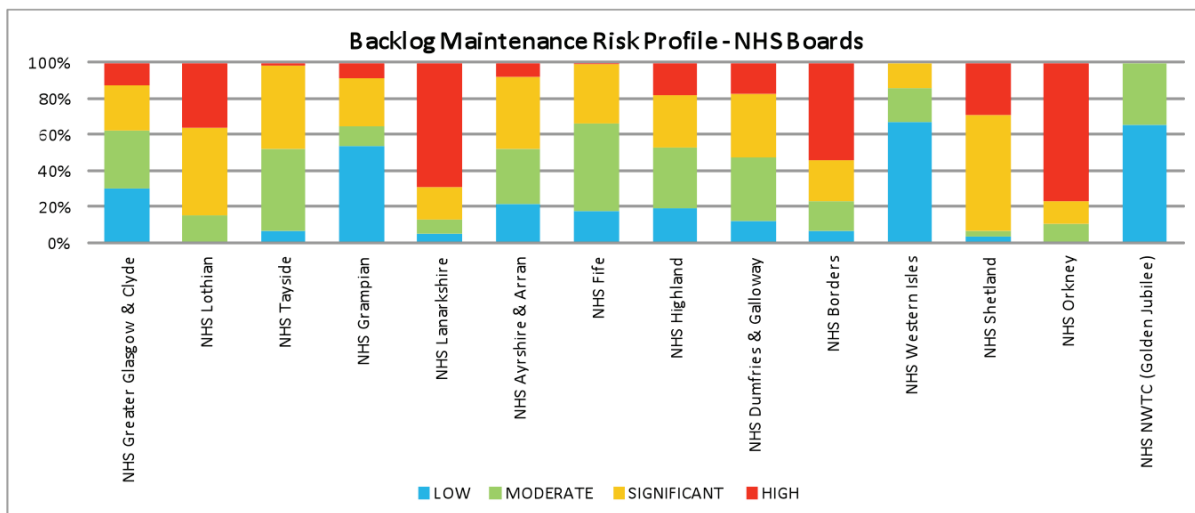
Note: the above chart includes all 22 NHS Boards but those whose backlog is below 1% have not been separately identified for clarity of presentation reasons only.

By the very nature of a mixed use and mixed aged estate, backlog maintenance will always be present in such a large and diverse estate. The emphasis should, therefore, always be on ensuring that the level of backlog maintenance does not unduly increase the risk of building or engineering service failure to an extent that it could have a detrimental impact on each NHS Board's ability to function effectively, efficiently and safely.

NHSScotland managers are focussed on mitigation strategies for the significant backlog maintenance requirement to ensure that high and significant risk backlog is prioritised, based on the risk it poses, for investment within the finite resources made available to them. This is to be reflected in their PAMS with the analysis supported by guidance developed by Health Facilities Scotland to ensure that a common approach is taken across NHSScotland to the assessment of risk.

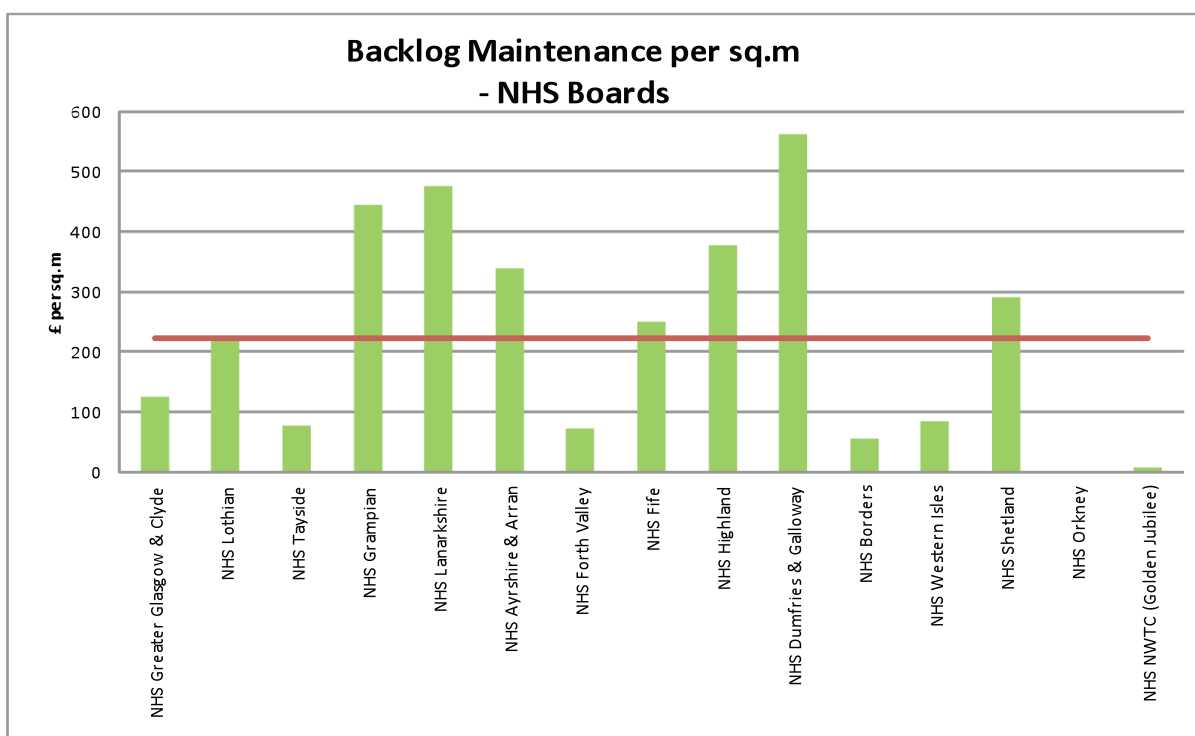
The two key strategies for reducing backlog maintenance are either to invest directly in the rectification of backlog or to rationalise the estate to remove those properties with high levels of backlog maintenance. For the current stock of modern buildings future backlog can be avoided by ensuring the right levels of expenditure on both operational and cyclical lifecycle maintenance.

The following chart that follows identifies the profile of low, moderate, significant and high risk backlog for each NHS Board.



Note: Risk profile not available for NHS Forth Valley and State Hospital

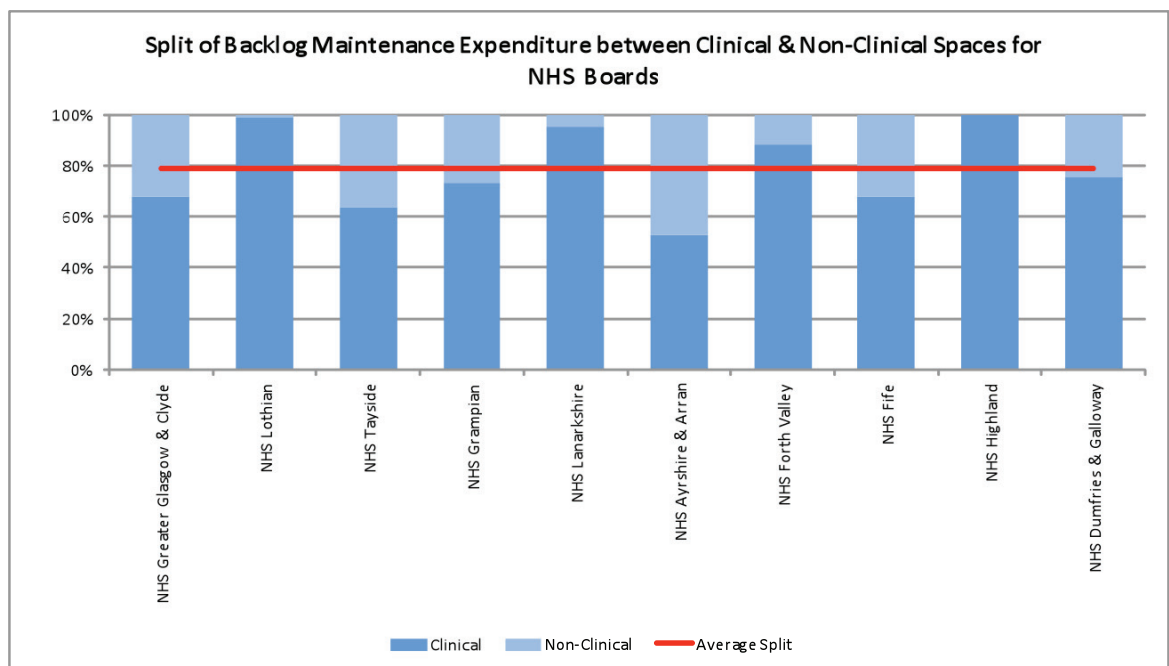
The earlier pie chart expressed the total amount of Backlog Maintenance Cost per NHS Board whereas the following chart shows the average backlog maintenance expenditure requirement per unit of total building floor area for each NHS Board.



The average backlog expenditure per sq.m shown in the above chart is based on the total building floor area, whereas in practice it can be expected that the majority of backlog will be associated with the areas of poor physical condition (condition C & D). Hence, the backlog cost in a particular area that is in poor physical condition may well be considerably in excess of the average shown in the above chart. However, a number of current projects in hand will have an impact on this figure and include the New South Glasgow Hospitals Project, Royal Victoria Building, the Royal Hospital for Sick Children and the Royal Edinburgh Hospital, Monklands General Hospital,

Dumfries and Galloway Royal Infirmary, Victoria Hospital extension in Kirkcaldy and North Ayrshire Community Hospital.

The current backlog maintenance expenditure requirement associated with the existing NHSScotland estate is estimated to be in the region of £1,010 million. However, a significant amount of this backlog cost (£175 million) is in buildings which NHS Boards are planning to dispose of in the next ten years. In addition, of the £2 billion of capital investment over the CSR period the Scottish Government has allocated £300 million targeted on planned maintenance identified in the NHS Boards’ Property & Asset Management Strategies. Hence, the combined impact of investment in new facilities, disposals and planned maintenance expenditure will reduce the overall backlog expenditure requirement from £1,010 million to around £535 million. It should also be recognised that around 20% of the current backlog maintenance expenditure requirement is in buildings which are classified as “non-clinical” and will have little impact on the patient’s healthcare experience. An analysis of this by NHS Board is shown in the chart below.



Approximately 40% of the total backlog maintenance expenditure identified is for high or significant risk clinical space. This includes property that has been identified for disposal.

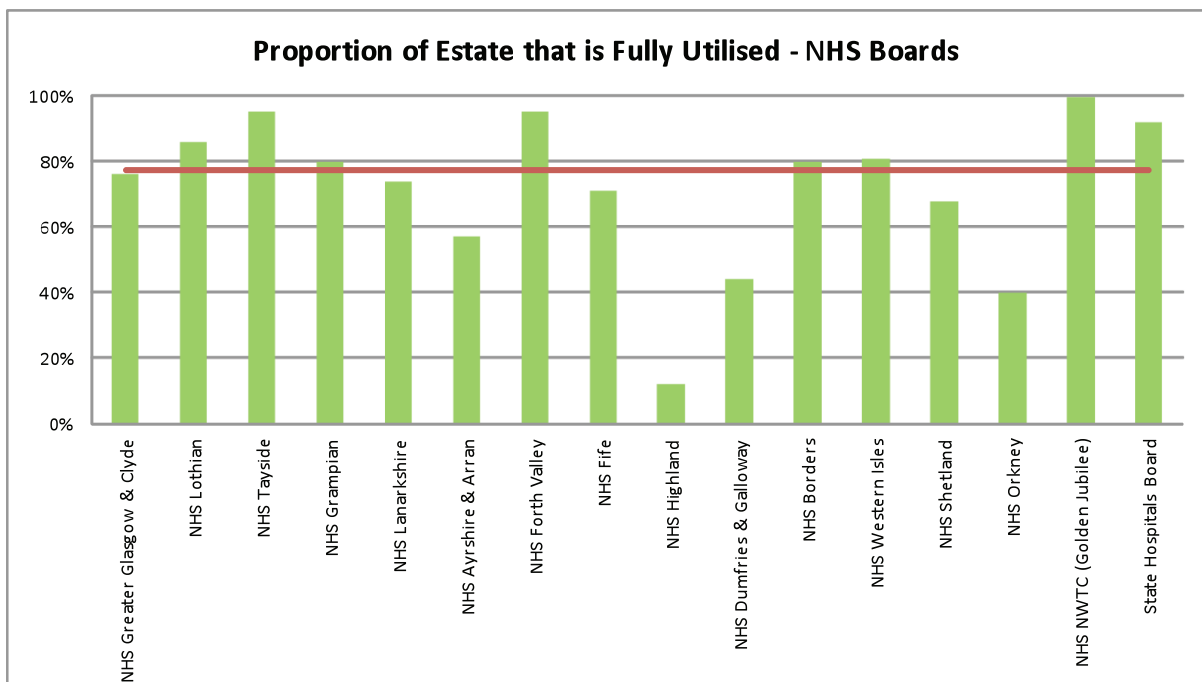
NHS Boards are already targeting high and significant risk clinical back log maintenance through planned maintenance and re-provision plans outlined in their PAMS. Overall, Scottish Government budgeting levels should be sufficient to reduce existing high and significant clinical backlog maintenance levels for retained property to manageable levels over the next five years.

For lower risk backlog maintenance and non clinical space, Scottish Government will work with NHS Boards to develop detailed long term plans for rationalisation and disposal of surplus, unsuitable, poor quality properties, and life cycle planned maintenance plans for retained property. These will be updated annually as part of the PAMS update and reviewed more formally through the LDP process.

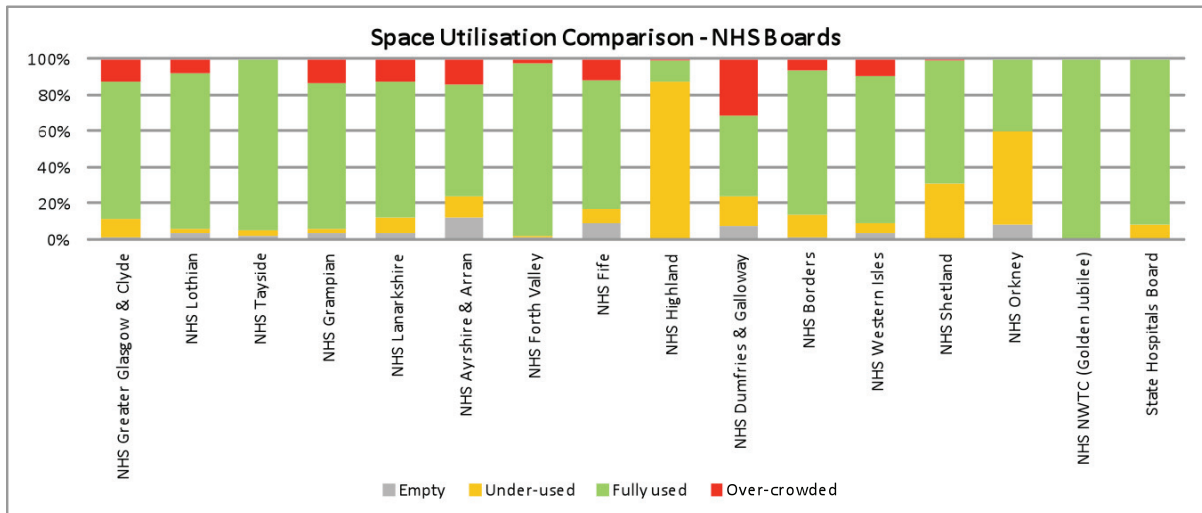
2.3.3 Space utilisation & functional suitability

Accommodation space has a direct relationship with cost. The more space that is provided the more ownership and occupancy related costs will be incurred. The aim, therefore, is to hold only that space which is needed to support the delivery and support of effective and efficient service delivery. Under utilisation of space incurs wasted financial resources, whereas under provision of space can result in ineffective and/or inefficient working practices and poor clinical outcomes.

The following chart shows the proportion of each NHS Board’s estate that is reported through their PAMS as being fully utilised. However, recent discussions with NHS Boards on these results suggest inconsistencies in the definitions and categorisation of space use and a general lack of consistency in collation of space utilisation data. Experience based on other UK studies indicates potential low utilisation rates in Operating Theatres and the Primary Care estate, which suggests that the currently reported information may be somewhat optimistic. In view of these issues, the graphs should at this stage be recognised as only providing a broad indication of space utilisation across NHS Boards and that future improvements in the appraisal of space utilisation may result in adjustments to these figures in subsequent years.

