Annual State of NHSScotland Assets and Facilities Report for 2015

Scottish Government
Riaghaltas na h-Alba
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Foreword

This fifth edition of the State of NHSScotland Assets and Facilities Report is now widely recognised as a key reference document used to inform decisions on the continuing investment in assets and facilities services to deliver the Scottish Government's "2020 Vision" for sustainable high quality in health. Getting the right assets and facilities services in place will be central to achieving the "2020 Vision" and will require major change to the type and distribution of assets and facilities services and the way in which we prioritise investment in the future.

This year's report begins by reflecting on the achievements secured over the last five years in asset management and strategic investment planning in support of NHSScotland's 2020 Vision.

The Report also builds on the work of previous years, focussing on monitoring and comparing year on year performance on a comprehensive basis across the totality of NHSScotland's assets and facilities services. The report presents a detailed and rigorous scrutiny of asset performance. In doing so it increases understanding and knowledge of the contribution that ongoing investment in assets and facilities services is making to the delivery of the long-term goals of improving the quality of the healthcare environment, shifting the balance of care closer to home, meeting environmental commitments, and delivering value for money through increased productivity and efficient use of resources.

The Report provides a range of information that should help Boards target limited resources on achieving maximum benefit and value for money from investment.

As in previous years, Boards have been highly supportive in recognising the importance of this report, and their willingness to provide information to support the detailed scrutiny of performance that underpins the report is to be commended.

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Calum Campbell	Christine McLaughlin
Chair of Assets & Facilities Programme Board	Director of Health Finance
Chief Executive NHS Lanarkshire	Health and Social Care

1.0 Delivering NHSScotland's 2020 Vision

1.1 Introduction

This is the fifth year that the State of NHSScotland's Assets & Facilities Report (SAFR) has been published. Its purpose continues to be that of reviewing asset & facilities management performance, highlighting areas of best practice, identifying priorities for investment and improvement, and monitoring progress against such priorities. This introduction to SAFR 2015 looks back at some of the achievements made over the last 5 years to review how effective asset management and investment planning has been in supporting the delivery of NHSScotland's 2020 Vision, and how it will continue to meet this aspiration into the future for a highest quality NHS for Scotland.

1.2 Strategic Background

The strategic agenda for asset management and investment planning has been guided over the last 5 years by the introduction of The Healthcare Quality Strategy for NHSScotland and the Asset Management Policy introduced by CEL35 (2010).

The Healthcare Quality Strategy sets out the overarching strategic context for the direction, development and delivery of all healthcare services for years to come both in terms of securing improvement in the quality of healthcare services and in achieving the necessary efficiencies. The Asset Management Policy establishes the policy environment and key performance indicators for asset management; seeking to establish asset management excellence across NHSScotland in support of the Healthcare Quality Strategy.

The 2020 Vision for Health & Social Care in Scotland, and accompanying Route Map for delivery, further set out the framework from which NHSScotland's assets and facilities might respond in supporting the need for continued improvement in health and social care services.

This strategic background therefore sets the context and narrative upon which improvements in the planning, delivery, management and disposal of NHSScotland's properties and others assets has been achieved over the last 5 years, and also prepares the framework from which further efficiencies and performance improvement can be achieved.

1.3   NHSScotland's Strategic Investment Programme

Getting the right assets and facilities services in place is central to delivering the triple aim of Scottish Government's 2020 Vision for **improving the quality of care, health of the population, and the value & sustainability of resources** across Scotland. Supporting these aims has required significant change and investment across acute, mental health, primary and community care sectors of the health and care system.

Queen Elizabeth University Hospital

For example, investment in the hospital estate has delivered two of the largest acute hospital facilities ever built within NHSScotland; namely the Forth Valley Royal Hospital which became fully operational in July 2011, and the recently opened Queen Elizabeth University Hospital in Glasgow. Between them, an overall investment of circa £1billion has delivered 300,000 sq.m. of the very highest standard of healthcare facilities for Scotland's patients, visitors and staff.

Forth Valley Royal Hospital

A further equivalent investment of £340m is currently being planned to deliver two more hospital replacement facilities in Dumfries and Orkney. These new properties will facilitate enhanced models of service delivery designed to improve quality of care and patient experience within modern, fit-for-purpose accommodation.

The new Acute Services Facility for Dumfries will accommodate some 350 in-patient beds, with an internal floor space of approx 66,500sq.m. Due for completion in 3rd quarter 2017.

Most recently, a new initiative was announced in October 2015 to develop a network of new elective treatment centres across Scotland that would enable people to be treated more quickly for planned surgery whilst also easing the pressure off unplanned and emergency treatment. £200m of investment has been allocated to this initiative to extend services at the Golden Jubilee Hospital in Clydebank and develop new elective treatment centres at St John's Hospital in Livingston, Edinburgh Royal Infirmary, Ninewells Hospital in Dundee, Raigmore Hospital in Inverness, and Aberdeen Royal Infirmary.

While these and other hospital developments will transform the acute hospital estate and facilitate the delivery of safe, effective and person centred acute healthcare services for Scotland, there are also a wide range of no less significant projects that have been, and will continue to be, delivered across the country which will help to deliver each of the 2020 Vision's priorities for improvement (highlighted in bold), as described below:

Improving the way unscheduled and emergency care is delivered has been driven by the requirement to ensure patients are provided with the care they need as soon as possible and, in practical terms, adjustments to patient flow in and out of accident and emergency departments will help to facilitate this. This has been at the forefront of plans for all new hospital developments; both those delivered and those in the planning or construction stages. In addition, NHS Ayrshire & Arran's redesign of 'front door' services at Ayr and Crosshouse hospitals; as well as the £100m Emergency Care Centre (The Matthew Hay building) built on the Aberdeen Royal Infirmary site in 2012, are further examples of investment focussed on improving the delivery of unscheduled and emergency care.

The new Matthew Hay building was completed in 2012 and brings emergency and unscheduled care services in Aberdeen under one roof and provides 350 inpatient beds to replace ageing accommodation at Aberdeen Royal infirmary.

Greater integration between adult health and social care has been a key part of the Scottish Government's commitment to public service reform in Scotland, and an indication of how Boards are considering new models of affordable and sustainable care is inherent within the proposed new Stirling Care Village currently in the latter stages of planning with delivery anticipated in the next couple of years.

Plans are being developed to create an innovative new care village on the Stirling Community Hospital site. This would transform the way services are delivered by bringing a wide range of health, social care, and GP services together on the one site; with training and education opportunities for the current and future workforce an important part of the partnership vision.

Expanding the role of primary care is at the heart of the 2020 Vision and has been supported over the last 5 years through a comprehensive and wide reaching investment programme. The innovative hub procurement initiative and Frameworks Scotland 2 have been the main delivery routes for this work. Examples of projects either delivered, in construction, or in development within each of the five 'hub territories' include:

North Scotland hub territory:

- Aberdeen Community Health & Care Village
- Faithlie Dental Centre
- Forres Medical Centre
- Tain Health Centre
- Woodside Fountain Health Centre
- Inverurie Community Health & Social Care Facility
- Foresterhill Health Centre
- St. Brendan's Health Centre, Hospital & Care Home

South West Scotland hub territory:

- Dalbeattie and Dunscore
- Houldsworth(Wishaw) Medical Centre
- Hunter Health Centre, East Kilbride
- Kilsyth Health Centre

The new Kilsyth Community Health Centre was officially opened on 24th November 2015 and brings together a host of primary, mental health and community care services to create an integrated primary care service.

West Scotland hub territory:

- The Shields Centre
- Maryhill Health and Care Centre
- Eastwood Health and Care Centre
- Gorbals Health and Care Centre
- Woodside Health and Care Centre

(C) AHR

The new Possilpark Health & Care Centre was procured using Frameworks Scotland and opened on 24th February 2014 to deliver a range of primary and community care services. The building was also shortlisted for the Scottish Design Award 2015.

East Central Scotland hub territory:

- Glenwood Health Centre
- Bridge of Earn Health Centre
- Doune Health Centre
- Stirling Care Village

South East Scotland hub territory:

- Tranent Health Centre, East Lothian
- Gullane Day Centre and Surgery, East Lothian
- Lauder Health Centre
- Wester Hailes Healthy Living Centre
- Muirhouse, Firhill & Blackburn Health Centres
- Roxburgh Street Health Centre, Galashiels

An example of **improvements made to safety in the healthcare environment** is the attention given to reducing backlog maintenance within existing buildings. Over the last 5 years good practice asset management techniques have been introduced to improve the identification, risk management, and investment planning of works to reduce backlog maintenance. This has resulted in the reduction of circa £350m in the backlog initially identified in 2010, but also the identification of £200m of new backlog over the same period. These improved asset management techniques will ensure that appropriate investments decisions continue to be made between the need for service improvement and the need for continued assurance of safety in the healthcare environment.

A property's ability to enhance patient experience from **a person centred health and care system** is evidenced by the most recent national inpatient patient experience survey which reported, "*considerable improvements in patients' rating of the overall ward and hospital environment. This improvement was seen across a number of NHS Boards and in some areas the rises were considerable*". The average score for this indicator has steadily increased from 83% to a significant 89% over the last 5 years.

The accommodation used to support the **treatment of people with mental health illnesses** continues to be transformed across Scotland. For example, important investments in 2012 led to the opening of new facilities for the high secure State Hospital in South Lanarkshire and the Midpark acute mental health facility in Dumfries. Further investments of over £100m are also being planned for the new Woodland View / North Ayrshire Integrated Mental Health and Community Hospital facility, and a new adult mental health and IPCU facility as part of the Royal Edinburgh Campus redevelopment. These are expected to be available in 2016/17.

New State Hospital facility

A focus on **early years** services is another priority highlighted within the 2020 Vision Route Map and a combined investment of circa £320m in support of this initiative is being planned for the new Baird Family Hospital on the Aberdeen Royal Infirmary site, and a new Children's Hospital (plus Department of Clinical Neurosciences) which is currently being re-provided on the Royal Infirmary of Edinburgh site, due for completion around Autumn 2017.

New Children's Hospital, Edinburgh

NHSScotland's strategic investment programme is also focussed on improving service access and outcomes through, for example, the **early detection and treatment of cancer.** This includes a new £20m+ radiotherapy facility at the Lanarkshire Beatson satellite centre for the West of Scotland and a £30m construction project for a new Cancer Centre (the Anchor Unit) on the Foresterhill site in Aberdeen, which will link to the newly constructed radiotherapy building containing three new linear accelerators.

NHS Grampian have also been instrumental in working with a local charity to enable their development of a Maggie's Centre on the Foresterhill Health Campus in Aberdeen which offers a charity based support to people with cancer and their families and friends.

The five existing cancer centres in Scotland are also supported by a national equipment replacement programme which oversees the replacement of radiotherapy equipment with leading edge technology to deliver the best available treatment for all cancer patients across Scotland.

Furthermore, new processing / production units aimed at increasing **efficiency and productivity** are also currently being delivered by the Scottish National Blood Transfusion Service - SNBTS (£35m+) and NHS Tayside's (£25m+) Pharmaceutical Specials Service projects. The SNBTS facility will enable the service to make a step change in the future sustainability of service delivery, respond to an increasing demand for this service, and expand its scope of delivery to new cellular therapies. Once delivered, both projects will ensure that compliant NHS facilities are available for safe, efficient and effective delivery of these important support services.

Examples of **innovation** include improvements in medical equipment assets, such as the full digitalisation of breast screening equipment to enhance the speed and accuracy of diagnosis. In addition, NHS Grampian is the first NHS Board in Scotland to introduce a Robotic-Assisted Surgical System for minimally invasive procedures for prostate cancer. This technology will be available to clinically appropriate patients from across Scotland and the benefits to patients include reduction in recovery time and their stay in hospital, and a quicker return to good health.

Further examples of best practice and **innovative** approaches to asset management are described in Annex A.

Each of the above projects provides a sample of the positive impact that NHSScotland's strategic investment programme and other initiatives have had on NHSScotland's 2020 Vision over the last 5 years and how it will continue to do so in the future. Further information on planned investments which will continue with this focus over the next 5 years is outlined in Section 4 of this report.

1.4   Delivering Value and Financial Sustainability for NHSScotland

Value and financial sustainability has been a key driver for change, improvement and where necessary investment in asset and facilities management across NHSScotland, with initiatives of note including:

- A review of the workforce needed to plan and deliver NHSScotland's future strategic investment programme is ongoing with an emerging strategy recommending the formation of regional / geographic groupings of capital planning teams and resources. Proposals are currently being developed for submission to the Shared Services Portfolio Board in early 2016. Annex G provides a further update on the current status of this review.

- The Facilities and Shared Services Programme has been examining opportunities to improve efficiency and effectiveness through the development

of strategic partnerships between Health Boards and, where appropriate, other public sector organisations. The areas of activity being examined are:

- Capital Planning/Project Management and Hard Facilities Management.
- Operational Management of Revenue Financed (including PPP/PFI) Contracts
- Decontamination of Medical Devices
- Transport.
- Waste Management.

Annex G also provides an update on the current status of this whole review.

- A collaborative framework; Frameworks Scotland 2, has been created as a model of best practice to optimise project outcomes including delivery of cost and time efficiencies for publicly funded health and social care projects across Scotland. In the first two years of a six year programme there are projects with a total construction value of over £200m at various stages of delivery under Frameworks Scotland 2.

- A further procurement initiative available to the NHS, as well as other public bodies, is the hub initiative led by the Scottish Futures Trust on behalf of the Scottish Government. This has been implemented across five geographical territories across Scotland and has been one on the main delivery routes for the investment programme in primary and community care facilities.

- NHS Boards have been working on the procurement of two major energy infrastructure projects at NHS Tayside and NHS Grampian. These two projects will see circa £28.5 million invested across 6 sites resulting in energy/ GHG savings of circa £4.6million per annum and c 20,000 tCO2e.

- Since 2011, NHS National Services Scotland has embarked on a programme of consolidation and rationalisation of its office estate with a specific focus on improving asset utilisation and reducing costs whilst also providing modern accommodation capable of introducing a more agile workforce arrangement. This efficiency programme has already been able to achieve over £5m of efficiency savings in its office occupancy costs over a three year period.

1.5   Delivering Better Asset Management for NHSScotland

Since the current Asset Management Policy for NHSScotland was first introduced in 2010 through CEL35 (2010), NHS Boards have improved their approach to asset management, their performance management of those assets, and their appreciation of how their assets need to be aligned to NHSScotland's strategic investment priorities.

For example, as part of the drive towards better intelligence on NHSScotland's property assets, NHS Boards report that 4.4 million sq.m. of accommodation (94%) has been surveyed over the last 5 years through a combination of Scottish Government sponsored surveys and Boards' own assessments. This makes available a significant amount of better information and data on these assets which can be used to make more informed investment decisions in support of service driven opportunities for improvement and change.

Furthermore, improvements to NHSScotland's property asset performance over the last 5 years include:

- Over 700,000 square metres of old accommodation (over 50 years old) has been removed from the estate and, where appropriate, replaced with new, modern facilities.

- An additional 300,000 square metres of NHSScotland estate is now functionally suitable to support effective health and care service delivery.

- The effective utilisation of accommodation has improved to over 80% which reduces the financial impact of this resource and improves its effectiveness.

- Backlog maintenance has reduced by over £110m; however the full reduction achieved over the last 5 years is closer to £350m if the impact of inflation and newly identified backlog were to be excluded.

- The quality and complexity of strategic planning by NHS Boards as evidenced within their Property & Asset Management Strategies is markedly more transparent and improved from the corresponding position 5 years ago.

- Revenue cost increases associated with property asset ownership and use have remained lower than general inflation between the 2010/11 and 2013/14 reporting periods, despite increased service scope and other cost pressures.

Further information on asset performance and revenue cost changes over the last 12 months is available in Sections 2 & 3, and Annexes B - F of this report.

2.0 Performance of NHSScotland's Assets

This section of the report provides an overview of the current state of NHSScotland's assets whilst also reviewing asset and facilities services performance. The intention is to gain an insight into the significance of this asset base and also to appreciate where opportunities lie for improving performance.

The data used within this report is based on that currently available and reported at the beginning of the financial year 2015/16 (April 2016). This includes:

- The latest asset performance information provided by NHS Boards in April 2015 covering property, office accommodation, vehicle and medical equipment assets.

- The latest available eHealth IM&T survey information, which was carried out in 2012.

- The latest facilities management costs published within the Scottish Health Service Cost Book (published in December 2014), covering NHS Boards' annual accounts for the reporting period 2013/14.

- The latest PPP/PFI service charge costs from NHS Board's audited accounts.

- Information from NHSScotland's 2014 patient questionnaire survey which reports every two years.

- NHS Boards' Property & Asset Management Strategies which were submitted in June 2015.

All costs reported in this document include the impact of inflation but exclude the cost of VAT or other on-costs, unless specifically noted.

2.1 The Current Status of NHSScotland's Property Assets

The following provides an overview of the current status of NHSScotland's assets, with some comparative information on annual changes. More detailed information on the current status of property assets can be found in Annex B of this report.

Current status of NHSScotland's property assets		
Current Net Book Asset Value (all assets)	**2015**	
Property:	£5.7bn	
Other:	£0.6bn	
Total:	£6.3bn	
Floor Area ('000's sq.m)	**2014**	**2015**
Total:	4,512	4,478
Age (% less than 50 years old)	**2014**	**2015**
	74%	78%
Condition (Good – category A or B)	**2014**	**2015**
	58%	66%
Estate Utilisation (Fully Utilised)	**2014**	**2015**
	77%	81%
Functional Suitability (Good – A or B)	**2014**	**2015**
	65%	72%
Backlog Maintenance	**2014**	**2015**
Including Inflation uplift for 2015	£789m	£898m
Excluding inflation uplift for 2015		£809m

Improvements to the above property performance KPI's is a combination of performance improvement across several NHS Boards; however, a particular impact this year has been the inclusion of the new Queen Elizabeth University Hospital facility and the exclusion of associated non-operational estate which has become surplus to requirements.

2.2   The Current Status of NHSScotland's Vehicle Assets

The following provides an overview of the current status of NHSScotland's vehicle assets, with some comparative information on annual changes. More detailed information on the current status of vehicle assets can be found in Annex C of this report.

Current status of NHSScotland's vehicular assets		
Number of Vehicles	**2014**	**2015**
Owned*:	1,897	1,932
Leased:	2,178	2,516
Staff Car Scheme:	6,485	5,548
Long term hire:	198	155
Total:	**10,758**	**10,151**
Age (% less than 5 years old)	**2014**	**2015**
	85%	83%
Mileage (average per vehicle)	**2014**	**2015**
Owned:	-	15,800
Leased:	-	9,700
Staff Car Scheme**:	-	4,900
Fuel Type	**2014**	**2015**
Petrol:	-	21.9%
Diesel:	-	77.7%
Alternative:	-	0.4%

* 65% of NHSScotland's owned vehicles belong to the Scottish Ambulance Service.
** The Staff Car Scheme does not include staff using their own vehicles for work purposes.

The quality of information returned by NHS Boards on their vehicle assets has improved this year (but with scope for further improvement). This enables more information to be presented on the current state of these assets. For example, mileage and fuel type are presented for the first time and can be used to monitor future changes in vehicle usage based on mileage per vehicle, and any change in fuel use from a reliance on diesel towards use of alternatives such as electric, bio-fuel, low pressure gas, etc.

The age profile of these assets suggest that they are in good condition and well maintained, with some Board's suggesting that vehicles beyond 5 years old are often due to their lower annual mileage enabling an extended life.

2.3 The Current Status of NHSScotland's Medical Equipment Assets

The following provides an overview of the current status of NHSScotland's medical assets, with some comparative information on annual changes. More detailed information can be found in Annex D of this report.

Current status of NHSScotland's medical equipment		
Replacement Cost*	**2014**	**2015**
Radiotherapy equipment	£61.9m	£66.2m
Imaging equipment	£209.3m	£268.9m
Renal dialysis equipment	£15.0m	£16.0m
Cardiac defibrillators	£19.2m	£19.7m
Flexible endoscopes	£69.5m	£84.2m
Infusion devices	£32.2m	£37.0m
Other high value equipment:	£437.0m	£440.0m
TOTAL:	**£844m**	**£932m**
Radiotherapy equipment (linear accelerators & CT simulators)	**2014**	**2015**
Number of items:	n/a**	35
Proportion within minimum lifecycle age:	n/a	100%
Imaging equipment	**2014**	**2015**
Number of items:	n/a	2,745
Proportion within minimum lifecycle age:	n/a	69%
Cardiac Defibrillators	**2014**	**2015**
Number of items:	3,600	3,850
Proportion within minimum lifecycle age:	n/a	85%
Infusion Devices	**2014**	**2015**
Number of items:	19,225	20,190
Proportion within minimum lifecycle age:	n/a	76%

Flexible endoscopes	2014	2015
Number of items:	2,870	3,035
Proportion within minimum lifecycle age:	n/a	85%
Renal Dialysis	**2014**	**2015**
Number of items:	920	944
Proportion within minimum lifecycle age:	n/a	66%

* estimated cost of replacing all medical equipment, excluding low value medical equipment & leased / privately financed equipment

** n/a – represents comparative data not available in 2014

Medical equipment is a valuable asset both in monetary terms and in the important role it plays in the delivery of quality and safe healthcare across NHSScotland. The annual change in the replacement cost of medical equipment is mainly due to revised cost estimates and more accurate cost information available this year on imaging and flexible endoscopes. Better information this year also makes it possible to report on the proportion of each type of equipment that is within the minimum recommended age before needing to consider its replacement (Proportion within minimum lifecycle age).

The programme of continued investment in medical equipment will ensure that modern standards of available equipment is maintained which will be used to better support person centred & safe care and improved efficiency and effectiveness of service delivery.

2.4   National Asset and Facilities Performance Framework

A key objective of this report is to monitor year on year change in asset and facilities services performance, and the National Asset and Facilities Performance Framework (below) has been used since first introduced in 2011 to provide an essential link between asset and facilities services performance and patient needs, as defined in the NHSScotland Quality Strategy's three Quality Ambitions.

The Framework uses 20 key performance indicators to monitor year on year progress in asset performance towards the achievement of the 2020 Vision targets. It should be noted that the 2020 Performance Targets are (a) provisional and subject to review to reflect funding availability and the outcome of the work on the 2020 Visioning, and (b) based on the qualification that their attainment will not reduce service quality. Broadly, half of the KPIs are based on quality measures and half are based on cost measures.

	KPI No	Performance Change 2014 to 2015				
		Key Performance Indicator	2014 Performance	Current 2015 Performance	Percentage Change from 2014	2020 Vision Performance Target
Patient Centred	1	Percentage of properties categorised as either A or B for Physical Condition facet of estate appraisals	58%	66%	14%	90%
	2	Percentage of properties categorised as either A or B for Quality facet of estate appraisals	65%	70%	8%	90%
	3	Positive response to Patient Questionnaire on patient rating of hospital environment	90%	90%	0%	95%
	4	Percentage of properties less than 50 years old	74%	78%	6%	70%
	5	PAMS Quality Checklist Overall Score (max score 100)	72%	75%	4%	95%
Safe	6	Overall percentage compliance score from SCART	73%	78%	6%	95%
	7	Cost per square metre for backlog maintenance	£181	£185	2%	£100
	8	Significant and high risk backlog maintenance as percentage of total backlog expenditure requirement	47%	44%	-6%	10%
Effective & Efficient	9	Percentage of properties categorised as either A or B for Functional Suitability facet of estate appraisal	64%	72%	12%	90%
	10	Percentage of properties categorised as 'Fully Utilised' for space utilisation facet of estate appraisals	77%	81%	5%	90%
	11	Building Area sq.m per Consumer Week (from Cost Book)	3.28	3.50	7%	3.2
	12	Cleaning Costs £ per sq.m (from Cost Book)	40.26	42.36	5%	38.1
	13	Property maintenance costs £ per sq.m (from Cost Book)	37.00	34.67	-6%	31.2
	14	PPP Service Charge Cost £ per sq.m (from audited accounts & not Cost Book)	158.27	159.37	1%	143.4
	15	Energy Costs £ per sq.m (from Cost Book)	31.37	30.65	-2%	27.6
	16	Rates Costs £ per sq.m (from Cost Book)	15.26	12.76	-16%	11.5
	17	Catering Cost £ per consumer week (from Cost Book)	83.50	87.23	4%	78.5
	18	Portering Costs £ per consumer week (from Cost Book)	47.84	51.20	7%	46.1
	19	Laundry and Linen Cost £ per consumer week (from Cost Book)	31.60	32.80	4%	29.5
	20	Waste Cost £ per consumer week (from Cost Book)	11.64	12.06	4%	10.9

1%	Denotes Performance Improvement	
-1%	Denotes Performance Deterioration	
0%	Denotes no change in performance	

The "Current 2015 Performance" for KPI Nos 12 to 20 inclusive is based on the 2014 Cost Book information

Note: KPI No 7 has been adjusted to exclude inflation so that performance can be compared.

KPI No 14 has changed to record PPP service charge costs only against the floor area of PPP accommodation only

KPI No 15 - Energy costs are outside the direct control of NHS Boards therefore reference is needed to Annex F to better understand energy consumption performance.

Note: figures and percentages have been rounded for ease of reporting purposes.

Percentage Change is the real percentage change since 2014 and not percentage point change.

'Percentage of properties' indicators are based on overall floor area, unless otherwise stated.

Cost based indicators are affected by external influences such as inflation, as well as performance.

Annual changes to these KPI's are further explained in the following section.

2.4.1 Changes in National Asset Performance Framework KPIs

The following provides an overview of performance change between 2011 (when the performance framework was first developed) and 2015, along with a short commentary on the changes.

KPI Nos 1 to 10 – Derived from property appraisal information and PAMS provided by Boards
(Note: 'Percentage of properties' indicators are based on floor area, unless otherwise stated).
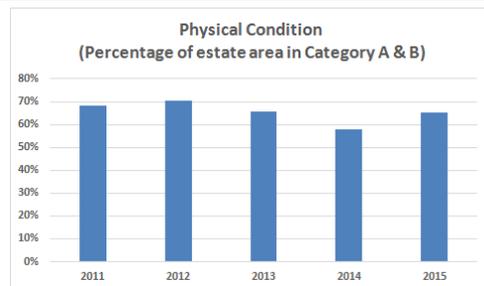
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Physical Condition
(Percentage of estate area in Category A & B)

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Physical Condition

Over that last five years the reported physical condition of the estate has ranged between 58 - 68% being in satisfactory condition (category A & B). A contribution to the improvement this year has been the inclusion of the new Queen Elizabeth University Hospital in Glasgow. Boards advise that the various reasons for changes to this indicator over the last five years includes:
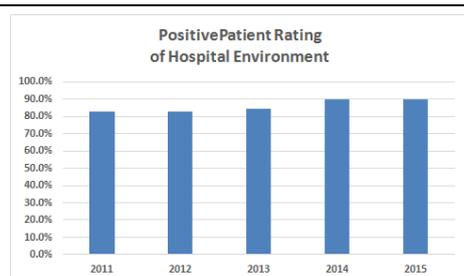
- Delivery of new modern facilities; such as those described in Section 1, which present opportunities to remove from service older buildings in poorer condition.

