



Campsmount Technology College - Schematic of Project underway

Review of Education Capital

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LIST OF CONTENTS

Executive Summary

Part 1 – The Current Processes

1. Introduction
2. Building Schools for the Future
3. Devolved and Targeted Capital Funding
4. Other issues
5. Capital Review Pilot Project

Part 2 – Options for Change and Recommendations

1. Introduction
2. Capital Allocation
3. Design and Build
4. Effective Procurement and Maintenance

Appendices

- Appendix A Summary of Recommendations
- Appendix B Glossary of Terms
- Appendix C Background, Terms of Reference and Methodology of Review
- Appendix D Ownership of the Educational Estate
- Appendix E Breakdown of Capital Funding Streams for 2010/11
- Appendix F Case Studies of Projects with Significant Issues
- Appendix G Schematic of Campsmount School in Doncaster
- Appendix H Building Schools for the Future Current Process

LIST OF FIGURES

Part 1 – The Current Processes

- Figure 1 Department's Capital Spend
- Figure 2 Average Pre-procurement and Procurement times by Wave
- Figure 3 The Priorities of those people who responded to the Call for Evidence
- Figure 4 Building Costs per square meter related to floor areas
- Figure 5 Index of Cost of Building Schools in United Kingdom, Germany, Denmark, Sweden, and Ireland
- Figure 6 Summary of Capital Allocation Process
- Figure 7 Schools' Spending on Energy (2004-2009)
- Figure 8 Schools' Carbon Footprint (1990-2006)

Part 2 – Options for Change and Recommendations

- Figure 1 Schematic of Proposed Capital Allocation Process
- Figure 2 Local Process
- Figure 3 Central Body - Proposed Role
- Figure 4 Procurement of Works

LIST OF TABLES

Part 1 – The Current Processes

- Table 1 Pre-procurement and Procurement Costs
- Table 2 CABE Design Quality Ratings of BSF Schools prior to the introduction of the Minimum Design Standards in 2009
- Table 3 CABE Design Quality Rating (from October 2010)
- Table 4 Assessed Spend on Insurance Premiums in the Education Sector (excluding PFI)

EXECUTIVE SUMMARY

In July 2010, the Government launched a comprehensive review of all capital investment funded by the Department for Education (the Review).

The purpose of the Review was to consider, in the context of the Government's fiscal consolidation plans and emerging policy, the Department for Education's existing capital expenditure and make recommendations on the future delivery models for capital investment for 2011-12 onwards.

The overall aim of the Review was to ensure that future capital investment will provide good value for money and strongly support the Government's ambitions to reduce the deficit, raise standards, tackle disadvantage, address building condition and meet the requirement for school places resulting from an increase in the birth rate.

The background, terms of reference and methodology of this Review are set out in **Appendix C**.

This report sets out the research and analysis that was undertaken and also the recommendations on future delivery models for capital investment.

Extensive consultation was undertaken; workshops were held, a call for evidence was issued and interviews and other methods were utilised to support the research, analysis and consideration of alternative models. The workshops involved over one hundred people drawn from teachers, Academy sponsors, Voluntary Aided organisations, architects, Local Authorities, contractors and other interested parties. We are very grateful to all those who supported the Review.

The review is presented in two parts. **Part 1** sets out the significant issues that have been identified with the current processes for capital allocation, Building Schools for the Future, devolved and targeted programmes, and the maintenance of the estate. We have also looked at other areas where we believe, with further attention, significant improvements could be made. **Part 2** sets out our recommendations on future delivery models for capital investment.

A number of themes have emerged and are laid out in **Part 1** of the report. The Review found the current approaches to be flawed and that substantial savings in both time and money are possible while also improving the quality of the finished product. The consensus estimate from the workshops is that a cost saving of 30% could be achieved.

Over time, the approach to capital investment has become very cumbersome and accountability for time, cost and quality has been dispersed both within programmes and across programmes.

The main issues identified are:

- i. The capital allocation process is complex, time consuming, expensive and opaque. In most cases, decisions are not based on objective criteria which are consistently applied and do not succeed in targeting money efficiently to where it is needed. There are too many different approaches across the various programmes and keynote programmes such as Building Schools for the Future had an approach that, with hindsight, was expensive and did not get to schools with the greatest need fast enough.
- ii. The design and procurement process for the Building Schools for the Future programme (and other strategic programmes) was not designed to create either high and consistent quality or low cost. Procurement starts with a sum of money rather than with a specification, designs are far too bespoke, and there is no evidence of an effective way of learning from mistakes (or successes).
- iii. A lack of expertise on the client side meant that there was little opportunity to improve building methods in order to lower costs over time, especially for very large and complex Building Schools for the Future projects. The main clients for contracting companies were Local Authorities and head teachers. As a result, despite many hundreds of schools being addressed by the Building Schools for the Future programme, central mechanisms to engineer better solutions were too weak and Partnerships for Schools did not have enough authority to make this happen effectively.
- iv. Devolved funding processes did not deliver efficiently the objectives that they were established to achieve. Multiple funding streams diverted funds to those most adept at winning bids rather than necessarily to those in most need. There was little tracking of how money was spent and wide variations in outcome for the same money invested in similar projects.
- v. Maintenance is critical to controlling the lifetime cost of schools and the quality of maintenance across the estate is extremely variable. This is exacerbated by the fact that no good quality data is collected on the condition of the estate.
- vi. The regulatory and planning environment is far too complex and hostile for building schools. The individual nature of the buildings that have been built historically also meant that every project had to run the gauntlet of these regulations.

In our view, this analysis demonstrates the need for reform throughout the system, from capital allocation at the centre through to the delivery and management of individual buildings on the ground. This will yield better value for money for the taxpayer and better buildings for pupils and staff. In some cases, these reforms need to take the best current practice and make it commonplace, while in others a root and branch change will be needed. Many

of these changes will not be possible overnight, but to get the most from the funding available in the coming years, this reform should be addressed as a matter of urgency.

There are a large number of areas that offer very attractive improvement opportunities and our proposals are discussed in **Part 2**. However, in this summary we would like to highlight five key points

- i. There should be a clear and agreed goal for capital expenditure in England: to create enough fit-for-purpose school places to meet the needs of every child. Currently there is considerable ambiguity as to the goals of capital spend.
- ii. Capital allocation should be determined using objective information on need for pupil places and on the condition of the local estate. At a local level this notional budget should be turned into a light-touch local plan to achieve the overall goals of the investment. Currently, there is no information held centrally on the condition of the estate and different Responsible Bodies¹ receive capital in different ways.
- iii. New buildings should be based on a clear set of standardised drawings and specifications that will incorporate the latest thinking on educational requirements and the bulk of regulatory needs. This will allow for continuous learning to improve quality and reduce cost. Currently the bulk of new schools are designed from scratch with significant negative consequences on time, cost and quality.
- iv. There must be a single, strong, expert, intelligent 'client' acting for the public sector in its relationships with the construction industry and responsible for both the design and the delivery of larger projects. This body must be accountable for the delivery of buildings on time and to the right budget and quality standards. This is a philosophical shift in approach as it would mean that the Department for Education will deliver not money, but rather a building to meet local needs. Currently, the Department for Education supplies money to the Responsible Body and the principal accountability for delivery lies with them.
- v. Responsible Bodies should be accountable for the maintenance of the facilities they own and manage, as these facilities are their tools to use in

¹ **Responsible Body:** responsibility for capital investment decisions across this estate is also complex and it is not simply the owner of an asset that takes the decision as to whether a particular school receives investment, for example it may be the diocese rather than the charitable foundation for a Voluntary Aided school. Throughout the report, bodies that make such strategic investment decisions and which must take ultimate responsibility for the maintenance and management as well as the use of the asset, are referred to as the Responsible Body. Usually, the Responsible Body will be the Local Authority, the diocese, the Academy trust (either individual or multiply sponsored) or the charitable foundation. Of course for all schools, head teachers and governing bodies make most of the day to day decisions on the upkeep of their facilities, often using their delegated revenue funding, and working with the relevant Responsible Body.

support of education and the provision of services. That means they have a long-term responsibility to maintain their own facilities as well as to work together in a local area to ensure the education estate meets or exceeds the needs of local children. Currently there is no explicit obligation to maintain buildings and no agreed standard. Funds are wholly devolved to school level making it impossible for Responsible Bodies to prioritise their needs at a local level.

We believe that there is no divergence of approach between this and the Government's stated goal of increasing local autonomy. Local Responsible Bodies will decide on the type of investment needed locally, and on how that investment should be prioritised. The responsibility for using and managing new and improved facilities is wholly devolved. The proposed reforms will allow Responsible Bodies to take advantage of the improvements in time and quality offered by having real expertise involved in the procurement and build phase of new educational facilities and improvement projects.

A summary of the recommendations is contained in **Appendix A**.



Part 1: The Current Processes

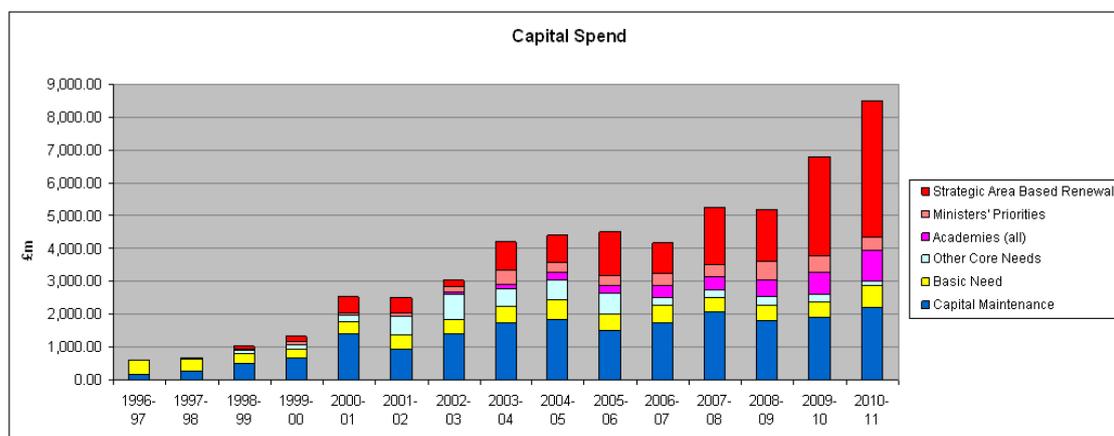
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1. INTRODUCTION

How Capital Funding Works

- 1.1 The Department for Education (Department) spent £58.5 billion in 2010-11. Of this, £50.9 billion was classified as revenue expenditure and the bulk of this money goes to schools and other frontline providers to enable them to pay their running costs. The remaining £7.6 billion was classified as capital expenditure, to be spent on buildings and equipment. The ownership of the educational estate which is addressed by this funding is laid out in more detail in **Appendix D**.
- 1.2 The overwhelming majority of capital expenditure is spent on primary and secondary schools and this report has focused very heavily on this spending. However, the learning from this analysis also applies to other forms of capital expenditure. The structures that we suggest in Part 2 of this report are, for the most part, also applicable to these other institutions.
- 1.3 Since 1996-97, capital spending by the Department has risen dramatically, from £0.6 billion in 1996-97 to £6.8 billion in 2009-10 and is forecast to peak at £7.6 billion in 2010-11.

Figure 1: Department Capital Spend



Source: Partnerships for Schools management information

- 1.4 This rise was characterised by new, bespoke programmes being created as new funding was made available. This meant that by the financial year 2010-11 capital was being distributed through over 20 different funding streams.
- 1.5 The full list of these funding streams can be found in **Appendix E**, but can be grouped into three distinct types of allocation:

- a) **Building Schools for the Future (BSF)** – BSF was launched in 2003 with the aim of rebuilding or refurbishing all the secondary schools in England by 2020. It was the single most expensive departmental capital programme (£1.4 billion in 2010-11 – and due to cost £55 billion in total). The Government ended the programme in July 2010. As of 7 March 2011, 310 schools had benefited from BSF investment and a further 694 will be rebuilt or refurbished over the spending review period (2011-12 to 2014-15).
 - b) **Devolved Programmes** – Prior to the introduction of BSF most of the Department’s capital budget was handed directly to schools and Local Authorities to spend on their priorities. There are a variety of different streams, each with its own allocation formula, that devolve money to Local Authorities, including ‘basic need’ funding for new school places where the population has grown. In 2010-11, £2.5 billion was devolved to schools and Local Authorities through these streams. Money paid direct to schools is called ‘Devolved Formula Capital’ (DFC) and, as the name suggests, is allocated according to a mathematical formula.
 - c) **Targeted Programmes** – The remainder of the budget (£2.0 billion in 2010-11) goes on targeted programmes designed to reflect ministerial priorities. Examples from recent years include the new Kitchens Fund (£100 million) to ensure that all primary schools had serviceable kitchens and the Diploma Fund (£40 million) aimed at building pilot/exemplar facilities for 14-19 diploma delivery. Some of these targeted funds were allocated according to a one-off formula; others required schools or Local Authorities to bid.
- 1.6 The research undertaken for this report has demonstrated that each of these funding routes is flawed and that there are significant opportunities to reform and simplify the system in order to remove waste and bureaucracy.
- 1.7 The overwhelming majority of people that we have spoken to, and from whom we have received evidence, agreed that, as a whole, the current system is complex, time-consuming, expensive, and opaque. They also agreed that the aims of capital expenditure in education should be to build good, fit-for-purpose facilities, and to look after them over their lifetime.
- 1.8 It is encouraging that we have so far found a helpful level of consensus around how to improve the system, and we come to these conclusions following careful examination of the evidence and wide consultation, as described in **Appendix C**.
- 1.9 The following chapters set out our analysis: **Chapter 2** focuses on the BSF programme; **Chapter 3** on the approach to devolved and targeted programmes, including how this impacts on the maintenance of buildings; in **Chapter 4** we consider wider problems in the system, in particular the planning system and premises regulations; and finally, in

Chapter 5 we discuss our pilot project at Campsmount School in Doncaster and some of the learning and benefits that have been realised.