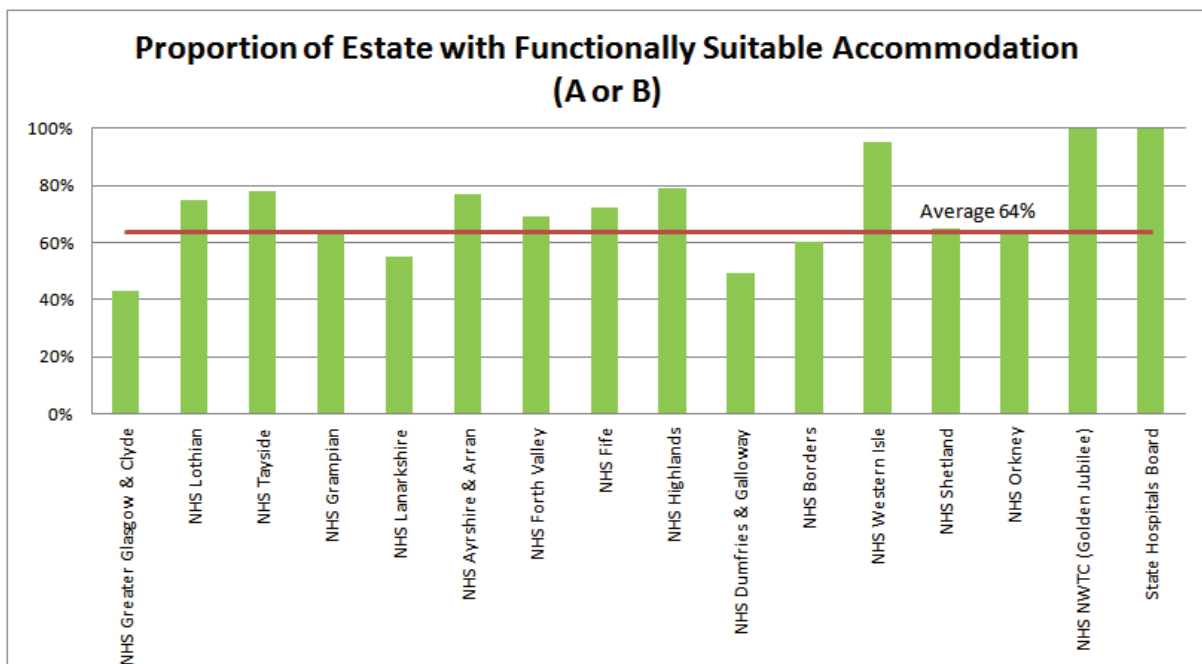


The chart below shows, in comparison with full utilisation, the proportion of the estate that is reported as empty, under used and overcrowded.



The under utilisation of accommodation across NHS Highland reflects the challenges faced from such a geographically diverse area and the need to maintain and provide critical healthcare facilities in locations with relatively low population masses

The estate also plays an important role in supporting the effective and efficient delivery of services. Poor functional suitability often results in inefficient working practices, increased staffing levels and poor clinical outcomes. Therefore, it is an important component of the organisation’s overall performance. The proportion of the estate reported by NHS Boards as being functionally suitable (category A or B) is shown in the following chart.



The chart above indicates a relatively good level of performance since it shows that approximately 64% of accommodation is reported as functionally suitable. However, as with the space utilisation data there is some concern that there are inconsistencies in the way in which NHS Boards are currently undertaking assessments of functional suitability.

NHS Boards are currently reviewing their data and performance on space utilisation and functional suitability as part of the PAMS development process.

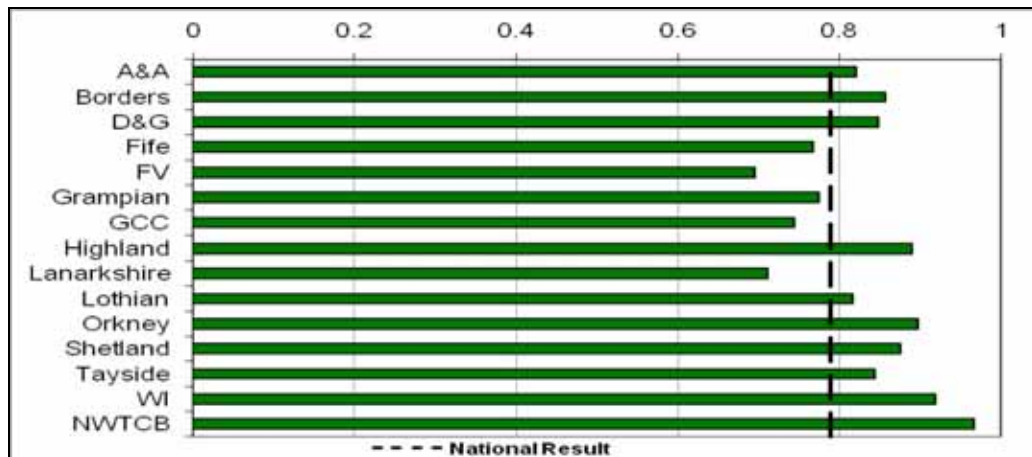
2.4 Patient Satisfaction Survey results relevant to premises

Better Together is Scotland's patient experience programme, using the public's experiences of NHSScotland to improve health services. One of the key elements it is currently focussed on is the Inpatients Patient Experience Survey 2010. This asked a range of questions about people's experiences of staying overnight in a Scottish hospital during 2008/09 and included a particular question that was relevant to the condition and performance of the hospital estate, namely "Q.13 Overall, how would you rate the hospital environment?" The following table shows the results of the response to this question set against different hospital types:

NHS Board	Excellent or Good %	Fair %	Poor or Very Poor %
A1 - Teaching hospitals	78%	18%	5%
A2 - Large general hospitals	77%	19%	4%
A3 - General hospitals	89%	9%	2%
B - Long stay hospitals	80%	16%	4%
J26 - Community Hospitals	89%	9%	2%
Scotland	78%	17%	4%

The results are generally positive across all hospital types but with General and Community Hospitals producing the slightly better results. However, it needs to be recognised that these results are based on only one question and, therefore, should not be taken as indicating overall patient satisfaction in NHSS premises. An enhanced question set, therefore, needs to be developed for improved assessment of patient and public opinion.

The same Patient Experience question can also be used to compare results across each of the different NHS Boards and the following chart presents the level of positive responses for each NHS Board. It should be noted that the Forth Valley (FV) and NHS Fife scores relate to the situation prior to the opening of the new Forth Valley Royal Hospital and the new build at the Victoria Hospital in Kirkcaldy.



The scale is 1 = 100% positive responses.

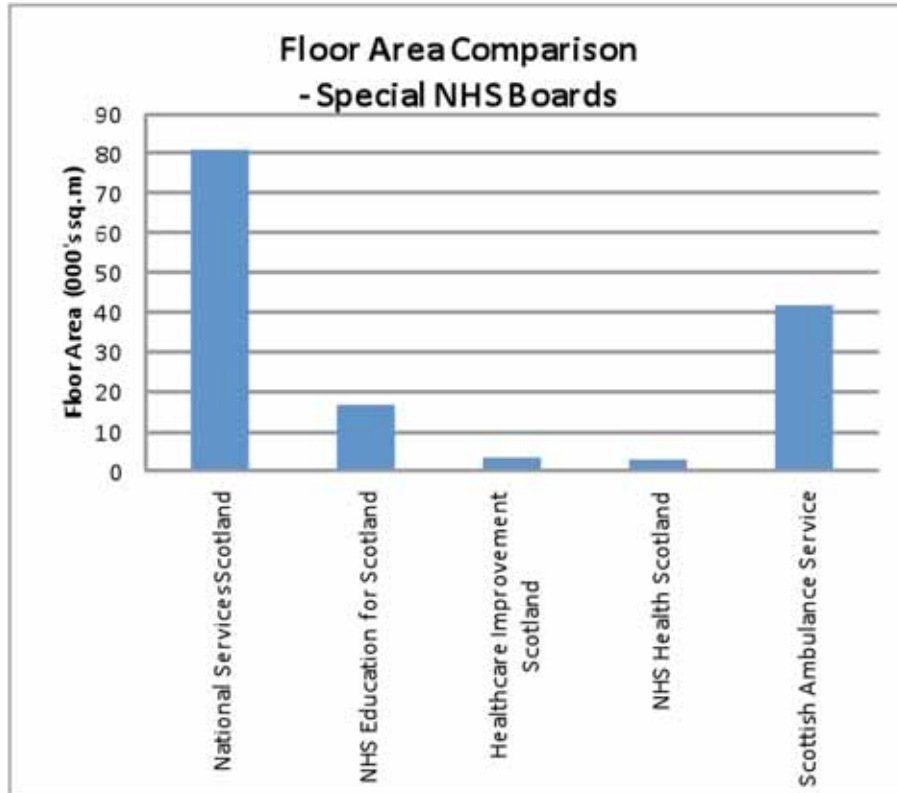
2.5 Special NHS Boards

2.5.1. The Special NHS Board's Estate

There are six Special NHS Boards not included in the previous analysis, and these are:

- National Services Scotland
- NHS Education for Scotland
- Healthcare Improvement Scotland.
- NHS Health Scotland.
- NHS24
- Scottish Ambulance Service.

Together, their combined estate accounts for almost 150,000 sq.m of accommodation, as shown in the chart that follows – this excludes NHS24 whose data is currently not available.



The physical condition of these properties is similar to that of the NHS Boards, with 62% in good physical condition (category A or B), as shown in the chart below:



2.5.2. Special NHS Boards – Office Accommodation

Any examination of the NHSScotland estate needs to recognise that much of the property occupied by the Special NHS Boards is office accommodation which is quite different in form and functionality from the majority of the accommodation occupied by the NHS Boards. An example of this is the tenure status of occupied accommodation where there is much greater use of leased accommodation.

All Special NHS Boards recognise the importance of rationalising their estate to maximise efficiency and reduce the number of Special NHS Board properties. Special NHS Boards are currently focusing on maximising the utilisation of Meridian Court in Glasgow and Gyle Square in Edinburgh which will have a significant impact on the overall amount of leased properties held.

Whilst these Special NHS Boards are an essential and integral part of NHSScotland, their office estate has more in common with the wider civil and government estate that is occupied by government departments and agencies. This very large public sector office estate also has much in common with the extensive office estate that is occupied by a wide range of private sector bodies and organisations.

There are benchmarking schemes in use for the mainly office based Central Government and Civil Estate. The primary indicators used to report and assess building efficiency these benchmarking schemes are:

- Cost per full time equivalent employee (FTE) - expressed as £/FTE
- Cost of space - £/sq.m
- Space efficiency – sq.m/FTE

At the current time, the Special NHS Boards are not participants in this benchmarking scheme and nor do they have their own scheme. Work on the development of this State of the Estate Report has shown that much of the information needed to benchmark performance and efficiency in their office accommodation is collected but not currently in a consistent way that would enable benchmarking across the Special NHS Boards to be undertaken. However, it should be possible to co-ordinate the information currently collected across the Special NHS Boards and to make changes that would enable benchmarking of office accommodation to be undertaken. Hence, it is expected that future versions of this report will include results from benchmarking of office accommodation across the Special NHS Boards.

Over recent years the Special NHS Boards have made significant progress on introducing new ways of working, flexible working and workplace redesign. In particular, NHS National Services Scotland (NSS) has done extensive measurement of

space efficiency and costs across its own large and diverse office estate as part of implementing its Property Strategy which is focused on:

- Providing well designed and efficient space which is flexible towards embracing changing working practices and new technology
- Maximising the opportunity for staff to develop and deploy their knowledge, skills and personal qualities creatively to add value to the business and services
- Achieving synergies from shared use of accommodation & support services

It should also be noted that within their total estate the NHS Boards also have significant amounts of office accommodation which benefit from similar best practice arrangements as those in Special NHS Boards. Work is in hand with a number of NHS Boards to further review their office accommodation in line with the UK Government standard benchmarks for office accommodation.

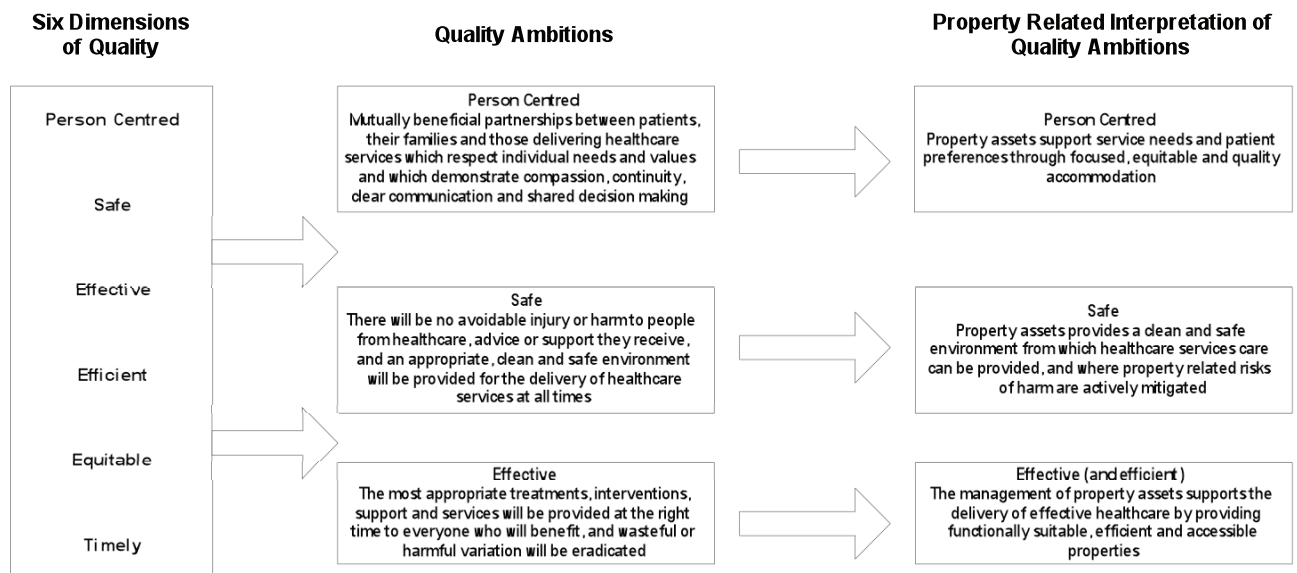
3.0 Performance

The State of the Estate Report will provide an annual high level assessment of the progress that NHSScotland is making on improving the performance of the management of property and assets. It is proposed to do this through:

- An annual review of the Property & Asset Management Strategies (PAMS) of NHS Boards
- Monitoring changes in 15 key performance indicators that draw from and build on the estates and facilities benchmarking work that is being undertaken nationally
- Undertaking comparative performance analysis to identify the “performance gap” between current performance and a set of realistic and achievable targets for improvement.

The results from the above will be brought together in a new Performance Framework which will link property and asset performance to service and patient needs as defined in the NHSScotland Quality Strategy’s three Quality Ambitions.

The interpretation of the Quality Strategy’s three Quality Ambitions to reflect the supporting function that property and assets provide in the delivery of quality healthcare services is shown in the diagram that follows.



3.1 Performance framework

A new Performance Framework has been developed which will be used to appraise the overall performance of each NHS Board against the three Quality Ambitions using 15 Key Performance Indicators. The scores for each KPI will be combined to produce an overall score for each NHS Board which, once calculated, will be compared with other NHS Boards and subsequently combined to produce an “All-NHSScotland Asset Quality Ambition Score”.

The State of the Estate Report will compare these scores annually and show the impact that property and asset performance improvement has on the overall performance of each NHS Board as a partner in the delivery of health and social care in their area.

The use of a Performance Framework in this way will enable current performance to be assessed, specific areas for improvement to be identified, and future improvements to be linked to plans incorporated into each NHS Board’s PAMS.

The expectation is that each NHS Board will review its current performance using the framework and implement improvements linked to the targets for improvement contained within their annual PAMS update.

The annual reporting of the State of the Estate report and the All-Scotland NHS Quality Ambition Score will require a process for consistent data / information collection and collation from each NHS Board. A pro-forma based process will be developed to support this annual review and performance monitoring exercise.

The key performance indicators required to populate the Performance Framework have been selected with the aim of demonstrating that performance is improving in line with national policy and standards and across a broad range of property and asset functions.

The Performance Framework is shown overleaf.