- A substantial re-examination of the condition of the NHSScotland estate over the last 5 years, which presents a more informed understanding of the condition of the estate and future investment needs.

- The natural aging affect on the condition of buildings.

Over the next 5+ years, NHSScotland's asset investment programme, as outlined in Section 4, will continue to deliver new and modernised estate to replace or improve on outdated accommodation.

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Quality
(Percentage of estate area in Category A & B)

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Quality

As might be expected, this facet is showing broad correlation with the physical condition facet, with a small improvement this year. It is further expected to follow similar improvements in the future as investment in facilities is implemented.

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PositivePatient Rating
of Hospital Environment

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Patient Rating of the Hospital Environment

This is the sole indicator taken from NHSScotland's patient questionnaire survey. The survey is now carried out every two years therefore the performance indicator remains unchanged between 2014 and 2015 at a positive rating of 90% for the patient's opinion on the hospital environment.

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Properties less than 50 years old
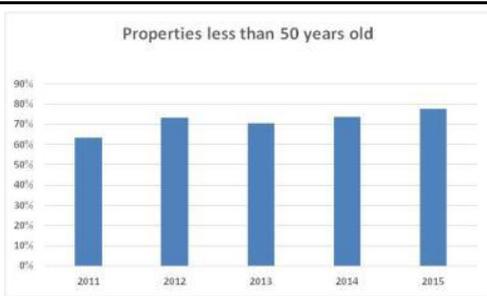
Properties less than 50 Years Old

The proportion of properties less than 50 years old has steadily improved over the last 5 years from just over 63% in 2011 to just under 80% in 2015. This shows the impact of the strategic investment programme implemented over this period including the recently completed Queen Elizabeth University Hospital in Glasgow. As a further impact of this and other projects, over the next few years older parts of the NHSScotland estate will be removed as they are no longer required.

Further potential for future improvement includes:

- NHS Lothian is embarking on several replacement programmes including a new Royal Hospital for Sick Children & DCN, redevelopment of Royal Edinburgh Hospital, and a new East Lothian Community Hospital.

- NHS Orkney and NHS Dumfries & Galloway are preparing plans to replace their existing old hospitals with new facilities.

Many of these new investments will replace old and outdated accommodation.

PAMS Quality Checklist Average Score (Maximum 100)
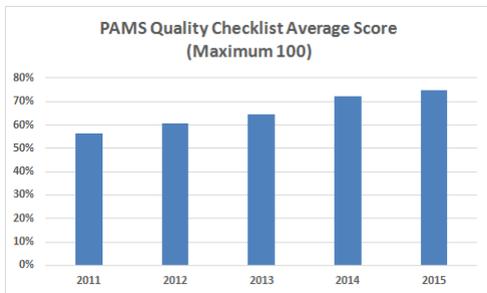
PAMS Quality Checklist Average Score (max score 100)

This indicator shows continued general improvement in the quality and content of NHS Boards Property & Asset Management Strategies over the last five years. This reflects a strong focus by Boards over recent years on improving the quality and consistency of their property data and the continued aim of linking property changes to their clinical and service strategies.

Overall SCART Score
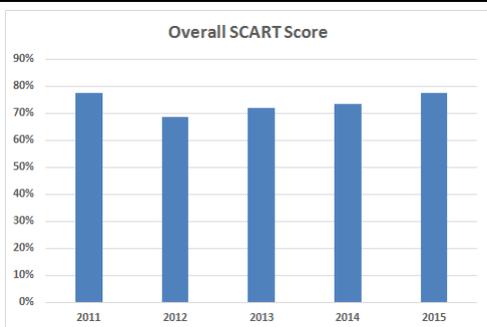
Overall percentage compliance score from SCART

SCART is a self-assessment tool that indicates general compliance with policies and procedures related to property aspects of statutory compliance. This indicator shows a continued improvement over the last 4 years. The initial assessment in 2011 concentrated on high priority areas, such as inpatient accommodation, whereas the subsequent further assessments from 2012 onwards, which covers circa 88% of NHS Boards' estate, identified a wider range of improvement needs. A new, expanded question set is currently being adopted which may affect the performance results of this KPI next year.
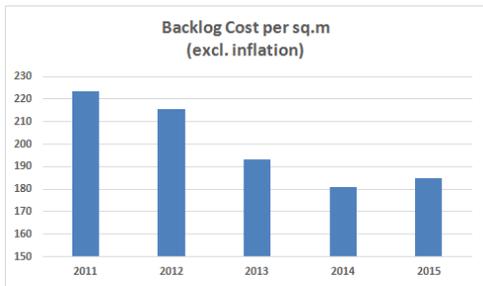
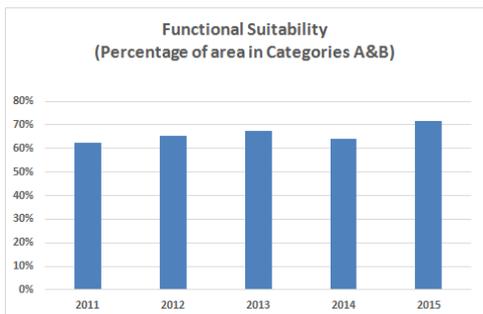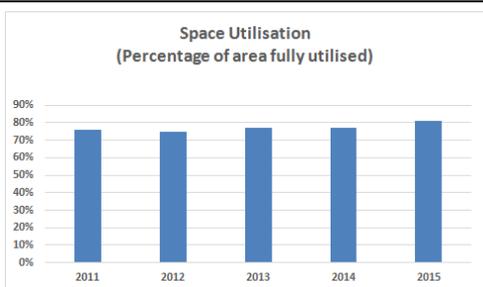|	
Backlog Cost per sq.m (excl. inflation) 230 220 210 200 190 180 170 160 150 2011 2012 2013 2014 2015	**Backlog Maintenance Cost per sq.m.** This indicator for estate performance has shown a continual improvement (reduction) between 2011 and 2014 but with a levelling off this year. The 2015 KPI also excludes the impact of rebasing backlog costs to reflect inflationary pressures. This enables the 2015 KPI to be compared with previous years on a like for like basis. Section 2.4.3 provides further details on the current status and movement of reported backlog maintenance.
Percentage of High and Significant Risk Backlog 60% 50% 40% 30% 20% 10% 0% 2011 2012 2013 2014 2015	**Proportion of Significant & High Risk Backlog Maintenance** The proportion of backlog that is in the category of Significant or High has reduced this year which reflects the important focus on reducing this category of backlog though direct investment and replacement of facilities where this is a particular issue. The results also reflect the work of Boards in introducing better mitigation measures which enables them to review their original risk assessments.
Functional Suitability (Percentage of area in Categories A&B) 80% 70% 60% 50% 40% 30% 20% 10% 0% 2011 2012 2013 2014 2015	**Functional Suitability** There has been an overall improvement in this KPI over the last 5 years, which shows the positive impact that property assets are having on the effectiveness of health & care service delivery. Again, the impact of modern new facilities, such as the new Queen Elizabeth University Hospital, are positively impacting on this KPI. The strategic investment programme (as indicated in Section 4) should result in further improvements in this KPI.
Space Utilisation (Percentage of area fully utilised) 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2011 2012 2013 2014 2015	**Fully Utilised Space** The area of the estate that is regarded as fully used has improved to 81% this year. This remains an ongoing focus for Boards as they continue to reconfigure their estate to make the most effective use possible of this complex accommodation. Boards will also need to plan to fully utilise the new accommodation that will come on line over the next 5+ years.

KPI Nos 11 to 20 - Cost Book Derived KPIs
Note: 2015 SAFR Cost Book data is based on financial information for financial year 2013/14

As part of the measures to improve the quality and consistency of data, the unit of measurement for building size was changed from 100 cu.m to sq.m in the 2012 Cost Book. Therefore, comparisons can only be made for the last three years on these KPIs.
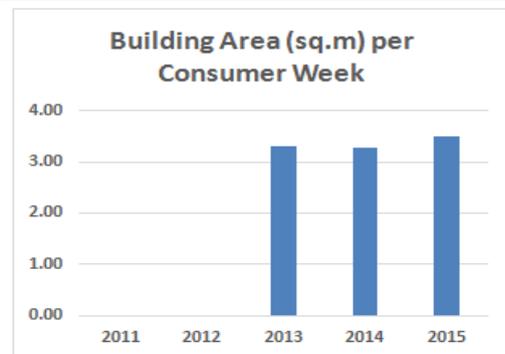
Space Utilisation - Building Area per Consumer Week

This indicator has remained relatively stable over the last 3 reporting years but with a slight increase this year as consumer weeks for inpatient activity reducing as Boards shift to more day case activity.

Cleaning Costs

Higher cleaning standards as a response to increased HAI standards of cleanliness, increased activity and usage of space, and normal inflationary cost pressures have all impacted on this KPI. However, this seems to be offset by efficiency performance improvements which have reduced such increases to below inflation levels.

Property maintenance costs

Property maintenance costs have reduced slightly this year which is mainly as a result of varying revenue spend on backlog maintenance included in the expenditure figures for property maintenance.
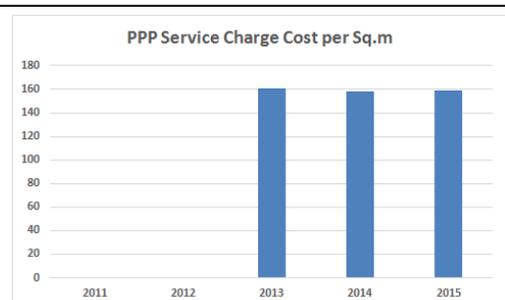
PPP – Service Charge Costs

This KPI shows only the service charge element of PPP/PFI operating costs taken from NHS Boards' audited accounts (i.e. not from Cost Book information). It doesn't include interest or recharge payment elements of a unitary charge. It has also been adjusted this year to take account only of the floor area associated with such facilities and not the overall estate. The KPI for 2015 is similar to that reported the previous year.
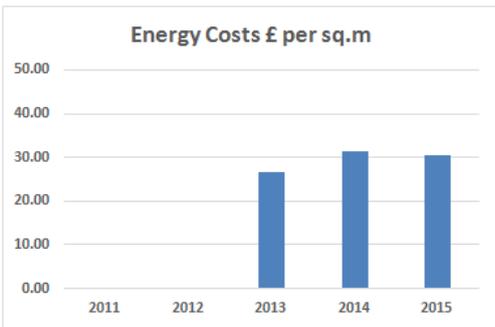
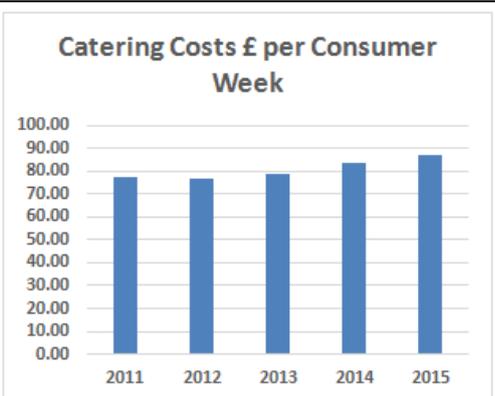|	
Energy Costs £ per sq.m 50.00 40.00 30.00 20.00 10.00 0.00 2011　2012　2013　2014　2015	**Energy Costs** This KPI shows a slight reduction in energy costs per square metre over the last year which is mainly as a result of reduced energy consumption during a year of generally milder temperatures However, as energy cost changes are outside the direct control of NHSScotland then energy efficiency improvements are the main measure for reducing consumption and thus overall costs. Further information on energy performance is provided in Annex F.
Rates Costs £ per sq.m 50.00 40.00 30.00 20.00 10.00 0.00 2011　2012　2013　2014　2015	**Rates Costs** Rates are generally index linked to inflation but the cost per sq.m has reduced this year which may be due to a reduced rates charge across the estate.
Catering Costs £ per Consumer Week 100.00 90.00 80.00 70.00 60.00 50.00 40.00 30.00 20.00 10.00 0.00 2011　2012　2013　2014　2015	**Catering Cost £/consumer week** This KPI shows a steady increase in catering costs per consumer week over the five year reporting period during which time patient choice and food quality have both improved. The cost impact of these improvements in service delivery seems to be offset by efficiency performance improvements as the costs increases are generally lower than inflation over the same period. A review of catering services was carried out during 2014/15 as part of the Soft FM review programme, details of which can be found in Annex H.
Portering Costs £ per Consumer Week 60.00 50.00 40.00 30.00 20.00 10.00 0.00 2011　2012　2013　2014　2015	**Portering Costs** Boards explain that their Portering service is being used to carry out additional tasks in order to reduce pressures on front-line staff and the need for additional security staff in some instances. This is a key reason why the cost per consumer week has steadily risen since 2011. A review of Portering can also be found in Annex H, which includes the recommendation to install automated portering task tracking systems in appropriate locations.
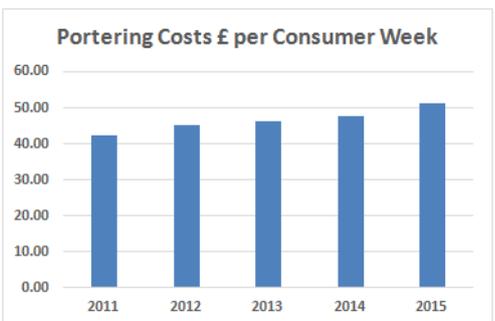
Laundry & Linen Costs

Laundry & linen costs have generally remained the same since 2011, despite inflationary pressures. Efficiency measures such as the move from conventional linen to fitted bedding have helped to control any cost increases.

The Soft FM review of Laundry services (see Annex H) has recommended a business case to evaluate the reprovision of Laundry Production Units across NHSScotland.

Waste Costs

The cost associated with increased regulation on clinical waste and stricter controls over the segregation and disposal of waste have both put pressure on overall waste costs since 2011.

A review of Waste services falls under the Facilities Shared Services Review, with opportunities for future efficiencies described in Annex G.

The scale of the above cost charts has, when convenient to do so, been kept at 0 - 50 to enable comparison of the scale of costs between charts.

As described above, the Strategic Review of Soft Facilities Management Services Programme and the Facilities Shared Services Review are both carrying out strategic reviews of FM services across NHSScotland to identify improvements and efficiencies that can be made to these services and thus make improvements to the above performance KPI's.

It should be noted that a number of the above Cost Book derived KPIs use "consumer weeks" as the denominator in the KPI. It should also be recognised that this is primarily a measure of inpatient activity however it also takes some account for day patient activity. Studies have shown that it is primarily inpatient activity which drives the numerator in each of these KPIs i.e. the two variables in each of these KPIs are highly correlated.

2.4.2 Performance variation across Boards

The Performance Framework is intended to provide a useful "national picture" of performance on a range of asset and facilities management services. The tables that follow compare each Board's performance on each of the 20 KPIs in the Framework. However, it should be recognised that comparisons between NHS Boards should be treated with some caution because:

- The size and scope of each Board's estate has historically developed in different ways over time.

- Increased spending can be a result of an improvement initiative.

- Boards may use different service delivery models to suit local circumstances i.e. number and type of duties carried out by domestic services staff may vary from site to site.

- Smaller Boards will be unable to achieve the economies of scale evident in the larger Boards.

- There are different specifications between Boards in the scope of each service.

- Allocation of costs between services and sites may not be uniform.

- Annual variances in non-recurring expenditure may distort operational KPIs i.e. expenditure on backlog incorporated within annual property maintenance costs.

- The introduction of new initiatives which improve performance take time to implement across NHSScotland.

- Clinical complexity / specialist services vary between hospitals and may drive cost differentials i.e. specialist clinical activity may result in higher clinical waste quantities and costs.

- Differences in pay and supplies costs across geographic areas i.e. some Boards may incur higher cost arising from remote and rural locations.

NHS Board	Properties categorised as either A or B for Physical Condition	Properties categorised as either A or B for Quality	Positive response on patient rating of 'hospital environment'	Percentage of properties less than 50 years old	PAMS Quality Checklist Score (%)	Overall compliance score from SCART	Cost per square metre for backlog maintenance	Percentage of significant and high risk backlog maintenance	Properties categorised as either A or B for Functional Suitability	Properties categorised as 'Fully Utilised' for space utilisation
NHS Greater Glasgow & Clyde	73%	57%	85	86%	72%	73%	246	58%	67%	88%
NHS Lothian	54%	76%	88	65%	83%	84%	97	73%	77%	75%
NHS Tayside	58%	92%	91	69%	69%	76%	138	62%	82%	84%
NHS Grampian	62%	72%	91	63%	84%	59%	338	25%	69%	90%
NHS Fife	79%	71%	84	73%	71%	86%	179	39%	80%	81%
NHS Ayrshire & Arran	48%	82%	89	71%	80%	72%	307	21%	88%	69%
NHS Lanarkshire	80%	73%	80	92%	78%	91%	183	29%	71%	90%
NHS Highland	34%	43%	94	97%	61%	62%	237	29%	28%	40%
NHS Forth Valley	85%	85%	91	91%	75%	70%	81	16%	89%	95%
NHS Dumfries & Galloway	63%	50%	88	69%	80%	71%	526	56%	57%	47%
NHS Borders	98%	67%	89	93%	71%	83%	77	32%	63%	98%
NWTCB - Hospital	94%	93%	99	100%	72%	89%	7	3%	93%	100%
Western Isles	92%	98%	97	88%	75%	95%	25	38%	97%	96%
The State Hospital	100%	100%	-	98%	72%	95%	14	38%	100%	88%
NHS Shetland	61%	68%	91	53%	80%	65%	110	64%	72%	98%
NHS Orkney	24%	75%	90	68%	74%	71%	667	20%	49%	53%
NHS Board Average 2015:	**65%**	**70%**	**90**	**77%**	**75%**	**78%**	**206**	**45%**	**72%**	**81%**

The size, scope and historical development of each Board's estate influences the 2011 starting performance base indicator and thus continues to impact on Boards' variation from the NHS Board Average.

Backlog in this table includes the cost impact of inflation.

The NHS Board Average 2015 excludes NHS Special Boards

The Patient questionnaire data remains unchanged since 2014 as the national survey now takes place every two years.

NHS Board	Building Area sq.m per Consumer Week	Cleaning Costs £ per sq.m	Property maintenance costs £ per sq.m	PPP Service Charge Costs £ per sq.m	Energy Costs £ per sq.m	Rates Costs £ per sq.m	Catering Cost £ per consumer week	Portering Costs £ per consumer week	Laundry & Linen Cost £ per consumer week	Waste Cost £ per consumer week
NHS Greater Glasgow	3.5	37.6	27.4	57.6	32.5	11.2	83.4	60.7	33.1	12.8
NHS Lothian	3.4	41.8	27.4	177.8	29.1	10.8	89.1	48.9	26.3	8.2
NHS Tayside	4.5	35.8	28.6	70.3	25.2	11.2	81.6	62.4	36.7	10.0
NHS Grampian	3.9	63.1	30.7	33.5	37.7	11.7	78.4	56.8	25.3	15.8
NHS Fife	4.4	34.8	21.2	68.9	17.2	12.5	81.5	49.0	27.4	12.4
NHS Ayrshire & Arran	3.0	42.0	54.7	114.9	24.8	8.3	85.8	62.9	43.7	11.3
NHS Lanarkshire	2.2	45.3	77.5	291.8	30.2	17.9	95.6	32.7	42.7	12.7
NHS Highland	3.5	45.8	35.0	192.5	41.3	17.5	104.2	42.5	26.6	12.6
NHS Forth Valley	3.1	43.8	44.9	186.4	31.6	22.4	87.9	30.1	32.6	10.5
NHS Dumfries & Galloway	3.1	58.8	51.1	32.0	33.5	14.0	105.1	26.6	43.0	16.3
NHS Borders	3.0	47.8	43.8	0.0	28.0	14.5	75.6	28.9	24.1	10.3
Golden Jubilee	7.9	25.9	45.4	0.0	43.4	17.9	85.5	71.6	64.3	44.2
State Hospital	3.5	55.4	34.8	0.0	33.6	24.1	110.5	21.2	8.6	5.5
NHS Western Isles	3.4	46.3	41.8	0.0	48.8	26.1	105.4	34.5	34.2	14.3
NHS Shetland	3.4	74.6	84.9	0.0	63.8	22.2	186.4	100.4	51.1	13.7
NHS Orkney	3.2	61.9	88.6	0.0	66.3	22.7	109.2	49.0	38.9	17.5
NHS Scotland 2014 Cost Book Average	3.50	42.36	34.67	159.4	30.65	12.76	87.23	51.20	32.80	12.06

Comparisons between NHS Boards should be treated with some caution for the reasons outlined at the beginning of this section.

Cost information is sourced from the latest Cost Book data for 2013/14.

PPP Service Charge Costs are derived from Boards annual accounts and their proportion of PPP accommodation. Service charges may incorporate more services for different buildings / Boards

2.4.3 Current status of Backlog Maintenance

The current backlog maintenance expenditure requirement is the base cost required to bring those parts of the existing estate which are currently not in satisfactory condition, back to Condition B (satisfactory). It is, however, only a singular reference to understanding the current state of the estate and should not be considered in isolation to other important indicators such as the physical condition, age, and functional suitability of available accommodation; as described earlier in the National Asset and Facilities Performance Framework.

The 2015 backlog maintenance expenditure requirement is reported as £898m, which is an increase of just over £100m since 2014. This increase includes a readjustment to the cost base of £90m to account for the impact of inflation on maintenance works costs. It further includes a real term reduction of circa £40m from the majority of NHS Boards' backlog position this year, but this is set against newly identified backlog of circa £50m reported by NHS Greater Glasgow & Clyde following recent surveys being carried out. This position is however expected to improve in future years when backlog associated with identified surplus estate is removed following completion of the new Queen Elizabeth University Hospital.

The following chart provides a breakdown of the current total £898m of backlog maintenance across each NHS Board:
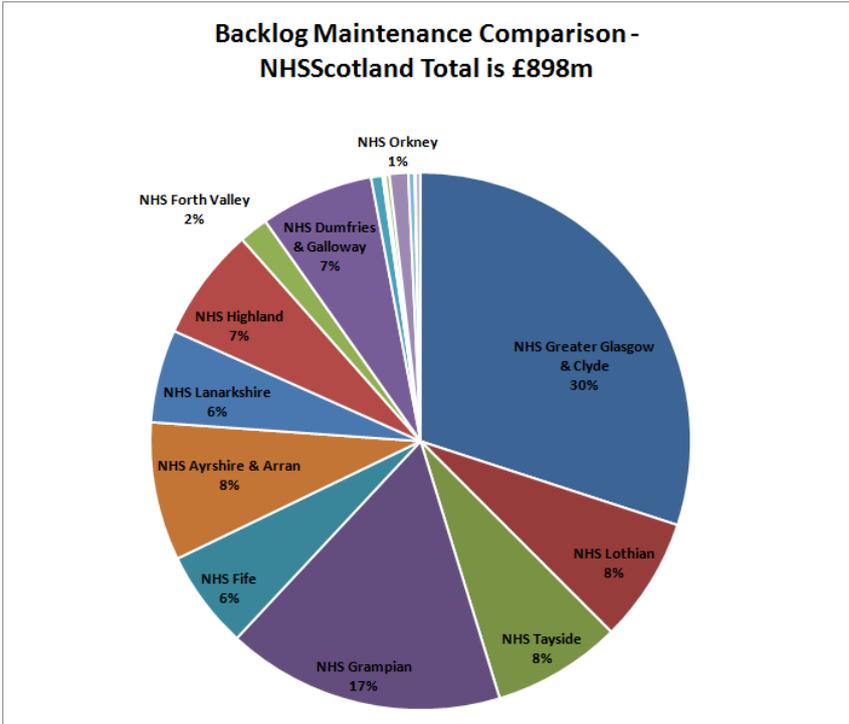
Note: the above chart includes all 22 NHS Boards and Special NHS Boards but those whose backlog is below 1% have not been separately identified for clarity of presentation reasons only.

Improved asset management practice introduced since 2010 requires that all identified backlog maintenance is risk assessed so that appropriate mitigation actions can be implemented and maintenance activity can be logically planned and prioritised. This

provides the necessary governance arrangements to enable the expected life of property elements to be extended and backlog to be managed in a safe and financially sustainable manner.
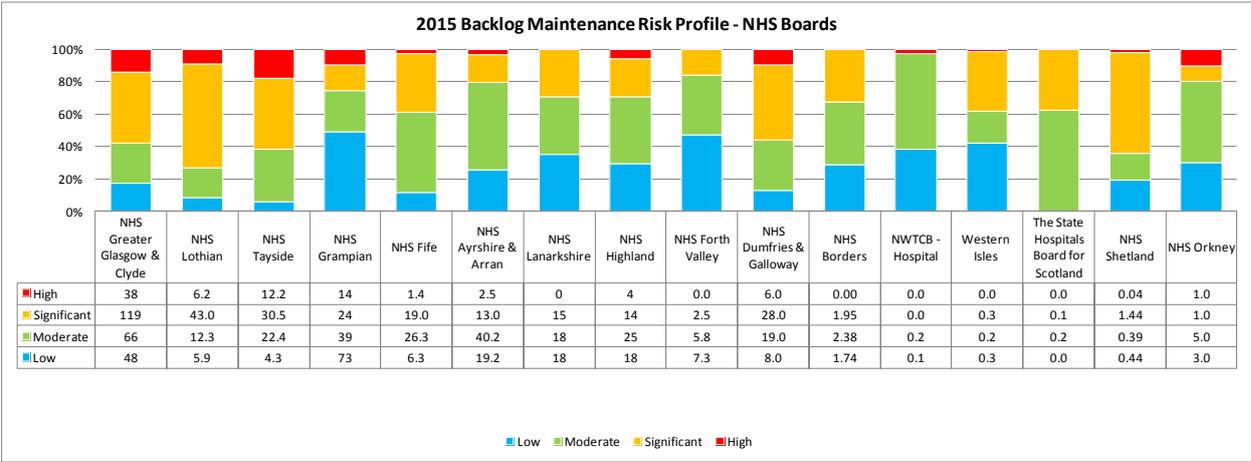
The total backlog in the estate has been risk assessed and the results of this are shown in the chart that follows.
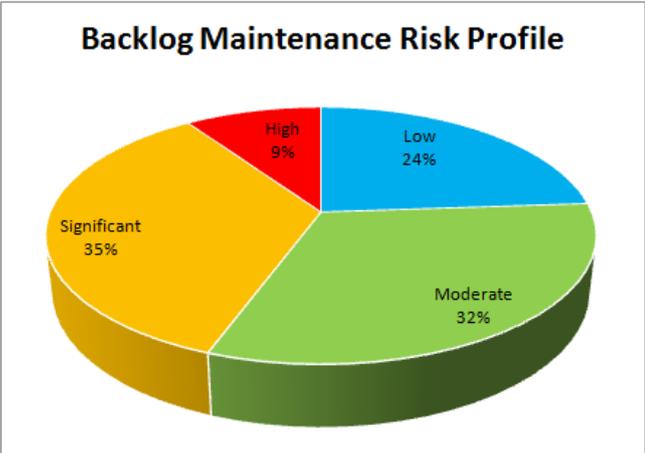
The proportion of Significant and High risk backlog maintenance has reduced from 47% reported in 2014 to 44% reported this year. This is mainly attributable to High risk reducing from 12% to 9%. This suggests that NHS Boards' investment & disposal strategies are aligned with the need to reduce these aspects of backlog maintenance.