2. BUILDING SCHOOLS FOR THE FUTURE

- 2.1 This chapter takes a closer look at BSF, which was the Department's main strategic capital programme. We have spent time focusing on BSF as it was the single largest programme in spending terms and also contains all the key examples of opportunities to improve the system and therefore forms a useful extended case study. Other approaches to capital building share many of the same issues and early Academies and the Primary Capital Programme also had similar problems and outcomes.
- 2.2 BSF was announced in 2003 with the, with hindsight, somewhat quixotic aim of rebuilding or refurbishing every secondary school in England by 2020.² To date BSF funding has totalled £8.65 billion made up of £3.5 billion of conventional funding and £5.15 billion of PFI credits.³ In 2010-11 it had a total budget of £3.7 billion. This made it the Government's single largest capital programme in any area.
- 2.3 The programme started with excellent intentions but the scale of it made it extremely difficult to implement with the initial structure. By the end of March 2006, BSF had spent £27 million but was materially behind schedule with no schools built. Following an overhaul of the procurement process, a new target completion date of 2023 was set for the programme. In addition, the estimate of the overall cost was increased from £45 to £55 billion, as the scope of the programme was increased. As of November 2010, around 8% of the planned renewal originally envisaged after seven years had been achieved. This was clearly well short of the original objectives, and a number of reviews of the process were launched from that time and have continued right up to the present day.

Confused Objectives

- 2.4 The goals of BSF were, from the outset, ambitious. Looking at evidence from the time, it is clear that there was recognition of the opportunity to renew the school estate, but also a clear policy priority to use this capital programme as a way of delivering 'Educational Transformation'.
- 2.5 This phrase is prominent in much of the policy framework that established BSF but in our workshops and through our wide-ranging call for evidence we were unable to find any coherent definition of what was meant by 'Educational Transformation'. In our workshops responses varied from the comparatively prosaic view that this involved providing fit-for-purpose learning environments to a more dramatic goal of producing iconic school buildings that were "truly world class."

² The programme aimed to improve the entire secondary school estate through a ratio of 50% new build, 35% major upgrade and 15% minor upgrade.

³ PFI credits provide access to revenue grants from central government which assist Local Authorities in paying charges from the company responsible for building and maintaining the asset.

- 2.6 The Review team were troubled by this lack of coherence or guidance around this central objective as it appears to have driven variability in behaviours, design, and outcome as each of the bodies involved placed their own interpretation on ‘Educational Transformation’.
- 2.7 We spent some time in workshops and reviewing evidence of the impact of buildings on learning outcomes and discovered that there was an almost universal consensus: while no one doubts that children deserve to learn in safe and pleasant environments – and that significant parts of the school estate were and are in an unacceptable state – there is very little evidence that a school building that goes *beyond* being fit-for-purpose has the potential to drive educational transformation. The generally held view was that the quality of teachers and leaders has a much greater impact on attainment than the environment.
- 2.8 The Review nevertheless also looked at whether performance has improved in schools completed under BSF faster than in other schools. We could not find any such evidence, though it is clear that it is relatively early days to make these measurements with a high degree of confidence. Some research has suggested that performance in BSF schools dipped during and directly after rebuilding as so much head teacher, and pupil time was spent worrying about building designs⁴. If true, this is not wholly unexpected, but the length and complexity of BSF projects extended this impact over a fairly long period. This underlines the need to improve the speed and simplicity of such projects, so as to mitigate this risk as much as possible.
- 2.9 The BSF programme started with two core criteria for prioritising the areas to receive funding:
- a. level of deprivation of local area⁵ – the greater the deprivation, the higher the priority accorded; and
 - b. attainment⁶ – the lower the attainment, the higher the priority accorded.

Dilapidation and the general state of school buildings was not part of the consideration when deciding which areas should be first to receive BSF funding. Local Authorities did sometimes take condition into account when allocating funding within an area but also a large number of other factors. The result is that there is poor correlation *overall* between the condition of schools and the order in which they were refurbished or rebuilt.

4

http://www.nfer.ac.uk/nfer/publications/99908/99908_home.cfm?publicationID=507&title=BSF%20school%20report:%20B+%20for%20attendance%20but%20C-%20for%20attainment

⁵ Deprivation is measured by eligibility for Free School meals.

⁶ Attainment is measured by 5+A*-C including English and Maths.

Case Study

Simon Langton Girls' Grammar School in Kent has been rated 'outstanding' by Ofsted and 99% of its pupils achieve 5 A*-C grades at GCSE⁷. The school building has been in significant disrepair for some years. In the last two years, large pieces of concrete have become loose and fallen from the building. The roofs of the main building are flat and have needed continual repairs for some years but are now beyond economic repair.

Kent received funding in waves 3, 4 and 5 of BSF, and was also due to be part of wave 6. Simon Langton is an example of the kind of school that was not a priority within BSF, despite the fact it is in need of urgent improvement. By the criteria applied to determine which areas should get BSF funding, the results at Simon Langton were too good and the pupil population insufficiently deprived.

"We are victims of our own success – schools which achieve outstanding results are not seen as being those which need any money spent improving their buildings, which is a public disgrace. They are not and never have been considered as a priority in terms of capital expenditure."

Jane Robinson, head teacher, Simon Langton Girls' Grammar School

"BSF was not a fair allocation of resources. Local Authorities often failed to address the basic need of schools in their authority."

Chris Walls, head teacher, Giles Academy

Complex Multi-stage Process

- 2.10 The laudable, but undefined, desire for 'Educational Transformation' was a major factor in the creation of a very complex process. Rather than focus on individual schools that needed rebuilding or refurbishment, (as would be seen across, for example, a typical commercial estate) the process of transformation required that each Local Authority develop an overall plan for the future distribution of places and a vision for what these schools would deliver. This meant closing some schools and opening up entirely new ones elsewhere. Agreeing these plans could (and often did) take years because of the difficulties of developing such plans and of securing agreement from all interested (and sometimes conflicting) parties.
- 2.11 The early days of the programme were not successful, and it was clear that more support would be needed if this grand plan were to succeed. In order to manage the process the Department in 2004 set up Partnerships for Schools (PfS). It was needed precisely because there was very wide variability in the ability of different Local Authorities to successfully develop their plans and execute the BSF process. When it was set up, it was also a goal of PfS to safeguard value for money for Her Majesty's Government.

⁷ Department achievement and attainment tables 2009

2.12 Each BSF project had to go through a number of phases and approval milestones before construction could begin. The exact number fluctuated throughout the life of the programme. In each case, however, there was a significant level of analysis and documentation and each phase usually involved third parties to support Local Authorities through the process. The pre-construction phases are listed below:

- readiness to deliver;
- strategy development;
- outline business case;
- final business case; and
- establishment of the delivery vehicle.

2.13 **Appendix H** gives a full description of the multiple stages of the BSF process, and of the level of bureaucracy involved. Examining one stage of the process in detail (see inset box below) paints a compelling picture of how time-consuming and prescriptive each stage could be. In order to develop this process map from end-to-end twelve different groups needed to be involved. Many of these groups had no idea how their part of the process fitted into the whole.

The Strategy for Change

From 2006, the 'strategy development' element of the process introduced a requirement to prepare a Strategy for Change (SfC) (which replaced the previous requirement to prepare a Strategic Business Case). Each Local Authority entering the BSF process from then on was required to produce an SfC before they could proceed to the next stage, and PfS's remit expanded to help Local Authorities to do this. The SfC is, as PfS's guidance describes it, 'designed to capture both the Local Authority's strategy for 11-19 education services and the requirements that this strategy places upon the physical school estate' and plans for Information Communications Technology (ICT) provision⁸.

SfCs are typically 30 pages in length (excluding annexes) and have three sections:

1. Transformational Overview;
2. Proposals to address key estate proposals and project planning; and
3. An updated Readiness to Deliver (RTD) school chart.

As part of the Transformational Overview section, Local Authorities need to address ten separate question headings:

- 1) *Where is the LA now in terms of educational outcomes, fair access and choice and meeting the needs of learners and communities?*
- 2) *What are the LA's aspirations and how will the BSF programme add value?*
- 3) *How does the LA propose to ensure choice, diversity and access for all parents and pupils in local schools including robust challenge and intervention when necessary?*
- 4) *How will the LA ensure schools provide opportunities for learning so that every pupil is making the best possible progress?*
- 5) *How will the LA ensure students can access a broad and coherent 11-19 curriculum that best suits their needs and talents, and, the effective delivery of the 14-19 entitlement in partnership with local LSCs and local FE providers?*
- 6) *To what extent is the LA ensuring effective integration of education and other services to support delivery of the Every Child Matters agenda and other relevant corporate priorities?*
- 7) *How does the LA plan to improve inclusion and remove barriers to achievement and progress for all?*
- 8) *How does the LA plan to champion the needs of all pupils with Special Education Needs (SEN)?*
- 9) *What is the LA's approach to leadership and the development of a robust change management strategy for achieving transformation through BSF (including Continuous Professional Development (CPD) and Workforce Reform)?*
- 10) *How will the LA harness the opportunity of BSF to drive down carbon emissions from schools and promote sustainable behaviours among pupils and their communities?*

Each of the questions above had several sub-questions, all of which Local Authorities were required to address. There were 56 in total. The other two sections of the SfC were just as complicated, if not more so, and the guidance for developing a SfC alone was 59 pages.

⁸ Partnerships for Schools guidance on Strategy for Change , which can be found here at: http://www.partnershipsforschools.org.uk/library/bsf_guidance.jsp

- 2.14 This level of detail was far from unique. The Outline Business Case (OBC) guidance sat alongside a significant amount of supplementary guidance, most of which had been developed to clarify aspects of the original. It is a similar case for the other stages – large and detailed documents set requirements for the final business case, funding, Information and Communications Technology (ICT), procurement, new projects approval, and benchmarking.
- 2.15 In total there were 14 documents related to the BSF process – 1,115 pages in all. In addition, there were 30 contractual documents – 2,622 pages in all e.g. Design and Build Contracts, Private Finance Initiative (PFI) Agreements (which are not unique to BSF). Clearly all large projects require significant documentation, but this level of documentation is materially higher than the average for similar-sized private sector projects and is very unwieldy for all but the most experienced project managers and building professionals. We heard anecdotal evidence from many sources that the paperwork was regarded as extremely daunting.
- 2.16 Shortly after the start of BSF, the Department realised that Local Authorities were failing to develop their projects quickly enough to deploy the allocated money in line with programme targets (for example, issues with speed of spending in Stoke and in Greenwich were identified in the 2009 NAO report)⁹. To resolve this, an earlier approval stage was introduced which assessed readiness to deliver.

Bradford Case Study

Bradford entered BSF in 2004 as a pathfinder project. They were awarded investment with a capital value of £65 million for their plans to build three new PFI schools. Bradford was strongly encouraged by the Department to sign up to BSF. However, the complexity of the BSF process and the demands that it placed on officers meant that, despite their best efforts, the three sample schemes cost too much.

Two of Bradford's Wave 3 schools ranked in the top 10 most expensive BSF schools in the country. Grange school, which is one of the largest BSF schools in the country, is a twin school complex which includes the co-located Southfields Secondary Special School, a specialist SEN Facility. The schools, which are located on ex-mining land, are currently under construction and it is estimated that to build these two schools will cost £49.6 million. When adjusted for inflation and for location (Bradford location factor is 0.91) using the PfS standard formula, this equates to £2240/sqm which compares with the national average construction cost of £2050/sqm¹⁰(location factor of 1). While there is no doubt that the co-located SEN school is more expensive to build, and that this will account for part of the variation, this overall cost exemplifies the capacity for adverse variation in costs where every project is developed in a bespoke way.

⁹ Attainment is measured by 5+A*-C including English and Maths.

¹⁰ 2010 prices and excluding ICT.

“As a head teacher I know good school buildings are important but the way in which money was distributed under BSF was wasteful and inefficient leaving schools in desperate need at the back of the queue. The costs were wildly excessive and it was overdue for review.”