Quality Ambition	Performance Measure	KPI No	Key Performance Indicator	Indicative 10 year Performance Benchmark	Current (2011) Performance	Performance Score
Patient Centred	Quality of physical environment	1	Percentage of properties categorised as either A or B for Physical Condition facet of estate appraisals	90%		
		2	Percentage of properties categorised as either A or B for Quality facet of estate appraisals	90%		
	Patient opinion of healthcare accommodation	3	Positive response to Patient Questionnaire on patient rating of hospital environment'	95%		
	Patient needs are accommodated in modern, well designed facilities	4	Percentage of properties less than 50 years old	70%		
	PAMS reflective of service needs and patient preferences	5	PAMS Quality Checklist Overall Score (max score 100)	95		
Safe	Statutory compliance status of property asset base	6	Overall percentage compliance score from SCART	95%		
	Backlog maintenance expenditure requirement	7	Cost per square metre for backlog maintenance	£100		
	Level of risk associated with outstanding backlog maintenance requirement	8	Significant and high risk backlog maintenance as percentage of total backlog expenditure requirement	10%		
Effective (and efficient)	Functionally suitability	9	Percentage of properties categorised as either A or B for Functional Suitability facet of estate appraisal	90%		
	Utilisation	10	Percentage of properties categorised as 'Fully Utilised' for space utilisation facet of estate appraisals	90%		
		11	Building volume (cu.m) per 1000 population (from Cost Book)	2240		
	Property maintenance costs	12	Property maintenance costs £ per 100 cu.m (from Cost Book0	£958		
	Rent and rates costs	13	Rent and rates costs £ per 100 cu.m (from Cost Book)	£411		
	Energy costs	14	Energy costs £ per 100 cu.m (from Cost Book)	£617		
Energy consumption	15	Giga Joules per 100 cu.m per year (from eMART)	44			
Total Overall Performance Score						

3.2 Property and Asset Management Strategies (PAMS)

It is important that NHS Boards are able to describe, in a consistent way, how well the totality of their existing property and assets is performing against ongoing policy objectives both now and in the longer term. A NHS Board's Property and Asset Management Strategy (PAMS) is a key strategic document for demonstrating how the NHS Board is performing in meeting this requirement.

The Scottish Government's "Policy for Property and Asset Management in NHSScotland" requires all NHSScotland bodies to have a Property and Asset Management Strategy which is reviewed and approved annually by its Board. Health Facilities Scotland has provided comprehensive guidance and training to support NHS Boards in developing their PAMS.

One of the key aims for each NHS Board's PAMS is that as they are implemented they will fuel continuous improvement in the condition and performance of the asset base in supporting the delivery of healthcare services. The State of the Estate Report provides an opportunity to describe the success of NHS Boards in implementing their PAMS and achieving the planned benefits from it.

A PAMS checklist has been developed which is based on the requirements of the "Policy for Property and Asset Management" and the HFS guidance for developing PAMS. The checklist is aimed at identifying the strengths and weaknesses of the PAMS areas where improvement is needed, and whether or not key elements of PAMS (as identified by the PAMS guidance) have been addressed.

3.3 Review of PAMS submitted in 2011.

A deadline for the NHS Boards to produce their first PAMS was set for the end of March 2011. The PAMS that were submitted in March 2011 show that the main focus over the next few years is to complete the current major investments plans and then to refocus on backlog and improving the utilisation of existing assets. This should result in substantial improvement in overall property performance of the estate. Annex B provides a summary of the main focus and priorities of NHS Boards over the next 5 years.

The review of the quality and comprehensiveness of the PAMS documents highlighted the different stages of development of each submitted PAMS and that there is room for future improvement. The chart overleaf has been compiled using the PAMS Checklist and provides an overall score for each NHS Board's PAMS (This is a snapshot of PAMS received the deadline and does not reflect the ongoing work that has carried on and additional PAMS received since then. This will be reflected in next year's report).

PAMS Quality Checklist Summary Score Sheet

	Where are we now?	Where do we want to be?	How do we get there?	Data check, implementation & innovation	Overall
NHS Ayrshire & Arran	→→→→→	→	→→	→→	→→→
NHS Borders	→→	→→→	→→	→	→→
NHS Dumfries & Galloway	→→→→→	→→	→→	→→→	→→→
NHS Fife	→→→→→	→→→	→→→→→	→→→→→	→→→→→
NHS Forth Valley	→→→	→→→→→	→→→	→→→	→→→→→
NHS Greater Glasgow & Clyde	→→→→→	→→→	→→→→→	→→→→→	→→→→→
NHS Grampian	→→→→→	→→→	→→→	→→→	→→→→→
NHS Highland	→	→	→	→	→
NHS Lanarkshire	→→→→→	→→→→→	→→→→→	→→→	→→→→→
NHS Lothian	→→→	→→→→→	→	→→	→→→
NHS Orkney	→→	→→	→	→	→
NHS Shetland	→→→→→	→→→	→→→	→→→	→→→→→
NHS Tayside	→	→	→	→	→
NHS Western Isles	→→→→→	→→	→	→→→	→→→
NHS Golden Jubilee	→	→	→	→	→
NHS Education for Scotland	→→→	→→→	→→→	→→→→→	→→→→→
NHS Health Scotland	→→→→→	→→→→→	→→→→→	→→→→→	→→→→→
Healthcare Improvement Scotland	→→→	→→	→→→	→→	→→→
NHS 24	→	→	→	→	→
National Services Scotland	→→	→→→→→	→→→→→	→→→	→→→
Scottish Ambulance Service	→	→	→	→	→

Note: State Hospital were exempt from submitting a PAMS due to their current whole estate redevelopment works

Chart Key:	→→→→→	= Comprehensive information / evidence provided which fully supports the PAMS' strategic vision
	→→→→→	= Good level of information / evidence provided which supports the PAMS' strategic vision
	→→→	= Limited information / evidence provided but it does support the PAMS' strategic vision
	→→	= Good level of evidence / information provided but lacks cohesion with PAMS' strategic vision
	→	= Limited information / evidence provided and lacks cohesion with PAMS' strategic vision
	→	= PAMS not submitted

3.3.1 Setting benchmarks and targets for performance improvement

Over recent years NHSScotland has developed benchmarking information in a number of areas including Estates and Facilities Management, Energy and Environmental Management. This work is continuing through a number of benchmarking streams within the Estates and Facilities Benchmarking Group. The aim being to enable Estates and Facilities Teams within NHS Boards to identify, share and spread good practice and act on opportunities to improve performance as part of a wider need to deliver improvements in efficiency and productivity to meet local and national efficiency targets. In future years this State of the Estate Report will draw on the outcomes from the benchmarking work to support the monitoring of performance. It is intended that the benchmarking groups will be fully engaged in the development and agreement of the performance benchmarks and KPIs that will be used in future annual State of the Estate Reports.

As part of the development of this first report there has been a review of similar reports and reviews of efficiency in the NHS in England and other public sector organisations across the UK. Whilst this has shown that there are multiple approaches to identifying opportunities to improve performance, they broadly follow the same methodology. This involves establishing a performance benchmark or target, comparing each organisation against this and then determining the effect (usually efficiencies) of organisations improving their performance to the benchmark or target.

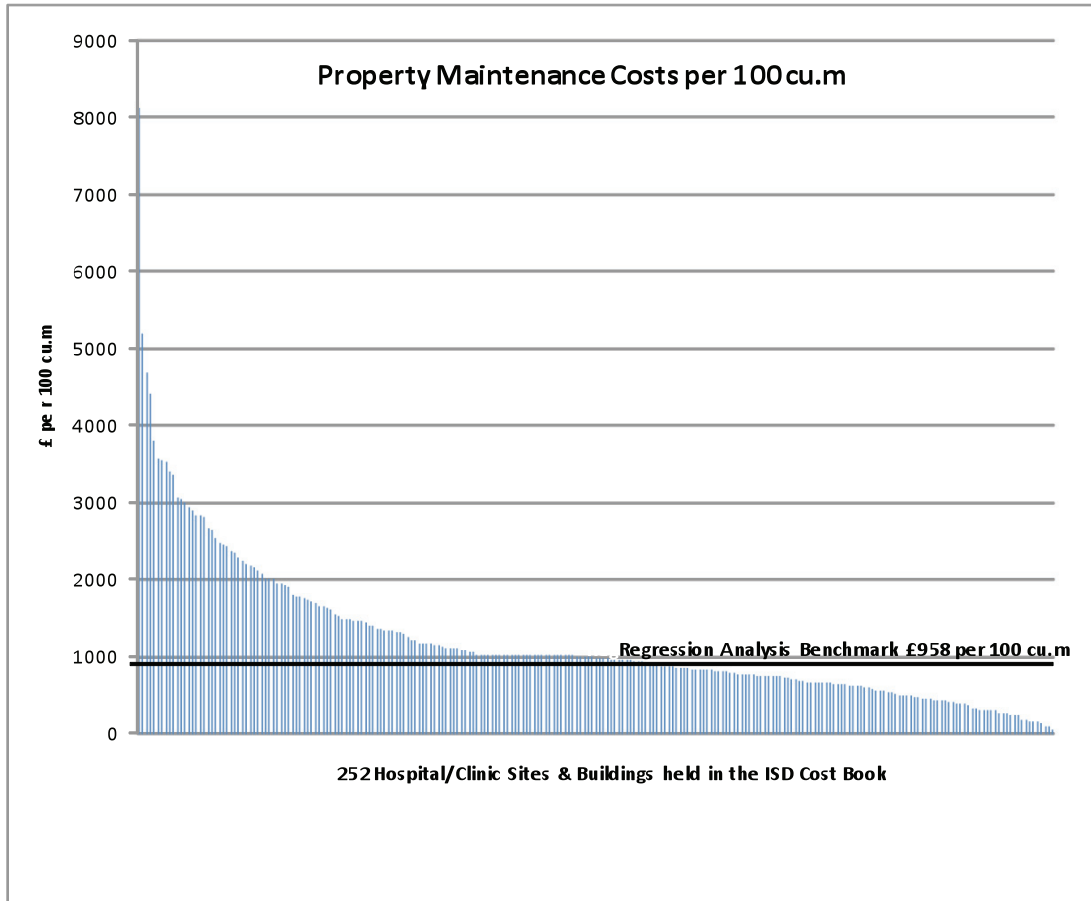
The benchmark or performance target is often arbitrarily set as the current upper quartile level of the current performance range or in some cases the top 10 percentile level of the current performance range. This approach has weaknesses for two reasons:

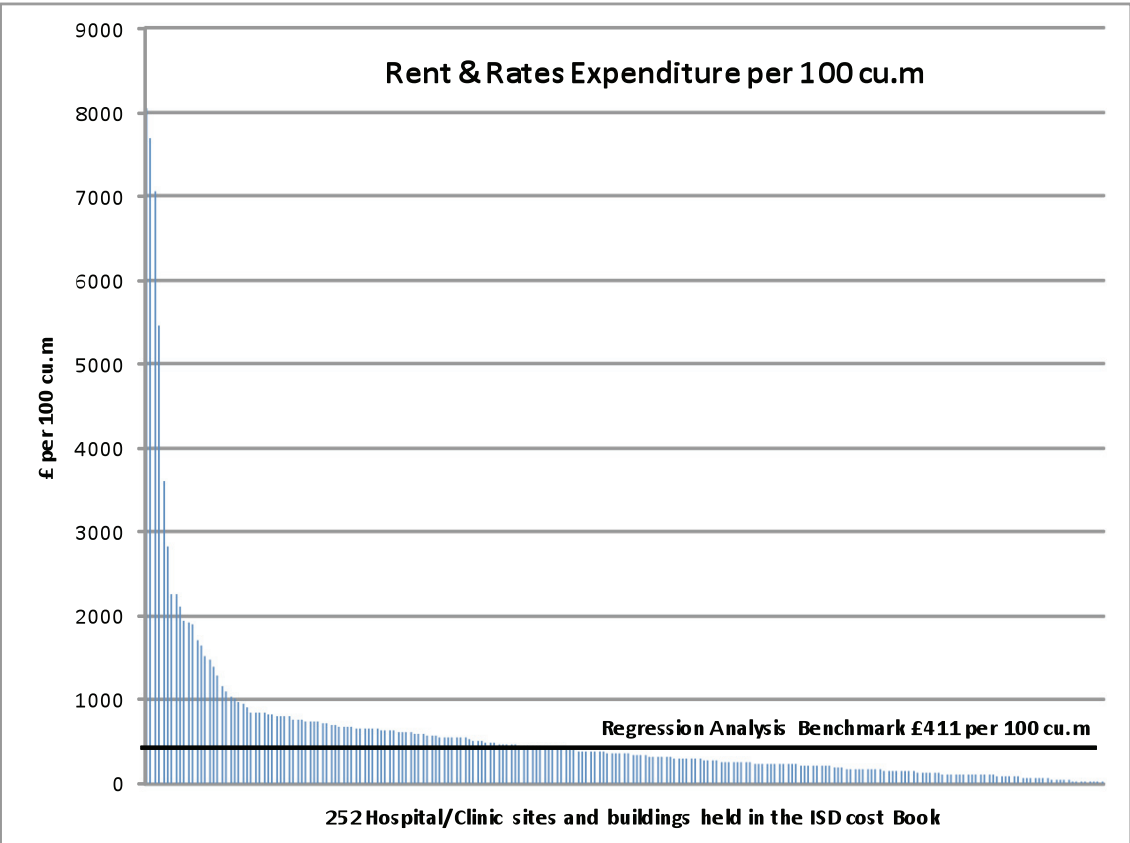
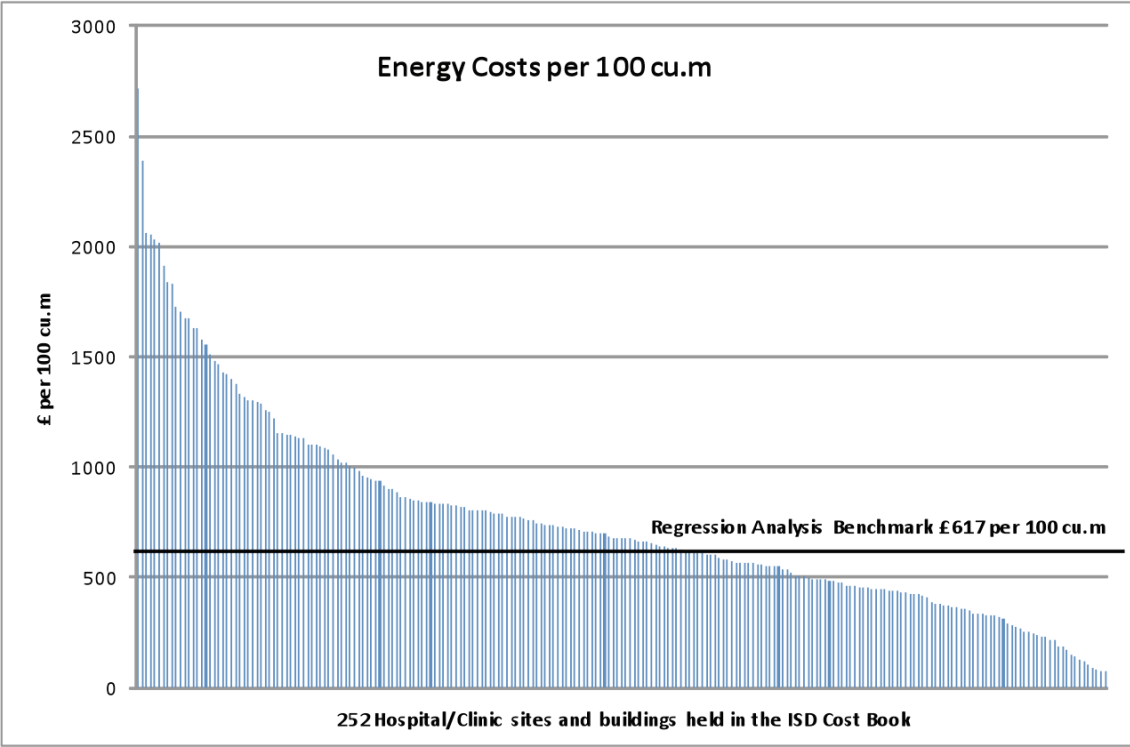
- If the number of organisations in the comparative or benchmark group is small (such as in NHSScotland i.e. 16 NHS Boards, 40 acute hospitals etc.) then the average and upper quartile can be very easily distorted by outliers in the data.
- It takes no account of whether or not there is a relationship between the two variables being used in the KPI, i.e. both variables may be entirely independent variables. Hence, a change in one variable may have nothing to do with a change in the other variable.

In order to overcome these problems this report has used regression analysis to establish the 10 year performance benchmarks used in the Performance Framework for the three main property costs and for asset utilisation (KPI No's 11, 12, 13 & 14).