NHS Boards are continuing to review their current risk assessments to ensure that they appropriately reflect the level of risk to service and business continuity once adequate mitigation actions have been introduced to manage these risks. This has the potential of reducing the current risk profile of outstanding backlog maintenance.

The variation in risk profile across the different NHS boards is highlighted in the following table:

2015 Backlog Maintenance Risk Profile - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
High	38	6.2	12.2	14	1.4	2.5	0	4	0.0	6.0	0.00	0.0	0.0	0.0	0.04	1.0
Significant	119	43.0	30.5	24	19.0	13.0	15	14	2.5	28.0	1.95	0.0	0.3	0.1	1.44	1.0
Moderate	66	12.3	22.4	39	26.3	40.2	18	25	5.8	19.0	2.38	0.2	0.2	0.2	0.39	5.0
Low	48	5.9	4.3	73	6.3	19.2	18	18	7.3	8.0	1.74	0.1	0.3	0.0	0.44	3.0

Although backlog is identified as an expenditure requirement, in practice it is likely to be addressed by a combination of:

- Estate rationalisation and disposal of older properties avoiding the need for expenditure on backlog. The scope of planned disposals over the next 5 years is outlined in Section 4.

- Replacing older properties with new facilities and avoiding the need for expenditure on backlog e.g. the estate rationalisation to follow the completion of the Queen Elizabeth University Hospital in Glasgow and further estate rationalisation once the new hospital replacement projects are completed in Dumfries and Orkney.

- Incorporating backlog works within major redevelopment, modernisation and refurbishment projects e.g. improvements to inpatient accommodation at Aberdeen Royal Hospital, Royal Edinburgh Hospital, and Ayrshire Central Hospital.

- Undertaking specific projects to target the high and significant backlog.

- Incorporating backlog work within operational repair and cyclical maintenance.

These strategies have been used to reduce the backlog maintenance expenditure requirement since a total figure of £1,010m was first reported in the 2011 SAFR. The following table provides a summary of the progress that NHS Boards have made in reducing this backlog between 2011 and 2015 (i.e. excluding inflationary cost adjustments and any additional newly reported backlog in that period):

SAFR Reporting Year	Change to backlog costs since originally reported in 2011 SAFR (£m)
2011	1010
2012	911
2013	803
2014	702
2015	655

The table shows that NHSScotland has been able to successfully reduce the backlog maintenance expenditure requirement identified in 2011 by £355m to a total of £655m by 2015. However, as identified earlier, the total backlog expenditure requirement reported by Boards in 2015 is £898 million which takes account of the impact of inflation on maintenance costs as well as additional newly identified backlog over the same period. Hence, the backlog reported by Boards in any one year is a total figure which incorporates both the impact of their investment to reduce the backlog identified in previous years and any new backlog and cost adjustments identified within the year.

It should also be recognised that newly identified backlog in buildings and engineering systems is an inevitable consequence of aging buildings that occurs as a result of:

- Building and engineering elements coming to the end of their operational life, which can vary significantly depending on the element – engineering components and systems can have relatively short operational lives with most requiring replacement within 20 years whereas building elements tend toward longer operational lives of up to 60 years.

- Variations in normal day to day operational usage which can result in shorter than expected operational lives of elements and in some cases unpredicted failure of systems and the need for earlier than expected replacement.

The following chart uses the original backlog figure reported in the 2011 SAFR to track the actual annual change in this backlog (i.e. excluding the impact of newly reported backlog or inflation) up to 2014/15, and then plots future reductions needed to meet the aspirational target of reducing this to below £500m by 2020 and with no outstanding High risk backlog maintenance:

Past and Projected Backlog Maintenance Expenditure Requirement (excluding new backlog & inflation)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Low & Moderate risk	465	501	458	374	367	364	360	357	353	350
Significant risk	313	255	257	246	229	213	198	182	166	150
High risk	232	155	88	83	59	47	35	24	12	0
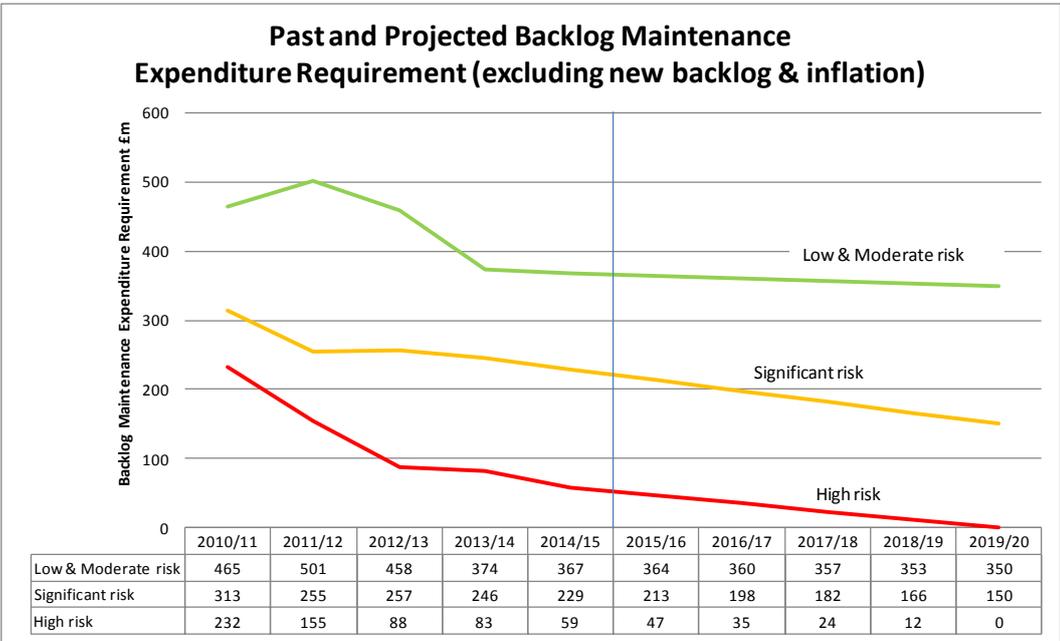
* excluding newly reported backlog & inflation

The chart shows that the reductions in this backlog this year (2014/15) is generally in line with that forecast necessary to achieve the aspirational target for 2019/20. However, in future years the growing level of new backlog will also need to be considered

It is recognised that in practice new build and refurbishment / upgrade schemes will inevitably also reduce low and moderate risk backlog when, for instance, this backlog is in the same building/area in which the high and significant risk backlog is present, hence, it is accepted that some reduction in low and moderate risk backlog will continue

to take place in parallel with the reductions in high and significant risk backlog and is a practical consequence of undertaking works in buildings.

In summary, whilst this analysis and projections of future backlog provides a high level indication of how backlog might be reduced over the next few years, it needs to be recognised that in practice it is very difficult to accurately project changes in backlog in existing buildings, and timings for estate rationalisation can be influenced by a number of factors including operational priorities and market forces (in relation to disposals).

Future SAFR reports will continue to monitor annually how Boards are actually reducing their overall backlog as well as the risk profile of that backlog.

2.4.4 Asset Performance for Office Accommodation

The NHSScotland Smarter Offices Programme was established in October 2013 with the aim of supporting improved utilisation of office accommodation across the NHS estate by supporting NHS Boards and Special Boards in the development of a strategic approach to their office accommodation. This expected to gain the following benefits:

- Provision of affordable support accommodation to the NHS that is better able to respond to future changes in strategic direction

- Improved quality of working environment which facilitates the retention and recruitment of staff

- Improved availability of staff welfare facilities promoting positive staff morale.

- Flexible, well designed, efficient space that is able to cope with uncertainty around future property needs, support opportunities to change working practices, and introduce new technology

- Supporting Scottish Government environmental sustainability agendas through the appropriate procurement, design and operation of its property assets.

- Maximised opportunities for staff to develop and deploy their knowledge, skills and personal qualities creatively to add value to the organisation.

- More integrated/collaborative working and thereby encourage better use of skills and resources.

- Synergies from shared use of accommodation and support services.

By drawing on wider research undertaken by UK Government, the Programme has developed a set of performance measures covering workplace standards and benchmarks which this report has adopted as the Office Performance Framework. This includes setting a benchmark of 8sq.m. per Whole Time Equivalent (WTE) (i.e. space per person) for new and refurbished office space and 10sq.m. per WTE for all other office accommodation. It also includes a Desk to WTE of 80% (i.e. desks per person).

The tables over the page show NHS Boards' position in relation to these benchmarks, as well as the annual change in costs associated with this accommodation type. For territorial health boards there appears some scope for improvement in both of the space KPI benchmarks; with an average space per WTE of 14.5 sq.m. and a desk to WTE of 104%. This is, however, affected by these Boards using older parts of the estate for their main office accommodation which is less flexible for agile working practices yet is more cost effective. Many of the Special Health Boards who are more likely to use modern office accommodation are much closer or better than the KPI benchmark standards. Costs associated with all office accommodation will continue to be monitored to ensure ongoing cost effectiveness.

| NHS Board | Space Standard (sq.m NIA) | | Desk to WTE/FTE % | Accommodation Budget Costs inc VAT: 2014/15 | | | | | | | Annual Change |
	WTE/FTE	Desks		Rent £ per m2 NIA	Rates £ per m2 NIA	Service Charge £ per m2 NIA	Hard FM £ per m2 NIA	Soft FM £ per m2 NIA	Energy £ per m2 NIA	Total Costs £ per m2 NIA	Total Costs £ per m2 NIA
NHS GG&C	21.6	19.8	109%	29	21	0	29	20	22	120	6
NHS Lothian	12.1	10.8	112%	153	49	21	4	24	16	266	44
NHS Tayside	13.2	12.9	103%	96	15	0	11	25	20	167	-11
NHS Grampian	14.1	13.0	108%	39	43	0	24	16	31	154	-74
NHS Fife	15.4	14.0	110%	8	23	0	5	5	24	66	-3
NHS Ayrshire & Arran	13.6	12.4	110%	32	19	0	9	6	8	73	-13
NHS Lanarkshire	5.5	6.8	81%	0	25	0	26	10	17	78	-21
NHS Highland *	8.8	8.2	107%	123	63	2	8	6	30	232	0
NHS Forth Valley	16.2	15.6	104%	56	28	9	32	14	22	161	18
NHS Dumfries & Galloway	18.4	20.8	88%	15	10	0	14	11	21	71	2
NHS Borders	12.3	10.4	119%	22	31	0	8	10	26	97	18
NHS Western Isles	9.5	9.2	103%	31	67	0	14	74	10	196	-59
NHS Shetland	11.8	11.8	100%	5	18	0	2	8	24	57	-54
NHS Orkney	9.3	8.0	116%	156	66	0	17	15	16	271	-18
NWTC/Golden Jubilee	11.4	9.7	117%	0	25	0	34	68	45	172	68
The State Hospitals Board	47.4	45.2	105%	0	32	0	19	9	24	84	12
NHS BOARD TOTAL / AVERAGE	14.5	13.9	104%	46	27	3	18	15	20	129	-2

| NHS Special Board | Space Standard (sq.m NIA) | | Desk to WTE/FTE % | Accommodation Budget Costs inc VAT: 2014/15 | | | | | | | Change |
	WTE/ FTE	Desks		Rent per m2 NIA £	Rates per m2 NIA £	Service Charge per m2 NIA £	Hard FM per m2 NIA £	Soft FM per m2 NIA £	Energy per m2 NIA £	Total Costs per m2 NIA £	Total Costs per m2 NIA £
NHS National Services Scotland	9.5	9.1	103%	241	76	11	23	28	34	412	24
NHS Education for Scotland	9.6	9.1	106%	195	96	79	0	8	16	394	-1
Healthcare Improvement Scotland	11.1	10.1	110%	246	90	40	21	39	23	458	54
NHS Health Scotland	10.3	10.9	94%	287	92	0	25	29	38	472	15
Scottish Ambulance Service	10.3	12.3	84%	100	55	3	21	17	11	206	-30
NHS 24	7.8	11.1	71%	162	63	21	42	34	58	380	60
SPECIAL NHS BOARD TOTAL/AVERAGE	9.3	9.8	95%	213	77	23	23	26	33	395	25

2.5   Property and Asset Management Strategies (PAMS)

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 Boards in developing their PAMS.

A Property and Asset Management Strategy (PAMS) is the key strategic document for demonstrating how each NHS Board is performing against ongoing policy objectives both now and in the longer term. The Performance Framework also includes an average score for PAMS quality (KPI No 5). This results from a detailed review of each Board's PAMS.
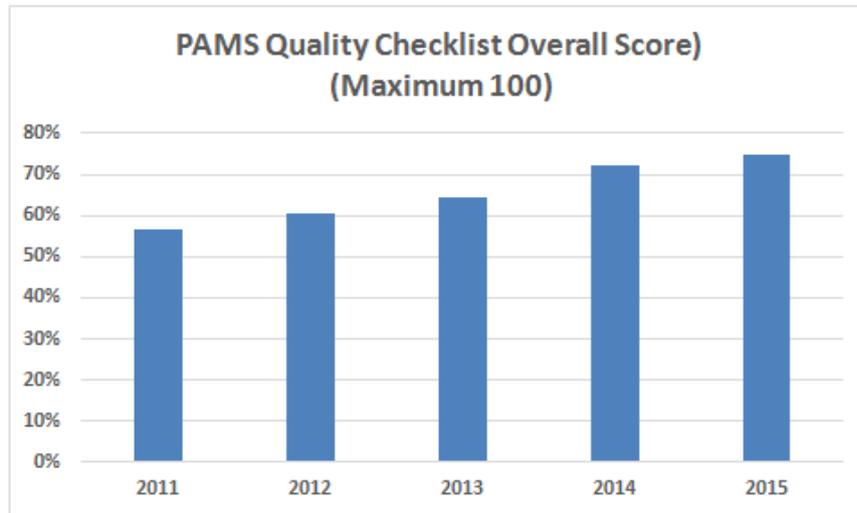
2.5.1 Review of PAMS submitted in 2015

The State of NHSScotland Assets and Facilities Report provides an opportunity to review and compare each Board's PAMS to ensure that their strategic plans are aligned with NHSScotland's strategic investment priorities, and that proposed changes to their asset base will deliver tangible benefits to the delivery of health and care services whilst also improving the condition and performance of those assets.

The PAMS that were submitted in June 2015 demonstrate a strong understanding of the current status and performance of Boards' property assets but more could be provided on how this is informing their investment plans. There appears however a clearer appreciation of the importance of service need in driving forward their strategic plans, and also how investment decisions need to involve a wide range of stakeholders. This helps to demonstrate how their strategic investment plans are fully supported by stakeholders whilst continuing to support delivery of the route map towards NHSScotland's 2020 Vision and other strategic plans. More explanation is needed of the current status of associated general practice arrangements to better to inform their primary and community care strategies.

Boards also appear clear on their plans to further rationalise the estate to reduce backlog and are taking action to improve the efficiency and effectiveness of existing property assets. Further information may be necessary on how asset management risks are governed within each Board.

Overall, this year's PAMS have shown a continued improvement in their content and quality which is highlighted in the following chart over the page:

PAMS Quality Checklist Overall Score)
(Maximum 100)

Year	Score
2011	~57%
2012	~61%
2013	~65%
2014	~72%
2015	~75%

It should be recognised that this year's review of all NHS Boards' PAMS was based on an extended set of requirements and the scoring criteria was also adjusted. This makes comparisons with previous years' results more difficult. However, there does remain some degree of parity in the overarching assessment of what is expected of a quality strategic document for the planning and investment in a Board's PAMS and thus the comparative chart above has been retained.

The criteria used to assess each Board's PAMS are indicated below:

	Overall Score:
(red)	0
(grey)	1 - 9%
(orange)	10 - 49%
(yellow)	50 - 69%
(green)	70 - 79%
(blue)	80 - 100%

These criteria were used in the PAMS assessment results shown in the chart overleaf:

	Where are we now?	Where do we want to be?	How do we get there?	Implementation	Overall
NHS Ayrshire & Arran	Blue	Blue	Green	Green	Green
NHS Borders	Green	Yellow	Green	Green	Green
NHS Dumfries & Galloway	Blue	Blue	Green	Green	Blue
NHS Fife	Yellow	Yellow	Green	Yellow	Green
NHS Forth Valley	Green	Green	Green	Blue	Green
NHS Greater Glasgow & Clyde	Green	Yellow	Green	Green	Green
NHS Grampian	Blue	Blue	Blue	Yellow	Blue
NHS Highland	Yellow	Yellow	Yellow	Green	Yellow
NHS Lanarkshire	Green	Green	Green	Green	Green
NHS Lothian	Blue	Blue	Blue	Blue	Blue
NHS Orkney	Green	Green	Green	Yellow	Green
NHS Shetland	Green	Green	Blue	Yellow	Green
NHS Tayside	Yellow	Yellow	Green	Yellow	Yellow
NHS Western Isles	Green	Green	Green	Green	Green
NHS NWTC	Green	Green	Green	Green	Green
State Hospital	Green	Green	Green	Yellow	Green
NHS Education for Scotland	Green	Blue	Green	Blue	Green
NHS 24	Green	Green	Green	Green	Green
National Services Scotland	Blue	Blue	Blue	Blue	Blue
Scottish Ambulance Service	Blue	Green	Green	Yellow	Green

Note: NHS Health Scotland and Healthcare Improvement Scotland are not shown in the above table as their position was unchanged in relation to PAMS in 2015.

3.0 The annual cost of Assets and Facilities Services

The revenue and lifecycle costs associated with asset ownership and use represent a considerable proportion of NHSScotland budgets. This section of the report provides a summary of the annual cost (based on 2013/14 Cost Book data) of asset ownership and facilities management services. Whilst this section provides some comparative information on annual changes, more detailed information on performance trends was described earlier in Section 2.4.

3.1 Property Assets and Facilities Services - Annual Costs

There are significant annual revenue costs that are directly associated with property asset ownership including:

- Property Maintenance - regular day to day maintenance including revenue expenditure on backlog but excluding major capital expenditure on upgrading/refurbishment and backlog works)

- Energy

- PFI Facilities Management Costs (primarily Hard FM)

- Rent and Rates

- Cleaning

There are also a range of facilities management services costs that are closely associated with property asset ownership including:

- Catering

- Portering

- Laundry and linen

- Waste disposal

The annual property and facilities services costs for the last three years, and which are within the scope of the SAFR, are shown in the table that follows (excludes Special Boards and the non-hospital estate).

	Annual Property Asset and Facilities Services Expenditure (£)			
	2011/12	**2012/13**	**2013/14**	**Percentage Change 12/13 to 13/14**
Property Maintenance (capital and revenue costs)	117,679,791	123,457,925	119,102,656	**-4%**
Cleaning	117,425,095	119,750,871	122,115,049	**2%**
PFI Facilities Management Costs	106,949,026	117,745,007	115,931,448	**-2%**
Catering	81,039,194	84,888,978	85,620,045	**1%**
Energy	89,688,057	104,689,012	105,294,975	**1%**
Rent	9,028,816	14,649,596	19,916,172	**36%**
Rates	46,071,140	50,919,886	43,846,693	**-14%**
Portering	47,532,728	48,637,007	50,262,304	**3%**
Laundry and linen	33,566,916	32,120,687	32,196,777	**0%**
Waste Disposal	10,779,203	11,829,875	11,837,003	**0%**
Total	**659,759,966**	**708,688,844**	**706,123,122**	**-0.4%**
Annual Change		**7.4%**	**-0.4%**	

Note: The above table excludes depreciation on property asset; costs associated with Community and Family Health Services, and energy costs exclude costs associated with environmental taxes and levies e.g. EU ETS Payments. Further details relating to energy costs are provided in Annex C.

There has been a reduction in overall expenditure from last year of 0.4%, with only a slight increase in expenditure for cleaning, catering, energy, rent and portering.

Previous work on SAFR has identified that these property assets and facilities services costs are primarily (but not exclusively) driven by building size (volume/area) and patient activity (as measured by consumer weeks). The change in these primary cost drivers, and the number of hospitals, is shown in the table that follows.

	2012/13	**2013/14**	**Percentage Change 2012/13 to 2013/14**
Number of hospitals	228	220	-3.5%
Building Area used for measuring cleaning costs (sq.m)	2,974,584	2,882,805	-3.1%
Consumer weeks	1,016,582	981,595	-3.4%
Annual Property Asset and Facilities Services Costs	708,688,844	706,123,122	-0.4%

The table shows that small decrease in expenditure on assets and facilities has been at a time when the property assets has been decreasing in terms of both the number of hospitals, the hospital building size (area) and reduced inpatient activity (consumer

weeks). However, it should be recognised that whilst inpatient activity (as measured by consumer weeks) has reduced there has been corresponding increases in the number of patients treated as outpatients or on a day case basis.

3.2   Vehicles – Annual Costs

NHSScotland's estimated annual expenditure on its vehicles assets, as indicated through NHS Board information returns, is shown in the table below.

Annual Expenditure on Vehicle Assets				
Description	£	% of Total	No. of Vehicles	Average per Vehicle
Insurance & accident costs (net cost)	£5.6m	10.64%	10,151	£555
Fuel costs	£13.2m	24.83%	10,151	£1,296
Maintenance & servicing costs - owned vehicles	£7.88m	14.86%	1,932	£4,078
Leased vehicle costs (including maintenance)	£5.48m	10.34%	2,516	£2,179
Hired vehicle costs	£1.14m	2.15%	155	£7,350
Staff car scheme lease costs (including maintenance & mileage claims)	£19.70m	37.18%	5,548	£3,552
Staff contribution towards private use	-£10.45m	-	5,548	(£1,884)
Total Net Costs 2015	£42.55m	100%	10,151	£4,191
Total Net Costs 2014	£36.44			£3,341

Note: excludes capital charges and depreciation on owned fleet.

In addition to the above, many NHSScotland staff use their private vehicles for official business and claim fuel and running costs of circa £26m through expenses claims.

The annual change in total expenditure on vehicle assets includes lower insurance and staff car scheme costs but higher maintenance costs (mainly due to better information returned on this cost indicator).

The Transport & Fleet Management Review is continuing to look at ways in which improvements can be made to the efficiency and effectiveness of this fleet aimed at reducing these operational costs (see Annex G for further details).

3.3   Medical Equipment – Annual Costs

Medical equipment use requires operational (revenue) costs for associated consumables and accessories, for routine scheduled maintenance and for breakdown maintenance. The survey explored these operational costs that, together with the acquisition and installation costs, form the total cost of ownership (COO) of the equipment. Consumable and accessory costs are typically charged to individual departments and no central records will cover all these costs. In most cases maintenance costs (scheduled and unscheduled) are easier to identify. Maintenance is provided through a combination of in-house staff and external service suppliers, the later often through service contracts. Efforts are being made through robust negotiations to fix maintenance costs, in some cases for up to 10 years, to reduce the total cost of ownership of medical devices. The annual maintenance expenditures reported by Boards is shown in the table that follows.

Description	2014 Expenditure (£)	2015 Expenditure (£)	% of Total
Maintenance expenditure (excluding cost of in-house teams) on:			
Renal Dialysis Equipment	529,932	452,760	1%
Cardiac Defibrillators	195,712	226,065	0.4%
Flexible Endoscopes	3,607,562	4,935,566	8%
Infusion Devices	327,359	602,465	1%
Radiotherapy Equipment	1,536,532	1,155,164	2%
Imaging Equipment	12,382,153	11,669,627	20%
All other Medical Equipment	18,159,652	16,008,418	27%
Lease costs (including associated maintenance etc)	757,835	949,059	2%
Annual payments (including maintenance etc) for managed equipment services and private finance arrangements (excluding Laboratory managed services)	2,991,420	3,312,914	6%
Cost of in-house teams responsible for management of medical equipment	9,517,198	12,537,847	21%
All other revenue based expenditure on medical equipment (excluding consumables & accessories)	5,446,755	7,792,235	13%
TOTAL ANNUAL EXPENDITURE ON MEDICAL EQUIPMENT:	**55,452,110**	**59,642,121**	**100%**

Annual changes in the above costs include a changing operational need for maintenance, better reporting of costs, and the impact on annual inflation and salary increases.

As with property assets, there is a need to balance investment between ongoing annual maintenance of medical equipment, investment in its lifecycle replacement and investment in new innovative developments that advance the cost effectiveness of health care, including the ability to provide health care in the community. These advances, some facilitated by integration with information and communication technology (ICT), offer patient benefits including improved patient care, improved quality of life for patients, care in the community, and for imaging equipment clearer sharper images with reduced radiation doses. Staff benefit from the improved equipment functionality, improved reliability, and ease of use as manufacturers respond to standards on ergonomics. As equipment life is relatively short (often less than 15 years) the level of maintenance needs to be sufficient to ensure its continued safety, availability and effectiveness within that period whilst accepting that other considerations, such as technical and clinical obsolescence, can influence the need to replace equipment earlier than planned.

3.4 IM&T – Annual Costs

The IM&T survey covering the base date of 2011/12 remains the most up to date national information available on the annual cost of IM&T assets. This identified that the overall level of expenditure by NHSScotland on IM&T in 2011/12 was £236.5m. Of this total, £213m was incurred on expenditure items of a revenue nature, with £23.5m incurred on capital expenditure. An analysis of the revenue expenditure is shown in the chart below.

The total revenue expenditure of £213m is split as follows:

- £57.5m (27%) of non-recurring expenditure by NHS Boards to support national systems and deliver eHealth strategic priorities.

- £91.5m (43%) of revenue expenditure by NHS Boards.

- £53m (25%) of revenue expenditure by Special Health Boards.

- £11m (5%) expenditure by the Scottish Government eHealth Division.

3.5   Summary of Total Annual Asset and Facilities Costs

The chart below provides an analysis of the combined total asset and facilities annual expenditure that has been described earlier. The combined expenditure of £1.022 billion is a small increase of less than 1% on the expenditure reported in the 2014 SAFR.
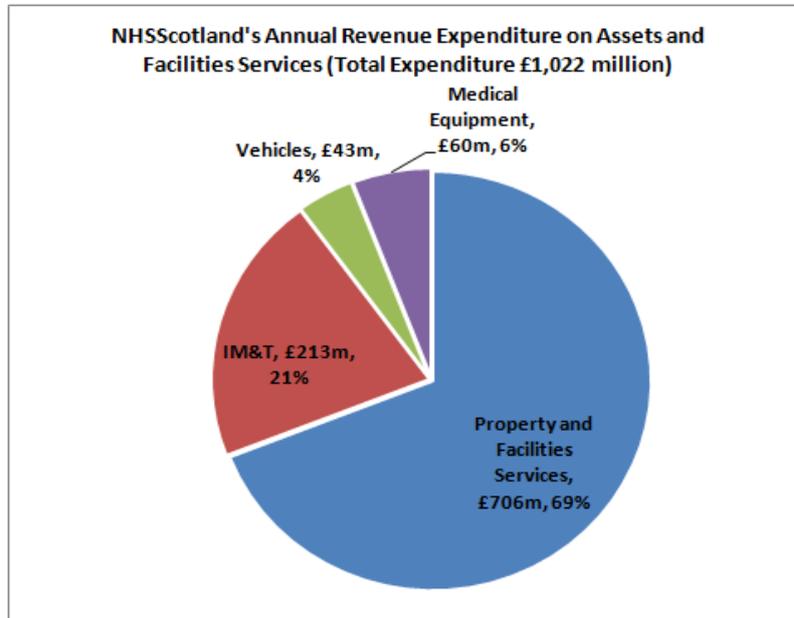
Notes: 1) Excludes capital charges and depreciation costs associated with asset ownership

2) Excludes any annual expenditure on lifecycle replacement and capital expenditure on backlog maintenance

3) Property & Facilities Service Expenditure is for the Hospital Estate only.