Jim McAtear, head teacher, Hartismere School

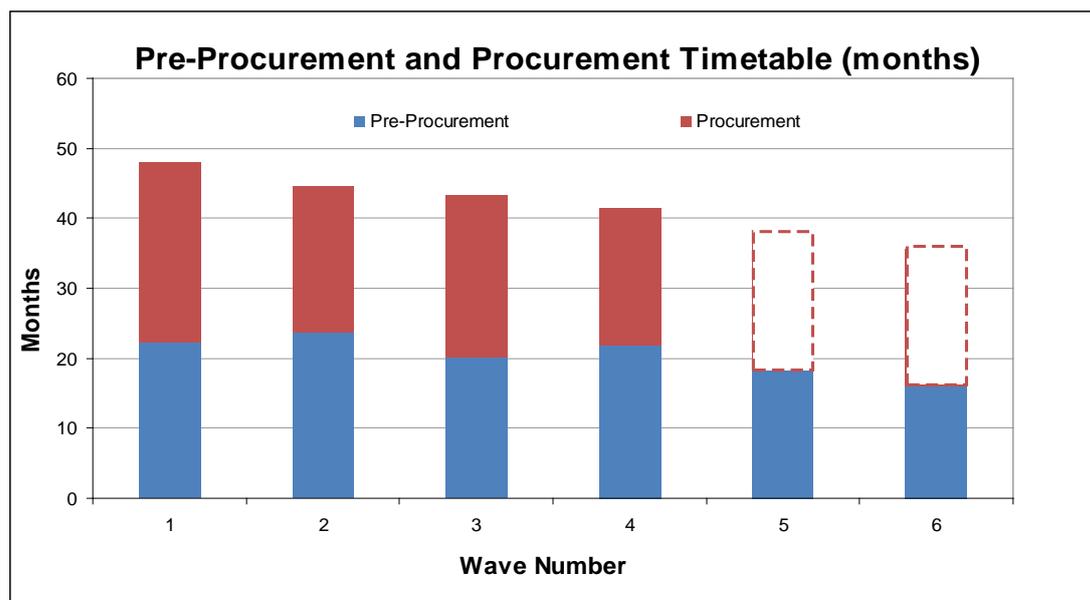
The Cost of Complexity

2.17 Not surprisingly, this very complex process meant that the BSF system took significant time; it could be as long as four years (and sometimes longer) before any construction work started. The extremely lengthy pre-procurement and procurement processes were a key driver of both cost and, crucially, risk for the Local Authority, central government, and the private sector. The increase in risk was costed in to every stage of every project by each contractor and sub-contractor. We were unable to monetise the impact of this but all the contractors that we spoke to said that the additional cost allowances were significant (one contractor estimated it at 15% of the total spend).

2.18 In BSF, the average cost to the Local Authority of pre-procurement was £1.7 million and the average length of time was 18 – 20 months (refer to **Figure 2**). Part of the reason for this lengthy timescale was the sheer level of paperwork involved in completing all the necessary strategy documents, together with the need for very wide consultation.

Figure 2: Average Pre-procurement and Procurement times by Wave

Note: Waves 5 and 6 were in procurement when the BSF programme was stopped. For completeness it is assumed that the average procurement time for both Waves 5 and 6 would be the same as for Wave 4.



2.19 Once these strategy documents had been agreed by PfS the Local

Authority moved into the procurement phase. This required the development of a Local Educational Partnership (LEP). A LEP is a procurement vehicle unique to BSF. It was designed to avoid repeat procurements, and bring together all of the different possible contracts with the private sector under one model, including; education and estate planning; design; build; information technology; and maintenance and running (and in some cases financing) the projects.

- 2.20 In procuring a LEP, a Local Authority chose a private sector partner (often a consortium of companies) to establish the LEP company and deliver the first schools (called the 'sample schemes'). Other schools in the project were then delivered through an exclusive arrangement with the LEP lasting 10 years. For every LEP, this bidding process could cost up to £10.9 million before construction started (see **Table 1**). In addition, PfS often took a small stake in the LEP through an investment vehicle.

Table 1: Pre-procurement and Procurement Costs

Organisation involved in Pre-Procurement and Procurement	Cost (£million)
Total Pre-Procurement Costs	£1.7
Procurement costs - Local Authority	£2.3
Procurement costs - Preferred Bidder	£3.7
Procurement costs - Bidder 2	£2.2
Procurement costs - Bidder 3	£1.0
Total	£10.9

Source: PfS management information

- 2.21 The objective of this process, while very onerous in and of itself, was to establish a framework through which future projects could be procured much more quickly. This had the potential to be an effective approach but the heavy front-loading of the process – and cost – could only become justified if the programme rolled out more or less exactly as planned. This process built in significant cost risk as well as slowing the development of early building that could have taught us lessons for the future.
- 2.22 To avoid repetition of the competitive tender process, only two 'sample schemes' were competitively tendered in each wave. After this point, the price for any subsequent schools was controlled only by a contractual proviso that future costs "could be no higher per square metre" than either of these two sample schools or of comparable schools being delivered in England. However the specification was not

defined and so this target was easily achieved by reducing the specification on all but the sample schools. We spoke to a number of Local Authorities who confirmed that school specifications had indeed been reduced as successive projects were built. Since schools are very different across the UK, it was very difficult to make a comparison between schools. In addition, there was provision for exceptions to this rule where there were material movements in input costs.

- 2.23 For private sector contractors, it was worth the upfront investment in bidding to run a LEP (on average £3.7 million though sometimes as high as £5 million) as the value of the potential work in the LEP contract was usually very large, sometimes hundreds of millions of pounds. The largest scheme was in Essex with an approximate total value of £1.2 billion, and there were a number of schemes with total values of over £1 billion. Of the 11 contractors who were involved in our workshops or other discussions, all but one agreed that sooner or later these costs found their way into the costs of the programme for the Department.
- 2.24 Some BSF projects were split into parcels of activity, known as “waves”. This meant that Local Authorities received investment in discrete allocations rather than all at once. Investment for larger Local Authorities was typically spread over multiple waves. In the majority of cases, all future waves within a Local Authority were awarded to the original LEP, provided they had met performance criteria set by the Local Authority. The Review team were troubled by this as it reduced the ability to negotiate better deals and, far more importantly, it removed the incentive for contractor and client to work together creatively to develop better value and better quality approaches to building.
- 2.25 For the Local Authority, the upfront investment was approximately £4 million on average. This money was spent on consultants, lawyers and design support.
- 2.26 This process can be compared with that for the Academies Framework. Government policy at the time was to rebuild each new Academy – however some new Academies were in areas that were not involved in BSF. Academy projects that were located in these Local Authorities were procured via the ‘Academies Framework’ - a bidding process managed by PfS. PfS ran a tendering process to select companies to be party to the Framework Agreement. Once on the Academies Framework the companies could bid for each new Academy project.
- 2.27 The process was still overly complex. Each Academy was individually designed with the help of all manner of educational and architectural consultants but the procurement process was much simpler as it did not rely on an agreed strategy across an entire area. The costs for new Academies were, therefore, lower - **£2,069** per square metre compared

to £2,480¹¹ per square metre prior to the Academies Framework - and they were procured significantly faster

The Cost of Design

- 2.28 Each school rebuilt or refurbished within the BSF programme was individually designed.
- 2.29 The normal approach to this process was to start with the sum of money that had been released and invite tenders on the best building that could be built for that money. The Review team were concerned that this seemed counter to most commercial (and domestic) tendering approaches which normally start with a clear and detailed specification of the building required and then invite bids on cost and time from contractors.
- 2.30 For the sample schools, a number of parties would be involved in the design process: the Local Authority; the school management team; technical advisers; and the contractor with their design team. The estimated cost was £2.3 million for each sample school with the average length of time from the start of the education visioning process to the finalised design being 42 months. With so much unspecified at the outset, and with the whole process being managed by relatively inexperienced teams, the scope for protracted discussion and delay was very broad.
- 2.31 In the same way, Local Authority plans were slowed down by complex strategic discussions about the future of education in their area – individual school designs were supposed not just to create a safe and pleasant environment for learning, but to transform the educational experience. We heard anecdotal evidence of long discussions, of consultants being retained to produce lengthy reports on the views of parents, of heated debates between parties and a number of other dysfunctional behaviours. It is perhaps not surprising that emotions run high in these processes, but very clear goals, genuinely expert support, and the right level of accountability to each player can go a long way towards mitigating the damaging effects of different points of view.
- 2.32 Staff and pupils in BSF schools had an unusually high level of input in the design process. The Review team were troubled by elements of this involvement. While it is clearly right to work hard to get excitement and buy-in from all stakeholders including students, we were not convinced that there should be significant input by pupils into the design for each school. The timeframes involved meant that, in virtually every case, the majority of those children that had actually been involved had left school by the time the school was built.
- 2.33 Moreover, we heard anecdotal evidence that in some cases head

¹¹ The costs have been adjusted to a common location factor and base date of 4Q 2009, to neutralise the effect of inflation and regional variances

teachers worked closely with consultants and designers on a bespoke design to suit their educational approach, only to leave soon after the building was complete. The Review heard that in one large Local Authority, approximately 20% of head teachers left their posts before the build process for their school was complete. This turnover is not unusual given the timescales involved, but means the new head teacher inherited a tailored facility that might not fit with their own, perhaps different approach.

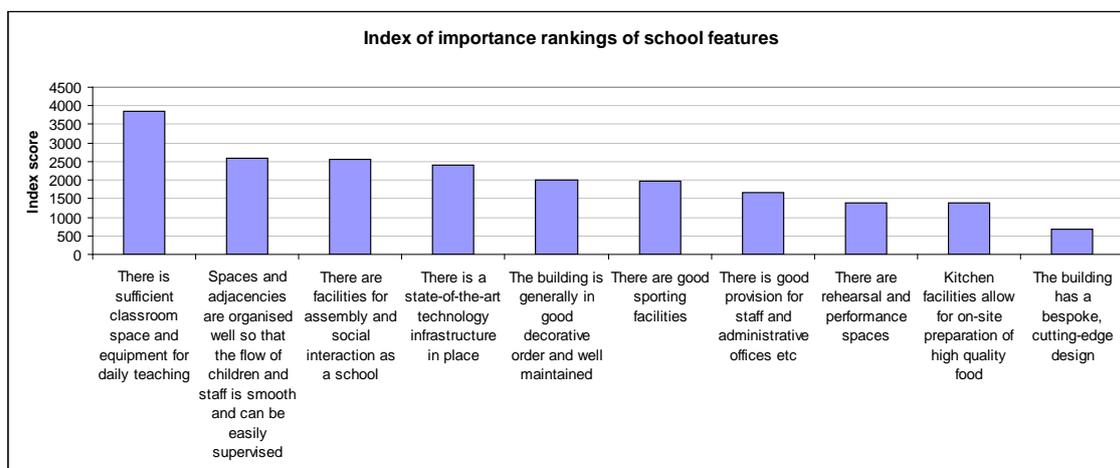
- 2.34 A piece of official guidance developed for schools shows how involved staff were expected to be. It suggested that senior school staff should be encouraged to take time out from the 'day job' to take part in the process:

*"Full engagement with BSF at various stages is likely to require significant input from head teachers and other senior school staff. Experience to date has shown that these tasks cannot simply be added to the 'day job' and often require significant commitment from the relevant staff for a period of time. Governors should consider the scope for releasing relevant staff fulltime, or on secondment to act on behalf of several schools. The Local Authority may provide some funding to support release or secondment."*¹²

- 2.35 As we have seen, this level of input from the senior management team meant that attainment of pupils in their schools sometimes fell during and directly after the process. This is reflected in the views of many of the head teachers we spoke to during the course of this Review who felt the process was disruptive and used up far more of their time than was appropriate. It is worth noting that in our call for evidence 'cutting edge, bespoke design' came last in the list of priorities for almost all respondents. The top priority was ensuring that pupils are taught in an environment that is fit for purpose. The results of the call for evidence are summarised in **Figure 3** below.

¹² An introduction to Building Schools for the Future - Guide developed by PfS and 4Ps, 2008

Figure 3: The Priorities of those people who responded to the Call for Evidence



‘The choice should be simplified; teachers are not building specialists and should be provided with a standardised school design for the number of pupils concerned. Models for procurement should be standardised to maximise the benefit of the large volume of materials being purchased nationwide from products manufactured locally.’

James Leaning, Projects Director, Brunel Construction Consultants Ltd

2.36 Both the design and the procurement processes created opportunities for consultants – educational, legal, and architectural – to find work at the public expense at central, Local Authority, and project level.

2.37 There are very many examples of this expenditure but some individual projects are striking:

- The Department and PfS spent £11.1 million on consultants up to March 2008 in setting up BSF.¹³
- The Department paid over £1 million for consultancy services provided by one individual to support early concept design and application work in preparation for a BSF bid.¹⁴
- Two architecture practices¹⁵ received a total of £1.1 million in fees for acting as client design advisers on Birmingham council’s BSF scheme.