3.3.2 Property costs

The regression analysis approach described above produces the results shown in the charts that follow and is based on information drawn from the ISD Cost Book (based on 2009/10 data) which collates the information provided by NHS Boards for 252 separate hospitals and clinics across NHSScotland.





These charts clearly show that, for the three KPIs shown, there currently appears to be a very considerable variation in performance across the 252 individual hospitals/clinics sites for which information is held in the ISD Cost Book. There may be a variety of reasons behind this apparent variability in performance including

poor quality and inconsistently collated information, the characteristics of the different buildings i.e. quality and condition, geographic locations etc, and different approaches to the management of these aspects of asset performance. In relation to the Rent and Rates Expenditure, the chart shows that there is a particularly wide variation in the cost per 100 cu.m and a review of this data showed that there is a need to investigate the differences in costs across the NHS Boards. This will need to be resolved if this KPI is to be meaningfully used to monitor changes in performance in future annual State of the Estate reports.

The results from this initial analysis of the property related costs, showing the apparent wide variation in performance on these three KPIs, were shared with the Steering Group which has been established for the development of the State of the Estate Report. The results have also been shared with the EAMS User Group whose members have detailed knowledge of the way in which the information submitted to the Cost Book is collated. The feedback from both groups was that the quality and consistency of the information provided by the NHS Boards for use in the Cost Book needs to be significantly improved if it is to be used for collating KPIs such as those proposed in this report.

The results from this initial exercise reinforce the importance of robust performance and management information for comparing the performance of NHS Boards and individual assets. If this State of the Estate Report is to have credibility and the targets for improving performance contained within it are to be plausible and achievable, then improving the quality and consistency of information must be a very high priority. Hence, over the last two years the Scottish Government and the NHS Boards have been implementing a number of measures to address the data quality issue including:

- The development and implementation of the Scottish Government's new *Policy for Property and Asset Management in NHSScotland (CEL 35(2010))*
- An extensive programme of surveys to update the information held on building condition and performance
- The development and implementation of new guidance on developing PAMS and undertaking risk based appraisals of buildings which has been supported by a series of training courses provided by Health Facilities Scotland
- The procurement and implementation of a new national Estate and Asset Management System (EAMS) which will ensure that information is held electronically in a consistent way across all the NHS Boards and can be maintained and updated regularly.

Further work is planned on improving the quality, consistency and accuracy of information used to prepare future versions of the State of the Estate Report including:

- A review of the way that information and data is collected and used in the Cost Book – a short life working group has been established which will report in January 2012
- NHS Boards will review how they collect and report on space utilisation, functional suitability and quality facets of property assets and will report by January 2012
- The Scottish Government will implement a “Review and Challenge” process on the PAMS submitted by NHS Boards and this will be incorporated into the LDP process
- Health Facilities Scotland will continue to provide a range of training courses on asset management in 2011/12.

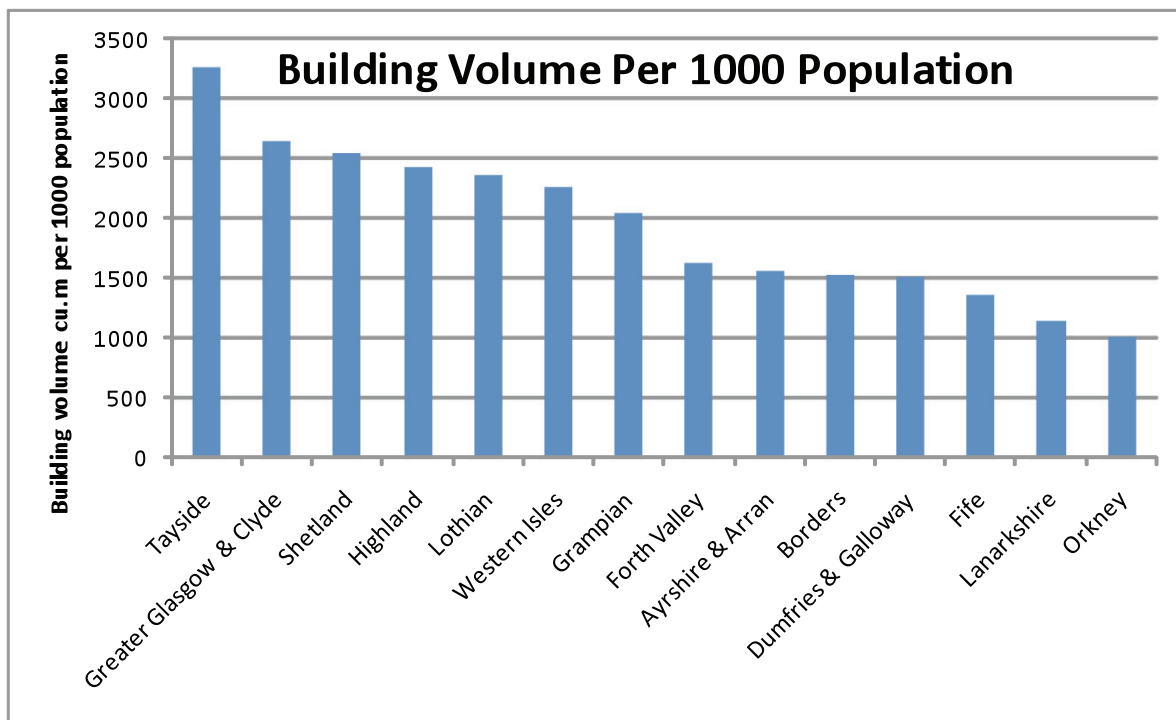
This further work on addressing the data quality issue is expected to significantly improve the data and information which will underpin future versions of the State of the Estate Report.

3.3.3 Asset Utilisation

The analysis undertaken for this report identifies that much of the cost associated with owning and operating the estate (maintenance, energy, rates etc) is driven by its size (area/volume). Hence, asset/space utilisation is a key performance measure for efficient management of the estate.

Analysis of asset utilisation based on population

Analysis of data available from the ISD Cost Book shows that there is considerable variability in the estate volume per 1000 population across the 14 NHS Boards for which population is available. The chart that follows shows that some NHS Boards have more than 3 times the volume per 1000 population than do others.



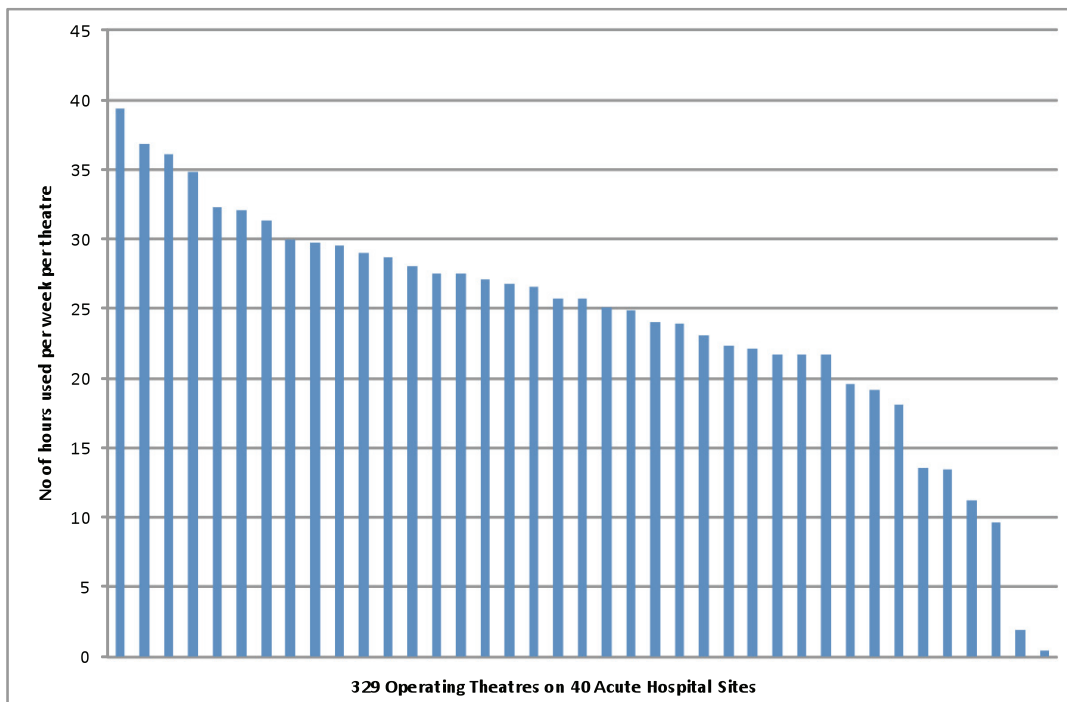
The use of the standard population in the above analysis takes no account of populations served by cross boundary activity. Therefore, two further analyses were carried taking account of:

- National Resource Allocations Committee (NRAC) populations adjusted for cross boundary flow
- NRAC populations adjusted for cross boundary spend from NHS Board's accounts.

Whilst these adjustment do have some impact on the utilisation KPI for some NHS Boards, considerable variability remains and further work is needed to better understand this apparent variation in asset utilisation across NHSScotland.

A further example of potential under utilisation of assets relates to the use of operating theatres. Analysis of the Cost Book Data for 329 theatres on 40 acute hospital sites is shown in the table and chart that follows.

	Hours used per week per theatre
Average	24
Median	26
Max	39
Min	0
Upper Quartile	29



This indicates significant variation and has been considered through work that has been underway since 2008 to improve the performance of operating theatres and the quality of the cost book data on theatre use through the NHSScotland Efficiency and Productivity delivery framework.

This work identified that utilisation itself is not a good measure of operating theatre performance. It needs to be considered alongside throughput data, adjusted for case mix and complexity, planned and unplanned theatre activity, the number of cancelled theatre sessions, cancelled operations, the reason for cancellation and the efficient flow of patients along the whole operative pathway from admission to discharge. This work indicates that high utilisation rates may sometimes be an indication of poor use of theatre resources and will often be found in theatres where lists are frequently over-run due to poor planning or over-booking of theatre lists.

The Efficiency and Productivity Framework has been engaged in a comprehensive programme of benchmarking since 2007 and is able to demonstrate improvement in performance. Therefore, it is proposed that future State of the Estate Reports draw on this work to report on overall performance and to reflect the ongoing work and the wider complexities of benchmarking operating theatre performance.

3.4 The potential for improving performance and efficiency

Notwithstanding the concerns on the current accuracy and consistency of information held in the ISD Cost Book, the analysis undertaken for this first report suggest that in broad terms there is potential for improving the overall performance and efficiency of assets and estate and facilities services. In addition, the analysis has helped to develop a better understanding of the relationship between the main property related costs (maintenance, energy and rent/rates) and the size of the estate. It is now clear from this work that these property related costs are closely correlated with the size of the estate and therefore, any reduction in the area/volume of the estate will have a corresponding reduction in property costs. This is important since it is widely recognised that changes in healthcare service delivery models, driven by new technology and changing clinical practice, is reducing the need for the estate and leading to estate rationalisation. Therefore, the combination of improved performance on property costs and estate rationalisation has significant potential to reduce overall expenditure on the estate.

Furthermore, the case studies shown in Annex A describe a wide range of performance improvement initiatives covering the use of new technology, collaborative working, process redesign and the wider adoption of best practice. Similarly, the emerging work on soft facilities management services and the national procurement programme described in the annexes to this report indicate significant potential for performance improvement.

It needs to be recognised that potential efficiencies and savings relating to property and assets may not always be achievable or desirable depending on the characteristics of the asset in question. Furthermore, potential savings in property should not drive the service function; the core function and quality of service provision of the service department must always be the first consideration. Also, in some cases capital and/or revenue investment may be needed to achieve the efficiencies/savings.

4.0 Sustainability

4.1 Context

The sustainability and environmental performance of NHSScotland as a major public sector body is coming under increasing scrutiny at the present time for a number of reasons:

- Sustainable Economic Growth is at the core of the Scottish Government's Purpose and Economic Strategy. The Scottish Government has set a High Level Target on Sustainability in the National Performance Framework, supported by 15 national outcomes.
- Good environmental performance contributes to the achievement of a number of these national outcomes, in particular:
 - Outcome 10 We live in well-designed, sustainable places where we are able to access the amenities and services we need;
 - Outcome 12 We value and enjoy our built and natural environment and protect it and enhance it for future generations;
 - Outcome 14 We reduce the local and global environmental impact of our consumption and production; and
 - Outcome 15 Our public services are high quality, continually improving, efficient and responsive to people's needs.
- The Climate Change (Scotland) Act 2009 set ambitious targets for emissions reductions. Section 44 of the Act places a duty on public bodies, in exercising their functions, to act in:
 - the way best calculated to contribute to the delivery of the Act's emissions reduction targets;
 - the way best calculated to deliver any statutory adaptation programme; and
 - a way that they consider most sustainable.
- Section 76 of the Act requires Ministers to report annually on progress towards improving the contribution to sustainability of buildings that are part of the civil estate in Scotland.
- Using resources more efficiently can contribute to delivering the efficiencies and savings needed to tackle public spending constraints.

- There is heightened public awareness of sustainability/Greener issues generally.

The Scottish Government has stated strongly its ambition to be an exemplar on sustainability and lead by example on the issue of environmental performance. Specifically, the sustainability of Scotland's NHS has strategic relevance to population health. The scale and diversity of NHSScotland operations and, by extension, its ecological and carbon footprint, can significantly influence its impact on the environment and on the health of Scotland's population and, to an extent, wider.

These policies place health and wellbeing and the over-arching issue of sustainability at the centre of the lives of the people of Scotland as the NHS strives to become more accountable and patient-focused. If the commitment to create a healthier, wealthier, fairer, safer and stronger Scotland is to be realised, NHS Boards must ensure that their commitment to the provision of healthcare services and the day-to-day operation of these services will realise benefits for community development and the wider environment as well as public health.

The day to day operation of hospitals and other, smaller, healthcare facilities and the functional linkage with the wider NHS service delivery family has a direct impact on the environment. Decisions taken on the development and redevelopment of land and buildings can have particular implications for land use planning, transport and biodiversity. As NHSScotland is directly concerned with improving the health of the population and the provision of healthcare, it is vitally important that it is at the forefront of improving environmental performance, reducing any harmful impact on the environment and providing an exemplar environmental model to the rest of the community.

4.2 Policy

The *Policy on Sustainable Development for NHSScotland (CEL 2 (2012))* and the accompanying 2012 revision of the *Sustainable Development Strategy for NHSScotland* will, together with NHS Board-specific Sustainable Development Action Plans, form the framework for the achievement of the Scottish Government's sustainable development objectives. The scope / remit of the Policy and supporting Strategy is primarily in the context of estates / property and asset management to:

- Ensure a holistic approach to the implementation of all Scottish Government policies impacting on the sustainability of Scotland's NHS
- Ensure that all NHSScotland Bodies, as an integral part of the commitment to the health and well being of the community, ensure that their activities are consistent with Best Value legislation which places a duty on the public sector to contribute to the achievement of sustainable development

- Ensure that NHSScotland Bodies strive to continually improve their performance in sustainable development from an established baseline, such as determined by the self-assessment process through use of the Good Corporate Citizenship Assessment Model (GCCAM) toolkit, mandated via CEL 14 (2010) and, by other relevant reporting as necessary.

The Policy for Property and Asset Management for NHSScotland requires that NHS Boards report on environmental performance, particularly the Scottish Government HEAT Target E8 on energy consumption reduction and carbon emissions reduction for NHS Boards for 2009-2010 (see below), and on an analysis of performance in relation to the absolute and weather-corrected variances and Key Performance Indicators produced through the Health Facilities Scotland (HFS) Environmental Monitoring and Reporting Tool (eMART) across the four main parameters of CO₂, energy, water and, waste.

4.3 Targets and KPIs

The first phase of the HEAT Target E8 to reduce energy consumption by 2% per year came to an end in 2009 - 10 and a new HEAT target (Phase 2) came into operation from April 2010. The Annual National Environment Report will report on these new targets for 2010 - 11.

The Phase 2 HEAT target has been designed to achieve two aims. Firstly, it is set at a level to ensure that NHSScotland achieves the 2050 CO₂ target as set in the Climate Change (Scotland) Act 2009 and secondly to continue to improve the efficiency in the way energy is used.