It should be noted that the above annual expenditure on assets excludes capital expenditure on:

- Replacement of existing assets – both major capital schemes (Board capital and NPD) and smaller schemes procured through hubco.

- Replacement of major existing assets - medical equipment, vehicles and IM&T – procured through revenue or Board capital.

- Major lifecycle maintenance/backlog such as boiler and major infrastructure and backlog replacement – procured through Board capital.

4.0 Planned future investment in assets

NHS Boards are planning investments in their assets over the next 5 years of circa £2.8bn (based on NHS Boards' 5 year investment plans presented in their PAMS). While parts of this programme of investments are subject to funding availability and approval, it does represent a significant opportunity to further improve the condition and performance of these assets. It will also further enhance the important supporting role that assets play in the delivery of quality healthcare delivery and NHSScotland's 2020 Vision. This investment will also enable the disposal of older properties which are expected to generate receipts of over £180m over the same period (subject to economic and market conditions).

This investment covers all asset types (property, medical equipment, IM&T, and fleet) and will be achieved through a combination of capital and revenue based investment. The following chart provides a breakdown of this investment.
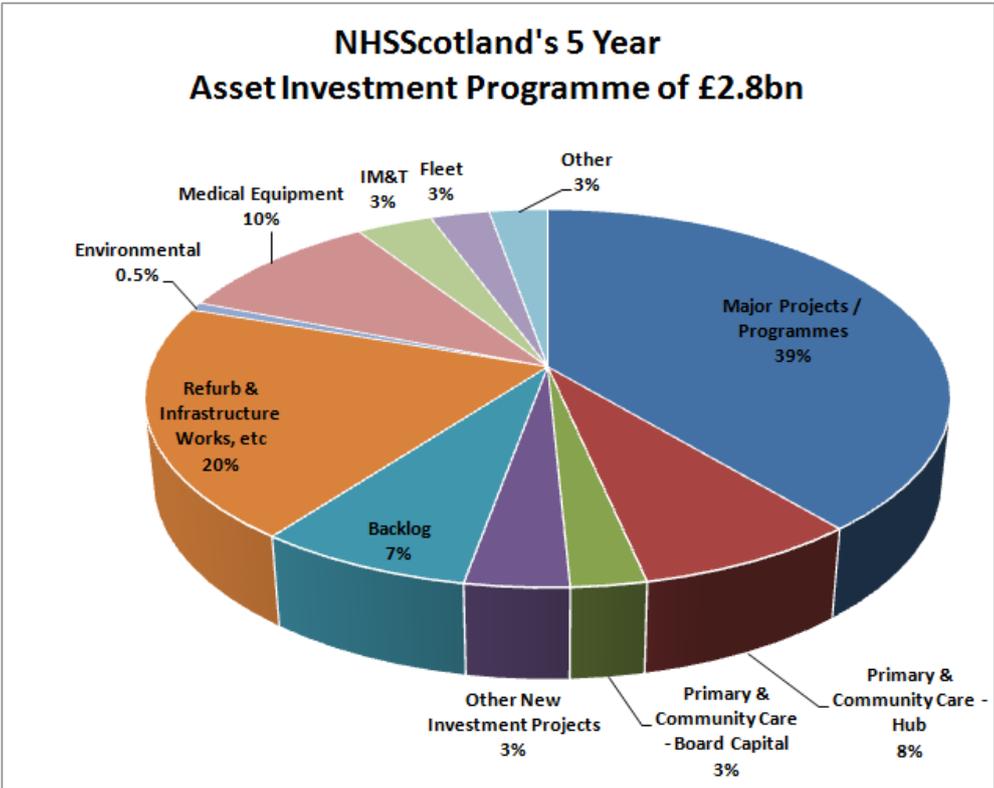
4.1   Investment in Major Projects / Programmes

Investment in 'Major Projects / Programmes' accounts for 40% of the overall planned future investment described above and includes the key strategic investments planned by each NHS Board. They will be funded mainly though NHS Board capital or NPD / hub revenue based funding.   The following chart provides a breakdown of the £1.1bn of investment associated with these major projects / programmes.

Total Investment in Major Projects / Programmes (£1.1bn)
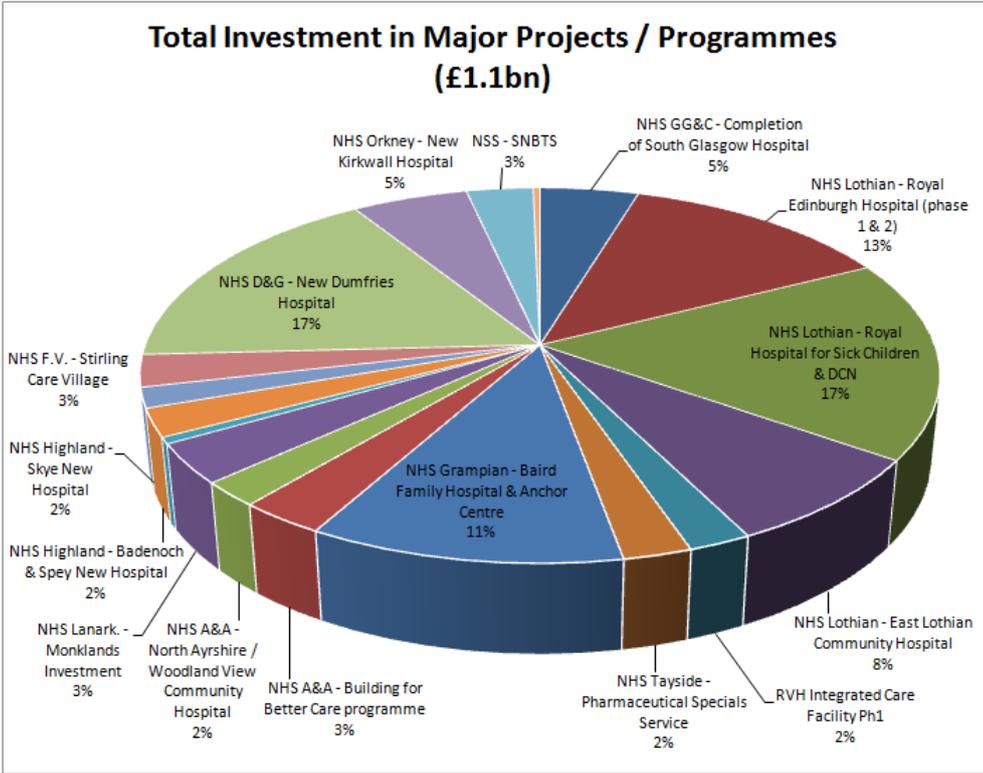
4.2   Investment in Primary and Community Care

In addition to the £1.1bn of investment on the major projects / programmes (which includes some larger Primary and Community Care projects) described above, a further £290 million is planned for new primary & community care projects. This investment is key to delivering the emerging Health and Social Care Integration agenda and shifting the balance of care from hospitals to local facilities and people's homes.

4.3   Income receipts from asset disposals

A direct consequence of investment in new facilities can often be a surplus of older accommodation no longer required for operational purposes. Boards have identified in their PAMS planned disposals of these surplus properties which they report expectations of generating income sale receipts of over £180m over the next 5+ years. Scottish Futures Trust is actively supporting NHS Boards to maximise the potential of income receipts from these disposals.

The programme of anticipated income receipts per NHS Board over the next 5+ years are listed in the following table, but these are subject to change dependent upon economic and market conditions at the time of sale.

NHS Board	Anticipated Future Income Receipts from Disposals (£m)
NHS Greater Glasgow & Clyde	43
NHS Lothian	65
NHS Tayside	9
NHS Grampian	19
NHS Fife	7
NHS Ayrshire & Arran	6
NHS Lanarkshire	14
NHS Highland	0
NHS Forth Valley	11
NHS Dumfries & Galloway	2
NHS Borders	1
NHS Western Isles	1
NHS Shetland	0.4
NHS Orkney	0
NHS National Services Scotland	5
Scottish Ambulance Service	1
NWTC	0.07
State Hospitals	0.20
TOTAL:	**183**

4.4   Investment required on vehicle assets

As described earlier in this report, many of the NHSScotland vehicles are leased and, therefore, the replacement cost of these vehicles is effectively included within the annual leasing costs. However, substantial vehicle assets remain owned, particularly those of the Scottish Ambulance Service, NHS National Services Scotland, NHS Tayside, NHS Fife, and NHS Borders. The current 5 year investment plan for vehicle assets, which is taken from NHS Boards' own investment plans and includes the Scottish Ambulance Service's vehicle replacement programme, is an average of circa £16m per annum. Earlier analysis of age profile suggests that there isn't currently a backlog of investment need for these assets.

4.5   Investment required on medical equipment assets

In relation to its overall £932m replacement value, during 2014/15 a total of over £65m was invested in medical equipment. This would theoretically result in complete replacement of all existing equipment within 14 years (most equipment tends to need replacing within 7-15 years). This is the third year that this investment benchmark analysis has been undertaken from NHS Boards' pro-forma return information, which has changed from a replacement cycle of 12 years to the currently reported 14 years (unchanged from last year). Further analysis of future trends, and improving the spend data returns, will be important to understand the full implications of medical equipment funding levels. Note though that rapid technological developments in some equipment, including high cost radiotherapy, imaging equipment (CT and MRI) and endoscopy equipment, which together account for approximately 40% of the total value of medical equipment, reduces the effective lifespan of this equipment to 7 to 10 years.

Implications of not replacing medical equipment within a reasonable period include:

- Outdated equipment does not take advantage of new innovations aimed at improving patient care.

- Lack of parts for maintenance grows as equipment ages beyond 7 years.

- A backlog of medical equipment replacement needs can result in a reactive replacement strategy that does not support standardisation or optimize replacement decisions.

- Medical equipment that is lower priority for replacement may extend its continued use and eventually create a build-up of backlog replacement need.

- Technical Departments are adept at extending the lifespan of medical equipment, but the extent to which this perpetuates is ultimately dictated by manufacturers, who do not necessarily have a commercial interest in extending the life of their legacy medical equipment for very long periods. There is a significant risk that the continued use of equipment after its planned

replacement date is jeopardised, with little or no warning of the issue of an 'End of life' notification by the manufacturer.

- Maintenance time increases as equipment ages due to routine breakdown/failures, leading to increased workload.

Further information is available at the end of Annex D on the scope and operational value of the main categories of medical equipment. Also, Annex J provides information on the future strategic planning of medical equipment.

## 4.6   Investment required on IM&T assets

NHS Boards are reporting planned expenditure on IM&T projects of circa £100 million over the next 5 years, which is similar to that reported in last year's SAFR. Further IM&T investment is also incorporated into some of the major investment projects associated with the refurbishment and replacement of property assets.

This expenditure is part of the overall eHealth Finance Strategy and, in addition, eHealth Directorate retained funds may also be used to contribute to refresh activities in relation to infrastructure.

In terms of the sufficiency of such investment, the annual investment in IM&T assets of £20m will meet the replacement value of these assets, currently estimated at £210 million, within circa 11 years. Careful management will be required to ensure that a build-up of infrastructure (network cabling, servers, etc.) backlog does not arise due to the increasing use of end user IM&T equipment, as well as the relatively short life of desktop and mobile equipment devices, which have the potential to outgrow the capacity of the infrastructure. This investment will also need to fund any additional investment in technology.

4.7   Summary of asset investment plans

The combined asset investment plans of circa £560 million per annum are shown in the chart below. Although presented as a single investment amount, in practice some of the capital requirement will be funded through revenue schemes such as NPD, hub and leasing arrangement.

Combined Future Asset Investment Requirements
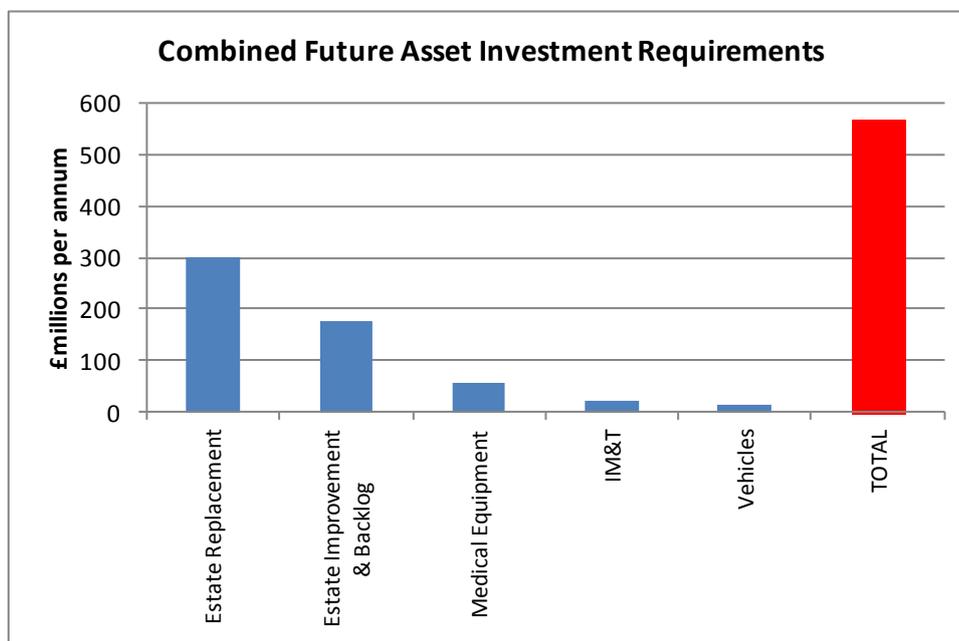
In addition to the investment requirements identified above there is expected to be further investment required to implement the recommendations of the Soft FM Review, environmental improvement investments, implementation of the Zero Waste Plan and the Waste Regulations 2012.

4.8   Key messages

The analysis of future asset investment requirements described in this section of the report has identified a number of key messages for Boards in terms of developing their future PAMS:

- NHS Boards should continue to focus their investment strategies towards reducing backlog maintenance of high and significant risk backlog.

- Estate rationalisation leading to disposal of surplus properties has the potential to:

    - Reduce currently identified and future backlog

    - Lower future operational costs (property maintenance, energy, cleaning etc.)

    - Reduce future investment requirements for estate replacement

- Estate rationalisation is a key tool for addressing backlog since it avoids increasing the base backlog cost by VAT, fees, contingencies etc. The

alternative approach of direct investment in eradicating backlog is costly and unlikely to be affordable as a long term strategy.

- 70% of annual recurring expenditure on assets is associated with the day to day operation and maintenance of the estate and the delivery of associated facilities services (£706 million per annum). Therefore, it is essential to focus on improving the performance on these services.

- Estate replacement projects have the potential to bring about significant change to way in which the existing estate is configured and how it might continue to support the delivery of healthcare services. These opportunities for strategic change should be at the heart of each NHS Board's decision making process for estate replacement projects.

- Investment plans should not ignore the requirements of the other assets, which need to be sufficient to ensure adequate replacement, but also for further investment in new medical equipment and technology that might introduce innovative solutions towards NHSScotland's 2020 Vision for quality healthcare provision, and potentially reduce reliance on continued investment in property replacement.

In addition to the investment in asset planned by individual Boards, there are also a number of national initiatives supported by the Scottish Government to invest in assets.

5.0 Forward Look to 2016 and 2017

5.1 Future State of the NHSScotland Assets and Facilities Reports

The work on future State of the NHSScotland Assets and Facilities Reports will continue to provide an opportunity to identify and find solutions to some of the issues and barriers to performance improvement that have been identified to date. They will focus on demonstrating success, and ensuring that important seeds are sown for the delivery of longer term benefits, performance and efficiency improvements in the assets and facilities services across NHSScotland.

More specifically, the development of the 2016 State of NHSScotland Assets and Facilities Report will:

- Continue to challenge and ensure pace, momentum and impact on asset and facilities performance in pursuit of the NHSScoltand Quality Ambitions and its 2020 Vision. This will include continued arrangements to review and provide feedback on the quality of Board's PAMS and changes in asset performance.

- Highlight Boards' expectations on the impact on assets in support of the new Integration Joint Boards.

- Highlight the improvements already made in asset and facilities performance that underpin delivery of the Quality Strategy and the 2020 Vision.

- Continue to monitor performance against the National Asset Performance Framework to measure national improvement towards the Quality Ambitions and the 2020 Vision.

- Align Boards' strategic plans with the new SCIM requirements; including the need for Strategic Assessments for all existing and new investment proposals, and the prioritisation of Boards' investment against NHSScotland's strategic investment priorities using the new Capital Planning System.

- Highlight opportunities for changes to NHSScotland's assets in support of service change and NHSScotland's developing clinical strategy which may project beyond the 2020 Vision.

- Continue to monitor the quality and consistency of information on assets and facilities, particularly in respect of the wider range of assets (vehicles, medical equipment and IM&T). This will include the implementation of further measures to improve the alignment of the ISD Cost Book with the operational assets and facilities information systems such as EAMS.

- Monitor how asset management workforce strategies are being developed to support implementation of proposals contained within Boards' Property & Asset Management Strategies and capital investment plans, particularly

reflecting on the impact of the national Capital Planning Review currently underway.

- Progress work on establishing a library of best practice case studies and presenting them in this report. The aim being to draw on the outcomes from these studies to provide an evidence base for informing decisions on future investment in assets and for modelling the potential for future performance improvement.

- Identifying and sharing lessons to be learnt from the delivery of NHSScotland's strategic investment programme; taken from Boards' project and service benefits evaluation reports.

- Continue to include the work and outcomes of the NHSScotland Soft FM and Shared Services reviews.

- Monitor Board's performance on delivering their PAMS and the impact that this has had on both Board and national level performance.

This annual report is, therefore, expected to continue to develop as the key reference document for monitoring asset and facilities services performance across NHSScotland.

Annex A
Case Studies

This annex of the report has been used since the first edition of SAFR in 2011 to highlight and share innovative solutions and best practice covering different aspects of managing assets and facilities services in NHSScotland.

The case studies are aimed at promoting and learning from good practice, and to provide the reader with information on actions being taken elsewhere in NHSScotland to deliver improvements in the performance, efficiency and sustainability of assets and facilities services. The following table provides a reference summary of previously published best practices, with information on which SAFR report can be referenced for further details.

It is envisaged that this section will continue to be a key feature of this annual State of NHSScotland Assets and Facilities Report, aimed at helping NHSScotland to develop capability and capacity to deliver high performing, efficient and sustainable assets and facilities services. Further examples of new case studies are provided after the following summary table. These have been selected for their potential for making a difference and which could be easily replicated more widely across NHSScotland.

Summary of Case Studies Published in SAFR since 2011:

NHS Board	Best Practice	Benefits	SAFR Year
Strategic & Service Planning			
NHS National Services Scotland	NSS were the first NHS Board in Scotland to use scenario planning to develop a PAMS that was agile and flexible to long term change.	The process provided a valuable insight into how future change could impact on the need for property and assets, and the decisions that the organisation is likely to face in the future in relation to these assets.	SAFR 2013
NHS Highland	The redesign of rehabilitation services across two inpatient sites in Fort William focussed on the patient journey using LEAN methodology and the need to centralise inpatient activity at the Belford Hospital and outpatient activity at the Health Centre.	This project has resulted in a vastly improved patient experience, improved conditions for staff, and reduced bed days. It also enabled a ward facility to become surplus to needs and freed for disposal	SAFR 2013
NHS Grampian	Following a thorough engagement and consultation process involving the public, the local population agreed that the existing Maud Hospital facility was no longer required, and they would be better placed with more community based services	The service redesign ensured that people had the opportunity to remain longer at home rather than occupying local hospital beds, and it also demonstrated a community approach to integration of services.	SAFR 2012
NHS Greater Glasgow & Clyde	The Board's Acute Service Review (ASR) aimed to modernise services across the City by renewing its acute healthcare facilities in tandem with a redesign of patient service delivery. The new Queen Elizabeth University Hospital was a pivotal phase of this strategy.	Enables 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.	SAFR 2011
NHS Fife	Following on from extensive public consultation, there was an identified need to change in-patient mental health services from three to two geographic locations.	This resulted in the re-provision of clinical service accommodation with modern, design award winning facilities which enabled the provision of care facilities which encourage social activity and interaction from within patient focussed, innovative and sustainable building environments.	SAFR 2011

NHS Board	Best Practice	Benefits	SAFR Year
Asset Management			
NHS Highland	NHS Highland have introduced an Enterprise Asset Management System to control the maintenance of its estate, integrating the functions of purchasing, maintenance, asset history, and contract maintenance.	It enables information to be available which can optimise future maintenance and replacement planning and enable condition based monitoring and reliability centred maintenance to be carried out. It is also improving planned to reactive maintenance workload ratios.	SAFR 2013
NHS Lanarkshire	NHS Lanarkshire's property investment and estates rationalisation plan involved a programme of replacing outdated service accommodation, centralising its corporate office function, and review all existing lease arrangements.	Better use was made of existing buildings and old facilities were replaced with more functionally suitable and better quality accommodation. The four year programme achieved a net floor space reduction of 9%, annual lease savings of circa £300k and a reduction in backlog of circa £12m.	SAFR 2012
NHS National Services Scotland	The refurbishment of a 1970's office building in the centre of Glasgow was the enabler towards the relocation of 415 NSS staff from 5 leased office properties across central Glasgow to a surplus Government building at Meridian Court.	It re-used surplus office space with a long lease, transformed a tired and non-functioning 1970's building, introduced a new working environment for staff which enable more flexible working, and reduced overall space needs.	SAFR 2012
Facilities Management Services			
NHS Forth Valley	Automated Guided Vehicles (AGV's) were incorporated into the new Forth Valley Royal Hospital in order to separate out staff and patient flows from visitor and FM services.	The intention was that this would reduce opportunities for cross infection, improve the hospital environment, enhance the patient experience, and promote a calmer, more therapeutic atmosphere. Also, by keeping patient flow separate from visitor and FM traffic, patients can be moved between wards or to theatre in a more controlled environment.	SAFR 2011

NHS Board	Best Practice	Benefits	SAFR Year
Energy & Environmental Management			
NHS Grampian	A new energy centre was commissioned to serve the current and future energy requirements of the Foresterhill Health Campus whilst also taking advantage of modern and more efficient CHP plant, biomass boiler and three dual fuel boilers.	This award winning project was designed to provide a 16% reduction in CO_2 emissions and a 39% reduction in energy costs.	SAFR 2012
NHS Greater Glasgow & Clyde	Glasgow undertook a review of its central laundry facilities in 2009 with the intention of developing more efficient processes for the recycling of the trade effluent and creating a sustainable use of both water and gas energy resources.	It has managed to achieve 70% water and 95% heat recovery from introducing these new processes, with an expected pay back of less than 3 years.	SAFR 2011
NHS Tayside	Ninewells in Dundee implemented an ongoing programme of investment in energy efficient lighting schemes to reduce energy waste and improve the building environment.	The scheme has contributed significantly to energy, carbon and financial savings, as well as enhancing comfort levels for patients and staff. The schemes are expected to have a payback of between 7 to 10 years.	SAFR 2011
NHS Ayrshire & Arran	A wide range of environmental, sustainable and renewable technologies were integrated into the new Girvan Community Hospital in order to minimise its environmental impact and reduce future revenue consequences without compromising on quality or functional suitability.	It was estimated that the building performance would lead to a reduction of 3% of NHS Ayrshire & Arran's current CO_2 emissions and was also expected to receive income from the installed wind turbine.	SAFR 2011
NHS Lothian	Installation of electrical supply voltage optimiser technology to reduce 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.	Savings in electrical energy consumption were expected to be between 9 – 12%.	SAFR 2011

NHS Board	Best Practice	Benefits	SAFR Year
Office based Strategies			
NHS National Services Scotland	Since 2011, NSS has embarked on a programme of further consolidating and rationalising its office estate with a specific focus on improving space utilisation, reducing recurring revenue costs, and creating agile and flexible working environments for staff.	The recurring revenue savings as a consequence of implementing the NSS programme of office consolidation and rationalisation from 2012 through to 2016 is projected to be £2.6m – a 25% saving over that period.	SAFR 2014
NHS National Services Scotland	NSS implemented a programme of mainly office based property rationalisation to support its strategic model of property provision since the year 2000	Improved building performance, improved quality of working environment, flexible working spaces, shared use of accommodation, and reduced revenue costs.	SAFR 2011
NHS Lothian	In 2010, NHS Lothian undertook a Clinical Accommodation Release Strategy (CARS) to create additional clinical accommodation on hospital sites currently used for office accommodation purposes.	Valuable clinical accommodation was freed up with resources directed towards front line service delivery. It also enabled better efficiency, improved working environment, and reduced energy consumption.	SAFR 2011
IM&T & eHealth			
NHS Lothian	NHS Lothian was one of the first Boards to introduce a single 'cradle to grave' electronic patient records system in Scotland incorporating 'Fairwarning Privacy Surveillence Solution'. This covered approximately 850,000 patients and 1.3m records. Part of this initiative was to encrypt all 4000 laptops and USB devices in order to prevent data loss.	This was part of the drive to prevent security breaches and data loss, and thus be able to provide assurance to patients that their data was in safe hands.	SAFR 2013
NHS Forth Valley	NHS Forth Valley was one of the leading NHS Boards in introducing electronic bed management into the hospital ward environment through its eWard system.	It provides medicines reconciliation on admission and discharge which improves patient safety and streamlines patient discharge medication and thus minimising delays to discharge. The bed management module improves the management of hospital capacity and discharge planning, thus removing the need for 'floor walking'.	SAFR 2012

NHS Board	Best Practice	Benefits	SAFR Year
Other Assets			
NHS Lothian	NHS Lothian expanded a pilot study in 2012 to create a centralised transport hub to coordinate all inpatient transport needs.	This resulted in all transport resources being used more efficiently and there is now stricter control over the booking of private ambulances.	SAFR 2014
Resource Efficient Scotland and the Scottish Futures Trust (SFT)	These two organisations are jointly delivering a project to work with various public sector organisations in Scotland who are in the process of decommissioning buildings, to understand the options available for re-use and redeployment of mobile assets.	Anticipated benefits include improved data on volume, tonnage and cost of the disposal of mobile assets within the public sector, and to enable better decisions to be made on the potential for re-use or redeployment of these assets rather than disposal.	SAFR 2014

Best Practice Case Study 1
Using Frameworks Scotland 2 for NHS Lanarkshire's Backlog Maintenance and Statutory Compliance Works Programme

A collaborative working relationship has been established through Frameworks Scotland 2 between NHS Lanarkshire, Graham Construction, and Currie & Brown. This approach brings benefits through the use of two new initiatives under Frameworks Scotland 2, the Lead Advisor role (comprising combined Project Manager, Joint Cost Advisor and NEC3 Supervisor services) and the new flexible Overarching Scheme Contract.