2.38 The Review team were concerned that the lack of consistency of design and approach meant that there were no opportunities to engineer the costs down and to benefit from learning. In large building

¹³ KPMG, Ernst and Young, Avail Consulting, Capgemini, Place, NPS, CABE, 4ps, NCSL.

¹⁴ KPMG

¹⁵ MSA Architects and Simon Foxell, as reported in Property Week 03/12/2010

programmes at both Tesco and Dixons, the reduction in cost is a very consistent 10-15% per annum as a result of working with contractors to find ways to solve problems not only more cheaply, but more effectively.

- 2.39 Another result of individual design can be seen in the high proportion of secondary school designs that were judged inadequate¹⁶. In 2007 the Commission for Architecture and the Built Environment (CABE) were commissioned by the Department to introduce Design Review Panels. Each BSF school design was reviewed by these panels. These panels judged all of the 63 early BSF designs, and these were shown to be inadequate even after several stages of re-design. Many of them were at to late a stage in the project process to be stopped, and were nevertheless built. We have attached in **Appendix F** a number of examples of how individual design can lead to design faults. Clearly not all Academy and secondary school designs were poor, and it is a shame that some of the lessons learned from these excellent schools could not, because of the process and lack of evaluation, be applied across the estate.
- 2.40 Minimum Design Standards were introduced in 2009 after CABE lobbied the Department and PFS. School designs were required to attain a 'pass' or 'very good' standard. This was judged by scoring the designs against 10 criteria, published by CABE. These design standards, though, had little effect. Given the large numbers of schemes, it is reasonable to assume that a body of best practice would develop and examples of poor design would reduce. However, despite work on this by CABE and others there is little evidence that this happened. Thirty three percent of designs remained 'Unsatisfactory' or 'Poor' even at the final design stage.
- 2.41 **Tables 2 and 3** show how school designs were rated before the Minimum Design Standards were introduced and after they were introduced.

¹⁶ The scale of the problem became apparent when the Commission for the Built Environment (CABE) presented a review of pre-BSF schools to the Education Select Committee.

Table 2: CABE Design Quality Ratings of BSF Schools prior to the introduction of the Minimum Design Standards in 2009

		CABE Panel – Design Quality Rating				
		Excellent	Good	Not Yet Good Enough	Mediocre	Poor
Design Stage	Initial Bid (94 Assessed)	-	5%	34%	44%	17%
	Final Bid (81 Assessed)	5%	17%	43%	31%	4%
	Pre-Planning (11 Assessed)	-	9%	55%	36%	-
	Planning (55 Assessed)	5%	22%	49%	24%	-
	Amended Planning (4 Assessed)	-	-	75%	25%	-

Source: CABE. The data covers 245 designs of 63 schools in 27 different local authorities.

Table 3: CABE Design Quality Rating (from October 2010)

		CABE Panel – Design Quality Rating			
		Very Good	Pass	Unsatisfactory	Poor
Design Stage	Initial Bid (75 Assessed)	1%	13%	73%	12%
	Final Bid (52 Assessed)	8%	48%	44%	0
	Pre-Planning (9 Assessed)	0%	44%	44%	12%
	Planning (27 Assessed)	15%	52%	29%	4%

Source: CABE. The data covers 163 designs of 41 schools in 24 different local authorities.

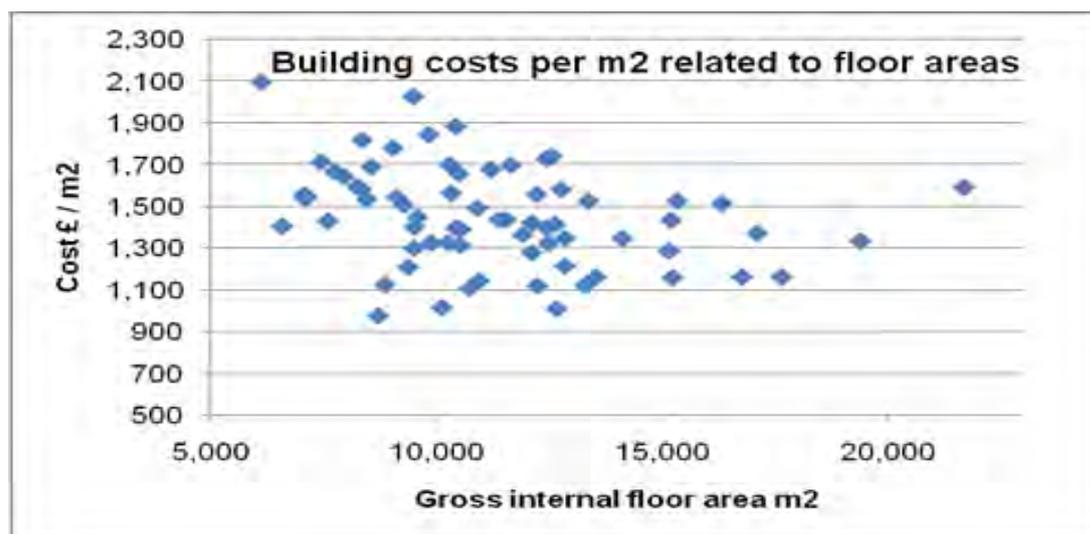
2.42 Poor design is often not the fault of the designers themselves, but a symptom of the design brief and of the requirements that designers have been given by the client. The design issues that the Review team saw were forgivable in a first school, but became unforgivable as the numbers of new schools grew into the hundreds.

2.43 All re-design necessitated by these problems took time and incurred additional cost. The length of time between a project being seen by CABE and submitting a finalised design for planning was typically a year. The lack of consistency in the quality of the designs put forward over time also demonstrates an absence of continuous improvement across the sector.

Variation in Build Costs

- 2.44 Because the parameters were not always clear, and the designs used varied so widely, the prices of BSF schemes and of non-BSF Academies varied very significantly and with no clear relationship to quality. There could be a school built in one Local Authority for £1,000 per square metre and in another area for £2,000 per square metre. Note that these are build costs, to which need to be added significant ancillary costs to arrive at a total figure.
- 2.45 **Figure 4** shows comparative build costs of different schools built under BSF across the country. Elements which drive variation in cost such as difficult sites have been stripped out of this analysis. The variation in price per square metre is in part due to changing legislative standards and requirements relating to carbon reduction. It is typical of a process of bespoke production that does not maximise the potential for continuous learning and improvement, or the development of more cost-efficient construction approaches. More importantly there is little evidence of convergence to a standard over time.

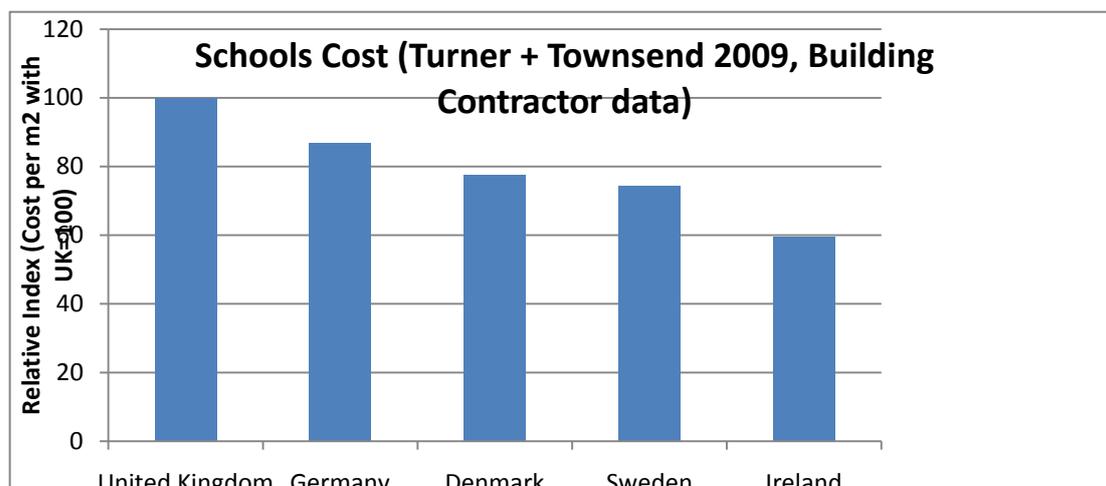
Figure 4: Building costs per square meter related to floor areas



Source: PfS management information

- 2.46 The BSF process also produced schools significantly more expensive than those in other countries. **Figure 5** shows the relative costs of school projects of similar sizes in different countries.

Figure 5: Index of Cost of Building Schools in United Kingdom, Germany, Denmark, Sweden and Ireland



Source: Turner and Townsend

2.47 In conclusion, BSF was an ambitious programme whose overarching aim to replace the ageing school estate cannot be reproached. However, the processes, lack of clarity of goals, unclear accountabilities, and structural lack of ability to learn from experience, meant that projects were complex, expensive, long, and onerous to the education professionals involved. There was some improvement over time - for example average pre-procurement time fell by about 6 months over the first 6 waves (see Figure 2), and there was a start made on implementing post occupancy reviews. Nevertheless, in our view, this improvement represents a small fraction of the potential. In Review workshops it was interesting to see that each stage taken alone and each historical decision was perfectly reasonable and justified. The failure, however to look at the whole picture meant that it was impossible for the people involved (who seemed both capable and committed) to deliver the highest possible quality programme at the lowest possible cost.

3. DEVOLVED AND TARGETED CAPITAL FUNDING

- 3.1 This chapter looks in more detail at how non-BSF capital has been allocated by the Department in the past few years. Nearly all of this money is either devolved direct to Schools and Local Authorities or is assigned to specific types of targeted funding streams – usually related to ministerial policy concerns – for which schools or Local Authorities must bid.
- 3.2 **Figure 6** at the end of this chapter gives an overview of the allocation process, showing how each of the three streams relates to the overall budget. As the diagram shows, the current capital allocation system is not a single, clear and unified process, but rather a series of independent, individual processes. Each of these reflected a different policy direction which can be broadly characterised as centralised schemes, estate-wide schemes, devolved capital programmes, decentralised programmes, and single issue funds.
- 3.3 The disconnected nature of this multi-stream system has prevented the development of a coherent overall capital strategy. What is more, each stream has its own unique internal problems. No system is perfect, but this multiplicity of approaches seemed to the team to guarantee that every conceivable error and unintended consequence would be built into the system.

Issues with Devolved Capital

- 3.4 Funding for devolved capital programmes, such as money for maintenance or pupil places, is usually allocated by a formula. Decisions about how to distribute and spend the funding are then made by Local Authorities and schools. The full list of devolved funding streams can be found in **Appendix E**.
- 3.5 In principle, it makes sense to devolve decision-making on local priorities for the majority of capital funding, providing these decisions reconcile with national requirements. Central Government needs to have a good sense of the condition of the estate in different parts of the country in order to allocate resources in a fair way, but it can never have enough information to choose sensibly between competing priorities for capital at a local level. It is clearly not practical for Ministers to attempt to decide whether School A should get a suite of new computers or School B a new boiler.
- 3.6 If decision-making on local priorities for funding is to be devolved, however, it is crucial that central Government, and by extension the taxpayer, should have a proper understanding of what money is needed and how, when allocated, it is spent.
- 3.7 At the moment, the data used by the Department to allocate devolved funding is, on the whole, of poor quality – on building condition it is

almost non-existent. Once allocated there are no mechanisms in place to track devolved funding and there are no incentives to achieve value for money.

- 3.8 For some devolved funding streams, there is a reasonable allocation methodology in place today – for example ‘basic need’ funding to ensure that Local Authorities in areas of demographic growth have the resources to provide additional pupil places. This funding is allocated pro-rata on Local Authority forecasts of need for additional places. These are by no means perfect, however, as forecasts of demographic shifts, debates around Local Authority boundaries and pragmatism around policy (e.g. how far a primary school pupil should travel to get to school) can lead to widely divergent outcomes from the same input data. Nevertheless, these analyses are at least based on the best available forensic data and attempt, by and large, to follow a consistent logic.
- 3.9 The provision of a fit-for-purpose, permanent place for every child who needs one is a fundamental building block of the education system. Currently, there are large scale changes in need for pupil places across England as a result of the sustained increase in the birth rate from 2001. Local demographic and economic factors have meant that many areas have experienced, and will continue to experience, large net increases in local demand for primary pupil places. This will, in time, feed through to increased demand for secondary places.
- 3.10 There are some areas which have a high anticipated volatility in demand. This volatility, both up and down, costs money to manage. Whilst there are some measures that can be used to respond to sudden increases – “bulge” classes in unused space, use of temporary accommodation, extended travel times - these come with their own costs. Where demand is likely to be short term, these are the most effective ways to deal with the problem. However, it is more usual to find long-term demographic shifts driving long term changes in demand, and temporary solutions are neither cost-effective nor usually fit-for-purpose for anything other than a stop-gap.
- 3.11 DFC is an amount allocated each year to primary and secondary schools to be spent by them on priorities in respect of buildings, ICT and other capital needs. In the absence of a rigorous methodology, a formula based on space and pupil numbers is used. This is probably the best approach given the information available today, but can lead to corrosive results. For example, a run-down school may not get enough to make its building adequate, parents then may choose other schools as a result, and the school gets even less in subsequent years.
- 3.12 In the past, the Department has tried to get consistent, reliable, detailed data on the condition of buildings. In 1999, 2003 and 2005, Local Authorities were asked to undertake condition assessments for all maintained schools and to supply summary data to the Department.