To meet these two objectives, the following two-part target began in April 2010:

- CO₂ emissions reduction target of 3% year-on-year on all fossil fuel use, i.e. oil, gas, butane and propane usage, designed to eliminate the use of fossil fuels by 2050.
- A year-on-year energy efficiency target of 1%, based on an overall improvement by 2050 of one third on the comparative performance as at 2009-10. This would be equivalent to achieving a reduction in the all-Scotland average consumption from the current 63GJ/100 m³ to an average 44GJ/100m³.
- The baseline year for the two targets is the final outturn of 2009 – 10.
- Phase 2 commences in 2010 - 11 and runs until 2014 - 15, a five year campaign.
- The targets will be re-assessed every 5 years and amended where necessary to ensure the Climate Change Act 2009 targets are achieved.

Setting these two targets on a year-on-year basis will also ensure a greater portion of improvement within the early years of implementation.

Both the E8 energy efficiency and CO₂ targets are designed not only to achieve the Climate Change Act target but also to ensure that NHSScotland continues to lead by example within the public sector.

The CO₂ target is aimed at the fundamental change needed to move away from the use of fossil fuels. This will involve replacement of gas and oil heating systems with alternative renewable energy sources, including the wider introduction of biomass heating plants, heat pumps and other low/non-carbon heating technologies that become readily available in the market over the next forty years.

4.4 Reporting tools

To facilitate the collection of energy consumption, carbon emissions, water and waste data throughout the NHS estate, Health Facilities Scotland (HFS) provides and maintains a national reporting system, commonly known as the Environmental Monitoring and Reporting Tool (eMART). This allows all NHS Boards in Scotland to submit their data returns through a standardised communal system which allows users to set targets at individual building level and can automatically analyse performance against these targets. The data output from the system is also used to provide performance measures against the national HEAT target to reduce carbon emissions and continue energy efficiencies which are published through Scotland Performs and through the Annual NHSScotland National Environment Report, published by HFS. The Scottish Government have agreed that eMART should be the preferred data collection tool for reporting requirements in relation to Section 76 of the Climate Change (Scotland) Act 2009.

The NHSScotland National Environment Report describes NHSScotland's environmental performance for each financial year. It tracks progress against national targets with both absolute values and trends measured over up to 21 years. Data for each NHS Board is provided on energy, water, wastewater and waste.

4.5 Energy performance

The Annual National Environment Report has consistently shown that NHSScotland has a good track record of reducing energy consumption year on year. The 2009/10 report shows that the cumulative reduction in energy consumption for the 24 years since 1985 - 86 is now 44%. For the period 2010/11, energy consumption reduced by 3.48% and CO₂ emissions by 4.58% against the base year 2009/10.

Comparative energy performance has in the past been measured using both a comparative performance indicator (CPI) and a key performance indicator (GJ per 100 cu.m per year). The use of the CPI is currently being reviewed and therefore,

the current preferred comparator for energy consumption is GJ per 100 cu.m per year. This measure is well established from Estatecode which categorises buildings as follows:

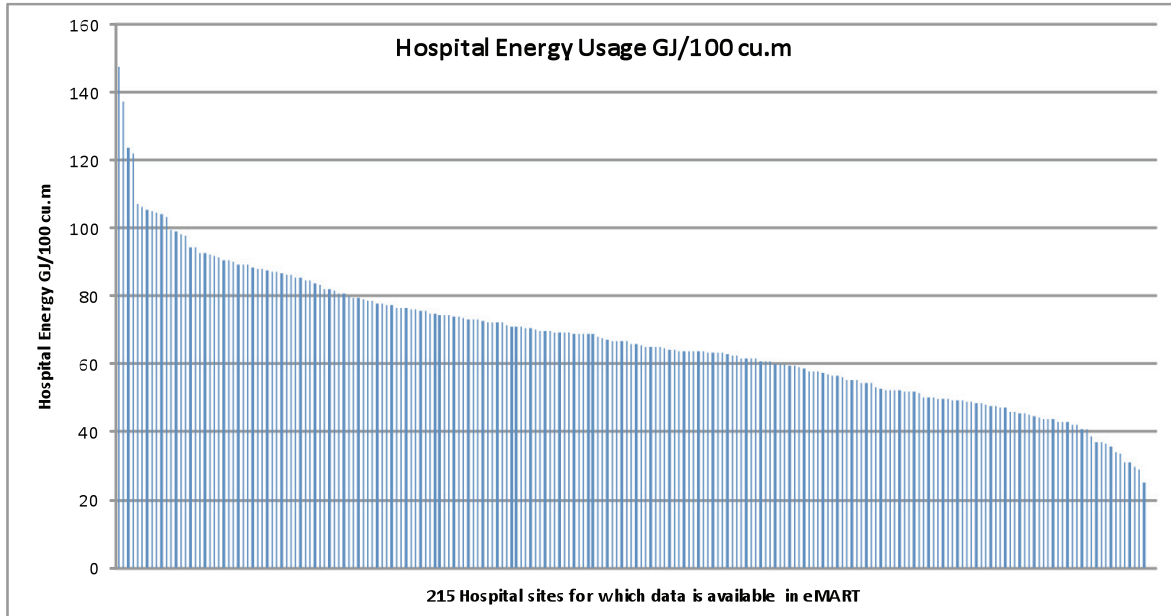
GJ/100 cu.m	Estatecode Category	Performance
35-55	A	Excellent
56-65	B	Good
66-75	C	Could be improved
76-100	D	Poor

The NHSScotland 2009/10 Environment Report provides the following information in relation to energy usage per 100 cu.m.

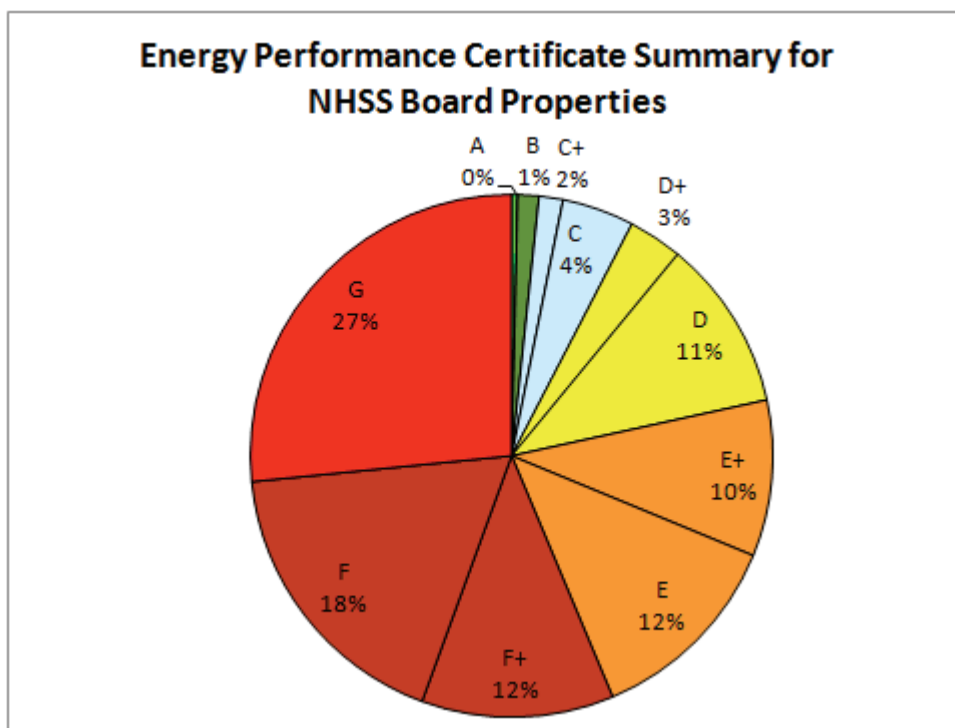
NHS Board	GJ/100 cu.m
NHS Shetland	51
NHS Tayside	53
NHS Lothian	56
NHS Lanarkshire	59
NHS Greater Glasgow and Clyde	66
NHS Western Isles	66
NHS Highland	67
NHS Fife	67
NHS Borders	69
NHS Grampian	70
NHS Ayrshire and Arran	70
NHS Dumfries and Galloway	73
Golden Jubilee National Hospital	76
The State Hospital	76
NHS Forth Valley	77
NHS Orkney	83

Note: Based on Hospital only fuels – does not include whole site energy use

Analysis of the raw eMart data for individual buildings identified a range of energy usage from 147 GJ/100 cu.m to 25 GJ/100 cu.m as shown in the chart that follows. This analysis also identified that 110 of the 215 sites have hospital energy consumption greater than 65 GJ/100 cu.m i.e. relatively poor energy performance.



The table that follows summarises the Energy Performance Certificates (EPCs) for buildings in each of the NHS Boards. This shows that the majority of buildings are rated at the 'poor' end of the EPC ratings (E,F, G).



However, energy performance certificates are an indication of carbon dioxide ratings compared with the original design standards and benchmarked against current building standards to identify improvements. Reasons why a significant proportion of NHS buildings has poor ratings include:

- The age of the estate. 35% is over 50 years old and 65% is over 30 years old. This means that the original design standards are not readily available for comparison and the worst case default is applied driving the rating down. The age also makes it difficult to comply with the regulatory requirements applied.
- The certificates focus on carbon emissions which do not give a true reflection of energy performance as they automatically rate energy sources such as oil and electricity as very low. Most of the properties identified with poor ratings use electricity from the grid or oil due to their remote locations.

Poor energy performance certificate ratings do not indicate higher energy costs as these are an indication of carbon emissions not energy use and carbon emissions are dependent on the energy source used.

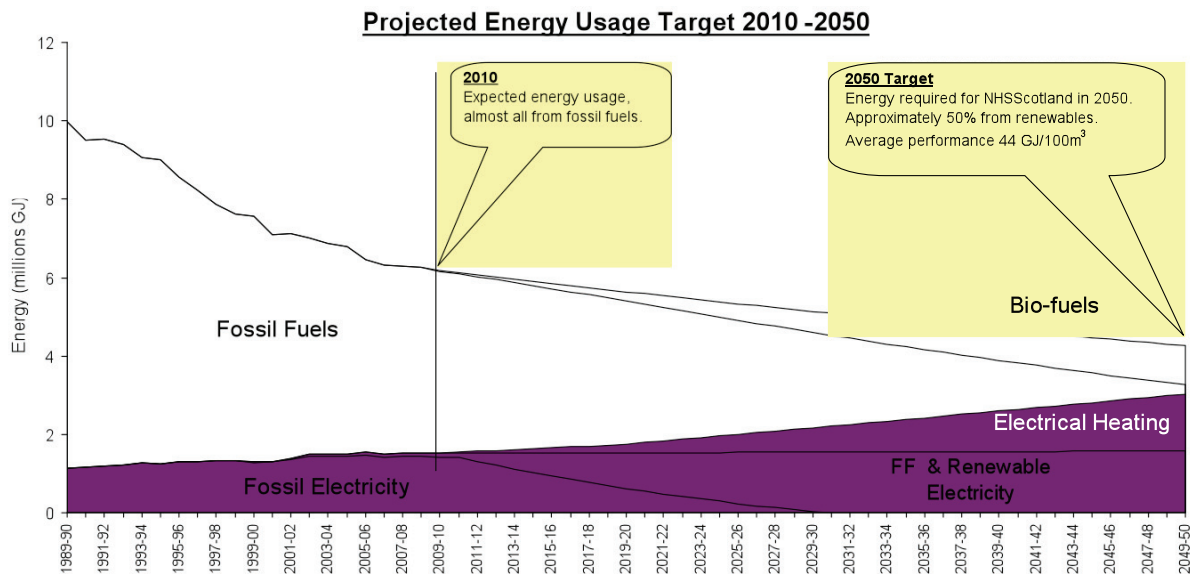
Scottish Government and NHSScotland has a number of initiatives to reduce carbon emissions. The Scottish Government 2020 routemap for renewable energy in Scotland identifies plans to decarbonise the electricity grid by increasing supplies from renewable energy which will improve the ratings for all properties attached to the grid. NHSScotland has a strategy to reduce carbon emissions through:

- Investment in low carbon buildings
- Continued reduction in fossil fuel use
- Investment in low carbon heating systems, appropriate renewables and energy efficiency measures
- Reduction in size of the estate.

Current UK energy target in healthcare design is 35 – 55GJ/100 cu.m /year. For the period 2010-15, NHSScotland has introduced a target which requires a 3% year on year fossil fuel CO₂ emission reduction and a 1% year on year energy efficiency improvement. The target is aligned with Scottish Government targets, and is to improve the NHSScotland average performance to 44 GJ/100 cu.m/year.

4.6 Energy usage

The chart that follows shows the projected change in energy usage required over the next 40 years as fossil fuels are replaced with alternative energy supplies from suppliers and some on site sources to meet the 2050 target.



Studies in the UK and Europe and confirmed by eMART show that in “Hospitals and Clinics” energy use follows well defined patterns; a high steady base load and daily variation peaking at around lunchtime. This is almost certainly because it is not the end-use of energy, but the need to control the individual environments that is the dominant requirement. The studies suggest that fuel is mainly used for comfort heating and to produce hot water, and electricity is primarily used for lighting, ventilation fan motors and water circulation motors. Together these uses typically account for 75% of a hospital’s total energy use and energy cost.

4.7 Efficiency plans

In order to reduce the baseline energy of hospitals and clinics there needs to be a focus on:

- Investment in buildings with improved energy performance i.e. high insulating materials and use of passive design techniques
- Improving the performance of building services systems i.e. controls, building management systems and zone controls
- Use of new and innovative energy technologies such as occupancy detectors, variable speed pumps and fans
- Reducing the size of the estate

Annex B “Summary of the NHS Boards priorities and focus for the next 5 years” shows that a number of energy and environmental efficiency schemes are included in the NHS Board’s PAMS.

4.8 Carbon dioxide emissions

After increases in CO₂ emissions in both 2007 - 08 and 2008 - 09 years, emissions fell in 2009 - 10 by 3,442 tonnes to 410,057 tonnes(-0.83%). All emission savings were achieved from a reduction in fossil fuel use. Emissions associated from the use of grid-supplied electricity increased by more than 2,226 tonnes. With the number of degree days in 2009 - 10 almost the same as the previous year, there was very little adjustment for weather correction. CO₂ emissions since 1989/90 now stand at a reduction of 41.42%. Over this same 20 year period, absolute energy usage has reduced by 39.85%.

4.9 Water consumption and costs

During 2009 /10, water consumption dropped for a third successive year by 0.51%; with a total recorded use of 5.27 million cubic metres. The cost of water was also down 5.30% to £4.23m, reflecting the fall in usage even though unit costs increased by approximately 3%.

4.10 Liquid waste discharged and costs

Total liquid discharged to the public sewerage system, made up of both trade effluent and wastewater, was reduced by 7.87%. The total cost for liquid discharged to the public sewerage system increased by 2.27% to £5.10m, due to a rise in costs.

4.11 Clinical and non-clinical waste and costs

The amount of clinical waste produced in 2009/10 decreased for the first time in 6 years to a total of 14,850 tonnes, this equates to a decrease of approximately 2.48% in volumetric terms.

The amount of non-clinical waste produced in 2009/10, including all categories of recycled waste, fell by 3.84% compared to the previous year. Also during this period, the third year of collecting data on recycled waste, the amount recycled increased from 2,641 to 2,955 tonnes equating to an increase of approximately 11.8%.

The cost for the treatment and disposal of all waste fell substantially to £8.77m, down 14.43% in comparison with the previous year. The average cost per tonne for the disposal of clinical waste dropped almost 23.05% to £385.62 per tonne while the cost per tonne for non-clinical increased by 20.96% to £115.64 per tonne.

5.0 Forward Look to 2012

Improving the performance, efficiency and sustainability of NHSScotland's substantial property and assets base is a huge challenge because of its size and complexity. Nevertheless, the development of this first State of the Estate Report has shown that NHSScotland is making strong progress on a number of national and local initiatives aimed at ensuring that property and assets make a valuable contribution to the delivery of effective and efficient healthcare services as well as delivering best value.

Furthermore, the case studies included in this report demonstrate that NHSScotland is at the forefront of best practice in a number of aspects of property and asset management including:

- Collaborative and joint working across public sector bodies
- Office workspace planning and design
- The use of new technology to improve energy and sustainability performance
- The application of "User-Centred Design" for new healthcare facilities.

The report also identifies areas for improvement, for example in:

- The quality and consistency of the data held on property and assets, which is the absolute foundation of all work to improve the performance, efficiency and sustainability of the asset base.
- The Property and Asset Management Strategies (PAMS) of NHS Boards which provide the "route map" for delivering change and innovation in NHSScotland's deployment of property and asset to support service delivery.
- The setting of benchmarks and targets for improvement in performance of property and assets ensuring that these are challenging but achievable. In addition they must be demonstrably linked to the overall performance of NHS Boards as a partner in the delivery of health and social services in their area.
- The monitoring of performance to ensure that progress towards targets is properly measured and that ultimately the expected benefits, financial and non-financial, are realised.