The objective of this works programme is to address backlog maintenance and statutory compliance risks across NHS Lanarkshire with a rolling programme of approximately £5m per annum. The programme uses a series of work task orders (WTOs) across the asset base. The work task orders are identified through ongoing condition surveys and strategic risk workshops.

The project team works collaboratively to develop and refine work task order briefs, design options, preferred options and construction proposals to produce solutions for each of the WTOs. The team is required to demonstrate value for money both in procurement and in fee allocations. Each of the WTOs is being delivered within a live clinical environment and the team must take into account the requirement for critical business continuity to be maintained throughout the delivery of the works.

The range of WTOs being delivered is diverse and relates to clinical priorities as well as Estates Asset Management System priorities. This therefore includes a variety of WTOs including roof repairs, treatment of Japanese knotweed, ligature reduction works, electrical testing, and fire safety works.

There is flexibility within the contract for selection of the most appropriate New Engineering Contract NEC3 Option (lump sum, target cost or in certain circumstances cost reimbursable) on each of the development and construction WTO stages. This is particularly beneficial to the programme, with the team developing the most appropriate contract strategy.

Working on backlog maintenance within a live hospital or other facilitates poses particular challenges to be managed such as: management of multiple stakeholders; safety of patients, staff and visitors; continuity of service – clinical and support; fire safety and security; control of infection; and effective management of resources to align with a fluctuating workload.

The team has developed a track record of delivering multiple WTOs under single contract and using NEC3. The joined up team approach has ensured a collaborative

and high performing project process, evidenced by the implementation of BS11000, Collaborative Business Relationships.

Benefits realised include:

- Long term strategic approach with defined project team objectives

- Optimum working across the joint project team ensuring ability to respond and deliver quickly

- Clear, simplified process and administration with more effective use of resources

- Continuous improvement from lessons learnt e.g. reducing programme timescales and driving best value in design and procurement

- Minimal impact on stakeholders and improved user confidence in the process

The key principles adopted by the project team include:

- Flexibility in terms of the provision of resources to meet project types, scale, and volume.

- Clear structure of working as one joined up team to optimise use of available resources and expertise. This provides clarity of roles and best value in delivery.

- Scalability in service response to either increase or decrease resources deployed in a seamless manner to meet NHS requirements. This ensures that knowledge, expertise and lessons learnt are built up and utilised as effectively as possible.

Best Practice Case Study 2
NHS Grampian: Carbon Energy Fund (CEF) Project

NHS Grampian has the third highest energy-consuming hospital in Scotland (Aberdeen Royal Infirmary) and has a number of hospital sites with energy consumption well in excess of the Scottish national average (including Aberdeen Maternity Hospital and Dr Gray's Hospital). The Boards financial plan identifies the priorities for investment for the next five years and beyond and although it includes some small scale investment in replacement energy infrastructure there is no scope using NHS capital to progress the significant investment in energy infrastructure required to achieve a significant reduction in carbon emissions.

A revenue based funding scheme was therefore developed which included:

- Installation of an energy link (heat and power) between Foresterhill and Royal Cornhill Hospital sites;

- A new main High Voltage incomer substation and modifications to the High Voltage network at Foresterhill;

- A SCADA (Supervisory Control and Data Acquisition) system for Foresterhill, Royal Cornhill Hospital and Dr Gray's Hospital;

- Modifications to the Central Decontamination Unit (CDU) and Laundry steam/condensate return system at Foresterhill;

- Novation of the existing comprehensive maintenance contract for the Combined heat and Power Plant at Foresterhill to Vital Energi;

- Installation of LED replacement lighting in specific locations across the Foresterhill site and Royal Cornhill Hospital.

- A new heat link, new plate heat exchangers and modifications to condensate system at Aberdeen Dental School;

- Specific meter upgrades;

The project will also address targeted backlog maintenance through :-

- The decommissioning and demolition of the East Boilerhouse at Foresterhill;

- The installation of replacement gas boilers at Dr Gray's Hospital;

- Replacement chiller units at Foresterhill

On practical completion, the initiatives will deliver a reduction in overall GHG emissions of approximately 6,062 tCO_2e per annum (roughly 16% of overall emissions across the NHS Grampian estate).

Keeping track of a large inventory of mobile medical devices in a busy hospital environment can be demanding and time-consuming. NHS Forth Valley uses a frequency identification (RFID) Discovery Asset Tracking system from Harland Simon to automatically track 2,500 devices around their main hospital site, including infusion pumps, syringe drivers, monitors and scanners. This helps minimise time spent looking for equipment, improves utilisation levels and reduces the requirement to purchase new devices.

The main drivers for introducing RFID Asset Tracking for mobile medical devices at NHS Forth Valley were:

- Problems keeping track of a large number of movable medical devices

- A lot of nursing and technician time was wasted trying to locate equipment

- Poor equipment utilisation meant that more devices than necessary were in circulation

- Budget constraints meant purchasing additional equipment was not an option

- Staff were often keeping supplies of equipment locally which exacerbated some of the other issues

Key benefits of the system include:

- Improved equipment utilisation reduces capital expenditure for new and replacement equipment.

- Locate assets quickly minimises the time technicians spend looking for equipment so more time is being spent carrying out vital tasks.

- An RFID read range of up to 20 meters means that devices can be detected through barriers like walls or curtains.

- It has the ability to identify where surplus equipment is in circulation.

- Tracking beds with RFID will reduce bed hire costs by reducing the overall number of additional rental beds required and also by ensuring beds are used for their appropriate purpose.

- Introducing passive RFID tags to all mobile medical devices will improve inventory management and save significant time when carrying out a full audit of all medical devices every 12 months.

The Linen Services Department at Borders General Hospital opened on the 1st July 1988 and continues to provide an efficient, cost effective service to all users. This department is purpose built and in addition to the core healthcare service is also open to staff, the public, local businesses and hotels. A collection and delivery service is provided throughout the Scottish Borders including premises in Northumberland.

The linen services department provides a comprehensive linen service to all NHS Borders premises, non NHS external customers and to the general public through the onsite shop. Average production per week for NHS linen is approximately 45,000 pieces.

In order to maximise laundry production and efficiency, non NHS work was introduced and an external laundry and dry cleaning services offered to all NHS employees and the general public together with the contracted Linen Hire customers.

The service provides a comprehensive provision and laundering of linen to external customers, mostly Hotels, B&Bs and Guest Houses, providing bedding, table linen and chefs wear. There is now in excess of 100 contracted customers and the average production per week for income generation and Linen hire is approximately 10,000 pieces.

During 2014-2015 the Linen Service Department processed 472,253 items of non NHS linen (93 customers) and generated £314,416 worth of income.

NHS Borders also provides a dry cleaning service which is available for patients and the general public. In the first 6 months of 2015 the dry cleaning department generated an income of £12,500.

NHS Borders also provides a comprehensive staff uniform laundry service. The sewing room staff stocks the automated uniform dispensing system on a daily basis ensuring staff have access to clean uniforms.

Other services provided by the sewing room staff include measuring, ordering and making window and bed curtains, repairing theatre and bed linen and labelling patients clothing. A professional alteration services is also available to NHS staff and the general public providing further income generation.

Annex B
Review of NHSScotland's Property Assets

This Annex provides a detailed analysis of property, vehicles, medical equipment and IM&T asset performance which supports the summarised information provided in the main body of the report.

The responsibility for the management of NHSScotland's assets rests with 14 NHS Boards and 8 Special NHS Boards.
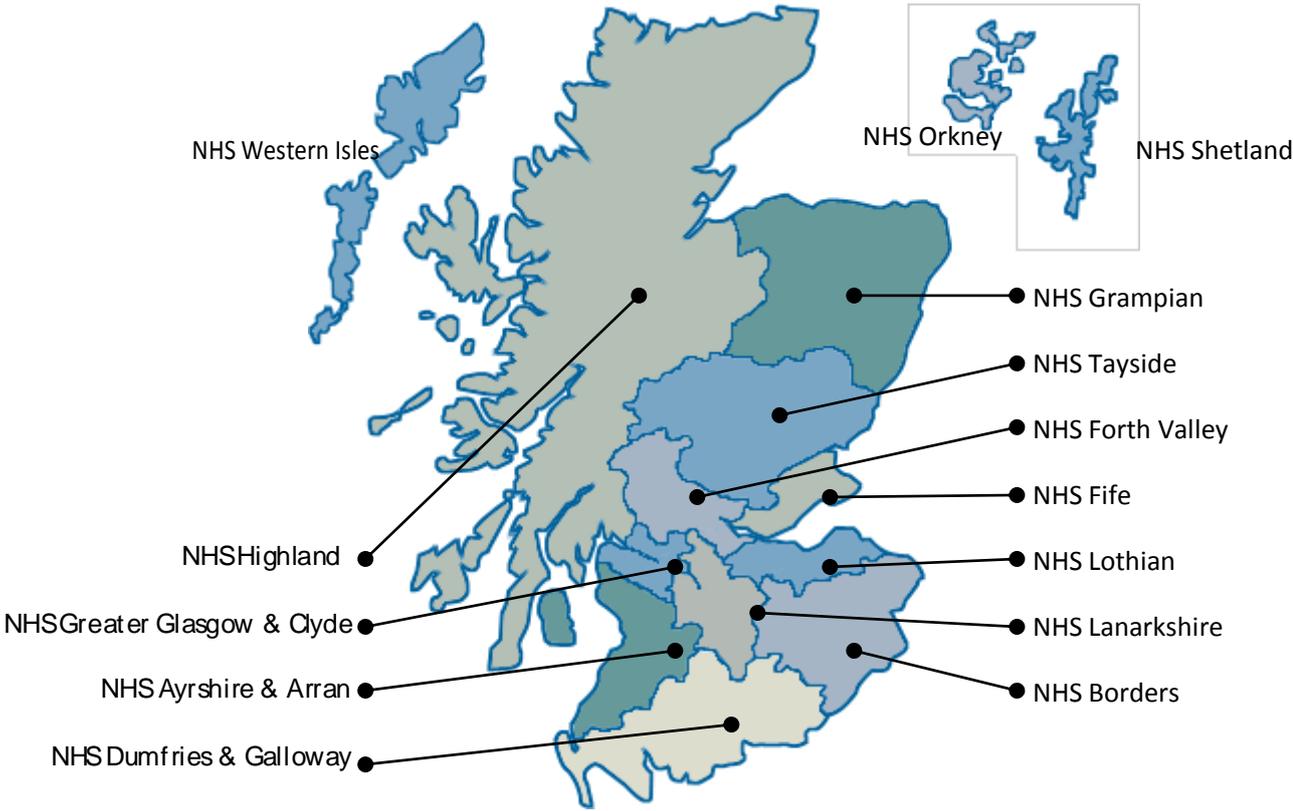
Special NHS Boards

NHS Education for Scotland	NHS Health Scotland
NHS National Services Scotland[1]	NHS National Waiting Times Centre
Healthcare Improvement Scotland	NHS 24
Scottish Ambulance Service	The State Hospitals Board for Scotland

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[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 information presented in this annex combines information from all 22 NHS Boards and Special NHS Boards, however, some charts and tables split the analysis between the 16 Boards with in-patient accommodation (labelled NHS Boards), i.e. all 14 NHS Boards plus 2 Special NHS Boards (NHS National Waiting Times Centre - Golden Jubilee and the State Hospitals Board for Scotland), and the 6 remaining Special NHS Boards.

It should be noted that all information presented in this section is broadly based on April 2015 information, unless otherwise stated.

Asset Value

NHSScotland owns physical assets that are worth circa £6.3billion. Most of these assets relate to the estate (land and buildings) which are estimated to be worth £5.7 billion. Other significant fixed assets which are owned are vehicles, medical equipment and information management and technology (IM&T) assets. An estimate of the Net Book Value of these owned assets is shown in the chart below.
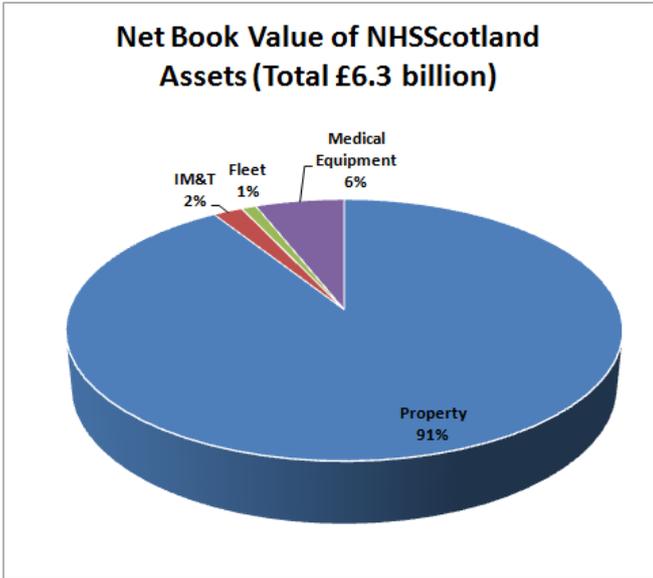
Taken from information returned by each NHS Board

The NHS also has assets which it does not own including buildings, vehicles, medical equipment and IM&T. These assets are estimated to be worth a further £1.5 billion, the majority of which are hospitals and health centres managed under Public Private Partnership (PPP) agreements. Also, the majority of cars used by NHSScotland staff are leased, with staff paying for their own non-business element of these leased vehicles.

In addition to the NHSScotland owned and leased property assets, there are numerous smaller properties used to provide a range of community and family health services provided by GPs, Pharmacists, Dentists and Opticians, many of which are owned or leased by these independent practitioners themselves and paid for indirectly by the NHS through a range of charging and re-imbursement mechanisms.

Estate Size

The NHSScotland estate comprises circa 4.5 million sq.m of building floor area encompassing buildings ranging in size from 40 sq.m to 200,000 sq.m. The majority of this is the hospital estate of the 14 NHS Boards and 2 Special NHS Boards (NHS National Waiting Times Centre and the State Hospitals Board). The 2014 ISD Cost Book records this hospital estate as 220 hospitals with a total building area of 3.42 million sq.m. This is broadly similar to that reported in last year's SAFR.

The other property types that account for the further 1.1 million sq. m. includes health centres & clinics, day centres, offices, residential accommodation, and industrial / storage units.

The table that follows shows an analysis of the hospital estate by type of hospital in terms number of sites and building area.

	Acute	Long Stay	Mental Health	Psychiatric & Learning Disabilities	Community	Other	Total
Number of Hospitals	38	45	35	13	66	23	220
Area sq.m	2,240,485	268,088	422,922	44,386	219,010	229,165	3,424,056
Percentage of total area (rounded)	65%	8%	12%	1%	6%	7%	100%

The above table shows that whilst community hospitals are the most numerous (66) they only represent 6% of the total hospital estate in terms of building area i.e. a large number of small hospitals. In contrast, the 38 acute hospitals account for 65% of the total hospital estate in terms of building area.

The overall number of hospitals has reduced by eight since last year as they have either closed or are now used for other purposes.

It should also be recognised that a number of the hospitals included in the broad categorisation of "Long Stay Hospitals" includes hospitals with acute long stay beds, psychiatric long stay beds and psychiatric day hospitals. These hospitals may also have other types of beds which are not classified as "long stay".

Providing services more locally is an integral part of the 2020 Vision and this is expected to have an impact on the size and distribution of the hospital estate. Subsequent changes in the hospital estate will continue to be monitored as part of SAFR in future years.

The current distribution of the hospital estate (by numbers of hospitals and by area sq.m) across the Boards is shown in the tables that follow.

Board	Distribution of hospitals (numbers) across the NHS Boards						
	Acute	Long Stay	Mental Health	Psychiatric & LD	Community	Other	Total
NHS Greater Glasgow	8	6	8	1	0	5	28
NHS Grampian	4	1	3	1	17	2	28
NHS Tayside	3	3	5	3	8	5	27
NHS Highland	4	4	2	0	14	2	26
NHS Lothian	4	12	2	2	2	2	24
NHS Dumfries & Galloway	2	3	2	2	6	3	18
NHS Borders	1	6	2	0	4	2	15
NHS Lanarkshire	3	5	2	1	4	0	15
NHS Fife	2	1	4	1	4	0	12
NHS Ayrshire & Arran	3	3	1	1	3	0	11
NHS Forth Valley	1	1	3	1	3	0	9
NHS Western Isles	1	0	0	0	1	1	3
State Hospital	0	0	1	0	0	0	1
Golden Jubilee	0	0	0	0	0	1	1
NHS Orkney	1	0	0	0	0	0	1
NHS Shetland	1	0	0	0	0	0	1
							220

Distribution of hospital estate by area (sq.m)		
Board	Total area sq.m	Percentage of NHSScotland Total Area (rounded)
NHS Greater Glasgow	923,670	27%
NHS Lothian	555,681	16%
NHS Tayside	389,615	11%
NHS Grampian	328,538	10%
NHS Fife	256,131	7%
NHS Ayrshire & Arran	206,092	6%
NHS Lanarkshire	205,483	6%
NHS Highland	166,890	5%
NHS Forth Valley	148,574	4%
NHS Dumfries & Galloway	74,656	2%
NHS Borders	60,431	2%
Golden Jubilee	47,593	1%
State Hospital	23,602	1%
NHS Western Isles	21,360	1%
NHS Shetland	7,869	0.2%
NHS Orkney	7,871	0.2%
	3,424,056	**100%**

Estate Tenure

The majority of the NHSScotland estate is owned (78%) but for some NHS Boards PPP/PFI (including NPD and hub) and leased property is a significant proportion of their estate, as shown in the charts that follow.

2015 Estate Tenure

Other 3%
Leased 9%
PPP/PFI 10%
Owned 78%
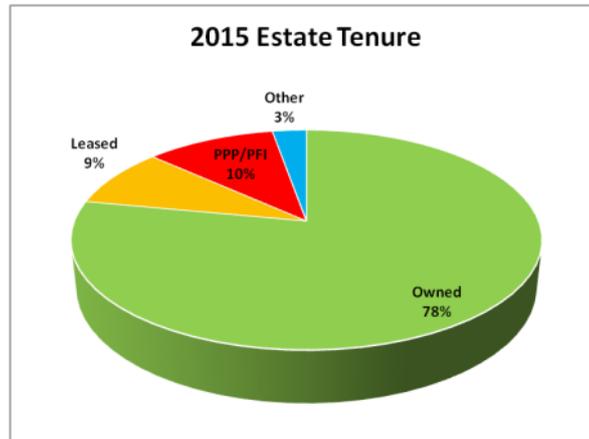
Tenure profile above includes all 22 NHS Boards and Special NHS Boards, where information is available

2015 Tenure Comparison - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
Other	3%	7%	3%	0%	0%	0%	0%	0%	0%	9%	0%		2%	0%	0%	2%
PPP/PFI	8%	17%	9%	1%	21%	6%	4%	9%	56%	6%	0%		0%	0%	0%	0%
Leased	10%	5%	5%	1%	1%	4%	35%	11%	2%	2%	0%		4%	0%	5%	13%
Owned	79%	71%	83%	98%	78%	90%	61%	80%	42%	83%	100%	100%	93%	100%	95%	85%

Owned Leased PPP/PFI Other

The majority of office accommodation occupied by Special NHS Boards is leased.

2015 Tenure Comparison - Special Health Boards

	NSS	NWTCB - Hotel	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	Scottish Ambulance Service	NHS 24
Other	11%		32%			0%	0%
PPP/PFI	0%		0%			0%	
Leased	56%		68%	100%	100%	27%	100%
Owned	34%	100%	0%			73%	0%

Owned Leased PPP/PFI Other
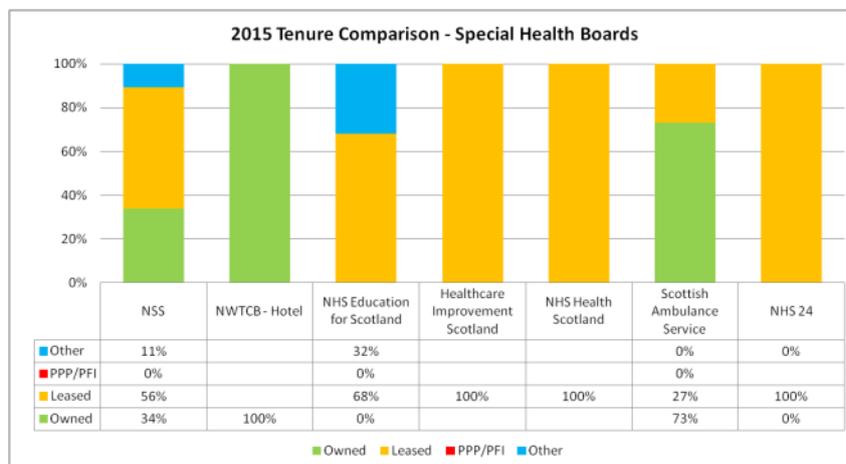
Estate Age

NHSScotland occupies approximately 1,087,000 sq.m (23% of the total) of relatively new / modern accommodation (i.e. less than 10 years old), which is an increase of 418,000sq.m since 2011, and is evidence of the significant capital investment in property assets over recent years. There does, however, remain scope for improvement and further investment or disposal in the estate in order to move away from old, poor quality and functionally unsuitable properties. The following charts show the range of property ages for the NHS Boards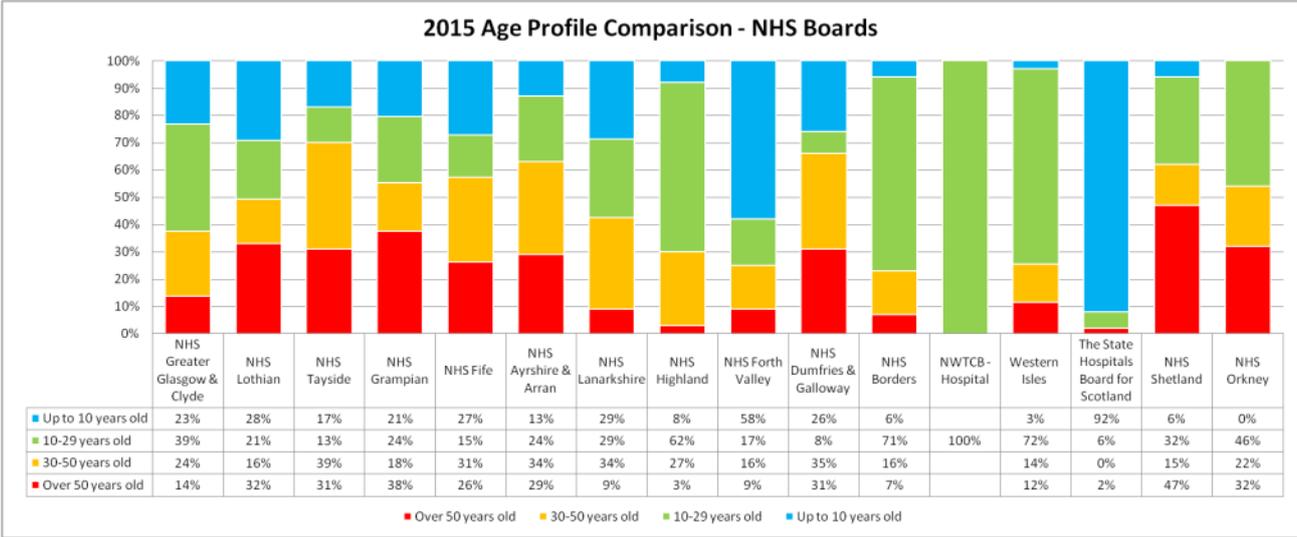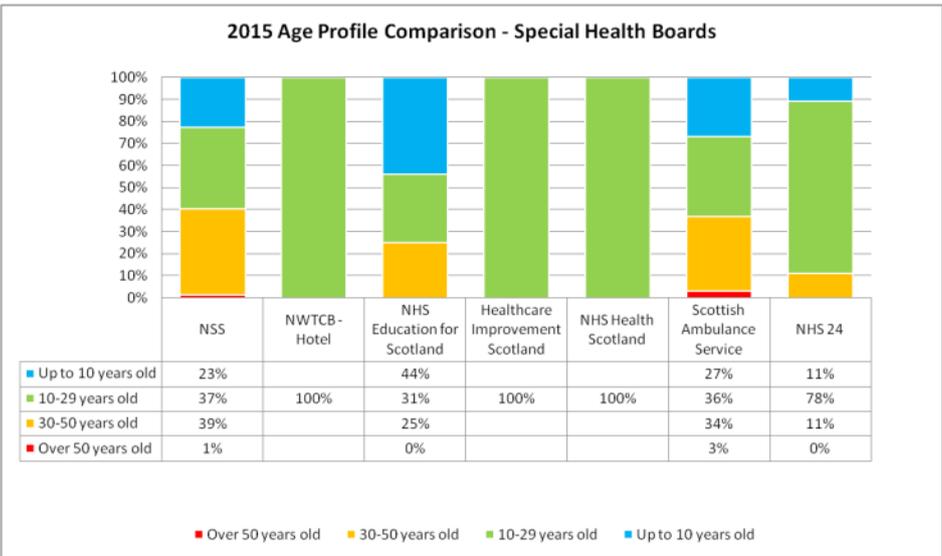, which indicates that 21% of the estate remains over 50 years old (note that some older properties are refurbished to modern standards rather than replaced). This age profile has improved from that reported in the 2014 SAFR report, with the percentage of properties less than 50 years old increasing from 75% to 79%.