- 3.13 For condition, each element of the building was graded for its relative condition, and how urgent a priority it was – and the cost to rectify it - in the context of a notional five year planning period. The data showed such large differences in the cost and scale of condition issues reported by different Local Authorities that the data was deemed not robust enough to support school level comparisons but reliable enough to support relative formulaic allocation.
- 3.14 To try to improve the data, the Department appointed consultants to review it selectively. This Review identified:
- a. disparities in the costs identified for similar components with similar status;
 - b. priorities differing on the basis of similar condition descriptions; and
 - c. insufficient confidence that a robust methodology had been applied across all schools, with concerns that some Local Authorities had undertaken a largely desk-based exercise.
- 3.15 Nevertheless, at least some condition data was available for use when making allocations from 2002 to 2007. After 2005, further attempts to collect condition data were abandoned as part of a scheme to reduce the overall data collection burdens on Local Authorities. So, the Department has no data on the condition of the school estate despite spending over £20 billion on the estate in the past three years. This means that maintenance funding allocations since 2007-08, have been determined largely by pupil numbers – which is often unfair given that schools in some parts of the country are in a worse state of repair than others.
- 3.16 Once allocated from central government to local government or schools, non-ring-fenced devolved funding (such as ‘basic need’ money for the provision of new pupil places) can be used at the authorities’ discretion and could potentially be spent outside education. The Department does not collect any data centrally on how the money is spent.
- 3.17 Because no information is collected on capital maintenance spend at school level, each year billions of pounds of maintenance capital is allocated with no monitoring of improvement. Furthermore, many Local Authorities do not collect information about how their schools spend their devolved capital – making it even harder to assess whether money is being spent well. Of the 16 Local Authorities we asked, 9 were able to confirm only that the devolved formula capital funds had been spent, with precise details of projects held only by the schools.
- 3.18 The absence of any data, either about condition or how money is spent, means that it is impossible to take maximum advantage of scale. With an annual maintenance budget measured in billions, the

opportunity to use that scale to reduce cost and improve value for money is enormous. However, while some maintenance is undertaken collectively at Local Authority level, this does not happen systematically, and the Department lacks leverage to do more than encourage cooperation. This means that an estate with a replacement cost of £110 billion has no central professional property maintenance function or strategy akin to that which would exist in the private sector.

- 3.19 We were able to get detailed spend for a small number of authorities and found many examples of similar expenditure varying widely by school and Local Authority. For instance, within one authority, interactive whiteboards were bought that varied in cost by a factor of two. Clearly, specifications might not have been the same, but a collective view on the right specification followed by an aggressive approach to buying would certainly have yielded better - and more consistent - results.
- 3.20 The responsibility for school maintenance has been split between the school and the Local Authority or other relevant body. This has added to the confusion in the system and made strategic investment across all schools even harder.
- 3.21 The lack of information, accountability, and the fact that funding is split between schools and Local Authorities means that devolved funding can actively encourage neglect. For example, in the case of maintenance, schools sometimes choose not to use their funding for the upkeep of buildings but opt instead for more immediate needs such as ICT equipment. This is understandable, as ICT expenditure can contribute to educational performance very quickly, but it is nevertheless dangerous in the medium term. In time, the Local Authority may be, and frequently has been, forced to step in and spend significant funds if essential repairs have not been undertaken.
- 3.22 In conclusion, devolving most capital prioritisation to the local level makes sense given it is impossible for the Department to prioritise sensibly between competing local demands. It is, however, vital that this money – where it is for large-scale investment in the fabric of the building such as replacing the roof – is allocated according to accurate condition data, and that there is accountability for how money is spent, and support from the centre in garnering the benefits of economies of scale.

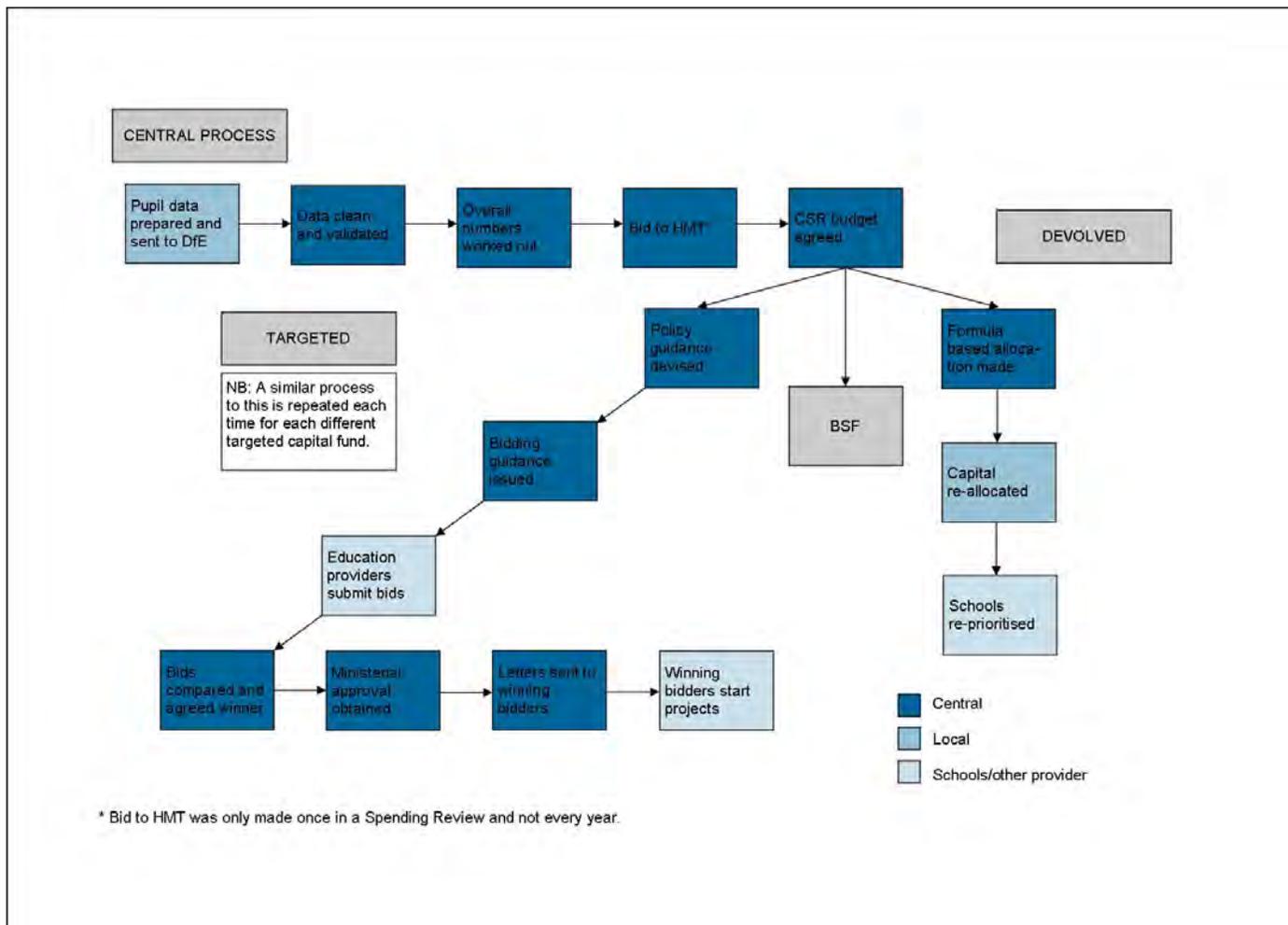
“The current methods seem to favour under-investment in maintenance which then creates a situation where there is no choice but to re-build. This might encourage a culture of being profligate with resources.”

Conor Edwards, Director of Finance and Estates, Winstanley College

Problems with Targeted Programmes

- 3.23 Over the past decade, when Ministers wished to support a particular initiative, each new objective, from cooking in the curriculum to carbon reduction, yielded a new targeted capital fund, usually with a centrally managed bid process. Over the last few years, small streams of funding were created for, among other things, public play areas, school kitchens, specialist sport facilities, capital to support the introduction of 14-19 diplomas, musical instruments and ICT (a list of funds is detailed in 2010-11 in **Appendix E**).
- 3.24 The team were concerned that this was not a strategic way to spend limited resources and made it difficult to target capital where it was most needed. The Review understands that Ministers need to be able to set new priorities for capital investment, but should do so in a way that enables a clear prioritisation process to happen locally with transparency about the choices and trade-offs that are being made.
- 3.25 Apart from targeted funds being a bad way, in principle, to allocate resources it has also caused problems in practice.
- 3.26 The large number of different funding streams has created complexity, confusion and unnecessary bureaucracy. Each specific stream has its own process for allocation. This can result in many bids for multiple streams, with different criteria to satisfy and different processes to follow in each case.
- 3.27 Not only does having multiple streams create bureaucracy and confusion it all has the potential to create serious inequity between different areas. This is because those best at winning bids will often receive the most funding, rather than those with the greatest genuine need. Consultants have frequently been hired to assist in the application process.
- 3.28 Even though these funding streams were allocated for a specific policy, many were not ring-fenced – for example, the extra capital provided to help support the introduction of Diplomas. In some instances, an area or school could gain access to resources to spend on a particular policy initiative, but then use that funding for something else entirely, frustrating the original policy aims.
- 3.29 Although targeted programmes sometimes collected granular data on what was achieved, the judgements on value for money and success of outcome were restricted to the single, isolated aim of that programme.
- 3.30 In conclusion, targeted funding according to micro-policy goals is not a sensible way to distribute money. It does not allow schools and Local Authorities to focus on key priorities, nor does it allow for the distribution of money in an efficient and equitable way.

Figure 6: Summary of Capital Allocation Process



4. OTHER ISSUES

- 4.1 In Chapters 2 and 3 of this Part 1 we have outlined the problems with the BSF programme and the ways in which other capital funding was allocated.
- 4.2 In this chapter we look at ICT together with the additional cost and complexity created by burdensome building regulations and the planning system. We also briefly examine the current approach to, and impact of, energy regulation and the plans to reduce carbon footprint and the current approach to insurance. We have not explored these in detail but, based on this early examination, there are likely to be some real opportunities to get better value for money in these areas.

Information and Communications Technology

- 4.3 In 2009-2010 maintained schools spent £487 million on ICT equipment and services¹⁷. The majority of schools capital investment in ICT has been school-led, which has resulted in a widely varied schools ICT estate, limiting the ability to achieve value for money or provide a consistent quality of ICT experience for learners and staff. Schools, and other education facilities, prioritise investment in ICT. Total Cost of Ownership data collected by PfS before schools procured an ICT Managed Service shows that a typical secondary school spends around £200,000 a year on ICT, of which at least half is categorised as capital expenditure.
- 4.4 Capital programmes have encouraged a strategic approach to ICT expenditure through a model which linked capital investment to revenue expenditure. However, many schools have not progressed beyond an ad-hoc approach to funding and sustaining their ICT.
- 4.5 BSF schemes included ICT as part of the programme. The review team were concerned that the lifecycle for ICT was dramatically different to that of buildings infrastructure and that this led to fairly recent buildings requiring quite substantial work to allow for developments in ICT requirements. The team felt that a better approach would be to provide only suitable fixed infrastructure allowing maximum flexibility for future technology development, and to separate the decisions surrounding the ICT environment from the decisions surrounding the built environment.

Burden of Regulation and Guidance

- 4.6 One of the reasons that state schools in England are so much more expensive than schools in other countries is because they have to conform to a more stringent (and more stringently policed) burden of regulation and guidance.