2012 will see further work on:

- Implementing the Scottish Government's "*Policy for Property and Asset Management in NHSScotland*" which seeks to establish asset management excellence in NHSScotland. The policy provides a robust framework against which the planning, delivery, management and disposal of property and other assets are undertaken and assessed.
- Bringing the new Estate and Asset Management System (EAMS) into full operational use enabling NHS Boards and the Scottish Government to increasingly rely on the information held in it for property and asset performance analysis and monitoring, confident that the information is accurate and consistent with ISD Cost Book, NHS Board Annual Accounts, eMART and SCART.
- Supporting NHS Boards, through guidance and training, to develop comprehensive Property and Asset Management Strategies that fully meet the requirements of the "*Policy for Property and Asset Management in NHSScotland*" and HFS guidance on "*Developing a Property and Asset Management Strategy*". The aim being to demonstrate that the NHS Board's strategic plans for property and assets are closely aligned with, and support, national and local policies and will deliver on key targets for change.
- Continued delivery of strategic and collaborative projects through the "Hub" initiative which, through its partnering approach, will provide enhanced value for money and risk transfer as well as significant non financial and qualitative benefits.
- Implementing the Scottish Government's new Policy on Sustainable Development for NHSScotland and the associated Sustainable Development Strategy for NHSScotland and the development of NHS Board-specific Sustainable Development Action Plans which will provide the framework for the achievement of the Scottish Government's sustainable development objectives.
- Developing efficiency and performance benchmarking for the office estate, particularly in relation to the Special NHS Boards but also aimed at the significant amount of office accommodation within the estates of the NHS Boards.
- A strategic review, incorporating a value for money assessment, of soft facilities management services to identify opportunities for improving performance.

The journey through 2012 will be about developing and trialling solutions to some of the issues and barriers to improving performance that the development of this report has identified. It will focus on delivering quick wins, demonstrating success, and ensuring that important seeds are sown for the delivery of longer term benefits, performance and efficiency improvements in the property and asset base.

Annex A - Case Studies

This annex of the report provides short summaries of a number of best practice case studies covering different aspects of managing property and assets in NHSScotland. In addition to the benefits to participating NHS Boards, there are outputs from these case studies that are of value to a wider audience in NHSScotland. The case studies are aimed at promoting the sharing of good practice and provide the reader with information on actions being taken elsewhere in NHSScotland to deliver improvements in the performance, efficiency and sustainability of property and assets. It is envisaged that this will be a key feature of this annual State of the Estate Report, aimed at helping NHSScotland to develop capability and capacity to deliver a high performing, efficient and sustainable property and asset base. They have been selected on the basis of whether they are innovative and making a difference and whether they could be easily replicated more widely across NHSScotland.

Best Practice Case Study 1: NHS Forth Valley

In May 2010, NHS Forth Valley instigated an initiative to form a joint approach to property and asset management with other publicly supported bodies in Forth Valley.

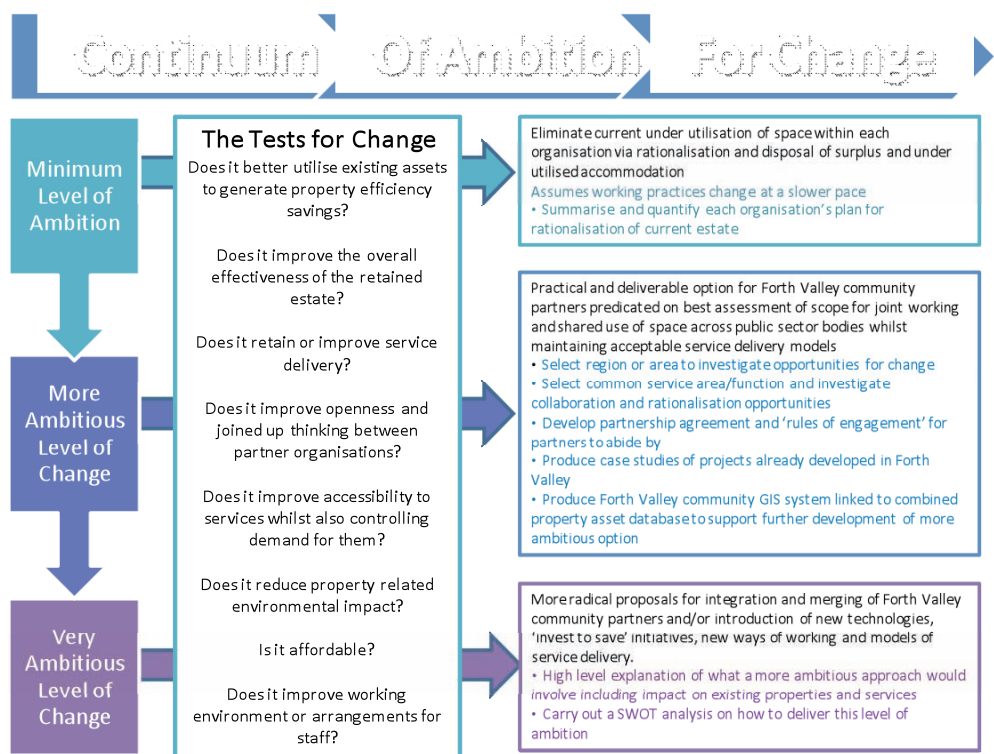
The partners in the initiative include the NHS, three Local Authorities, Police, Fire and Rescue Service and Further Education. These organisations have a combined property portfolio comprising over 1,000 individual buildings with a building area in excess of 1 million sq.m.

The aim of the initiative was to tackle a number of well known challenges faced, to a greater or lesser extent, by all of the partner organisations. This includes fragmentation and duplication of property assets within the different organisations, the potential for more space efficient ways of working, the accumulated value of backlog maintenance and the need for a combined and overall property and asset database.

As part of the work undertaken on this initiative, a scenario planning exercise helped the participating organisations to develop the concept of a “Continuum of Ambition for Change” which, in essence, conceives change as a continuous process rather than specifically defined steps. The process map opposite helps to describe the confirmed approach for examining the different levels of future change from “minimum” to “more ambitious” to “very ambitious”.

The outcome from this initiative has led to a general acceptance by the partners that a joint approach to property and asset strategy is essential to achieving more ambitious changes and associated benefits.

A Partnership Agreement and a Next Steps Action Plan have been developed and these will form the basis for taking forward the initiative. The Next Step Action Plan is a detailed plan which sets out what needs to be done to confirm the initiative’s ongoing governance arrangements, how opportunities for joint collaboration will be identified, communicated and managed, what core of information will be collated and how performance improvement will be monitored. Implementing the Action Plan will move the partner organisations towards a standardised approach to the way in which all properties and assets are managed across the publicly supported bodies in Forth Valley.



Best Practice Case Study 2: NHS National Services Scotland

NHS National Services Scotland (NSS) has been implementing a programme of property rationalisation to support its strategic model of property provision since the year 2000.

Subsequent versions of its Property Strategy have continued to build on the successful theme of consolidation and rationalisation of the estate to align it to NSS Corporate Strategy and to continue to improve the overall quality and efficiency of the property portfolio.

The impact of implementing its current proposals for further consolidation and rationalisation up to 2014, (compared with 2008 figures), include:

- Reducing the number of properties held from 33 to 19.
- Reducing its occupied floor area by over 30%
- Eliminating its backlog maintenance from its current financial burden of £12.3m.
- Reducing revenue costs by £2.7m

Introducing new ways of working

In developing the first NSS Property Strategy it was recognised that opportunities existed to introduce innovative solutions to workplace planning, including “new ways of working”. Hence, this became a key decision-making benefit criteria which has been consistently used in the development of business cases for implementing the Property Strategy. The results of this are evident in the workspaces and environments provided in new NSS office accommodation provided since 2004 and clearly demonstrates a move towards open plan, flexible space within high quality visual, aural and thermal environments.

Benefits

NSS has shown a strong commitment to strategic property planning for more than a decade and is now able to demonstrate that this has delivered significant benefits, including:

- NSS estate consolidated, rationalised and aligned to NSS Corporate Strategy.
- Improved building performance.
- Improved quality of working environment & thereby facilitating the retention and recruitment of staff.
- Availability of well designed and efficient space which is flexible towards embracing changing working practices and new technology.
- Maximising the opportunity for staff to develop and deploy their knowledge, skills and personal qualities creatively to add value to the business and services.
- Achieving synergies from shared use of accommodation & support services.

Best Practice Case Study 3: NHS Greater Glasgow & Clyde

In 2009, NHS Greater Glasgow & Clyde undertook a review of its central laundry facilities at Hillington in Renfrewshire with the intention of developing more efficient processes for the recycling of the trade effluent. By adopting state of the art technology it has managed to achieve 70% water and 95% heat recovery from these processes.

The central laundry unit consumes in excess of 193,000cu.m of potable mains water per annum through its laundry wash processes. Previously, the waste water from the laundry wash process was discharged to drain as trade effluent at approximately 55 degrees Celsius.

The new plant cost £800,000 to install and there have been some further costs associated with remedial works.

The financial model indicates that if the target minimum water saving of 70% is achieved the NHS Board will realise savings in the following aspects of the laundry wash process:

- Water consumption savings of 135,331,000 litres per annum
- Energy savings (Heat recovery) of 2,992,694 KWh's per annum.
- Total carbon emissions reduced by 450 Tonnes CO²/annum
- Financial savings of £312,000/annum.

The financial savings indicated will provide a simple pay back of 2.7 years. This saving is guaranteed within the contract, with the NHS Board compensated for any shortfall in the projected savings within the financial model.

Further potential Trade Effluent cost savings of approximately £60,000 per annum are potentially

achievable, by reducing consent levels once operational reliability has been confirmed and confidence in plant has been established.

The new filtration and recycling plant was installed in 2009/10 and has now been operational for one year, and, whilst there have been some technical problems with the implementation and operation of the plant, it continues to provide substantial benefits of significant water recovery, reduced environmental impact, and reduced costs.

This innovative solution addresses the growing need for sustainable use of both water and gas energy resources within a healthcare laundry production environment. In addition, this is a technological advance which could be replicated across all NHSScotland production laundry units which, although involves a reasonably significant investment, has a relatively low payback period.

Best Practice Case Study 4: NHS Tayside

Ninewells Hospital in Dundee has been implementing an ongoing programme of investment in energy efficient lighting schemes which has not only contributed significantly to energy, carbon and financial savings but has also enhanced the comfort levels for patients and staff.

The main objective of this scheme was to reduce energy waste, improve the patient, staff and visitor healthcare environment, and raise the profile of energy and environmental issues amongst hospital staff.

Many of the individual upgrade schemes include the installation of efficient fluorescent fittings with high frequency control and incorporation of presence detection. Back up 'pilot lights' were also installed to prevent areas plunging into complete darkness. These schemes have enabled significant savings in energy consumption, carbon reduction and financial efficiencies with a payback often between 7 to 10 years.

The Estates Department is also working alongside clinical colleagues to install a lighting control philosophy, which is a 'bolt on' to new installations via the BMS. This approach has been adopted within existing ward accommodation and will become standard across all 40 wards of similar design / layout. The outcome of this has seen a far more pleasant ward area where lighting levels now conform to lighting legislation and it also achieves a 50% reduction in electricity consumption with a payback of just over 9 years.

Further schemes across the 40 year old hospital have included locations such as service corridors, main circulation corridors, staff residences, estates administration office, and the engineering plant room area.



The ongoing programme of investment in energy efficient lighting schemes will not only contribute significantly to further efficiencies but it will also enhance the comfort levels for patients and staff. It is also recognised that this is a continuous improvement process requiring ongoing refinement of lighting levels and controls, as well as constantly reviewing and evaluating new lighting technology as it appears on the market. Staff communication, engagement and raising awareness are seen as key to the success of this scheme.

The main outcomes of this scheme are considered to be as follows:

- Lighting installations best suited to specific service needs.
- Increased staff awareness of energy and environmental issues.
- NHS Estates staff educated on the subject of new lighting technology.
- Improved lighting levels and lighting controls.
- Reduced energy consumption which in turn reduces the carbon footprint which also reduces operational costs.

Best Practice Case Study 5: NHS Greater Glasgow & Clyde

NHS Glasgow & Clyde's Acute Service Review (ASR) aims to modernise services across the city by renewing its acute healthcare facilities in tandem with a redesign of patient service delivery. The expected investment to fully implement the strategy is circa £850m and is expected to enable modern healthcare to be provided in fit for purpose buildings and clinical environments, with resulting improvements to the patient experience and the working environment for staff.

The overarching strategy is to reduce the number of adult inpatient sites from six to three (two with A&E), supported by two Ambulatory Care Hospitals and one children's hospital. Implementation of this strategy has been taking place over the last 8 years, with around two thirds of it being completed by the beginning of 2011.

The proposals for the redevelopment of the Southern General Campus forms the pivotal phase of the ASR strategy. It includes a new 1,100 bed inpatient facility with theatres and clinical support as well as a new Accident and Emergency Department. In addition, there will be a new 240 bedded Children's Hospital which is thus co-located with maternity services in the adult acute hospital.

Upon completion in 2015, the proposals for the three site inpatient configuration of adult services in Glasgow will be achieved and the NHS Board will be able to implement the following:

- Transfer inpatient services from the Victoria Infirmary and the Mansion House Unit to the New South Glasgow Hospitals.
- Inpatient services housed in outdated buildings on the Southern General Hospital and Western Infirmary sites will be relocated to the New South Glasgow Hospitals.



- Transfer of A&E services and associated beds from the Victoria Infirmary, the Western Infirmary and the Southern General Hospital to the New South Glasgow Hospitals allowing closure of the Western and Victoria Infirmary and older parts of the Southern General.

The challenges faced, and successes achieved, whilst implementing this ambitious change programme has enabled NHS Glasgow & Clyde to reflect on its experience of service rationalisation and make the following recommendations:

- The patient journey needs to be at the heart of any service redesign.
- A clinical strategy must inform the level of service provision required.
- Service provision needs to reflect the national context and strategic direction.
- The current provision of the estate needs to be understood along with its strengths and weaknesses.
- All options must be considered, including service redesign and reviewing the number and locations of where services are delivered, and maximise opportunities for co-location and streamlined patient flow.

Best Practice Case Study 6: NHS Ayrshire & Arran

The development of Girvan Community Hospital is proof that a wide range of environmental, sustainable and renewable technologies can be relatively easily integrated into a new building in order to minimise environmental impact and reduce future revenue consequences without compromising quality or functional suitability.

It is estimated that the building performance will lead to a reduction of 3% of NHS Ayrshire and Arran's current CO₂ emissions.

The sustainability objectives of the project included the aspiration of a BREEAM "Excellent" rating for the building through the introduction of renewable and sustainable technologies, including the use of recycled construction materials where appropriate. Another key objective was to minimise CO₂ emissions that the new facility would add to the estate.

Sustainability and energy considerations were, therefore, key aspects that informed the design process from the start leading to the provision of a wide range of environmentally efficient and sustainability features, such as:

- Biomass boiler 700 kW
- Wind turbine 100 kW
- Natural ventilation
- Rain water recovery for flushing toilets
- Under floor heating thermal mass
- Infra red auto sensor taps and toilet flushing
- Food waste vacuum & composting system
- PIR and daylight control energy efficient lighting
- Motor room-less lift
- Green Travel Plan



- Local indigenous materials
- Recycled aggregate in all concrete block work
- Forest stewardship council (FSC) sourced timber products
- Enhanced thickness of recycled newspaper insulation
- Zinc cladding (largely recycled and will not corrode hence less potential for leaks)

The various environmentally efficient and sustainability features have allowed this building to achieve a BREEAM "Very Good" and an Energy Performance Certificate (EPC) "A" rating.

The wind turbine after running for 4809 hours had produced 117 MW of electricity and has subsequently saved 50.3 Tonnes of CO₂ emissions. The income from the wind turbine is £28,200 over a measured 7 month period.

The biomass boiler after running for 2750 hours had produced consumed approximately 100 tonnes of pellets equating to 480MW of heat and a saving of 91.2T of CO₂ emissions.

The savings realised from rain water harvesting and waste disposal costs have not yet been accurately quantified however on water savings and waste disposal costs alone the savings are expected to be considerable.