2015 Estate Age Profile

Age profile above includes all 22 NHS Boards and Special NHS Boards

2015 Age Profile Comparison - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
Up to 10 years old	23%	28%	17%	21%	27%	13%	29%	8%	58%	26%	6%		3%	92%	6%	0%
10-29 years old	39%	21%	13%	24%	15%	24%	29%	62%	17%	8%	71%	100%	72%	6%	32%	46%
30-50 years old	24%	16%	39%	18%	31%	34%	34%	27%	16%	35%	16%		14%	0%	15%	22%
Over 50 years old	14%	32%	31%	38%	26%	29%	9%	3%	9%	31%	7%		12%	2%	47%	32%

2015 Age Profile Comparison - Special Health Boards

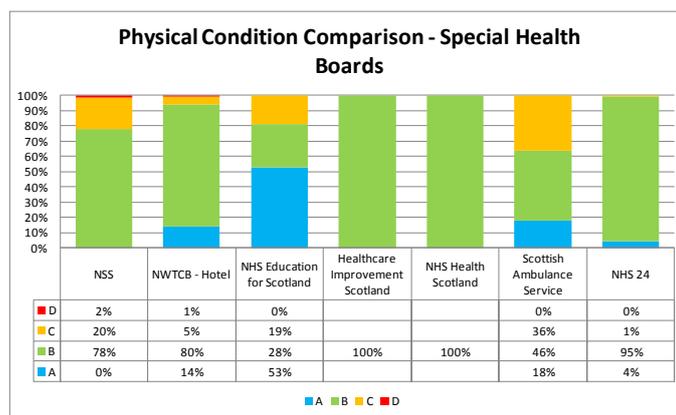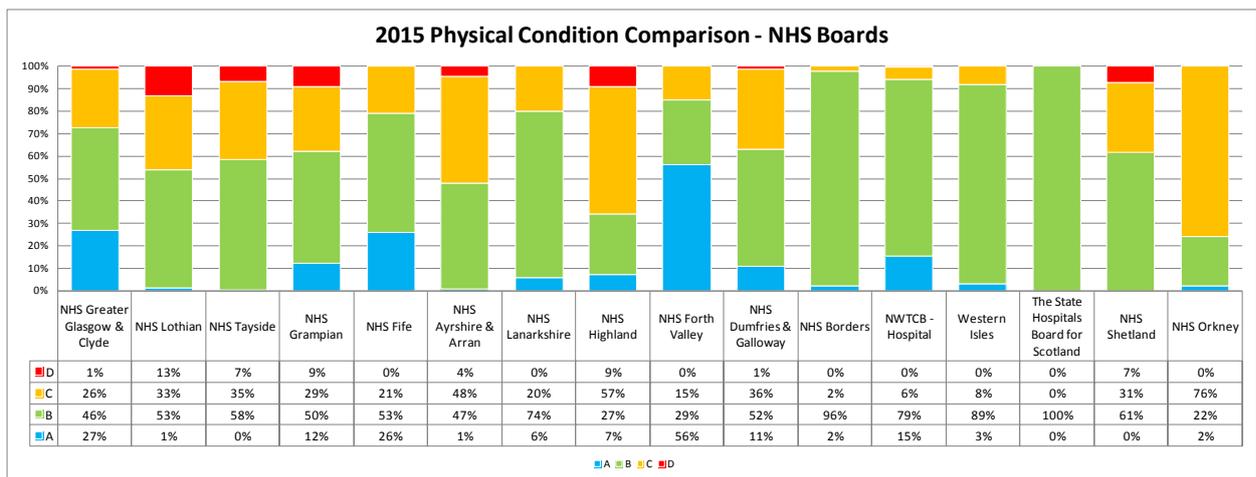|	NSS	NWTCB - Hotel	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	Scottish Ambulance Service	NHS 24
Up to 10 years old	23%		44%			27%	11%
10-29 years old	37%	100%	31%	100%	100%	36%	78%
30-50 years old	39%		25%			34%	11%
Over 50 years old	1%		0%			3%	0%

Estate Condition

The Board's report that 66% of their estate is in good physical condition (category A or B) with 29% requiring investment to improve its condition (category C) and 5% being unsatisfactory and requiring major investment or replacement (category D).

2015 Estate Physical Condition Profile
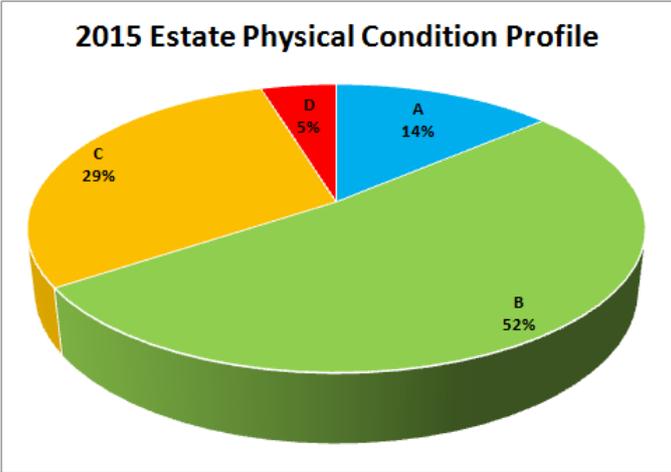
The proportion of the estate in good physical condition of 66% is higher than the 59% reported in the 2014 SAFR. Boards advise that this is as a result of new property assets becoming available this year; such as the Queen Elizabeth University Hospital in Glasgow, and the rationalisation of parts of the NHSScotland estate following completion of associated property replacement projects.

The two charts that follow highlight the variance in condition across the NHS Boards.

2015 Physical Condition Comparison - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
D	1%	13%	7%	9%	0%	4%	0%	9%	0%	1%	0%	0%	0%	0%	7%	0%
C	26%	33%	35%	29%	21%	48%	20%	57%	15%	36%	2%	6%	8%	0%	31%	76%
B	46%	53%	58%	50%	53%	47%	74%	27%	29%	52%	96%	79%	89%	100%	61%	22%
A	27%	1%	0%	12%	26%	1%	6%	7%	56%	11%	2%	15%	3%	0%	0%	2%

A B C D

Physical Condition Comparison - Special Health Boards

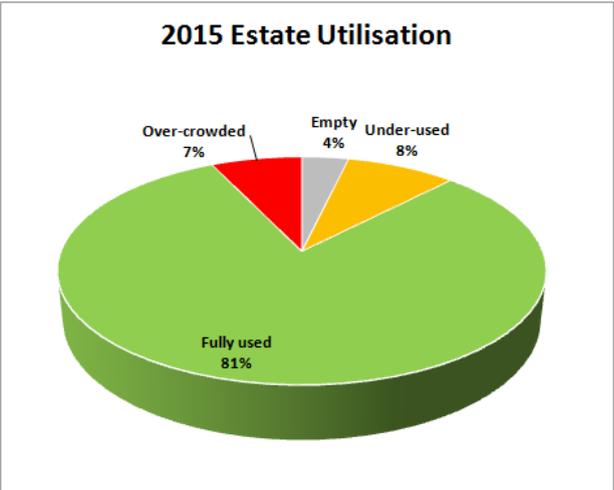|	NSS	NWTCB - Hotel	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	Scottish Ambulance Service	NHS 24
D	2%	1%	0%			0%	0%
C	20%	5%	19%			36%	1%
B	78%	80%	28%	100%	100%	46%	95%
A	0%	14%	53%			18%	4%

A B C D

Further to the above Board level analysis, it is now possible through the Estate Asset Management System (EAMS) to report on estate KPI's such as physical condition and backlog maintenance at hospital level. Analysis of this information is being used by NHS Boards to link their property improvement needs and their strategic & service plans for improvement included within their PAMS.

NHS Boards which have buildings assessed as category D – "unsatisfactory" have indicated that they have plans in place to either dispose, replace, or improve these buildings over the next 5-10 years.
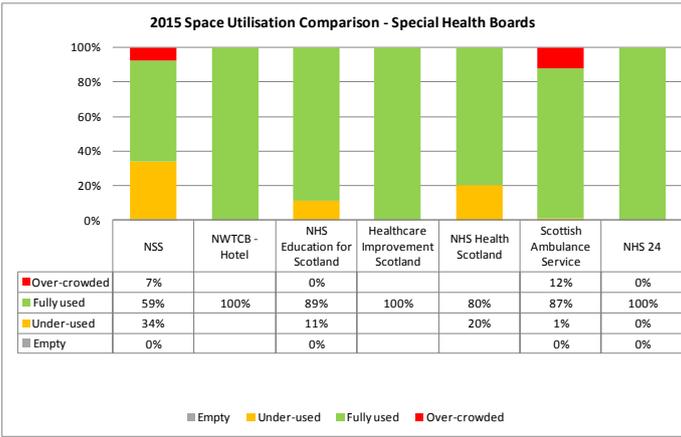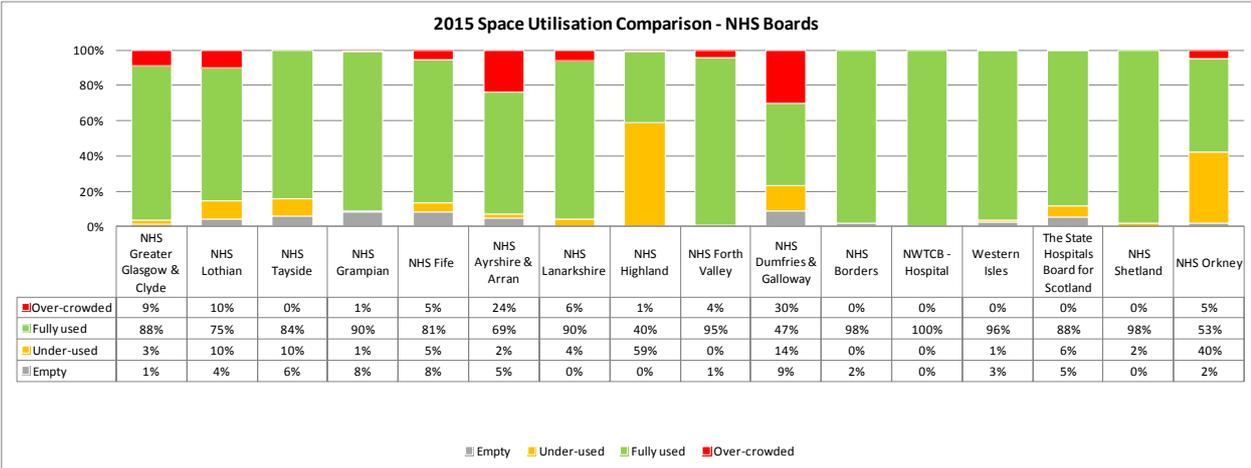

Estate Utilisation

Accommodation space has a direct relationship with cost. The aim, therefore, is to hold only that space which is needed to support the delivery and support of effective and efficient service delivery. Analysis of the information contained within each NHS Board's Property and Asset Management Strategy shows that approximately 81% of the NHSScotland estate is fully utilised although some under utilisation and some overcrowding is evident as shown in the chart below.

This profile has improved from that reported in the 2014 SAFR when the percentage fully utilised was 77%.

2015 Estate Utilisation

Over-crowded 7%
Empty 4%
Under-used 8%
Fully used 81%

The following charts highlight that space utilisation can vary across the NHS Boards.

2015 Space Utilisation Comparison - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
Over-crowded	9%	10%	0%	1%	5%	24%	6%	1%	4%	30%	0%	0%	0%	0%	0%	5%
Fully used	88%	75%	84%	90%	81%	69%	90%	40%	95%	47%	98%	100%	96%	88%	98%	53%
Under-used	3%	10%	10%	1%	5%	2%	4%	59%	0%	14%	0%	0%	1%	6%	2%	40%
Empty	1%	4%	6%	8%	8%	5%	0%	0%	1%	9%	2%	0%	3%	5%	0%	2%

Empty   Under-used   Fully used   Over-crowded

2015 Space Utilisation Comparison - Special Health Boards

	NSS	NWTCB - Hotel	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	Scottish Ambulance Service	NHS 24
Over-crowded	7%		0%			12%	0%
Fully used	59%	100%	89%	100%	80%	87%	100%
Under-used	34%		11%		20%	1%	0%
Empty	0%		0%			0%	0%

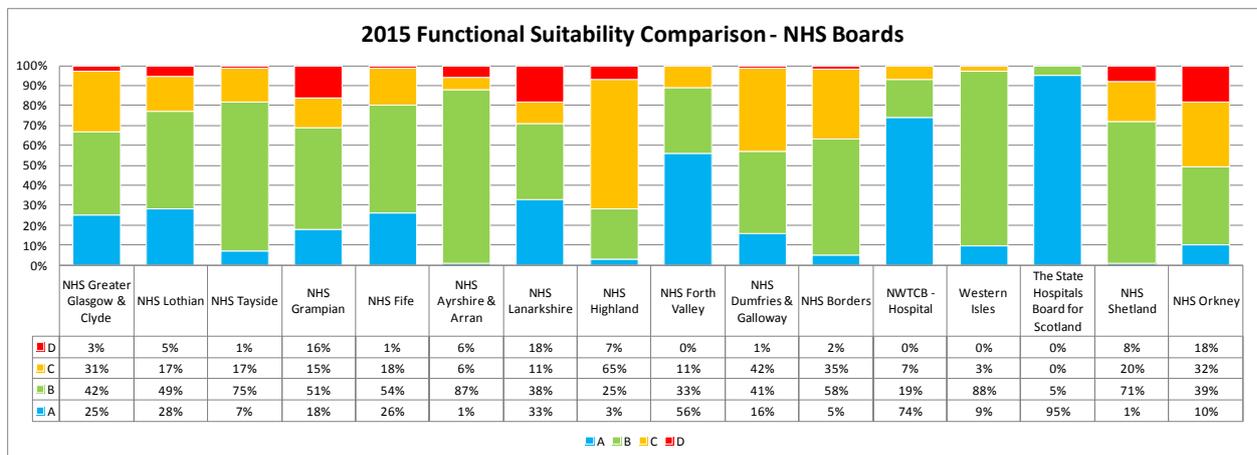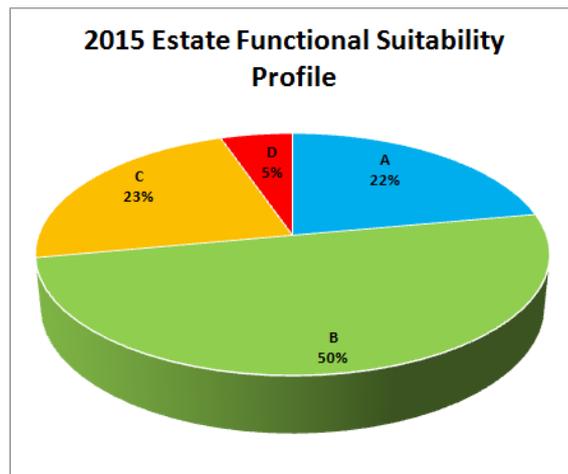Empty   Under-used   Fully used   Over-crowded

The under utilisation of accommodation across NHS Highland and NHS Orkney 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.

Estate functional suitability

The estate also plays an important role in supporting the effective delivery of services. Poor functional suitability often results in inefficient working practices, increased staffing levels and poor clinical outcomes. Approximately 72% of the NHSScotland estate is functionally suitable but, as shown in the charts that follow, this can vary significantly across NHS Boards.

This profile shows a significant 7% increase in the area of the estate in categories A & B compared to that reported in 2014. Boards have advised that this is as a result of the annual re-assessment of buildings for functional suitability and the completion of new, modern facilities.

2015 Estate Functional Suitability Profile

2015 Functional Suitability Comparison - NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	NHS Forth Valley	NHS Dumfries & Galloway	NHS Borders	NWTCB - Hospital	Western Isles	The State Hospitals Board for Scotland	NHS Shetland	NHS Orkney
D	3%	5%	1%	16%	1%	6%	18%	7%	0%	1%	2%	0%	0%	0%	8%	18%
C	31%	17%	17%	15%	18%	6%	11%	65%	11%	42%	35%	7%	3%	0%	20%	32%
B	42%	49%	75%	51%	54%	87%	38%	25%	33%	41%	58%	19%	88%	5%	71%	39%
A	25%	28%	7%	18%	26%	1%	33%	3%	56%	16%	5%	74%	9%	95%	1%	10%

2015 Functional Suitability Comparison - Special Health Boards

	NSS	NWTCB - Hotel	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	Scottish Ambulance Service	NHS 24
D	0%		0%			1%	0%
C	30%		16%			16%	0%
B	58%		31%	100%		72%	100%
A	12%	100%	53%		100%	11%	0%

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. This asks a range of questions about people's experiences of staying overnight in a Scottish hospital 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?" This survey is carried out every two years therefore the following chart showing results of the response to this question remain unchanged from last year:

Positive Patient Opinion on Hospital Environment (2014 - 2015)
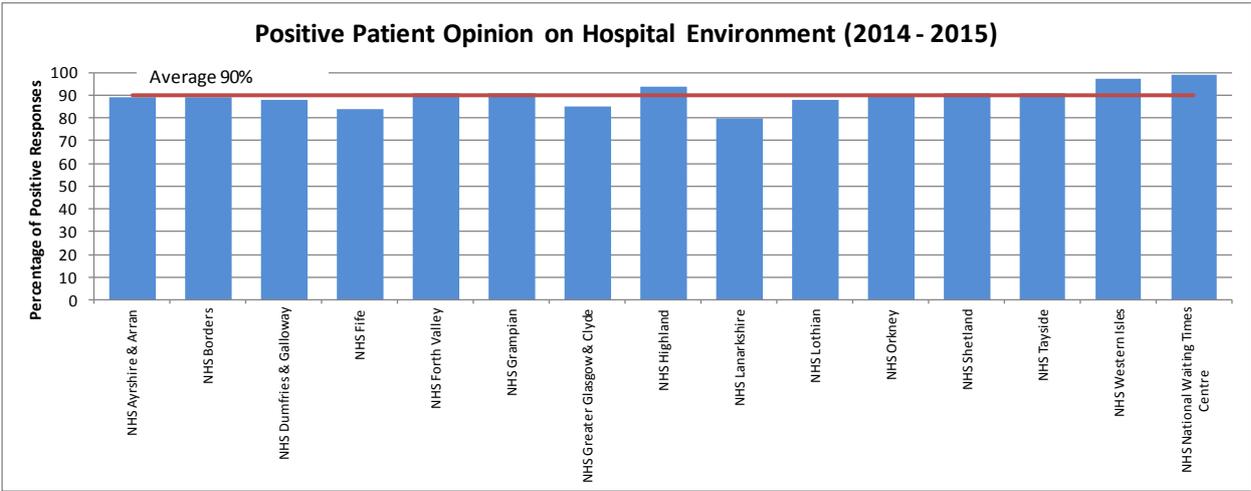
Note: No data is available for the State Hospital Board

The results are positive across all NHS Boards, however, it needs to be recognised that these results are based on only one question and, therefore, can not be taken as indicating overall patient satisfaction in NHSScotland premises.

Performance Improvement of Property Assets

The following chart provides a comparative overview of performance improvement in property assets between 2014 and 2015.

Performance Improvement of Property Assets between 2014 & 2015 for all NHS Boards

Key Performance Indicators
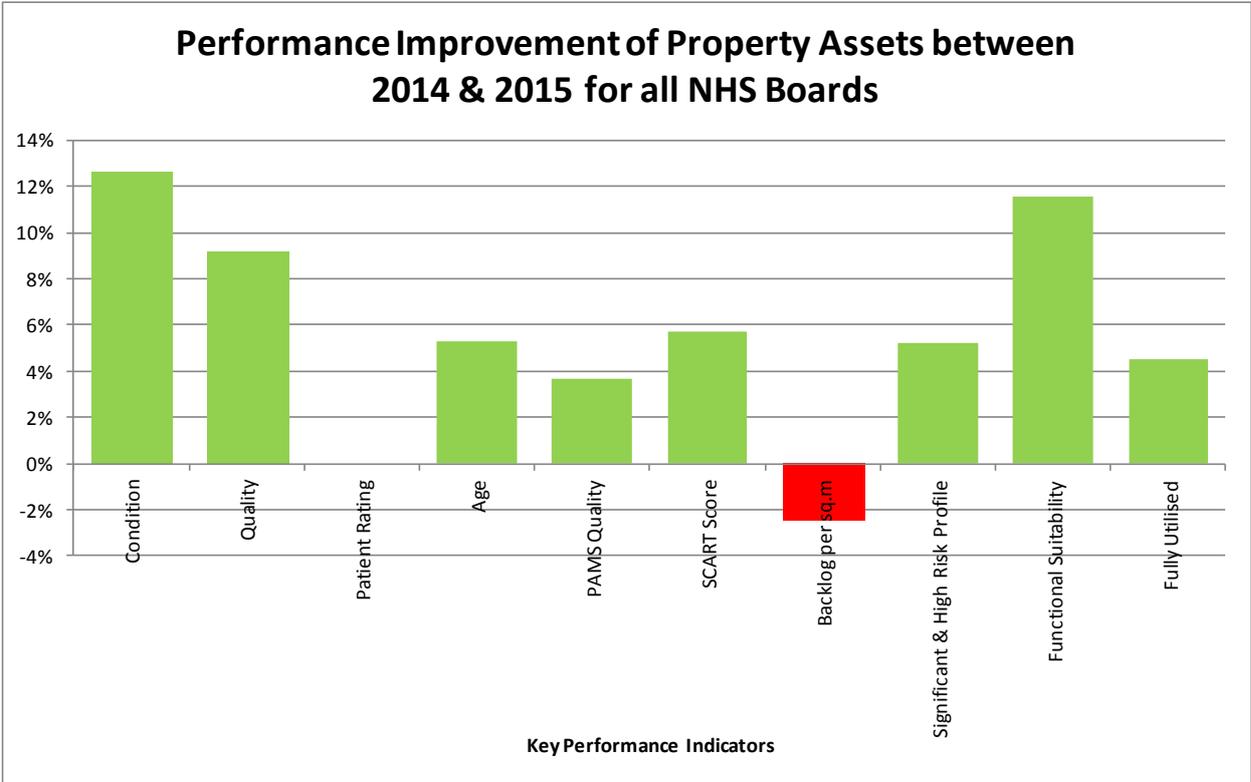
Note: green bars above the horizontal indicate a positive improvement whereas a red bar below the horizontal indicates a performance reduction.
The backlog analysis excludes inflation for comparative purposes.
The national inpatient questionnaire survey now takes place every two years hence the reason why Patient Rating remains unchanged this year.

The above chart highlights performance improvement across all the main property based KPI's, except backlog per square meter (which is explained in section 2.4.1 of this report). These positive results reflect the good progress made by NHS Boards in improving the state of NHSScotland's estate. The inclusion of the new Queen Elizabeth University Hospital in Glasgow has also helped to improve this national perspective on property asset performance.

Annex C
Review of NHSScotland's Vehicle Assets

Analysis of vehicle assets is based on annual pro-forma information returned by each NHS Board. NHSScotland's vehicle assets comprise of approximately 10,150 vehicles, the majority of which are staff car scheme vehicles (55%) and operational cars (16%). The chart below provides a breakdown of NHSScotland's vehicle assets by type.
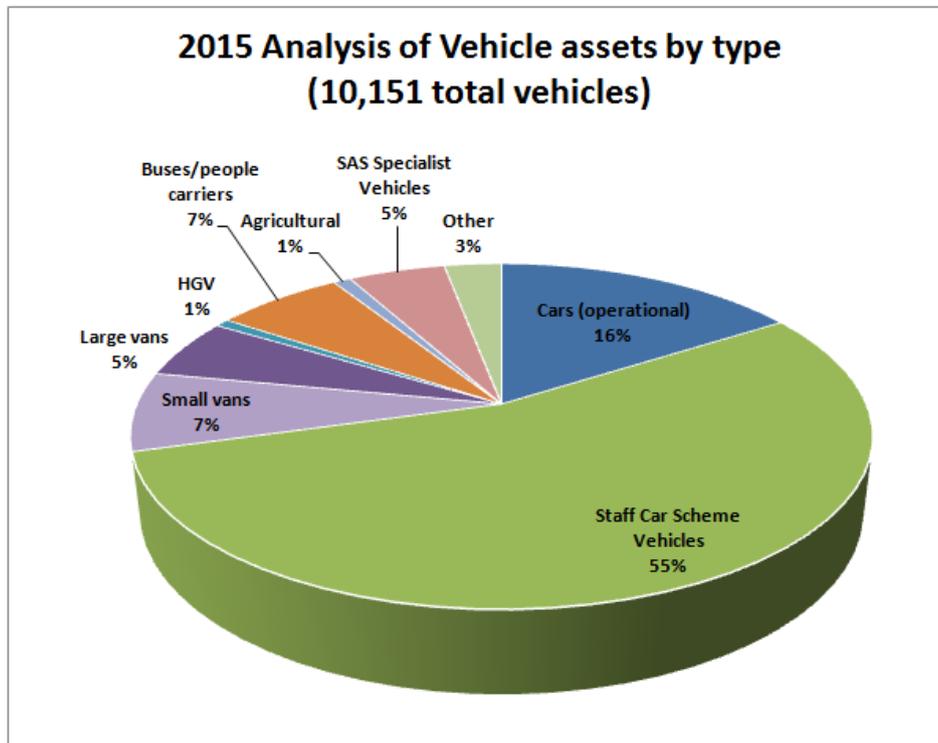
This excludes national logistics vehicles

The distribution of these vehicle assets and their ownership arrangements across NHS Boards and Special Health Boards is shown in the following two charts.

2015 Distribution of vehicles and ownership arrangements across NHS Boards

	NHS Greater Glasgow & Clyde	NHS Lothian	NHS Tayside	NHS Grampian	NHS Fife	NHS Ayrshire & Arran	NHS Lanarkshire	NHS Highland	Forth Valley	NHS Dumfries & Galloway	NHS Borders	NHS NWTC (Golden Jubilee)	NHS Western Isles	State Hospital Board	NHS Shetland	NHS Orkney
Long / short term hire	69	3	1	0	4	0	60	6	9	3	0	0	0	0	0	0
Staff Car Scheme Vehicles	1,594	260	149	331	222	664	944	296	216	220	236	20	22	5	11	2
Leased Vehicles	164	550	75	554	28	304	17	482	117	110	22	6	6	0	47	0
Owned Vehicles	110	10	204	15	71	1	5	39	3	2	65	0	18	16	0	29

2015 Distribution of vehicles and ownership arrangements across Special Health Boards

	National Services Scotland	Scottish Ambulance Service	NHS Education for Scotland	Healthcare Improvement Scotland	NHS Health Scotland	NHS 24
Long / short term hire	0	0	0	0	0	0
Staff Car Scheme Vehicles	135	197	0	0	0	24
Leased Vehicles	34	0	0	0	0	0
Owned Vehicles	92	1,252	0	0	0	0

The vehicle age profile for all NHS Boards is shown in the charts that follow and shows that circa 83% of the vehicles are less than five years old. This represents a reasonable age profile for this asset group and indicates that investment is currently maintaining a reasonable standard of vehicle asset provision.