¹⁷ British Educational Suppliers Association – BESA

- 4.7 As well as the School Premises Regulations and Independent School Standards, whose reach covers Academies and Free Schools, there is a range of other regulations to which schools need to adhere, and which have cost or bureaucratic constraints. This includes the Building Regulations 2010, the Equality Act 2010, The Health and Safety at Work Act 1974 and Workplace Regulations 1992, as well as other regulations covering electricity, gas and fire safety, water supply and food hygiene.
- 4.8 Clearly, taking into account the potential vulnerability of young people, there needs to be good scrutiny and control over buildings in which they will spend much of their day. However, the regulations for state schools appear far more onerous than those for schools in the private sector.
- 4.9 Perhaps even more important than the absolute level of regulation, because each school is largely a new design these regulatory constraints need to be considered afresh for each school.
- 4.10 In addition to the regulations that schools need to meet, there are more than 40 different Department guidance documents. As well as Building Bulletins 98 and 99, which provide the area guidelines for secondary and primary schools respectively, there are four bulletins which provide guidance on statutory requirements (ventilation, fire safety, fume cupboards, and acoustics) and a further nine bulletins providing guidance on areas such as music or design.
- 4.11 The range of statutory and non-statutory guidance has led to confusion about what applies to which type of school, and whether guidance is compulsory or optional. For example, the use of Building Bulletin 98 as a means of calculating funding has meant that over time the Building Bulletins and other guidance have become rigidly followed by schools, Local Authorities and contractors, effectively acquiring the force of law. When printed out on A4, regulations and guidelines governing the design and building of state schools in England are over 3,000 pages long.
- 4.12 Another example of how bureaucratic this guidance can be is the Building Research Establishment Environmental Assessment Method (BREEAM) which regulates the environmental impact of a building design.¹⁸ All new school designs are expected to achieve a 'very good' rating under BREEAM guidance before they can go ahead.
- 4.13 BREEAM has been criticised for being very prescriptive, providing incredibly detailed guidance on matters such as cycling facilities (8 pages long) or of the ecology allowed on site (25 pages long). BREEAM has been revised for 2011 to consolidate criteria and reduce the bureaucracy, detail, and complexity required, which represents a good start. The transport criteria – including cycling facilities – have

¹⁸ BRE, *BRE Environmental and Sustainability Standard - Schools*, 2008.

been consolidated, and a number of compliance notes have been removed. However there are still too many detailed areas with which schools must comply in order to reach the required standard.

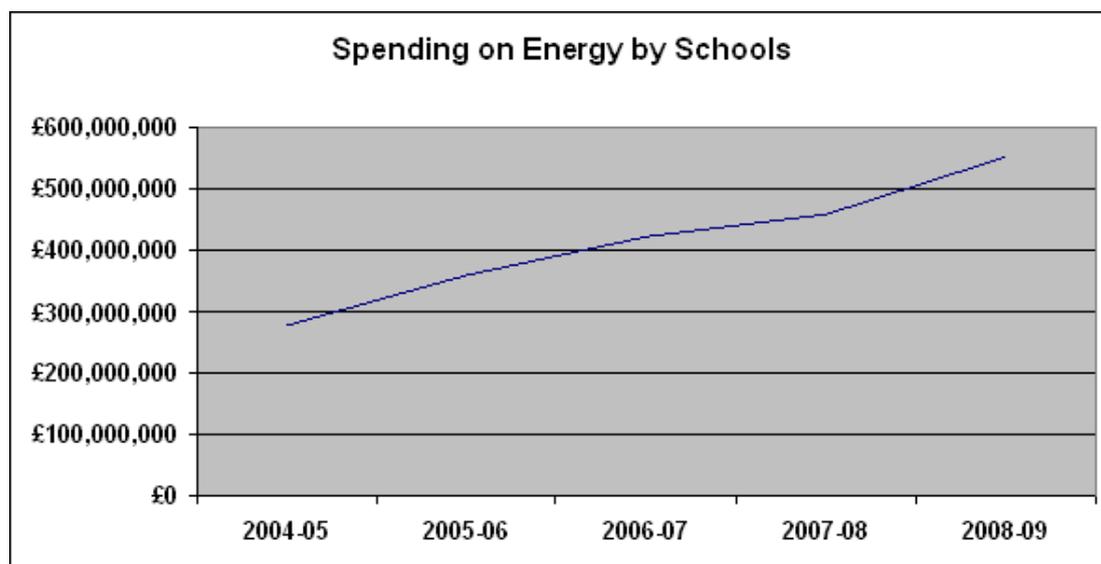
The Planning Process

- 4.14 England has a planning process that is notoriously difficult to navigate. This can cause particular problems for schools – delaying building work and preventing new schools from opening.
- 4.15 All schemes that change the footprint of the school require planning permission from the Local Authority (unless they are very small-scale). There is often local action against planned changes, so gaining consent can be a long, painful and expensive process.
- 4.16 The planning process is particularly problematic for new schools. The ‘use class order’ system means that schools can only be built on land classified as ‘D1’ (designated for the public sector – libraries, nurseries, hospitals etc.). If a provider wants to build a new school on land with a different classification they have to apply for a change in use class order. This takes at least 13 weeks (much longer if the initial application is refused) and can lead to new schools being blocked by local government despite a clear need.
- 4.17 Some steps have been taken to make it easier to gain planning permission to build a new school. These include the issuing of updated guidelines to local planning authorities to make it clear that there is a presumption in favour of new schools, but more will be needed if we want to make it easier for new schools to be set up. If there is a move to a set of standardised frameworks there needs to be a presumption that one of the available options will be acceptable in all but a very few environmental contexts.

Energy Use and Purchasing

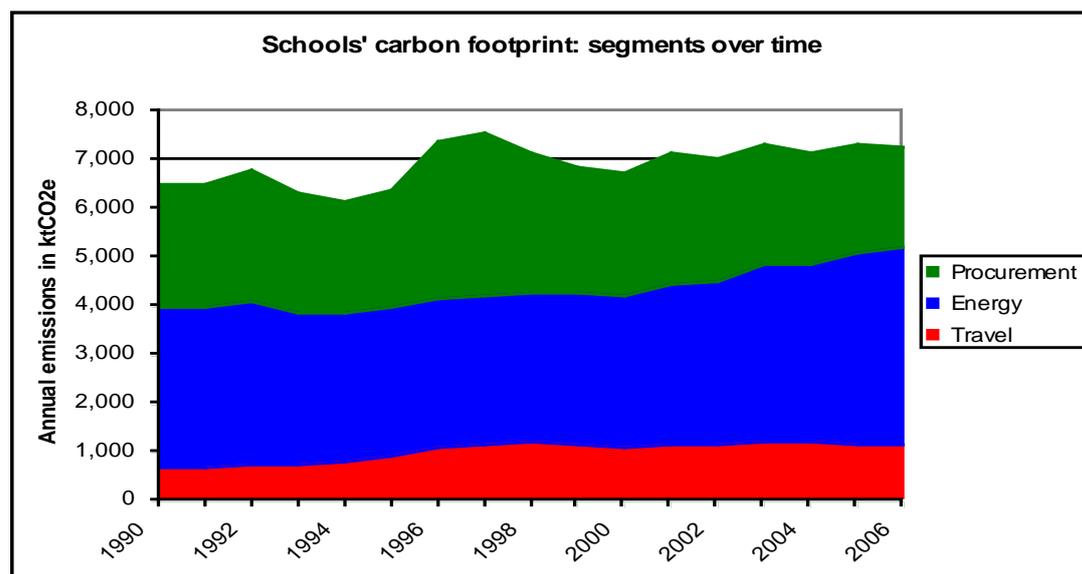
- 4.18 During the course of our research we looked at total costs of energy and carbon usage. Although energy usage is not directly part of the capital expenditure budget, following investigation into the current approach to energy we believe that there are material opportunities to reduce energy usage and costs for schools.
- 4.19 Despite the cost – £553 million per year and rising (see **Figure 7**) – across the estate, we appear to be doing little to reduce either usage or our cost per kwh in a co-ordinated way. Some areas have invested in energy saving, others have not. As a result, there are wide variations from school to school. Whilst there are some cases of aggregated energy purchasing, the department does not, as a rule, make good use of its scale in purchasing, and individual schools find it difficult to invest through capital funds to reduce energy use later. In addition, the carbon benefits gained from new builds have been outweighed by increases in energy use elsewhere (see **Figure 8**).

Figure 7: Schools' Spending on Energy (2004-2009)



Source: DfE data

Figure 8: Schools' Carbon Footprint (1990-2006)



Source: Climate Change and Schools: A Carbon Management Strategy for the School Sector

4.20 It is clear that the cost of energy is continuing to rise. The Regulator has also confirmed that energy costs will rise by 6% over the next decade to revamp the United Kingdom's energy grid. Current movements in energy prices may increase the energy bill to UK Schools by as much as £100 million in the next year or two.

4.21 The review team believes that school-by-school monitoring, clear

guidelines and, over time, the roll out of (particularly) electricity management systems can reduce these costs. When applied to a large retail estate these measures reduced consumption (and therefore carbon emissions) by 10-15%. In addition, the ability to group these potentially enormous sums of money when tendering for power could yield benefits as, today, the extent to which different Responsible Bodies do so is variable at best.

Insurance

4.22 The review team collected some data on insurance spend across the educational estate as part of the considerations for lifecycle costs of buildings. The evidence collected suggests that the insurance market for Local Authority schools appears to be operating inefficiently. Cover is usually for fire, loss and damage, and usually with some excess liability on the council. The spend per annum is very hard to determine but is estimated in **Table 4** below.

Table 4: Assessed Spend on Insurance Premiums in the Education Sector (excluding PFI)

Description	Sector	Annual spend (£)
Supply teacher insurance	Schools	£156,375,353 (from CFR for 08-09)
Staff related insurance	Schools	£48,234,642 (from CFR for 08-09)
Other insurance premiums (premises related insurance, vehicle insurance, accident and public liability insurance for persons not employed directly by the school, and school trip insurance, etc)	Schools	£161,942,020 (from CFR for 08-09)
Insurance	Further Education	£29,800,000 (extrapolated from Exor figures for 2008)
Insurance	Higher Education	£80,000,000 (estimate from the sector)

Notes

1. CFR is the Consistent Financial Reporting; held by Department based on data from schools on expenditure.

4.23 There are, therefore, no standardised approaches to insurance with some Local Authorities insuring all buildings and risks and some insuring catastrophic losses only. A good indicator of the variability of these contracts is seen in the different policy excesses that the team saw – from £50,000 to £1.2 million from a relatively small sample. Spending by schools and Local Authorities on insurance is highly fragmented but the market for insuring school buildings is dominated by one player. Teaching staff who were contributors to our workshops expressed a high degree of dissatisfaction with both the cost of premiums and with the difficulty of claiming on their insurance.

- 4.24 The Academy sector has a centrally procured insurance framework that provides a standardised approach whilst allowing local variation in cover and simplified procurement processes that are compliant with procurement law. The Insurance Framework for Academies has developed out of the Further Education (FE) Insurance Framework. The FE Framework created a structure through which a group of educational institutions was able to gain the benefits of obtaining insurances via a collective purchasing scheme, while still retaining the flexibility of being able to select individual providers from a panel of brokers and insurers.
- 4.25 In summary, we have not been satisfied that the insurance market for educational establishments is operating effectively. We are concerned that the dominance of a single player may be driving up the costs for schools and without any monitoring of premiums, claims and payments we are unable to make any judgement on the value for money being provided.

5. CAPITAL REVIEW PILOT PROJECT

- 5.1 In September 2010, Campsmount Technology College in Doncaster was identified by the Review team as a suitable project for piloting some of the emerging findings of the Review. The school was almost totally destroyed by an accidental fire in December 2009.
- 5.2 There was a very urgent need for rebuilding; pupils were being taught in a number of two-storey temporary structures and using their (unharmd) pre-existing sports facilities approximately 500 metres away. These temporary facilities, though imaginatively used and immaculately kept by a very capable team, were clearly inadequate, and prolonged use of them would damage the ability to deliver the same high level of outcomes as had been enjoyed by Campsmount students up to that point.
- 5.3 The use of these temporary structures costs £25,000 per week and is paid for by the insurers until December 2011 at which point this cost will revert to the Local Authority.
- 5.4 In 2008, it was agreed that Campsmount should form part of the broader BSF programme for Doncaster and work began on scoping and pre-procurement. The original refurbishment project for the school was due to start in 2014 and be completed in 2016. After the fire, discussions took place to explore removing the scheme from the BSF project and delivering the rebuild as a one-off project to a faster timescale. At the time that the Review team saw the school for the first time preparation work for BSF had been going on for 28 months and discussions about a one-off procurement for nine months. The total budget for the rebuild was £18.4 million of which some had been already spent on re-usable items to be transferred to the new building (e.g. ICT, furniture etc). The like-for-like build budget was £14.7 million for the main school building and it was due to be completed in spring 2013.
- 5.5 The Review team was alerted to the Campsmount case shortly after the cancellation of BSF. The circumstances of the school made it an ideal project to act as a pilot in which we could apply the findings of the review in practice.
- 5.6 Working closely with the Head teacher and his team, the Review team explored which elements of the proposed findings could be applied at this stage to a live project. To substitute for the introduction of standardised designs (which are not yet developed), the Review team invited potential contractor partners to submit variations on a successful design that they had already built (and which the Campsmount team could therefore visit). In addition, the Review team embarked on a centralised procurement approach utilising the existing National Framework controlled from the centre. Specifications were based on standards that achieved attractive, fit for purpose facilities

with good durability, but the brief was to avoid bespoke features or unnecessarily costly fittings.