Best Practice Case Study 7: NHS Fife

Following an extensive public consultation exercise, 'Right for Fife', undertaken in 2002, NHS Fife identified the need for the existing provision of in-patient mental health services to be changed from provision in three geographical areas to two – namely West Fife and North East Fife. The Elmview Ward and Muirview Unit represent two phases of this strategic change within the North East Fife area at Stratheden Hospital near Cupar.

The Elmview Ward proposal was to provide a stand-alone 18 bed dementia unit for the elderly situated in the beautiful rural grounds of the existing Stratheden Hospital. The unit replaces an existing ward facility in Kirkcaldy which had an artificially lit deep plan corridor known as the 'dreaded corridor', very typical of hospital buildings of its age and type, and was the type of design which the project team was determined to avoid in the new facility.

The Muirview Unit project was to re-provide clinical services accommodation for in-patients from the existing Whyteman's Brae Hospital Site in Kirkcaldy to a new purpose built unit. The existing facilities were designed and built in the 1960's containing conventional long, artificially lit double loaded corridors and multi-bayed ward accommodation with shared toilet facilities and no access to external gardens or facilities. The existing facilities were in poor physical condition and functionally unsuitable in relation to the key mental health design principles of encouraging social activity and interaction. The design challenge to create an improved, patient focussed, innovative and sustainable environment was clear.

Both projects benefited immensely from a fresh collaborative, inclusive and participatory user focused design approach, which augmented AEDET and ASPECT design evaluations and resulted in functional



designs which promote improved mental health and wellbeing.

The design approach was firmly based on a conceptual model of 'User-Centred Design' (UCD), developed from on-going research within NHS Fife in which from the outset of the project a significant amount of effort was put into encouraging staff, public patient representatives and the design team to collaborate and participate closely together. UCD seeks to promote key understanding beyond evaluating the designs and to build relationships. These relationships and understanding were extended to beneficial effect into the construction and commissioning phases and will be used again in the forthcoming post-occupancy evaluation.

The new Muirview Unit has been recognised for its architectural excellence by the Royal Institute of British Architects (RIBA) and will now be considered for the RIBA Stirling Prize. The unit also won the Best Mental Health Design Award at the Building Better Healthcare Awards held in London.

Best Practice Case Study 8: Hub Initiative

The Scotland-wide hub initiative reflects a national approach to the delivery of new community infrastructure. It brings community planning partners; including NHS Boards, local authorities, police, and fire and rescue services, together with a private sector development partner to increase joint working and deliver best value.

From small GP practices to large combined community, health and sports centres, the hub initiative is set to revolutionise the way Scotland's public bodies plan new facilities and deliver their services.

The potential savings possible by procuring an infrastructure project through hub, as opposed to conventional procurement are estimated as follows:

- Procurement cost savings – 2% of capital costs.
- Construction inflation savings – 3% of capital costs.
- Cost efficiencies and economies of scale – 3% of capital costs.
- Risk transfer – 2% of capital costs.

The programme divides the country into five geographical 'territories', each with a population of approximately one million. The South East and North hubco's are now operational and East Central Territory is due to complete its competitive dialogue phase at the end of July 2011 with preferred bidder announced in October and financial close in December. The West Territory has just commenced competitive dialogue and is due to reach financial close on March 2012 and the South West is due to issue its OJEU notice in summer 2011.



The first project, the Drumbrae Library project in Edinburgh, started on site in January 2011 with four more schemes due to start elsewhere in late summer 2011.

The hub programme received a major boost in the 2011-2012 Budget with a portfolio of healthcare projects to the value £200 million earmarked for development through hub over the next five years. This demonstrates just some of the tangible benefits arising from the flexibility of the hub model. These are projects that may otherwise not have happened because of the decline in available capital.

Another positive outcome of recent work is that public sector organisations can, through their hubCo partner, secure an appropriate designer and contractor for their project a lot more quickly than in the past.

As the initiative progresses, hub will become a key mechanism for delivering and managing assets more effectively, with continuous improvement leading to better value for money, which will be measured through detailed key performance indicators.

Best Practice Case Study 9: Frameworks Scotland

Frameworks Scotland continues to deliver excellent value for money with approximately £400m worth of projects being progressed and 11 projects completed, all successfully delivered on time and under budget.

Frameworks Scotland is a strategic and flexible partnering/collaboration approach to the procurement of publicly funded construction work and complements other procurement initiatives, including hub, for the delivery of new build and refurbishment health facilities in Scotland.

It provides NHS Boards with the ability to readily appoint accredited Principal Supply Chain Partners (PSCPs) alongside a pre-agreed commercial arrangement. This enables the team to immediately focus on the needs of the NHS Board rather than be involved in a protracted advertisement, selection and appointment process.

The PSCPs act as 'solution providers' and can offer a wide and diverse range of services. They are very different to traditional contractors as their supply chains contain a wealth of expertise from construction professionals through to specialist members of the supply chain. This provides NHS Boards with the unique opportunity of engaging the PSCP to undertake a wide variety of duties from service strategies, estates strategies, business planning, developing the brief and design development through to major and minor construction works.



These frameworks have been established to achieve the following key benefits:

- Earlier and faster delivery of projects.
- Certainty of time, cost and quality.
- Value for money.
- Well designed buildings procured within a positive collaborative working environment.

Frameworks Scotland is, however, not just a construction solution. A key benefit is the diverse range of management and construction services it can offer, and there are Frameworks for the following Professional Services Consultants (PSCs):

- Project Manager.
- NEC Supervisor.
- Cost Advisor.
- CDM Co-ordinator.
- Healthcare Planner.

Best Practice Case Study 10: Automated Guided Vehicles

Automated Guided Vehicles (AGVs) have been incorporated into the new Forth Valley Royal Hospital in order to separate out staff and patient flows from visitor and FM services

The intention is to reduce opportunities for cross infection, improve the hospital environment, enhance the patient experience, and promote a calmer, more therapeutic atmosphere. In addition, by keeping patient flow separate from visitor and FM traffic, patients can be moved between wards or to theatre in a more controlled environment.

The use of AGVs to provide flow separation was an innovative solution proposed by the successful PPP/PFI partner for the new hospital development.

In order to incorporate this system into the overall design of the hospital, early planning and the involvement of FM staff at the design stage was essential. In particular, given the space requirements for this approach, careful consideration needs to be given to the provision, location and efficiency of dedicated corridors, lifts and location specific hubs.

AGVs are controlled by wireless connection which also allows them to call lifts when required and to communicate with fire doors, to avoid any damage in the event of a fire alarm. They are also fitted with detectors to prevent collision with anything within the AGV areas

There are a number of charging points located within the basement area. Where an AGV's charge drops to 60% or they have time not otherwise occupied they automatically go to a charging point.

The cost of the AGV system is approximately £1m, with each AGV costing around £50k. At present Forth Valley Royal Hospital use 13 AGVs but depending on demand may order additional units. This gives a payback period of between three and four years.

It is estimated that the AGVs are covering the work of around 12 staff; however, at Forth Valley Royal Hospital those staff have been moved to other duties, including tasks which the AGVs could not perform.

In terms of contingency, in the event of system fail, trolleys can be pulled by hand or electric vehicle with the redeployment of portering staff.

Best Practice Case Study 11: NHS Lothian

In 2010, NHS Lothian undertook a Clinical Accommodation Release Strategy (CARS) which was an essential pre-requisite to the delivery of the NHS Lothian's clinical strategy by ensuring that scarce and valuable clinical accommodation is freed up and that resources are directed towards front line service delivery. The strategy unlocked the opportunities to deliver the Board's objectives to improve efficiency, reduce energy consumption and maximise the benefits from good estate rationalisation.

NHS Lothian's property strategy highlighted the need to create additional clinical accommodation on hospital sites, i.e. RIE, WGH, REH, and RHSC.

It was noted that the Board's strategic HQ was located within Deaconess House, a period building which was inflexible to evolving business demands and required significant investment to maintain its condition and achieve partial compliance with statutory compliance, particularly, the Disability Discrimination Act.

The strategic HQ involved the relocation of the services from Deaconess House to a central Edinburgh location by securing a commercial lease on very favourable terms. The central Edinburgh Premises provides modern office accommodation which is accessible for people with disabilities, provides Boardroom and support accommodation facilities for the Board, public and staff, enables flexible single and multi-person office arrangements, and promotes new ways of working such as open plan, hot desking and home working.

The move to a central Edinburgh location enhanced NHS Lothian's commitment to the green agenda, with its location being fully accessible by public transport and in the vicinity of Scottish Government, City of Edinburgh Council offices etc. The building's energy profile is a considerable improvement on the existing estate, and allowing for energy and CO2 savings to be

achieved and further enhanced through the implementation of the Board's Green Travel Plan and Sustainability Strategy. The project has produced a reduction in energy and of 2,374kWh (65%) and CO2 emissions by 538 tonnes (50%).

The Corporate Office involved the relocation of a number of corporate support functions from clinical accommodation to shared office accommodation in a Scottish Government leased building. As with the strategic headquarters accommodation, the premises provide a flexible open plan working environment with hot desking and the ability for remote working arrangements.

The release of the accommodation in clinical areas has enabled the Board to implement clinical strategies and free up accommodation linked to re-provision projects.

The rationalisation of the estate allowed Deaconess House to be marketed and disposed with the receipt expected this financial year. The closure of other areas has released revenue budgets associated with the estate, i.e. rates, property maintenance, utility costs.

The project has seen benefits being realised for staff and the Board in terms of efficiencies, improved environment for the staff and implementation of the Board's Green Travel Plan and Sustainability Strategy.

The Board is now embarking on phase 2 of the rationalisation of the estate which will concentrate on relocation of staff from sites which are linked to re-provision projects and from properties which are deemed unfit for purpose.

Best Practice Case Study 12: Supply Voltage Optimiser

Installation of Electrical Supply Voltage Optimiser technology is demonstrating potential electrical energy consumption savings of between 9 - 12%.

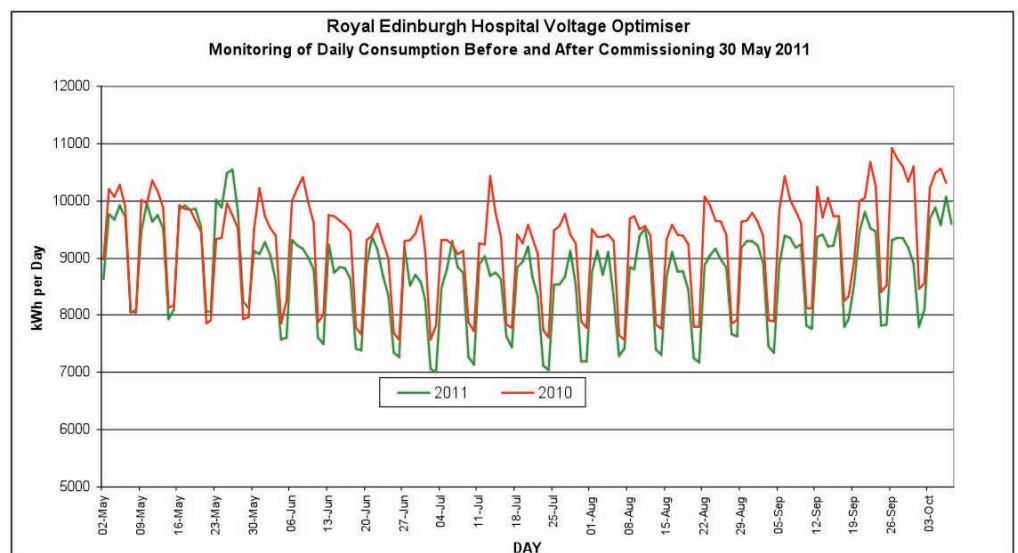
In 2009, NHS Lothian prepared a Carbon Management Programme in partnership with the Carbon Trust. This CMP targets a reduction of 20% of CO2 emissions from NHS Lothian's building energy consumption and waste disposal. The savings are measurable against an investment programme which when funded will achieve the target.

The CMP includes a wide variety of projects and methods to reduce energy consumption including renewable energy schemes associated with new buildings, LED and automatic lighting, electric motor variable speed drives, high efficiency heat exchangers, boiler replacement programme with condensing heat exchangers. The programme is ambitious in its range of technologies and includes investment in electric supply voltage optimisation.

A pilot scheme to install a 1,000kVA Varmatic Voltage Optimiser at Royal Edinburgh Hospital was introduced which provided a supplier performance guarantee based on a 9% kWh consumption saving.

The technology basically reduces electricity and operating costs by reducing incoming power to more accurately match the electrical loading of the equipment on site thus reducing the carbon foot print. Tests at the Royal Edinburgh Hospital have indicated that supply can be in excess of 247 volts which can be reduced to 230 volts and permit a saving of 11.1%. In terms of monetary saving it is estimated that the savings based on the 9% performance guarantee would be circa £15,000 for an investment of £42,000.

Performance measuring has determined the guaranteed savings of 9% will be achieved and the chart below demonstrates this by comparing daily consumption between this year and previous year. Weekly savings have varied between a minimum of 4.4% and a maximum of 11.7%. The higher savings have been achieved latterly while moving to higher resistive electric loads in the winter period. Analysis of the electricity supply accounts during the 4 summer months reveals that cost savings have been equivalent to £16,000 in a full year.



Annex B – Summary of main focus and future priorities of NHS Boards as identified in their PAMS

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
NHS Greater Glasgow & Clyde	Major improvements in all facets will arise following the completion of the SGH Campus plan and subsequent disposals of poor condition properties.	Proposed Energy Saving Projects costing approximately £4m which includes energy efficient lighting, boiler and controls upgrade, lighting controls upgrade, CHP generator project, server virtualisation project, fan replacement & biomass boiler projects:	
NHS Lothian	<p>Main focus includes:</p> <ul style="list-style-type: none"> Legislative compliance with emphasis on fire safety, safety & security, and HAI. Infrastructure works (engineering services, roads, roofs, & windows) to existing properties. Potential new build schemes Rationalisation of existing estate driven by service relocation / co-location plans. Disposal of a several sites and properties. 	<p>General and specific compliance with all environmental initiatives and KPI's, including following projects:</p> <ul style="list-style-type: none"> Boilerhouse investment including installation of biomass boilers Ground source heat pump systems project Solar photovoltaic and solar thermal panel projects Micro CHP project 	<p>Various income streams totalling £775k p.a., including:</p> <ul style="list-style-type: none"> Shop rental and share of turnover Share of profit from mall shops Rental from Clinical Research Building Rental from Imperial Cancer Research Building Rental of roof space for telephone mast Rental of Nursery buildings and land
NHS Tayside	<p>Major focus on the redesign, redevelopment and realignment of Ninewells in meeting future patient needs, and University accommodation review. Creation of a prioritisation and phased expenditure plan to address backlog maintenance over the short, medium and long term future. Disposal of surplus properties plus a review of leased accommodation.</p>	<p>General and specific compliance with all environmental initiatives and KPI's, plus seeking £3m funding for installation of heat exchangers and flash recovery energy management equipment and biomass boiler projects</p>	<p>Approximately £745k income from staff leases, commercial leases and rental income.</p>
	Main Focus over next 5 Years	Key Priorities for Improvement in	Sources of External Income from

		Environmental Performance	Estates and Facilities
NHS Grampian	<p>Completion of on-going major developments including the emergency care centre.</p> <p>Disinvestment from buildings with high operating costs, backlog maintenance requirements or short remaining life.</p> <p>Reduction in backlog from above plus prioritised expenditure directed at significant and high risk backlog.</p> <p>Range of patient safety improvements across Grampian.</p> <p>Completion of its new healthcare strategy.</p>	<p>General and specific compliance with all environmental initiatives and KPI's, including the following projects:</p> <ul style="list-style-type: none"> • New energy centre incorporating combined heat and power, Biomass steam plant and conventional energy sources • To develop and lodge an application to install a further Biomass facility at one of its other hospital sites. 	<p>Various income streams totalling £1.5m p.a., including:</p> <ul style="list-style-type: none"> • Ground leases • Commercial leases / rents • Communication masts • SLA's
NHS Lanarkshire	<p>General estate improvements identified via risk based approach to backlog and statutory compliance, better utilisation of the estate, removal of surplus estate, etc.</p>	<p>Initiatives to achieve its environmental targets include:</p> <ul style="list-style-type: none"> • Introduction of voltage reduction systems within acute hospitals • Lanarkshire wide non-clinical waste contract. • A number of discrete spend to save projects such as replacement of inefficient or obsolete plant. • The move to sleep-knit bed linen within the west of Scotland laundry consortium to reduce energy costs and CO2 emissions 	<p>Various income streams totalling £220k p.a., including:</p> <ul style="list-style-type: none"> • Shop rental income • WRVS Canteen • Nursery and creche
NHS Ayrshire & Arran	<p>Plans for 3 major capital investment projects with combined value of over £110m.</p>	<p>Plans for improvement in policies and procedures plus intend to obtain National Energy Foundation 'Energy Efficient Accreditation' for NHS Ayrshire & Arran</p>	<p>Various income streams totalling £200k p.a., including:</p> <ul style="list-style-type: none"> • Seasonal grazing on land • Pharmacy Rent • Porters Lodge Lease – rent • Theatre Sterile Supplies Unit services to private hospital • Catering services to South Ayrshire Council and Meals on Wheels service

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
NHS Forth Valley	General improvements in estate performance plus rationalisation of Stirling and Falkirk Hospital sites to create community hospitals as part of their Integrated Healthcare Strategy	To continue with its commitment to deliver a range of environmental improvement objectives	Limited to GP practices and local hospice where costs are recovered through an agreed formula
NHS Fife	<p>Continue to deliver the current clinical strategy (Right for Fife) through:</p> <ul style="list-style-type: none"> • Completion of current new build and refurbishment projects. • Planning for future changes. • Disinvestment in redundant assets • Updating and revising the clinical strategy to account for work completed and future plans • Improvement in the quality and accuracy of data held within the PAMS. • Development of the risk based capital plan to focus on improving facet scores • Reduction of risk, particularly in clinical areas. • Improvements to the functional suitability and quality in clinical areas. 	<p>Implementation of a sustainability/ environment strategy for all aspects of sustainable development.</p> <p>Applications for CO2 Reduction Grant Scheme funding has been made for 5 projects in NHS Fife sites including biomass, district heating, and waste heat schemes</p>	Various sources of rental income totalling £125k p.a.