2015 Vehicle Age Profile
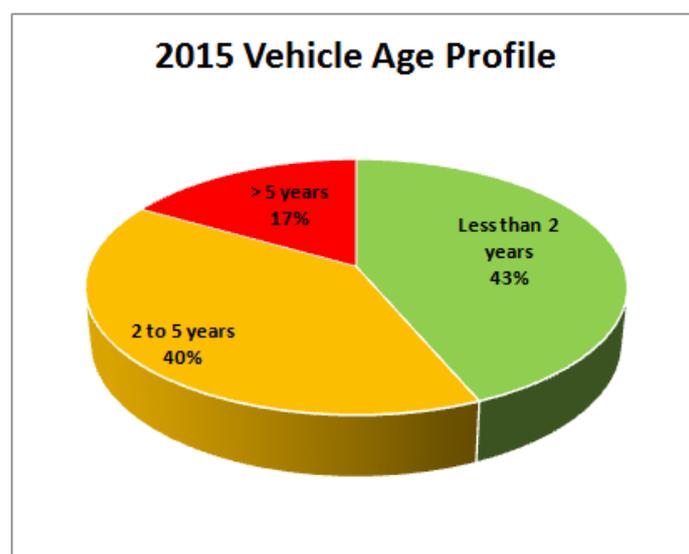
Information on vehicle mileage is sufficient this year (2015) to enable a benchmark to be set from which future changes can be monitored. This information is presented in the following table:

Total Vehicle Mileage	Total	Mileage per Vehicle
Owned	30,616,315	15,847
Leased	24,332,268	9,671
Staff Car Scheme	27,049,483	4,876

The type of fuel used by these vehicles is also an important consideration and the following chart shows the current reliance on diesel fuel (% of vehicles). This will set the current position at year 2015 from which any changes to alternative fuel types can be monitored:
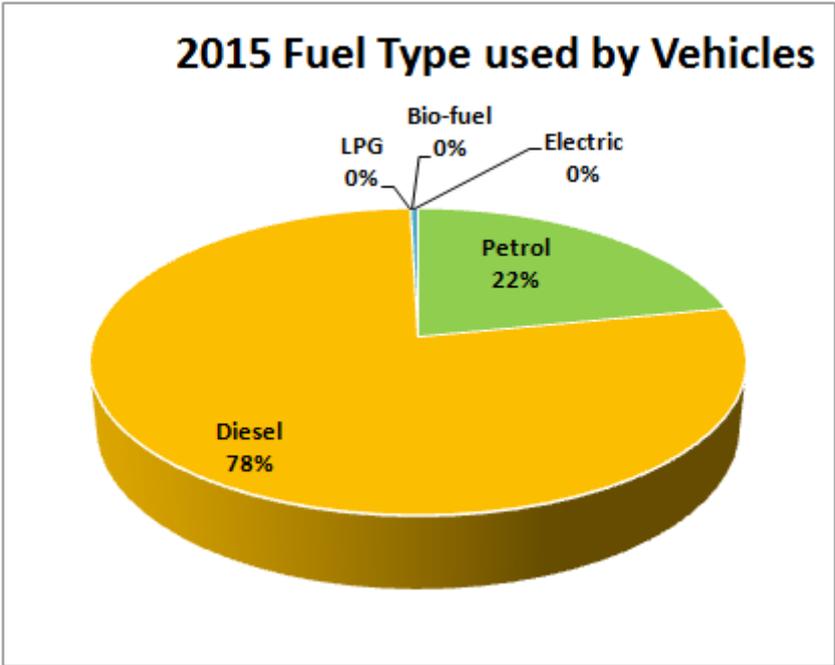
Electric accounts for 0.4%, and the other alternatives 0.03%

Annex D
Review of NHSScotland's Medical Equipment

Information has been gathered from each NHS Board and the national imaging and radiotherapy equipment groups to gain a more accurate understanding of the scope and value of medical equipment across NHSScotland. In addition to the global overview of the value of medical equipment, it also sought more detailed information on the following specific equipment types:

- Renal dialysis equipment.

- Cardiac defibrillators.

- Infusion devices.

- Endoscopic equipment.

- Imaging equipment.

- Radiotherapy equipment.

This presented an overall estimated replacement value for Medical Equipment of £932m, which is an increase of £92m from the equivalent 2014 reported figure i.e. excluding low value medical equipment for both years (this is due to difficulties for some Board's in distinguishing between the replacement value of each medical and non-medical item of equipment). The annual change in the replacement value of medical equipment is mainly due to monetary value increases, and more accurate cost information available this year on imaging and flexible endoscopes.

The relative value of each equipment type is shown in the following chart:
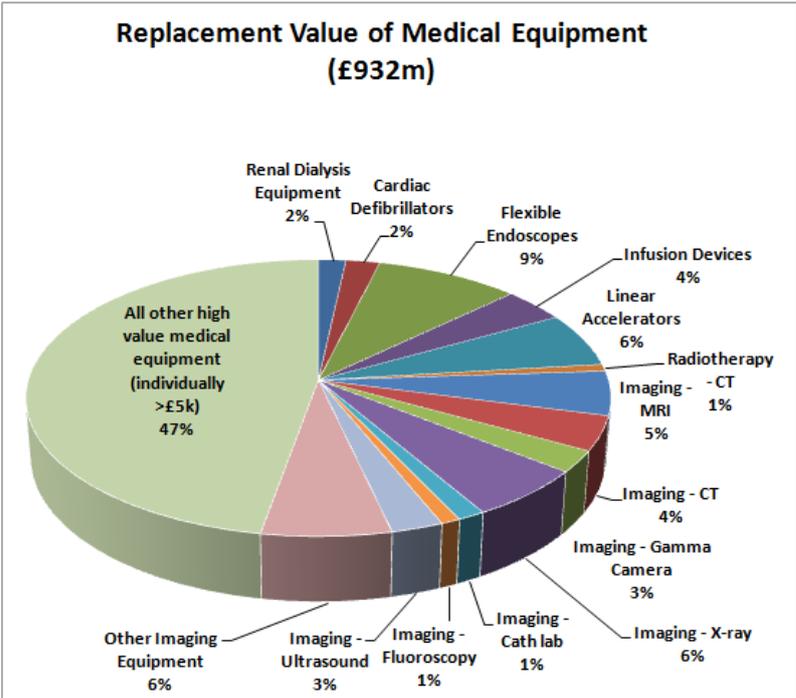
A breakdown per NHS Board of medical equipment replacement value (as reported in the above chart) is provided in the following table:

NHS Board	Radiotherapy Equipment £m	Imaging Equipment £m	All Other Medical Equipment
NHS Greater Glasgow	30.0	81.3	146.1
NHS Lothian	14.7	41.8	66.9
NHS Tayside	7.3	22.4	65.3
NHS Grampian	9.1	22.8	80.4
NHS Fife	0	12.7	37.6
NHS Ayrshire & Arran	0	12.8	31.5
NHS Lanarkshire	0	19.9	47.1
NHS Highland	5.1	13.3	26.4
NHS Forth Valley	0	10.5	27.7
NHS Dumfries & G.	0	5.5	11.6
NHS Borders	0	4.2	7.0
Golden Jubilee	0	9.1	18.3
State Hospital	0	0	0.1
NHS Western Isles	0	1.9	3.6
NHS Shetland	0	1.6	2.7
NHS Orkney	0	1.4	4.3
National Services Scotland	0	7.8	12.4
Scottish Ambulance Service	0		8.0
TOTAL	66.2	268.9	596.9
	£932m		

Medical Equipment replacement within each Health Board is planned either on a rolling annual basis (e.g. endoscopy equipment) or in bursts to ensure standardisation (e.g. replace all defibrillators over a maximum of 2 years to ensure all devices are of the same model to ensure staff competence). Lifetime is based on clinical and technical obsolescence; the latter is often based on lack of service support and availability of parts. It should be recognised that for medical equipment, safety is the first priority, and equipment is maintained to high standards in NHSScotland to ensure low risk of failure or accidents. This high level of maintenance can enable the equipment to be operated safely over extended lifecycles.

Investment in lifecycle replacement of medical equipment can vary considerably on an annual basis and "peaks" of investment are often observed in particular years when major, large equipment is replaced.

A brief summary of the scope, operational value and funding plans associated with these equipment types is described over the following pages:

Renal Dialysis Equipment

Renal dialysis units are lifesaving facilities for people with renal disorders, providing renal replacement therapy. Dialysis machines are critical to these patients' quality of life. Dialysis machines are used within acute hospitals and increasingly in patients' homes, enabling care in the community. Increasingly hospitals are striving to use technology to improve patient's quality of life and this has resulted in the introduction of night-time dialysis sessions within acute hospitals and home dialysis. The survey found approximately 944 dialysis machines across NHSScotland with a replacement value of circa £15m. These support nearly 230,000 patient sessions per year within dedicated Renal Dialysis Units, with circa 65 patients dialysed at home.

Cardiac Defibrillators

A defibrillator is a life-saving machine that gives the heart an electric shock to restore normal heart rhythms in some cases of heart attack. Its importance in saving people from sudden death due to heart attacks is evidence by their prevalence throughout the community in places such as shopping malls. There are 2,245 reported cardiac defibrillators based in hospital environments across NHSScotland, with quantity planning based on the time required to access a defibrillator in case of emergency. Health Boards manage a further 1600 community based defibrillators, including 540 defibrillators within the Scottish Ambulance Service. Overall, these account for an asset with replacement value of c.£20m. Procurements are managed to ensure defibrillator standardisation which is crucial to ensure staff familiarity. Defibrillators are expected to have a lifespan of 10 years which would require an average annual investment of approximately £2m p.a. to replace, though in practice each NHS Board will attempt to replace theirs over a shorter period of time.

Infusion Devices

An infusion device delivers fluids and medication in solution to the patient in a controlled way. They do so safely, consistently and accurately for a wide range of clinical purposes including general medication delivery typical directly into patient's veins. They provide anaesthesia, chemotherapy, powerful heart acting medication and pain relief, with some devices enabling patients to control their own medication delivery. Their portability enables them to be used in the community, with the widespread use of portable devices, powered by batteries, supporting care in the community, particularly for pain and symptom relief (e.g. nausea and vomiting) in palliative care. Individually the infusions devices cost between about £1k and £3k, but the cumulative value of over 20,000 devices is circa £37m.

Endoscopic Equipment

An endoscope is an investigative and screening device used to examine the inside of the body and to diagnose various conditions. Broadly speaking, endoscopy comes in two forms, those for use through natural body openings such as mouth, nose or anus

(e.g. colonoscopy screening) or those devices used for surgical procedures such as keyhole surgery. This survey examined the former. These enable minimal invasive procedures often allowing patients to be treated as outpatients. This survey examined the number of flexible endoscopes in use within Scotland, including those used for upper and lower (covering colonoscopy screening) gastrointestinal examinations. There are over 3,000 reported flexible endoscopes across NHSScotland with a replacement value of c. £85m. The expected useful lifespan of a flexible endoscope is 10 years, with lifespan dictated by the wear and tear associated with their normal use and their technical (withdrawal of manufacturer support) and clinical obsolescence (improved image quality and ease of use). The flexible endoscopes are used with light sources, video processors and monitors that represent an additional important financial and clinical asset not included in the £85m figure above. Nor is the surgical endoscopy equipment included. NHS Boards will need to carefully review and monitor the whole spectrum of their endoscopic equipment and its future investment requirements.

Imaging Equipment

Imaging equipment plays a significant and important role in the provision of healthcare to patients within both the acute and primary care sectors. Diagnostic procedures increased between 2003/04 and 2006/07 by 38% (according to Audit Scotland), and this trend has continued with an increase of 37% between 2006/07 and 2009/10 in the number of patients having a CT, MRI or ultrasound test. In addition to diagnostic procedures, there is also an increasing number of interventional / therapeutic procedures carried out within imaging directorates. In many cases these have replaced major surgical procedures with minimally invasive procedures that have significantly reduced morbidity and length of hospital stay. The National Imaging Inventory has an estimated replacement value of c.£270m (excl. VAT but incl. turnkey). The annual maintenance charge is £11.7million across the inventory which is nearly 6% lower than the previous year.

Radiotherapy Equipment

The 5 Cancer Centres in Scotland have had a co-ordinated national equipment replacement programme in place since 1998, which has been instrumental in ensuring the efficient and timely replacement of radiotherapy equipment across NHSScotland. The continued delivery of cancer access targets is in part due to the timely replacement of ageing equipment. The timing of replacement of equipment reflects current national recommendations and the programme is managed and monitored by the National Cancer Clinical Services Group (Radiotherapy) with the equipment financed from a ring fenced Scottish Government allocation. The success of this programme in introducing leading edge technology to enable the best possible treatment for cancer patients; with equity of access across Scotland, is considered to be a best practice model for the management and procurement of medical equipment.
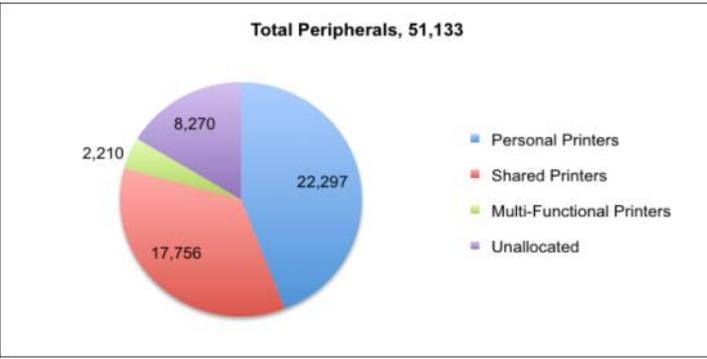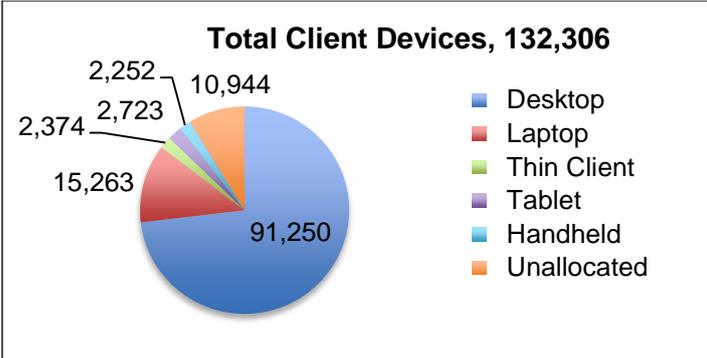
Annex E
IM&T Assets

Information on IM&T assets is based on data collected from the eHealth IM&T survey carried out in 2012, as this remains the most accurate information currently available on these assets. There are, however, plans to improve on the data available for this asset which may be available for next year's SAFR report.

The purpose of that survey was to provide a baseline of overall IM&T expenditure within NHSScotland in order that a better understanding could be gained on the current profile of investment in IM&T, identify priority areas for future development and shape future investment plans. The survey also collected information on client devices and peripherals (devices are items such as desktop computers, laptops, tablets etc; whereas peripherals are items that support these devices, such as printers).

The following two charts provide a breakdown of information gathered on client devices and peripherals related to the number of such devices.

Total Client Devices, 132,306

- 2,252
- 10,944
- 2,723
- 2,374
- 15,263
- 91,250

Legend:
- Desktop
- Laptop
- Thin Client
- Tablet
- Handheld
- Unallocated

Total Peripherals, 51,133

- 8,270
- 2,210
- 22,297
- 17,756

Legend:
- Personal Printers
- Shared Printers
- Multi-Functional Printers
- Unallocated

This information can be regarded as a baseline year which NHS Scotland can use to monitor future trends in the use of devices and peripherals. For example, NHS Scotland anticipates that the use of tablets and handheld devices will increase in future as the volume of care provided in the home environment increases and staff work on a more mobile / home working basis. By capturing this basic data, NHS Scotland will be able to monitor trends in device usage and use this information to inform future service planning.

Annex F
Review of Energy Performance

In support of the aspirations of the Climate Change (Scotland) Act 2009, and the associated duties incumbent upon public sector bodies, NHSScotland Boards continue to be proactive in reducing energy consumption and associated greenhouse gas (GHG) emissions.

In the reporting year 2013/14, the cost of energy across NHSScotland's hospital sites (as reported in the ISD Cost Book) was circa £105.3 million – a 0.58% increase on the previous year (and a 45.6% increase on reporting year 2010/11). However, absolute energy consumption at these sites (not corrected for the influence of weather) *decreased* by 7.62% in the same period, reflecting the ongoing challenge of rising energy costs. Since reporting year 2010/11, absolute energy consumption (not weather corrected) has decreased by 4.27%.

Rising energy costs continue to be a challenge for NHSScotland Boards. As with other public bodies in Scotland, the NHSScotland Boards purchase the majority of their energy via the Scottish Public Sector Utility contracts (managed by Scottish Procurement). These utility contracts cover electricity, gas, water, some liquid fuels and biomass pellets. Wholesale energy costs and the management fees associated with these contracts make up only 50% of total costs. The remainder is comprised of pass through charges, regulatory charges, environmental taxes and levies.

Currently the only areas that NHSScotland Boards can have influence on are the wholesale energy costs and the management fees paid to suppliers for the services they provide. NHSScotland Boards have no ability to control the application of the pass through charges, including regulatory charges and environmental taxes that are levied at a standard rate. Indeed, most of these are set at UK Government level. NHSScotland Boards proactively respond to all public consultations on proposed tax/ levy changes but ultimately, these are beyond their control.

Wholesale energy costs are subject to market forces. NHSScotland works with its other public sector partners in actively managing the purchase of energy on the wholesale market through a national Risk Management Committee run by Scottish Procurement. Through this committee, maximum target costs are set to ensure the least risk of exposure to market changes.

NHSScotland Boards' key response to rising energy costs is to drive costs downwards through proactive energy management and reduced energy consumption.

The table that follows summarises the energy consumption and cost figures for 2013/14 and preceding years. The percentage change in energy consumption between 2013/14, the preceding year and FY 2010/11 is also shown.

Board	2010/11		2011/12		2012/13		2013/14			
	£	kWh	£	kWh	£	kWh	£	kWh	% change in kWh since 2012/13	% change in kWh since 2010/11
NHS Ayrshire & Arran	£3,914,322	78,795,444	£4,996,300	72,043,715	£5,189,911	77,423,651	£5,092,905	73,766,320	-4.70	-6.38
NHS Borders	£1,348,397	27,085,518	£1,526,142	24,293,478	£1,744,823	25,404,536	£1,692,560	22,839,177	-10.10	-15.68
NHS Dumfries & Galloway	£1,563,022	47,938,572	£2,365,061	45,887,502	£2,245,003	49,481,287	£2,500,227	39,690,797	-19.79	-17.20
NHS Fife	£3,003,175	87,042,665	£4,041,255	82,591,834	£4,379,574	117,429,333	£4,400,662	106,985,161	-8.89	22.91
NHS Forth Valley	£3,133,854	78,282,675	£5,129,401	82,341,935	£4,338,549	74,504,665	£4,687,648	67,650,212	-9.20	-13.58
NHS Grampian	£7,820,458	169,490,880	£9,989,613	164,147,488	£12,571,578	212,969,192	£12,400,014	198,005,353	-7.03	16.82
NHS Greater Glasgow & Clyde	£19,968,223	500,446,891	£24,390,741	468,678,296	£29,976,889	486,542,584	£30,022,971	454,335,901	-6.62	-9.21
NHS Highland	£6,005,545	82,053,638	£6,848,708	76,221,189	£7,834,292	82,413,588	£6,885,020	74,234,505	-9.92	-9.53
NHS Lanarkshire	£4,514,517	101,434,805	£4,469,560	90,462,907	£4,856,766	95,914,401	£6,223,039	85,181,638	-11.19	-16.02
NHS Lothian	£10,487,365	245,711,792	£12,852,893	236,876,750	£16,882,365	257,995,117	£16,158,779	235,583,630	-8.69	-4.12
NHS Orkney	£294,507	4,370,775	£395,906	4,406,528	£367,325	4,443,459	£521,915	3,437,414	-22.64	-21.35
NHS Shetland	£477,291	3,859,197	£407,661	4,444,204	£415,900	3,845,427	£502,417	3,700,692	-3.76	-4.11
NHS Tayside	£6,618,783	173,409,677	£8,457,389	164,329,385	£9,578,954	171,873,617	£9,799,341	164,672,435	-4.19	-5.04
NHS Western Isles	£792,794	10,423,551	£1,029,796	9,771,581	£1,035,947	10,093,859	£1,941,689	10,283,870	1.88	-1.34
NHS National Waiting Times Centre	£1,590,185	38,817,786	£2,043,684	37,299,705	£2,378,604	39,419,329	£2,572,131	39,352,709	-0.17	1.38
The State Hospitals Board for Scotland	£779,362	11,346,441	£814,505	11,324,940	£892,531	10,876,557	£793,028	9,831,750	-9.60	-13.35
TOTAL	**£72,311,800**	**1,660,510,307**	**£89,688,057**	**1,575,121,437**	**£104,689,012**	**1,720,630,602**	**£105,294,356**	**1,589,551,564**	**-7.62**	**-4.27**

It should be noted that reporting year 2013/14 was significantly milder in temperature than 2012/13 (or the first reporting year of 2010/11), and this may account for the decrease in consumption in 2013/14. It is also important to take into account changes in the size of the estate. Between reporting years 2012/13 and 2013/14, there was a 0.34% increase in the reported hospital estate areas (and a 5.5% increase since 2010/11). For example, in the above table, NHS Fife shows a marked increase in energy consumption since 2010/11. However, the NHS Fife reported floor area increased by over 23% in the same period. Therefore, it is more accurate to consider a KPI of energy consumption per m^2 when reviewing relative energy performance.

During 2013/14, the average energy performance across the NHSScotland hospital estate was 443.2 kWh/m^2 – a 7.96% reduction over the previous reporting year, and a 6.12% reduction since 2010/11.

The table that follows shows energy KPI performance for each Board since 2010/11.

Board	2010/11	2011/12	2012/13	2013/14		
	kWh/m2	kWh/m2	kWh/m2	kWh/m2	% change in kWh/m2 since 2012/13	% change in kWh/m2 since 2010/11
NHS Ayrshire & Arran	360.3	324.6	348.9	359.0	2.90	-0.35
NHS Borders	431.7	389.8	407.7	380.6	-6.63	-11.84
NHS Dumfries & Galloway	557.7	533.9	520.0	508.1	-2.29	-8.90
NHS Fife	422.3	386.6	461.5	419.1	-9.18	-0.75
NHS Forth Valley	463.9	389.3	407.1	454.8	11.72	-1.94
**NHS Grampian	525.3	511.6	588.1	604.5	2.77	15.07
NHS Greater Glasgow & Clyde	494.9	469.9	503.5	435.9	-13.41	-11.91
NHS Highland	419.5	388.4	421.9	444.8	5.42	6.03
NHS Lanarkshire	481.7	463.2	499.9	418.8	-16.22	-13.04
NHS Lothian	491.6	473.9	516.1	392.2	-24.00	-20.22
*NHS Orkney	552.3	532.2	536.6	436.7	-18.62	-20.93

Board	2010/11 kWh/m2	2011/12 kWh/m2	2012/13 kWh/m2	2013/14		
				kWh/m2	% change in kWh/m2 since 2012/13	% change in kWh/m2 since 2010/11
*NHS Shetland	387.2	372.2	479.9	470.3	-1.79	21.47
NHS Tayside	404.8	383.6	399.7	435.7	9.02	7.64
NHS Western Isles	597.0	559.6	578.1	481.5	-16.72	-19.35
*NHS National Waiting Times Centre	735.5	706.8	746.9	664.6	-11.03	-9.65
* ***The State Hospitals Board for Scotland	739.5	486.3	456.5	416.6	-8.74	-43.67
TOTAL	472.1	445.9	481.6	443.3	-7.96	-6.12

Table notes:

*Board data based on single hospital site.

**During 2011/12, a new large-scale CHP system was installed at a site in NHS Grampian. This resulted in more kWH being used, but has significantly reduced GHG emissions.

***During 2011/12, the State Hospital underwent considerable refurbishment, including the installation of a new biomass boiler

HEAT Target Performance

In 2013/14, NHS Boards continued to report their hospitals' energy consumption and GHG emissions under the HEAT Target (Phase 2)[2]. This requires a year-on-year energy efficiency improvement of 1% on all energy sources based on an overall improvement by 2050 of 33% (or one third) on the comparative performance as at the 2009-10 baseline year. This equates to a 10% reduction in energy performance by 2020. For 2013/14, NHS Boards had to achieve a 3.47% reduction in energy consumption compared with 2009/10.

The HEAT Target also requires NHS Boards to achieve a 3% year-on-year reduction in carbon dioxide (CO_2) emissions from fossil fuels only, based on a 2009/10 baseline. For

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[2] The Health Efficiency Access Treatment target E8 applies to hospital sites only. Data is weather corrected at site level. Therefore, these figures cannot be compared directly with data from ISD Cost Book.

2013/14, NHS Boards had to achieve a 10.19% reduction in energy consumption compared with 2009/10.

Note that the HEAT Target figures will be different to those presented above. This is because the dataset used does not consider all the same sites, weather correction is applied, and the impact of site disposals/ additions are not included.

The HEAT Target performance figures for 2013/14 showed that NHS Boards' hospital sites reduced their energy consumption by 3.43% against the baseline year - 0.04% worse than target. In the same period, CO_2 emissions from fossil fuel use were reduced by 3.61% against the baseline year – 6.58% worse than target. The poorer CO_2 performance was in part due to the ongoing operation of a large Combined Heat and Power (CHP) plant at NHS Grampian's main hospital site. As the current HEAT Target calculation method excludes GHG emissions from grid-sourced electricity but includes site-generated energy from, for example, CHP plant, the positive impact of the CHP on overall emissions cannot be demonstrated.

Future Plans: Energy

NHSScotland Boards have been working on the procurement of two major energy infrastructure projects – at NHS Tayside and NHS Grampian. The first of these projects has begun construction work and will be fully commissioned towards the end of 2016, the second is due to begin construction work in early 2016. These two projects will see c £28.5 million invested across 6 sites, resulting in guaranteed energy/ GHG savings of c £4.6million p.a. and c 20,000 tCO2e.

The approach to these projects is that rather than install individual energy-saving technologies in isolation, the whole site is treated holistically so that maximum energy/ GHG reductions are identified. Major energy centre works are carried out in parallel with downstream energy efficiency measures, resulting in more accurate sizing of heat and electricity generation plant, which in turn leads to improved efficiency of energy plant performance. The scale of the works means that smaller sites can be aggregated under a larger contract, again improving value for money and savings performance. The contractual approach to such works is that they are underpinned by an Energy Performance Guarantee, so ongoing engineering resilience and plant performance is maintained.

Annex G
Facilities Shared Services Review

Background

The Facilities Review and Shared Services Programme Board was established in 2014 to manage the portfolio of projects identified by the Strategic Facilities Group. The current delivery of operational support services which were seen as having the greatest potential to deliver improvements in the quality of services and create efficiencies are as follows:

- Capital Planning and Hard Facilities Management.

- Operational Management of PPP/PFI Contracts

- Decontamination of reusable Medical Devices

- Transport and Fleet Management

- Waste Management.

Capital Planning

The capital planning review is focussed on addressing the risks associated with the potential shortfall in experienced technical staff with the necessary skill set to deliver the pipeline of capital projects in Scotland over the next 5 – 10 years. Its aim in responding to this issue is to create a critical mass of highly skilled staff that will have clear career progression opportunities to work across all healthcare sites and scales.

A fully inclusive appraisal of options for addressing this issue has been completed and a preferred option identified based on a geographical model of service delivery. Working with the Stakeholders, consultants have refined the outcomes from the appraisal of options exercise events to refine the data and develop the potential model of service which will deliver a more efficient capital planning and construction project management service. Stakeholders from Scottish Government, Health Facilities Scotland and the Health Boards have been working together to take the agreed principles and create a practical operational structure with clear lines of accountability and responsibility which will deliver the NHSScotland capital programme more efficiently with costs being avoided and projects delivered on time to the quality and costs agreed.

Operational Management of PPP/PFI Contract

A Business Case has been developed and approved to establish a Specialist Support Team to assist Boards with the operational and commercial management of PPP/PFI contracts to ensure that Boards receive the appropriate service in relation to quality and

quantum. The Specialist Support Team will be hosted in Health Facilities Scotland and is tasked with delivering significant revenue benefit and quality improvements.

The Specialist Support Team will continue to influence the future standard forms of contract for revenue funded Hub Schemes and NPD Pipeline Projects in the light of operational experience.

The strategic direction and work plan for the activity of the Specialist Support Team is set by the PPP Joint Board which draws its membership from the Scottish Government, Health Facilities Scotland, Scottish Futures Trust and Health Boards.

The PFI/PPP Advisory Group is a very active forum for help, advice and collaboration. It has matured as a group and ensures, where ever possible, that there is an effective exchange of intelligence and consistent approach to contractors. The development of the informed client role by sharing experience and cooperation between Boards with common PFI providers has proved to be extremely effective.

SFT Colleagues also continue to bring lessons learned from their In-depth Reviews and these are proving to be very helpful, bring an increased level of commercial acumen to the interface with our commercial PPP/PFI partners.