- 5.7 In addition, contractors were asked to build the building for no more than the insured value of the structure of £10.5 million and given a firm deadline of January 2012 for delivery of the finished school. In order to achieve these deadlines, the team put together aggressive timelines for the necessary stages of the process and eliminated a number of standard milestones altogether. We worked closely with the head teacher on the project but in order to achieve both cost reductions and the much faster process, it was agreed that fewer variations would be allowed from the team at the school.
- 5.8 In all there were 10 out of the 12 contractors on the National Framework who expressed an interest in the project. This was very encouraging given the ambitious targets. Within two weeks, two contractors were shortlisted, and eight weeks later a contractor was appointed on the basis of a design for an attractive new school (see **Appendix G** for the schematic). The programme is currently on track to deliver against both time and cost budgets.
- 5.9 The Review team assigned one of their members to the project. We would expect this level of one to one attention to achieve better results. However, as the Review team were only able to apply a few of the proposed recommendations for the future, we are sure that at least the same efficiencies can be achieved if the process is rolled out nationally.
- 5.10 The Campsmount pilot suggested that it should be possible to make substantial savings quickly on other projects without compromising quality and outcome. Particularly attractive is the potential saving of both cost and time for some existing schools in the pipeline. There is good evidence that this is already being achieved on some Free School and Academy projects.
- 5.11 We believe that as many projects as possible in the current BSF and Academy pipeline should benefit from the Review's findings to ensure more efficient procurement of high quality buildings, and that it should be an early priority to identify where this could be done.
- 5.12 The results of the Campsmount pilot exercise are being monitored by the Review team to assess how the benefits can be achieved on a much larger scale across the delivery programme.
- 5.13 The Campsmount pilot project would not have been possible without the vigorous engagement of the Head teacher and his team together with that of the Local Authority, PfS, and the Mayor of Doncaster, to all of whom we would like to express our thanks.



Part 2: Options for Change and Recommendations

Review of Education Capital

Sebastian James

April 2011

1. INTRODUCTION

- 1.1. In the first part of this Report the Review analysed the way in which the Department currently invests capital, with a deliberate focus on the schools estate, given that this is where most of the financial pressure and available funding has been, and will continue to be centred. We identified a number of fundamental weaknesses in the way that the Department has managed capital.
- 1.2. The recommendations in this section were developed over a significant period of time, and at various stages, were presented to the workshop members, representatives of Academies, Local Authorities and VA groups for comment and verification. In many cases this process suggested some dramatic changes or simplifications to early ideas and we are very grateful for the input that all of these people gave.
- 1.3. There are, as can be expected, some recommendations that can be implemented swiftly and with relatively little commotion, and others which will require significant further discussion. This is needed in order to bottom out exact procedures and to safeguard against possible unintended consequences. If the Government believes that these suggested approaches are the right ones for the future, the Review team believes that this work could be completed fairly quickly with many of the key principles being operational during the course of next year.
- 1.4. The following three chapters describe a programme of improvement, and do so through laying out options we have considered and recommendations we want to make.

Chapter 2: Capital Allocation

Chapter 3: Design and Build

Chapter 4: Effective Procurement and Maintenance

2. CAPITAL ALLOCATION

Setting the Priorities for Investment

- 2.1. The rationale behind historic capital programmes, especially BSF, did not reflect the correct priorities for capital investment and had unclear goals. This has led to; capital being allocated in some cases to buildings that did not require it; 'islands' of expenditure across localities in England whilst extremely dilapidated schools in other parts of the country remained untouched; and to over-spend against a 'transformational' agenda which was not realistic or even necessarily desirable. There are, today, also gaps in pupil place provision, and changes in demography in recent years have put particular pressures on place provision in many areas. The current approach to investing capital funding does not address this well enough.
- 2.2. The Review finds that capital investment and apportionment for new school places and for rebuilds or refurbishments should be based on objective facts and on consistently applied criteria, with the unmet need for quality, fit-for-purpose school places being the priority. The actual condition of facilities and key national priorities set by Ministers should be the key determinants. Further, the methodology used must be consistent from one area to another and from year to year.
- 2.3. To enable proper strategic planning of works locally and in partnership with contractors, it is essential that the Department gives certainty about funding going forward. The Department's existing practice is to provide indicative capital budgets for the whole spending period as early as possible. We commend this approach, but think it is important that indicative budgets can be responsive to new data on need and performance.
- 2.4. Historically, the Department has made capital allocations in a variety of ways. Most notably capital allocations were made under the BSF programme on the basis of a range of criteria and the development of a complex business case. The Government has expressed a desire to ensure that parents have a real choice of schools for their children. The capital allocation model needs to allow for a systemic ability to provide oversupply where appropriate and to provide demand-led facilities (such as Free Schools). It is difficult to allocate to local level for programmes where the level of demand is unpredictable. This means that for new demand-led policy programmes such as Free Schools, funding should be held centrally.

Single, flexible budgets for local areas

- 2.5. As we have seen in the first part of this report, there has been, a plethora of ring-fenced funding sources for local programmes, often relatively small, that limit flexibility to prioritise investment. Ironically this approach frequently frustrates policy objectives as funding can be

misapplied or go to organisations most capable of filling in the appropriate forms rather than to where the need is greatest. This is also resource intensive to administer, both locally and centrally, and can drive dysfunctional behaviour. The Department should set itself a clear goal to use the single, fact-based allocation model to achieve its policy objectives, coupled with a much clearer accountability for Responsible Bodies, stepping away from the superficially attractive, but ultimately destructive influence of small ring-fenced funding streams for local programmes. The Department's approach should be to bring the available capital for together into a single, flexible budget, and put an end to the multiple funding streams that have in the past led to both inefficiency and inequity

- 2.6. Where the capital is intended to significantly improve, renew or build new facilities, we believe that the available funding should be apportioned as a single notional budget for a Local Authority area on the basis of local need for places and condition data on the estate - data that will improve over time. This will enable the centre to look across all local plans and identify similar types of projects, in order to batch them together and create 'pipelines' of work that will then provide the basis for securing better deals with contractors and suppliers.
- 2.7. The budget for a Local Authority area should sit alongside a set of national priorities and requirements, which will provide important parameters for how investment is made locally. This set of national requirements should be as light-touch as possible. It will need to reflect both ministerial priorities, and also the accountabilities and legal duties that Responsible Bodies have locally, and which they could legitimately expect Departmental capital to support. The Department will need to consider further how precisely the capital allocation model set out by this Review can appropriately manage the capital pressures presented by the wider education estate beyond schools.

Apportioning Capital – The Need for Local Investment Plans

- 2.8. With each Local Authority area apportioned a budget, local Responsible Bodies should then work together to agree how to call upon and invest that budget for the best outcome. A fundamental principle of our recommendations is that the organisations that own facilities and manage them on a daily basis, and the Local Authority in their role as commissioner of school places, are always best placed to identify and prioritise need at a local level. Responsible Bodies in every Local Authority area should work together to agree the priorities for their area in the context of national requirements, and therefore set out the priorities for the notional capital allocation that they have been given.
- 2.9. The local priorities would be agreed with the centre as a **local investment plan**. The Department will need to give a clear template for what information is required in the plan. This plan will should not be an onerous document – we must not return to the burdens of

Strategies for Change - but should briefly lay out the local priorities for expenditure whether they are to provide new schools (or potentially new educational facilities of any type), extensions or refurbishments. This should include what might be considered high-cost maintenance projects, such as roof replacements.

- 2.10. In terms of smaller works and lower-cost maintenance, the varied and detailed projects need not be itemised in the local investment plan. However, addressing the dilapidation of the estate is vital and this Review has found that not enough importance is generally given to it locally. Therefore the local investment plan should describe the local plan for maintenance and upkeep of the estate, and how local condition data will inform decision-making and demonstrate progress. Maintenance is discussed more fully later on in this chapter.
- 2.11. There will be a range of Responsible Bodies involved in this process of prioritisation and development of the plan, and some understandable tensions. The available capital will be much in demand. We are nevertheless confident that with good leadership, a robust and fair process can be delivered locally. All Responsible Bodies, including where this is an individual school or Academy, must be fairly represented to ensure that the best outcomes are achieved for local children, rather than there being a bias towards (for example) the maintained sector.
- 2.12. We recommend giving the Local Authority the leadership role, with clear accountability for ensuring that a fair, inclusive and transparent process brings all of the relevant local Responsible Bodies together effectively to understand each others' needs, the relevant legal requirements to which these bodies are subject, and to agree local priorities. This would lead to an effective plan to deliver on agreed priorities from the capital available.
- 2.13. This process must ensure:
 - a fair and inclusive prioritisation procedure involving all relevant partners, with simple and rapid avenues for appeal, and one that minimises bureaucracy;
 - that the need for new school places is met and offers parents a fit-for-purpose, diverse choice of education for their child, including in free schools where that opportunity exists;
 - that action is taken to address those schools most in need of refurbishment/replacement/urgent works, regardless of the type of school or VAT implications;
 - that maintenance responsibilities are clearly understood with relevant bodies accountable for the condition of their estate; and
 - that the local plan includes opportunities to benefit from other sources of capital such as Section 106, asset sale or philanthropic payments.

- 2.14. To ensure that this process has been carried out fairly, that national priorities are being met, and to develop a pipeline of work, local investment plans will be approved by a Central Body.
- 2.15. It is clear that this process, including central approval of plans, is only about prioritising demands on available capital and is not about the centre (or indeed Local Authorities) dictating local school organisation decisions. The process for determining the local investment plan for capital will, of course, need to link closely to the pupil place planning led by Local Authorities.
- 2.16. The above proposals major on the Local Authority area as the geographic basis for planning. However there should be flexibility for several Local Authorities to come together to create a single investment plan, if this would deliver the most strategic response to pressures. An example might be planning how to respond to basic need pressures across London, given the cross-Borough movements of many school-aged children and significant growth that is expected over the next few years. The Review considered whether this would in fact be preferable in all cases but, after consulting with a wide variety of Local Authorities and other groups, our view is that, at least at the start, the most effective level at which local prioritisation of projects can operate is Local Authority level, with the option to create larger groups if those involved feel it would be helpful to do so.

Recommendation: Capital investment and apportionment should be based on objective facts and use clear, consistently-applied criteria. Allocation should focus on the need for high-quality school places and the condition of facilities.

Recommendation: Demand-led programmes, such as Free Schools, are most sensibly funded from the centre and a centrally retained budget should be set aside for them.

Recommendation: The Department should avoid multiple funding streams for investment that can and should be planned locally, and instead apportion the available capital as a single, flexible budget for each local area, with a mandate to include ministerial priorities in determining allocations.

Recommendation: Notional budgets should be apportioned to Local Authority areas, empowering them fully to decide how best to reconcile national and local policy priorities in their own local contexts. A specific local process, involving all Responsible Bodies, and hosted by the Local Authority, should then prioritise how this notional budget should be used.

Recommendation: The local prioritisation decisions should be captured in a short local investment plan. There should be light-touch central appraisal of all local plans before an allocated plan of work is developed

so that themes can be identified on a national level and scale-benefits achieved. This must also allow for representations where parties believe the process has not assigned priorities fairly.

Clarifying Accountabilities for Maintenance

- 2.17. As we gathered evidence for this Review and looked at local practice, it became clear that there was often confusion, and certainly little consistency, around some of the respective roles and responsibilities in relation to maintenance of facilities. In the case of some schools, this is partly because of the range of different owners, for example Local Authorities, VA bodies, trusts and foundations, and Academy sponsors. However it is compounded by confusion over when revenue funding should be used for day-to-day building maintenance.
- 2.18. Upkeep and low-level maintenance of schools is funded from the school revenue budget. Schools are able to use capital money for maintenance where it is not simple day-to-day upkeep and replacement, and where expenditure is over certain thresholds. These thresholds are set locally and ranging between £1,000 and £10,000 per project. This should continue.

Devolved Formula Capital

- 2.19. DFC provides a modest capital allocation for each school to support higher-cost maintenance (for example, the replacement of major components such as roofs, windows and boilers that are approaching the end of their lifecycle) and other capital pressures. We agree with this allocation in principle. However, the current (broadly) per-pupil allocation of funds for small works and maintenance as DFC is inefficient. Each school gets an allocation on a national formula. Therefore funding is being allocated to schools no matter what the actual requirement is for that school. The funding allocated can also be used on a wide range of expenditure including, for example, ICT and minibuses, when building condition need might actually be more important.
- 2.20. We believe that whilst there is a case for each school having a modest annual amount of its own capital, and that a broad per-pupil DFC allocation is adequate, pending better information on the condition of the estate, it should be aggregated to the level of the Responsible Body wherever possible. The Responsible Body in question, for example, an Academy chain, Local Authority, or large VA organisation, would hold the funding for all of the educational facilities that they represent, and agree priorities for investment with them. The Responsible Body can then allocate it, as they see fit, to the most urgent needs of their estate, as part of a clear maintenance strategy, working in partnership with the relevant leadership teams and governing bodies. In the case of single trust Academies, non-diocesan VA schools, or other independently-run state schools, the allocation would be devolved directly to the school as is the case now.

- 2.21. In time, we believe that the allocation should be refined to target money more effectively to those areas where it is most needed to combat condition issues, with accurate data on condition influencing the levels of allocated funding.
- 2.22. Overall, we think that the system would benefit from more guidance on maintenance, in terms of the current legal and policy position. There should also be an absolute requirement placed on Responsible Bodies to maintain the fabric of their estate to an agreed standard. The approach that Responsible Bodies are adopting to maintain their estate should be highlighted in the local investment plan, as discussed earlier in this chapter.