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
NHS Highland	Dealing with backlog maintenance through a mixture of reconfiguration and redesign of services, elimination of over capacity where possible, and increased use of shared facilities. Also focussed on improving statutory compliance which is being prioritised using the backlog maintenance risk assessment methodology.	NHS Highland has 3 bids for further, larger biomass schemes in the CEEF fund and if successful this will meet its carbon reduction targets for the foreseeable future. They are also embarking on a programme of BMS replacement, driving efficiency by improving the control of energy inputs into its buildings.	Central decontamination facility has a commercial contract with NHS Grampian. Work is underway to try to utilise spare capacity in laundry with private sector work. Looking at commercial opportunities around transport and sharing services with other public sector partners.
NHS Dumfries & Galloway	Focus dependent upon whether DGRI redevelopment project gets approval. Also to align emerging Clinical Strategy with PAMS. Other focus includes: <ul style="list-style-type: none"> • Backlog projects on a risk based priority basis • Capital projects linked to programme of service improvements • Rationalisation of estate to maximise utilisation of available space • Disposing of aged estate • Service relocation plans 	Capital dependent plans include: <ul style="list-style-type: none"> • Efficient lighting replacement programme • Improved heating systems • High efficiency boiler replacements • Conversion of steam to low pressure hot water heating at DGRI • Biofuel CHP engine • Change to more sustainable fuels (biofuels, biomass) • Disposal of aged buildings that have very high heat/light/power usage 	One source of external income: £60k pa maintenance contract for single PFI building attached to DGRI
NHS Borders	Continuing with improvements to clinical accommodation. Developing plans for future improvement / investment plans. Review of properties no longer required with view towards disposal Continuing with a review of the size, location, and number of properties supporting its Primary & Community services.	Ongoing implementation of its Carbon Management Plan which comprises of 34 separate projects with varying degrees of success re pay back period.	No further information available

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
NHS Western Isles	Implement risk based approach to improving physical condition and statutory compliance related issues. Awaiting completion of clinical strategy before confirming further estate improvements / developments	General and specific compliance with environmental initiatives and KPI's, including the following projects: <ul style="list-style-type: none"> • Awaiting results of feasibility study into alternative fuels for main hospital boilers • Improving insulation to hospital properties • Fitting energy saving controls to a range of motors within engineering installations, particularly those supporting heating, ventilation and air conditioning plant Potential for developing further initiatives being considered.	No supplementary information provided
NHS Shetland	Short term objective of improving the condition and statutory compliance issues related to the estate. Longer term objective includes hospital replacement	Currently heat over half of estate from a low carbon waste to heat energy district heating plant in Lerwick. Currently focussed on: <ul style="list-style-type: none"> • Lighting efficiency improvements using LED technology • Installing variable speed drives to reduce electricity used in H&V systems • Reducing energy used in cooling IT datacentre Applied for funding for two wind energy projects.	External income through estates and facilities is limited to the following areas: <ul style="list-style-type: none"> • Food service for hospital visitors, out patients and members of the public. • Rental income from houses, flats and other accommodation leased to NHS Shetland staff.

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
NHS Orkney	Plan to progress from a review of property based needs to option appraisal and consultation work to determine way forward.	No further information available	No further information available
NHS NWTC (Golden Jubilee)	Ensuring that space is appropriately used and meets the needs of the approved clinical strategy/LDP. Also plan to concentrate on ensuring the maintenance standard of the building is kept to the existing standard.	Currently submitted a proposal/bid for funding for decentralisation of the boiler house as part of energy improvement programme, plus working with a local business to review the potential for the setting up of a bio-gas plant on site. Established sustainability group which is taking forward the areas in the NHS Board's sustainability action plan.	No sources of external income from estates and facilities other than rental income from another NHS body.
State Hospitals Board	Phase 1 & 2 of the new build hospital are complete. Phase 3 landscaping and demolition of existing properties is also effectively complete. Future investment risks may include IM&T infrastructure work, replacement vehicles, and low levels of backlog maintenance.	The new hospital has been designed to be as energy efficient as possible which should impact positively on energy usage and carbon reduction etc. Further environmental improvement measures being considered.	No sources of external income from Estates & Facilities

	Main Focus over next 5 Years	Key Priorities for Improvement in Environmental Performance	Sources of External Income from Estates and Facilities
National Services Scotland	Building on the current property strategy, to produce a draft PAMS for Board approval by February 2012	Next 2 years to establish a baseline performance for NSS on the environmental front and the implementation or improvement of systems and procedures to reliably capture and report on environmental performance.	No external sources of income
NHS Education for Scotland	Rationalisation of office accommodation in the city centre of Edinburgh and Glasgow to resolve the functionality issues from the split office locations (particularly in Edinburgh). The rationalisation will also offer the ability to reduce the space in Edinburgh and significantly reduce property costs.	Focussing on reducing energy consumption and waste production within the limitations of occupying leased premises in managed properties.	No sources of external income from Estates & Facilities
Healthcare Improvement Scotland	Currently reviewing options for Edinburgh and Glasgow offices to enable lease breaks to existing accommodation in 2012. Hoping to exploit opportunities for sharing accommodation where suitable opportunities exist and minimise leased space.	Made most of changes made in office environment but currently undertaking work on travel which will depend significantly on future office locations.	No sources of external income from Estates & Facilities
NHS Health Scotland	Planning to rationalise from 5 sites to 2 – one in Glasgow and one in Edinburgh	Focussing on reducing energy consumption and waste production within the limitations of occupying leased premises in managed properties.	No sources of external income from Estates & Facilities
Scottish Ambulance Service	No further information available	No further information available	No further information available
NHS 24	No further information available	No further information available	No further information available

Annex C - NHSScotland Soft Facilities Management (Soft FM) Update Paper

Purpose

This annex provides a summary of the service delivery issues and challenges for Soft Facilities Management Services (soft FM) across NHSScotland. It highlights areas for further investigation which have the potential for improving both the efficiency and quality of service delivery.

In future years, data from the FMS benchmarking system will be used to provide a more in-depth perspective on the Soft FM services within the State of the Estate Report.

Scope

Soft Facilities Management Services covers:

- Porter Services
- Catering Services
- Domestic Services
- Transport
- Linen and Laundry Services
- Retail

Context

Soft FM is a distinct (but allied) set of services to Estates and are delivered across all NHSScotland sites and have a significant impact on the patient environment. Many of these services are linked directly with Estates services, often through the use of assets such as buildings, infrastructure and equipment. In forthcoming years both Estates and Soft FM Services face the challenge of improving the efficiency of service delivery whilst maintaining and improving the quality of service.

The potential for change and performance improvement

Over recent years, significant change has taken place in Soft FM services as a result of Scottish Government initiatives such as the HAI Taskforce and Nutritional Improvement Programme. However, what has not been undertaken is a full and comprehensive NHSScotland wide strategic review of the basic systems and processes within soft FM to ensure they remain effective and efficient. In particular, there is a need to assess the potential for utilising relevant technological innovations to improve service effectiveness and efficiency.

Portering Services

Service Provision: Supporting patient's movement within hospitals and goods throughout the hospital.

Workforce & Costs:

- Staff numbers – 1,756 (source ISD National Statistics as at 30 September 2010)
- Costs - £46 million (2009/2010)

Opportunities for Improvement: Investigations are taking place into improving performance by using computer based management and communication systems. A business case is needed to demonstrate that the investment in the system will be cost effective and will deliver benefits.

Catering Services

Service Provision: Providing good quality, nutritious food to patients and staff. Meeting specialist requirements for therapeutic, texture modified, cultural and allergen free diets. Promoting healthy eating to patients.

Workforce & costs:

- Staff numbers – 2,078 (source ISD National Statistics as at 30 September 2010)
- Costs - £84.446 million (2009/2010)

Opportunities for Improvement: there is potential to improve patient experience and reduce the costs of catering, examples include:

- **New technology** - New meal delivery systems can reduce food waste and the cost per patient meal. This type of meal delivery system can also provide a more patient centred service.
- **Centralisation/regionalisation of food production** - some NHS Boards in Scotland have improved catering efficiency by moving to central production facilities within their NHS Boards. There may be benefits from extending these facilities to provide services on a regional basis. In addition, the spare capacity within central production units could potentially support community services such as “meals on wheels”.
- **Reduce purchasing cost by moving to a restricted national menu** - currently each NHS Board operates at least one menu, sometimes many more. Moving to one basic national NHS menu which requires NHS Boards to serve, for example, chicken on Monday, lamb on Tuesday etc. could reduce costs through enhanced purchasing power.

- **Reducing staffing requirement and space required for production by buying in prepared vegetable, proteins etc** - Reducing the staff time spent on food preparation by buying in more prepared food (e.g. vegetables) could reduce costs.

Domestic Services

Service Provision: Providing clean healthcare environments that reduce the likelihood of HAI. Development of the generic housekeeper role which may include the serving of food to patients and undertaking other general domestic duties around the hospital.

Workforce & costs:

- Staff numbers – 5,316 (source ISD National Statistics as at 30 September 2010)
- Costs - £116 million (2009/2010)

Opportunities for Improvement: There may be opportunities for improvement in domestic services through the use of:

- **New technology** - the use of microfibre cleaning materials which eliminate the need for a variety of existing cleaning methods. Other technology such as ultrasonic tanks has been successfully used to clean equipment such as bins, drip stands and wheelchairs quickly and more effectively.
- **Evidence based working** – current cleaning practices should be benchmarked against best practice, including in other countries.
- **Using evidence based cleaning agents** - current guidance requires that terminal cleans of isolation rooms is carried out using chlorine based cleaning agents. These are expensive and degrade the hospital environment. Recent trials indicate that other agents (not chlorine based) are equally or more effective.
- **Recognising the role of the cleaning specialist / technician** - Cleaning in hospitals is undertaken by a number of different people, only one of whom is a cleaning specialist. For example, the cleaning of nursing equipment, beds and patient equipment is often undertaken by nurses. This will need to be reviewed as it may not be the most cost effective use of resources and it reduces the time nurses can spend with patients. However, it may be that nurses are the most appropriate group of staff to understand the risk of infection / contamination arising from items linked directly to the patients since they are caring for the patient. Hence, quality and safety have to be taken into account as well as potential savings.

- **Adherence to the National Cleaning Services Specification** - Monitoring and assessment of the extent to which cleaning procedures are being carried out correctly to identify any remedial action and to provide an audit trail.

Transport Services

Service Provision: Moving services, goods and patients between facilities, fleet management, staff and patient travel planning and negotiations with service providers e.g. bus & train operators.

Opportunities for Improvement: There may be opportunities for improvement through the use of:

- **New Technology** - fleet management systems may be appropriate to manage aspects of transport services such as route planning to reduce fuel costs and provide stricter control of vehicle movement. Using electric cars for short journeys and hybrid vehicles for longer journeys should be considered.
- **Centralisation / regionalisation of services** - regionalisation of transport services across a number of NHS Boards may offer opportunities for service improvement and economies of scale.
- **Audit Scotland's report "Transport for health and social care" (August 2011)** made a number of recommendations for improving efficiency and effectiveness of transport including:
 - Collect routine and accurate data on the activity, cost (including unit costs) and quality of service
 - Assess the impact of proposed service changes on users and other providers
 - Integrate and/or share services across public sector organisations
 - Ensure that transport for health and social care services is based on an assessment of need.

Linen and Laundry Services

Service Provision: Provision of clean linen for patients and staff uniforms.

Workforce:

- Staff numbers – 555 (source ISD National Statistics as at 30 September 2010)

Opportunities for Improvement: Opportunities for service improvement in Linen and Laundry services come mainly from the following areas:

- **New Technology** - New types of linen are now available for hospital beds that improve comfort for the patient and have reduced laundering costs. Many laundries in Scotland are aging and using technology up to thirty years old. Efficiencies could be made in terms of energy usage, and staffing requirements by introducing new equipment including management systems which measure every step of laundering process. However, it needs to be recognised that given the shortage of capital funding it is unlikely that laundry equipment will feature high in any NHS Board's priorities.
- **Further Centralisation / regionalising of service provision** - There are presently eight laundries serving NHSScotland, some of which serve a number of NHS Boards. There may be a case for investigation into further centralisation of services. However, with increased centralisation it becomes more important that there is provision for sufficient contingency within the laundry system.

Retail Services

Service Provision: Almost all medium to large acute Hospitals offer some form of retail catering services either as a patient, visitor or staff facility or in some case as a staff only dining room.

Opportunities for Improvement: Opportunities for improvements could exist by:

- Ensuring that retail is operated as a business and that staff have retail as well as catering skills.
- Expansion of the NHSScotland Aroma brand across major sites to deliver a high quality service and generate income.
- Work in partnership with national and local voluntary organisations, community groups and social enterprise groups to provide high quality, affordable services at smaller sites.

Annex D – National Procurement, Strategic Sourcing for Facilities Management

Background & Purpose:

NSS National Procurement has circa £1bn spend covered by National Contracts and has delivered over £200m of savings against this portfolio to date. The accelerated Procurement Savings group identified significant opportunity to increase the scope and coverage of contracts and deliver further benefit. One area identified was £100m of Facilities Management related spend. National Procurement are conducting an opportunity assessment to put in place National framework agreements to deliver value and to ensure that NHS Boards have contract coverage in these business areas.

Approach & Timescale:

Following liaison and initial scoping with the Strategic Facilities Group of Health Facilities Scotland (SFG); National Procurement will initiate a Procurement programme with different “streams” of activity to include:

- Conduct a mini competition from the OGC Buying Solutions Framework to award a non-exclusive sole supplier agreement for a bundle of FM services including:
 - Maintenance - Fabric / M&E
 - Waste Management
 - Refurbishment
 - Lift Maintenance
 - Fire / Intruder Systems
 - Asbestos
 - Pest Control
 - AV Equipment & Cabling
- Benchmarking of service rates and exploring other value improvement with Current Suppliers of these services.
- Identify and segment categories of spend & hold supplier meetings to ensure NHS boards receive the best available price on commonly bought FM goods (such as plumbing & electrical supplies).
- Contract Management Programme to explore additional value improvements in existing collaborative contracts (such as clinical waste).
- Identify areas for National Framework agreements and agree future workplan for contracting areas.

Activity has already commenced in each of these streams; conducting a mini-competition is likely to take 6-8months, benchmarking and supplier meeting activities are expected to run through till November 2011.

Anticipated Benefit:

- NSS National Procurement anticipates that Spend under contract management will grow in the short term by £70m and are targeting delivery of £2m savings to NHS Boards.



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ISBN: 978-1-78045-661-4 (web only)

The Scottish Government
St Andrew's House
Edinburgh
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Produced for the Scottish Government by APS Group Scotland
DPPAS12611 (02/12)

Published by the Scottish Government, February 2012