This shared services project is complete with the following products flowing from this work identified as:

- The acquisition of funds to develop the Specialist Support Team.

- The establishment of the PPP/PFI Advisory Group.

- The creation of governance structures to support the operational management of these commercial contracts.

The developed service has returned to "Business as Usual" and the management and monitoring of the activity associated with the management support for PPP/PFI contracts will be undertaken by Health Facilities Scotland.

Decontamination of reuseable medical devices

The initial work of the project identified the lack of communication between Boards when considering investment in their Central Decontamination Units. This combined with overprovision of services/facilities in some Board areas and the need for investment in others highlighted the need to develop a national strategy for the provision and operation of Central Decontamination Units. Proposals detailing the future strategy for Central Decontamination Units will be developed.

The gathering of data relating to the likely capital investment will allow more effective allocation of capital.

Transport and Fleet Management

The business case to develop a national support structure with regional and local management was approved by Scottish Government.

Funding for the implementation of the National Support Team and a single fleet and transport management system (including telematic units for vehicles) is likely to make the phased introduction of a consistent specification and management system for vehicles to be operational in early 2016.   A conservative estimate of the annual savings to be delivered by the project is £2m. This will be returned to the Health Boards which accrue those savings.

A pilot of the regional model of transport management is being carried out in the East Central Hub area (Fife, Tayside and Forth Valley). This is proving to be a successful small test of change and will be rolled out to the other regions in due course.

Logistics

A detailed review has been carried out of all delivery routes in Scotland. A project will be undertaken to examine opportunities to reduce the number of miles covered by NHSScotland vehicles by more efficiently using the fleet and avoiding duplication of tasks. The objective being to reduce the total cost and carbon footprint of the NHS in Scotland.

Car Leasing

Agreement has been reached on the adoption of core principles which should be adopted by Health Boards when negotiating car lease policies with staff.

There will be a single management structure which will manage the lease car arrangements for all Health Boards on a "Once for Scotland's NHS" basis.

Waste

All outcomes from the work streams were considered by the Facilities Review and Shared Services Programme Board before being passed to the Waste Management Steering Group of Health Facilities Scotland.

This specialist waste management group will ensure a national approach to the disposal of WEEE, paper and cardboard, furniture, reverse logistics and administrative processes. Changes to the administrative process are predicted to reduce costs by, in the region of, £400k.

The work of this has now been passed back to the Waste Management Steering Group. The deliverables will be monitored through the Strategic Facilities Group, hosted by Health Facilities Scotland.

Annex H
Strategic Review of Soft Facilities Management Services

The Strategic Review of Soft Facilities Management Services across NHSScotland (Catering, Domestic, Portering, Laundry/Linen and Retail services) was undertaken to identify how the current services operate and look at a number of service improvement opportunities to enhance efficiency, patient safety and user satisfaction.

The outcome of this work was a review report that was presented to the NHS Efficiency Portfolio Board and the Chief Executives' group in June and August 2014 respectively to agree which service improvement opportunities should be progressed.

Catering:

National Catering Information System/ Bedside Electronic Patient Meal Ordering System

Following on from the all NHSScotland Boards independent Catering Review in 2013/2014 it was agreed that a bespoke IT catering tool, the Catering Information System (CIS) should be introduced. The CIS system can produce accurate costs of provisions used in the production of patient meals. Additionally the system can calculate an NHS Board's non-patient surplus or deficit. The CIS system could also identify opportunities such as quality improvement, reduction of food wastage and aid control costs.

The initial CIS system operates on a Microsoft Excel platform and has been rolled out to a number of NHS Boards including Borders, Fife, Shetland, Orkney, Tayside and Lanarkshire. In 2014/15 the CIS system was also rolled out to NHS Lothian and NHS Highland. NHS Lanarkshire has also been piloting a Bedside Electronic Patient Meal Ordering System (BEPMO) for over a year. NHS Greater Glasgow and Clyde has also trialled the BEPMO system in the new Queen Elizabeth University Hospital. The BEPMO system is designed to enable NHS Boards to reduce over ordering of meals and also allow the presentation of the daily menus in an electronic format.

The CIS can provide operational and financial benefits to NHS Boards. An example of the former is monitoring of food wastage and local stock levels. Financial benefits include a management reporting suite which can provide trend analysis and details of retail sales.

The majority of NHS Boards that have implemented this Excel based version of the CIS system have derived benefits from it, however more time will be required to fully quantify benefits. It is anticipated that a return on investment would be on 4:1 basis.

National Services Scotland (NSS) on behalf of NHSScotland has initiated a procurement process for the implementation of a web based version of both the National Catering Information System (NCIS) and BEPMO systems for In House operated A1 (teaching hospitals) or A2 (large general hospitals) locations.

Catering Production Strategy

The Soft FM programme continues the assessment of the most appropriate catering service provision for NHSScotland and is working with NHS Boards and other stakeholders to produce a strategy document.

NUTMEG menu analysis tool (Additional Module)

All NHS Scotland Boards have had access to the N4P Nutritional Analysis database since 2010. The system has now been updated with a bespoke module to aid compliance with EU Regulation (EU) 1169/2011.

The N4P EU Allergen module provides NHS Scotland Boards with the ability to analyse their patient menus highlighting key allergen information as required by the EU guidelines. The Allergen module has been live from September 2015 and Nutmeg and system users have been trained on the functionality of the new module.

NHS Food in Hospitals updating in progress

The National Catering and Nutrition Specification for Food and Fluid Provision in Hospitals in Scotland (Food in Hospitals) was established in 2008. A review of the Food in Hospitals Specification has compromised initial feedback from key stakeholders as to where they felt improvements could be made on the existing content or to identify any clear gaps in the provision of Food and Fluid Provision.

The key areas for review were:

- Nutrient needs of the hospital population
- Menu Planning Guidance
- Therapeutic Diet Provision
- Special and Personal Diets

New sections were identified for:

- Paediatric diets
- Audit and monitoring of Food in Hospitals Standards
- Allergen information (to reflect EU guidance circa Dec 2014)

The review of the document is complete and is now due to be formatted before final sign off by the Chief Nursing Officer. Once agreed, the document will be printed and distributed to the Health Boards for implementation.

Key changes to the document include the introduction of standards and nutritional guidelines for Paediatric catering as well as the introduction of guidance on the auditing of nutritional standards.

Laundry

The Soft FM Programme is also facilitating the development of a business case, which will identify the most appropriate provision of Laundry Production Units across NHSScotland and take forward previous recommendations on the reduction of double washing of infected linen and the frequency of linen changing.

Domestic

The Strategic Domestic Review Group produced a generic domestic floor cleaning equipment and materials specification for the Domestic Expert Group to develop further with National Procurement for use in the future.

A national Domestic Productivity Tool (Time to Clean), which can provide accurate costs for the cleaning of existing and future NHS locations, is currently being developed with test task cleaning times being validated by a number of NHS Boards.

Portering

A pilot of a fully Automated Dispatcherless Porter Task Tracking System (APTTS) took place in NHS Fife, the system identified improvements in efficiencies within the portering department. Following this pilot, a specification was produced for a full ADPTTS system within NHS in-house operated Hospital portering services with over 300 beds. A procurement process has commenced on a framework basis.

Retail

Following on from a Strategic Retail Review Group work, a Lease Guidance policy for all NHS Scotland boards has been created to be attached to all new Leases which will identify the following:

Catering outlets are those where most food is prepared before it is served to the customer either to be consumed on-site or taken away. An example would be a tea bar, restaurant or vending operation. Catering outlets in healthcare buildings should comply with the **healthy living award** (HLA).

Retail outlets are those where food is not prepared on-site, rather it is ready for immediate purchase. Examples include a convenience store, newsagent, mobile or pop-up store or trolley service. Retail outlets in healthcare buildings should comply with the **SGF Healthcare Retail Standard** (HRS).

Mixed outlets offer a combination of catering and retail provision. Mixed outlets in healthcare buildings should comply with both the **SGF Healthcare Retail Standard**

(HRS) and the **healthy living award** (HLA). For these outlets, a single assessment will apply in accordance with whatever is the predominant activity – retail or catering.

Annex I
eHealth Strategy 2014-2017

The eHealth Strategy 2014-2017 sets the direction and high-level programme for that period, but also looks beyond that to the capabilities we expect to have in place by 2020.

The eHealth Strategy 2014-2017 maintains a significant focus on healthcare and the needs of NHSScotland and has been redeveloped to recognise the rapidly evolving environment of integrated health and social care and the need to address not only NHSScotland requirements, but also the expectations and requirements of partnership organisations (in particular local authorities), and citizens for electronic information and digital services. Alignment with the aims of Scotland's Digital Public Services Strategy is built in.

The refreshed eHealth Strategy builds on the many core ICT systems and infrastructure that have been invested in over the past 3 to 5 years. But there will also be fresh investment in new technologies, with additional capabilities across all areas of health and care, especially primary and community care.

The six core aims developed as part of the previous eHealth Strategy published in 2011 remain appropriate and are consistent with NHSScotland's 2020 Vision. A seventh aim has been added specifically related to innovation. The seven aims are:

The eHealth Aims

- To enhance the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality.

- To support people to communicate with NHS Scotland, manage their own health and wellbeing, and to become more active participants in the care and services they receive.

- To contribute to care integration and to support people with long term conditions.

- To improve the safety of people taking medicines and their effective use.

- To provide clinical and other managers across the health and social care spectrum with the timely management information they need to inform their decisions on service quality, performance and delivery.

- To maximise efficient working practices, minimise wasteful variation, bring about measurable savings and ensure value for money.

- To contribute to innovation occurring through the Health Innovation Partnerships, the research community and suppliers, including the small and medium enterprise (SME) sector.

The potential of information technology to support and transform healthcare services is fully recognised across NHSScotland and eHealth has a pivotal role to play in ensuring that the 2020 Vision for Healthcare in Scotland and its Quality Ambitions are delivered. There is no doubt that eHealth has massive potential to assist clinicians to do their job better and to provide citizens and patients with better information and services. To meet these demands eHealth will need to continue to address several complex areas.

The current version of the eHealth Strategy was planned to be simply an update of the one published in 2011. But in the three years between 2011 and 2014 significant policy developments in Scotland for Health & Social Care, and for citizen –facing digital services, meant the current eHealth Strategy needed a further shift of emphasis – this time to delivering secure digital access to health and care information to a much wider set of professionals and providing more services and information to people through digital channels.

Challenges addressed by the eHealth Strategy 2014-17 are multifaceted. They include maintaining the resilience of systems operating 24/7/365; ensuring availability of funding for replacement and modernisation of an increasing ICT estate, filling gaps in electronic information coverage and systems integration (most significant being Hospital Electronic Prescribing and Medications Administration); further reducing variation in systems infrastructure and applications; opening portals through which people can access their health and care information; providing secure interfaces between consumer health and care products/tools and core health and care information systems; building capacity development for business intelligence and predictive analytics; and introducing information governance that balances the need to protect with the need to share.

The eHealth Strategy 2014-2017, with a realigned governance structure, will ensure that technology areas that were previously managed in the margins of eHealth will become core to planning and delivery in order to deliver the desired service transformation.

The focus on efficiency, reducing variation and improved management information applies to all services within NHSScotland, including Facilities Services. It is recognised by the Strategic Facilities Group (SFG) and eHealth Leads Group that technology is essential to support the development of Facilities Services across NHSScotland and collaboration and joint working between Facilities and eHealth is vital at both national and Board level. Work has commenced on the creation of a 'Facilities eHealth Strategy' that will focus on this joint and collaborative approach to significantly support the aims, standards and principles within the eHealth Strategy 2014-2017. The aims of the Facilities eHealth Strategy will ensure that there is clarity of vision and direction for the

procurement and implementation of technology into Facilities Services within NHSScotland. The Facilities eHealth Strategy is scheduled to be published in 2016

Delivery of the eHealth Strategy 2014-2017 is a joint responsibility of the Scottish Government, the NHS Boards and other partners, both public and private. Individual NHSScotland Boards will continue to have their own local eHealth delivery plans which will reflect national priorities and developments in the context of their own local circumstances. Boards' eHealth Plans will be aligned to LDPs and will include:

- benefits being maximised from existing IM&T assets

- information and evidence on eHealth's contribution towards achieving the seven strategic eHealth aims;

- promotion and implementation of good practice and successful local initiatives more widely;

- convergence of approaches to delivery in order to reduce duplication of effort and reduce cost;

- collaborative working between Boards and cross-border eHealth developments

Work Plan

NHSScotland require to consider the priorities of the work plan and split the work into categories such as:

"Must Do" projects. These are generally systems at the end of life, or existing contracts for services and licences that are due for renewal.

"Invest to Save" projects. The basis for undertaking such projects is to release saving in the future.

"Potential Development" projects. These are projects designed to move the IM&T service forward in a strategic direction, or to absorb costs new national systems.

The following projects are considered priority for eHealth and are currently in progress or have plans for initiation.

- Completion of the N3 replacement, SWAN (in Progress)

- Implementation of NHS Mail replacement (planned for implementation)

- Business case and implementation Support Needs System

- Business Case and implementation of CHI Modernisation

- Business and implementation Child Health Systems

- HEPMA, Hospital Electronic Pharmacy and Medicines Administration

- The Full Business Case for HEPMA is scheduled for completion and approval in late 2015. Some NHS Boards will progress HEPMA as an earlier development than others depending on local priorities and resources. However, it is expected that most NHS Boards will have some elements of HEPMA operational by 2020

- Patient Portals
Patient portals are secure websites through which patients can access a Patient Health Record. This may contain information from a patient's EHR. It is usually "tethered" to a health care organisation with applications that complement an EHR and enables users to complete forms online, communicate with providers, request prescription refills, review lab results, or schedule medical appointments. This is a key driver to enhance patient access and increase administrative efficiency and productivity all in line with the 20:20 vision.

- Electronic Patient Record (EPR)
EPR exists within current patient management systems and there are current clinical portals that exploit this information and align acute, community and GP data. Additional functionality will be developed within current applications. There will be increased patient safety by reducing or correcting errors. Improved shared decision making and improved feelings of empowerment and move away from paternalistic NHS. More efficient/accurate transferability of the record.

- Telehealth and Telecare
There is three-year funding for the Technology Enabled Care Programme for 2015 – 2018, at £10 million per annum. This is currently administered by the Joint Improvement Team (JIT), within the Directorate for Health & Social Care Integration.

- Mobility
Given the advance in computer and mobile technology, and its universal use, any constraints are increasingly unacceptable to staff, managers and clinicians in NHSScotland. The request for 'all this' to be an 'app on my mobile' is ubiquitous and there is a danger that, without proper investigation, consideration and governance, expensive and inappropriate approaches may be adopted.
The appropriate Infrastructure needs to be in place to enable the usage of the SWAN network, local networks, and portable devices.

- Video Conferencing
  Significant investment has taken place in NHS Scotland to provide video conferencing locally at the desktop as well as nationally via video conferencing hubs. This development is to be extended and offers benefits to NHS staff in terms of meetings and clinical services and to patients where video consultations are now being practiced.
  This offers significant reduction in travel of both staff and patients delivering savings and improvements in patient experience and care.

- GP Systems
  The contract for the current GP systems expires in 2017 and so work is underway to procure systems for the framework contract.

- Community System
  The MiDIS system used by a consortium of boards in Scotland comes to the end of support in March 2018 and therefore it is necessary for a new community system to be procured. The consortium of Boards have invited other Boards to join them and once confirmed the project will move towards confirming the requirements and agreeing a way forward to procure the appropriate system.

With the rise of smart phones and tablet devices, there is an increasing demand for access to systems and data away from the traditional desktop environment. This represents a significant challenge to eHealth and suppliers, who have traditionally sourced systems fit for MS Windows based environments. Unless there is significant demand from other clients, suppliers are likely to choose a preferred mobile/tablet provider and make their product fit for purpose. Others may not consider any investment in this space. NHSScotland Health Boards may choose different devices to provide services to their clinicians, potentially leaving suppliers in a position where they must support 3 different platforms for one system. All of this is likely to increase cost pressures on IM&T over the next 5 years. This is without considering the necessary support models and structures required for mobile working.

Patient centred care is an integral part of delivering healthcare. With the increasing penetration of smart phones, tablet devices and the internet usage, it should be expected that patients will demand more information about their care pathway, and to see more of their data on-line. Whilst this is currently a mostly passive relationship with the citizen, increasingly this will change, following the success of initiatives such as 'My Diabetes, My Way', and through telehealth and telemedicine initiatives. Boards will need to increasingly cater for this type of interaction. In-line with equity of access policies, and consistency of care across Scotland, this will require much greater standardisation across the NHS both in IM&T and in some instances care delivery. eHealth

Departments will increasingly find themselves in the middle of this, having to securely make data available, and harmonise systems across their portfolio.

With the procurement of TrakCare, and the deployment of Clinical Portal, there is an increasing reliance on IM&T to support NHSScotland activity. As Order Communications is deployed across health boards, it becomes increasingly necessary for IM&T departments to provide 24*7 support. In some cases this is at odds with existing terms and conditions for staff already employed in departments. Increasingly clinical directors will be looking for continuity of support, and the eHealth Leads will need to find a way of providing this. Given the current shape of the workforce, a regional support model, or shared service model may need to be considered, as not all Boards will be able to provide 24*7 support for all systems and services.

Alterations to existing service contracts have the potential to release funding that can be used to encourage smaller and more nimble suppliers. Whilst this may introduce complexity into NHSScotland contract management, the potential benefit is to have a set of suppliers more aligned to eHealth strategy. In addition, such changes will allow NHSScotland to significantly change key parts of the national IT infrastructure without affecting service delivery. Doing this would allow for re-investment to support some of the opportunities and issues highlighted above.

eHealth Budget Prioritisation

- Effective, efficient and robust IT will be a key element in transforming services.

- 24/7/365 require resilient and robust IT systems, primary and Secondary care now totally reliant on IT systems (e.g. Patient Management System, GP IT systems, Emergency Care Summary). Although these systems are reliable there have been examples of system outages or capacity issues that illustrate how reliant the NHS is on IT in its daily operations.

- A key element of the patient safety programme is improving and reconciling medications. The introduction of a HEPMA system to Hospitals is important in completing the electronic patient record.

- The recent Out of Hours review highlighted the dependencies on IT and access to information.

- Public expectation is for more sharing of information across primary and secondary care and in the wider health and social care setting.

- The developing clinical strategy also sees IT playing a key role.

Annex J
A Strategic Approach to the Planning of Medical Equipment

Medical equipment is a valuable asset both in monetary terms and in the important role it plays in the delivery of quality healthcare across NHSScotland, with modern standards of available equipment used to better support person centred care and improved efficiency and effectiveness of service delivery.

The strategic management of medical equipment within each NHS Board should be aligned to its strategic aims. Within each NHS Board, the management of medical equipment involves a number of departments, including capital planning, procurement, medical physics, facilities and finance. Co-ordinating their endeavours requires a strategic approach, supported by careful planning (replacement planning and, responding to changes in clinical care, procuring different additional equipment). This would enable a sustainable and coherent service that ensures the improved availability of the right equipment required at the right time for patient care.

The importance of medical equipment to the future delivery of healthcare has been recognised by the Scottish Government in the Scottish Healthcare Science National Delivery Plan 2015-2020. One of the five improvement programmes in the delivery plan sets out to streamline health technology management. This improvement programme draws on the work of SAFR 2014 and is aligned with the Medical Equipment Management Expert Group's terms of reference. It sets out four ambitions for improvement, to:

- reduce the risk of harm to patients and staff

- reduce unnecessary variation

- improve resilience and sustainability

- reduce equipment replacement and repair costs.

To achieve these ambitions, NHS boards and healthcare science leads will work with stakeholders (including the SAFR Medical Equipment Management Expert Group) to deliver a patient focussed, high-quality, sustainable, coherent and whole-systems approach to the management of health technology by the end of 2017, with full implementation by the end of 2020.

Current examples of this across NHSScotland include:

- Continued investment in the replacement of Radiotherapy equipment at the 5 Scottish Cancer Centres brings improvements in providing state of the art radiotherapy treatment and planning systems, thus offering the opportunities for patients to receive highly targeted, image guided radiotherapy including

volumetric arc radiotherapy, and replacing ageing equipment based on outdated or obsolete technology

- Modern imaging equipment is now designed to keep radiation dosage to as low as reasonably achievable thus reducing the associated risks to patients and staff.

- The NHS Scotland Breast Screening Programme has recently completed a full equipment replacement exercise with older analogue screening equipment now replaced with digital technology. This includes equipment on all of the Mobile Screening Units and at the Static Centres across NHS Scotland.

- Medical Equipment is integral to the delivery of keyhole surgery which has significantly reduced the length of stay in hospital for patients. It has enabled complex surgery, particularly abdominal surgery, to be undertaken without the associated trauma of major open surgery.

- Scotland's first Robotic-Assisted Surgical System (RASS), has been delivered to NHS Grampian for procedures at Aberdeen Royal Infirmary which are being planned for late summer. The state-of-the-art RASS will be used primarily for minimally invasive procedures for prostate cancer. The technology will be available to clinically appropriate patients from across Scotland. The RASS equipment provides a 3D high-definition camera which shows surgeons a clear, highly magnified view of the procedure area, as well as fine instruments which go into the patient's body through small incisions and which allow the surgeon to perform procedures such as removing tumours and organs using wristed instruments - ones which mimic a surgeon's hand movements - and increased precision. The benefits to patients include reduction in recovery time and their stay in hospital, reduced blood loss and other complications including quicker return to continence. It is anticipated that additional systems will also be installed in NHS GG&C and potentially NHS Lothian within the next 24 months.

- The introduction of Digital Radiology technology provides instant image results, allowing the radiology staff to verify image clarity immediately after taking the image. This reduces the waiting time required whilst the image quality is verified.

- Networking of medical equipment such as patient monitors now allow quick and easy access of patient data to medical personnel

- Networking of ophthalmology equipment such as OCT, visual field analysers and fundus camera allows ophthalmologists to provide accurate care to patients and greatly reduce patient waiting time

- Wireless technology now allows management of patient infusion devices to quickly update drug library, reduce human errors and monitor the use these devices

- Examinations of the digestive and intestinal system (gastroscopy and colonoscopy) using flexible endoscopes provide minimally invasive methods of diagnosis of pathologies including cancer, with the ability to carry out some treatment. Developments including specialised imaging techniques (narrow band imaging to more clearly show abnormal cells) are improving the quality of the images.

- Modern standards of medical equipment enable cataract surgery to be carried out on a day surgery basis resulting in improved service effectiveness, patient convenience, and patient safety.

- Clinical Portals for example in cardiology where ECG recordings are wirelessly uploaded in real time to a data base where anyone can view them or use them to compare against previous recordings. In the event of the patient being admitted at another hospital the recordings are immediately available.

- Cooling of patients who have had an out of hospital cardiac arrest has proven to increase recovery potential.

- Initial trials of patients monitoring in domiciliary environment are underway. This involves monitoring equipment connected to a tablet device. The device collects patient test results along with data collected from prompted questions that allow algorithms to assess the patient and report these centrally for clinical intervention as required. Different clinical conditions/applications are also being investigated. At the moment this work is being carried out in individual health boards. So far this has involved relatively low levels of equipment but it is envisaged this type of technology could expand rapidly and may benefit from an NHSScotland wide approach in assessing equipment and standardisation.

Following the recommendation in the 2014 report, a Medical Equipment Management Expert Group has now been formed with representation from the NHS Scotland Medical Physics Community and others with Medical Equipment responsibilities. The Group's remit is to

- Improve the quality safety, efficacy and cost effectiveness of medical equipment management in Scotland for the benefit of patient care.

- Provide strategic advice on medical equipment and its management within Scotland; including need, selection, procurement, safety, application, environmental impact, maintenance and support, training and disposal.

- Investigate opportunities for enhancing technological advancements, smarter technology better connectivity from medical devices.

- Share and encourage best practice in medical equipment management, including lessons learnt from the successful introduction of the National Imaging Equipment Group.

- Provide a focus group for liaison with Scottish Government Health and Social Care Directorate on medical equipment management within NHS Scotland.

- Liaise with appropriate groups including Health Facilities Scotland (e.g. National Procurement and Incident Reporting and Investigation Centres), Health Improvement Scotland, the Health Care Science leadership, and eHealth / IM&T representative groups.

The Group have already identified several opportunities, which would assist in improving the strategic approach to the management of medical equipment within NHS Scotland. Work has already commenced in the areas of:

- Investigating the harmonization of databases for medical equipment across NHSScotland.

- Development of robust governance arrangements for the safe and effective use of medical equipment; including a review of current policy, best practice advice on reducing carbon footprint, and impact of workforce planning agenda.

Annex K
The New Scottish Capital Investment Manual

The Scottish Capital Investment Manual (SCIM) provides guidance in a NHS context on the strategic and investment planning processes to be followed from identification of the need and case for investment through to the practical elements necessary for delivering a successful infrastructure project.

The guidance was last updated in 2009 and there have been many policy changes and best practice developments since then which have increased the need for a thorough refresh of the SCIM guidance to ensure that it continues to support service change through the effective delivery of infrastructure programmes and projects within NHSScotland.

A project board was set up in late 2014 to refresh every element of the existing guidance and to refocus business cases into developing a compelling rationale for investment formed from a need for service improvement and not necessarily just about building replacement.

In developing the revised SCIM, recognition has also been made of the guidance that currently exists on a Scottish, UK and international basis with a view to drawing together best practice that can be applied within an NHSScotland context.

Other improvements that the new guidance is intending to introduce include:

- Stronger collaboration and input to business cases from strategic / service planners.

- Identification of demonstrable benefits and associated risks from the investment at the beginning of the investment planning process.

- A clearer alignment with expectations for early engagement with stakeholders about the impact of service change from any proposals.

- A new Strategic Assessment process which provides a brief initial outline of the project and encourages early involvement of all stakeholders.

- A step-change in the emphasis of the Initial Agreement towards identification of the most appropriate strategic / service proposal, prior to later consideration of building solutions.

- An outline business case which focuses on identifying and developing the preferred project for implementing the proposed strategic solution.

- A Full Business Case that appropriately confirms that the project is ready to proceed to contract award.

The NHSScotland Design Assessment Process (NDAP) is a further, integral, part of the business case approval process and has been reviewed as part of the overall SCIM refresh. This guidance and process requires projects to establish clear design objectives for a project at the outset, which can then be used to assess the progress of the design and the evaluation of a successful outcome from a well designed project.

It is expected that these improvements to the SCIM guidance will enhance the quality of business case submissions whilst also ensuring that evidence is available to support NHS Boards in their decision making at key stages. It will also provide assurance to other stakeholders, including the public and Scottish Ministers, around the basis for such decisions and the robustness of the evidence and processes that underpin such key decisions.

Substantive draft documents of sections of the new SCIM guidance are currently available and being recommended for use in the development of any new Strategic Assessment, Initial Agreement, and Outline Business Case. This soft launch approach enables real testing of the guidance on actual projects and enable feedback on the guidance prior to its formal launch. The availability of the full suite of SCIM guidance is expected shortly and a formal launch later in the year. In the meantime regular familiarisation events on the new guidance are being held with NHS Boards.