Recommendation: Individual institutions should be allocated an amount of capital to support delivery of small capital works and ICT provision. Wherever possible, this should be aggregated up to Responsible Bodies according to the number of individual institutions they represent, for the Responsible Body then to use for appropriate maintenance across its estate, working in partnership with the institutions.

Recommendation: The Department ensures there is access to clear guidance on legal responsibilities in relation to maintenance of buildings, and on how revenue funding can be used for facility maintenance.

Central Data Needs

- 2.23. Apportioning capital as described above means the Department and the Central Body need access to better data on school capacity and demand for places, and on the condition of the estate. We know that the Department is already taking steps on the former through the continuing revision of the reporting requirements for the annual School Capacity (SCAP) survey. Much greater detail on school capacity and on Local Authorities' pupil number forecasts has been collected in 2010 or is planned for SCAP 2011.
- 2.24. In relation to facility condition, there is currently next to no aggregated data at a national level. The third and final collection of Asset Management Plan (AMP) data, which included condition data based on non-intrusive surveys of all school facilities, was in 2005. These surveys, which started in 1999-2000, also included data on suitability and sufficiency of school facilities. No non-school facility data was collected. More recently there have, in 2007 and 2009, been School Buildings Surveys, but these have focussed on the output of investment – new schools, extensions and improvements – rather than the state of the stock. Some Local Authorities have continued collecting information in line with the Department's AMP programme and use it forensically in making investment decisions, but there is no consistent approach across the country. Even where the AMP approach has been sustained, the quality of data will vary depending on the frequency and

rigour of surveys.

2.25. The Department urgently needs to build up a better picture of the condition of the educational estate that it funds. However, it would be a major undertaking - and difficult to achieve quickly - to gather detailed, complete and robust information about the condition of over 27,000 facilities. Therefore, the Review suggests an on ongoing schools' survey, with clear goals over a reasonable time, should be started soon. This should initially aim to get better information on which types or categories of facilities tend to be in poor condition, the costs of maintaining them, and how geographically concentrated the condition needs of the educational estate are. The first step should be to collate all existing information sources and to establish a simple, well-designed database to manage this information.

2.26. We envisaged that it would be reasonable to develop a picture of the estate over 5 years and maintain a rolling survey programme covering 20% of the estate each year. In time, and extended to non-school facilities, this would deliver the complete picture necessary to reflect robustly the needs of the estate in negotiations with HM Treasury, and to support weighted central apportionment of capital to local areas according to building condition needs. This central repository of condition information could be supplemented by contractor reports from all repair and maintenance visits, with this becoming a core part of all contracts with maintenance suppliers. In short, every time we touch a school, we should be collecting the information needed to allocate resources accurately.

Recommendation: That the Department:

- ***gathers all local condition data that currently exists, and implements a central condition database to manage this information.***
- ***carries out independent building condition surveys on a rolling 20% sample of the estate each year to provide a credible picture of investment needs, repeating this to develop a full picture of the estate's condition in five years and thereafter.***

Figure 1: Schematic of Proposed Capital Allocation Process

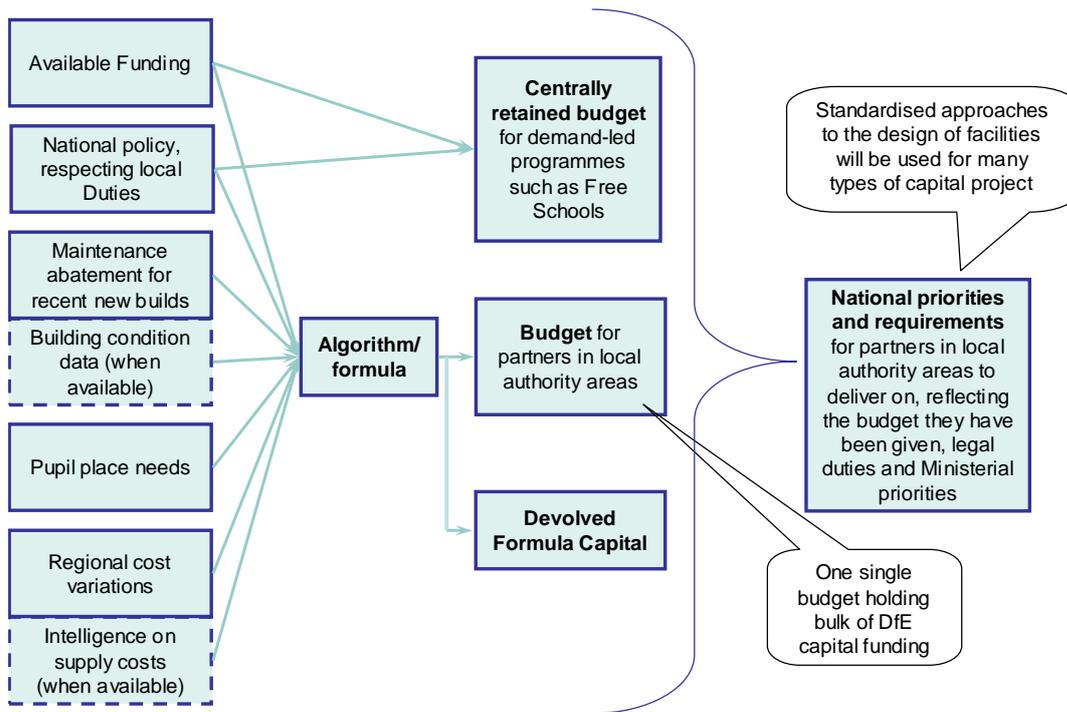
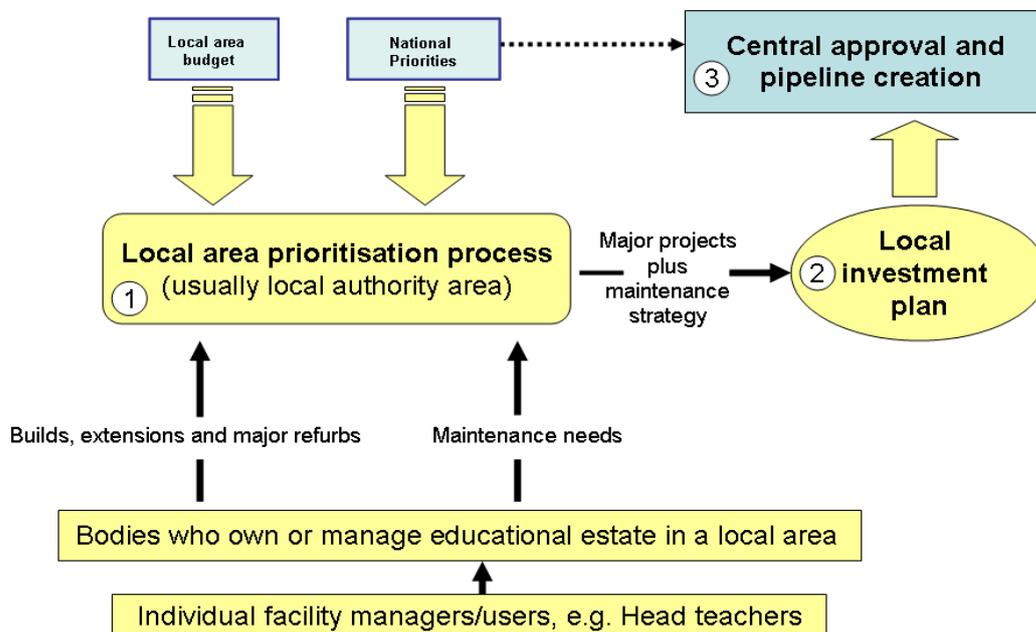


Figure 2: Local Process

An inclusive local process that prioritises calls on the apportioned budget and creates a local investment plan, which the centre approves and compares with all other local plans to create a pipeline of projects.



3. DESIGN AND BUILD

Clarifying the Purpose of Departmental Capital

- 3.1. Clearly, following the stopping of much of the BSF and Academies programme, a relatively small part of the secondary estate – approx 840 out of 3500 schools – has been, or will be, modernised. The proportion of the primary estate which has benefited from the Primary Capital Programme, also stopped, is very much smaller. Some Local Authorities have not benefited at all from BSF, in others only some schools. Therefore, the vast bulk of schools will require investment and in some cases their needs are very acute. The expectations of what investment will deliver may also be coloured by the experience of buildings delivered through previous central programmes.
- 3.2. The Review recommends that there needs to be a sharp refocusing of what capital investment should achieve, and a move from ambitions for iconic buildings and structures to buildings that are fit-for-purpose, efficient to run, and act as manageable tools for those delivering outstanding education to our children.

A Standardised Approach to Drawings and Specifications

- 3.3. One of the principal issues identified with the current system is the lack of learning and systematic improvement of quality, cost and time from one school building project to another. This has been caused directly by the design and procurement process which has resulted in most schools designs being ad-hoc. Among the many knock-on problems that this has created are high costs (of both design and build), variable quality, a need for every school to pass through an arduous cycle of checks and balances, and no opportunity for improvement.
- 3.4. The Review recommends that a suite of drawings and specifications should be developed that can easily be applied across a wide range of projects. These drawings would cover the layouts and dimensions of spaces and walls, and details of how different materials and components will be fixed together. The specifications would be a written description of the standards and performance required of the materials and components that make up the building.

Swindon Borough Council has had a significant growth in children of Primary School age and has therefore been fighting an uphill battle to create enough Primary School places to meet this burgeoning demand.

The Property Services team at the Borough, led by Nic Newland, were frustrated at the high cost and long build times of traditional primary schools and have been developing an alternative.

The Flexible School Project is a timber frame modular system consisting of a teaching block (which can be adapted to form any kind of public access facilities or classroom block) and a link block containing wet facilities such as toilets and showers. The teaching blocks are self contained, can be clad and roofed in any material and are specified to be self-contained, using off the shelf domestic elements such as boilers. These are built-in, cheap to maintain for a primary school, and allow for maximum flexibility. The roofs can be oriented in any direction and are designed to support PV cells on the south elevations and standard domestic velux windows for ventilation on the north elevation.

This modular design provides high quality teaching spaces that are fully and very cheaply adaptable to suit particular needs, and the use of widely available, off-the-shelf materials means that prices can be negotiated hard. In addition, the ability to place the modules in almost any configuration means that it is easy to apply the scheme to most sites, and even to use the modules to extend existing facilities.

The team have obtained firm quotes of between £3.2 and £4.4m for a one and two form school respectively which compares very favourably with the £6-7m average cost of equivalent facilities built recently in the Borough. Mr. Newland is confident that this will reduce further over time as more are built and the team builds expertise in this area. In addition, the build time has been reduced by 25% to 9 months including landscaping.

“For me, using this approach is only sensible. My team looks at it this way: for every two schools I build as a Flexible School I get one for free. That means 400 more kids get the space that they deserve in which to learn than if I had gone the old-fashioned way”

Nic Newland, RIBA, Head of Design and Construction, Swindon Borough Council

3.5. It is vitally important that this approach of standardised drawings and specifications should not be thought of only as a way to reduce costs. In fact, the Review believes that using a few designs whose cost can be spread between many projects will allow for the very best talent to be applied to them while dramatically reducing the per school cost. We believe that using standardised drawings and specifications will improve quality through bringing together all the relevant expertise and experience, and for continuous improvement.

3.6. Using standardised drawings and specifications across many projects does not mean buildings will all look the same. The drawings and specifications can allow for facilities to be tailored to a reasonable degree to reflect the individual educational vision and site location. The Review recognises that projects are individual, but our research

indicated clearly that there is an established best practice for e.g. a science lab, a resistant materials lab and a toilet block and our belief is that this best practice can be codified.

- 3.7. A system should be put in place that continuously learns and improves upon the standardised drawings and specifications. The Review believes that thorough post occupancy reviews should be applied to each project without fail, and the learning from these should be applied to successive projects and to the baseline standards.
- 3.8. A standardised approach will reduce costs. We expect design fees and procurement costs to reduce and, more importantly, we expect, construction costs to do likewise through repetition and the ability to purchase standardised products in bulk. Lower-cost build processes can be designed-in from the start through close consultation with contractors and their supply chains in the development of drawings and specifications. Standardised designs and specifications would take into account the whole life costs of the educational facility, for example by considering materials specification and energy usage.
- 3.9. Using a standardised approach will also allow much more systematic use of computer-aided simulation both in the design and in the development of the build process.
- 3.10. The design, procurement and construction processes will be simplified, and risk reduced as the entire supply chain becomes experienced in delivering to this precise brief. Standardised drawings, specifications and processes should ensure far less waste, in both time and money, whilst significantly reducing errors and allowing improved productivity through repetition. Over time, off-site construction will be possible for some standard elements from plant rooms up to specialist classrooms.
- 3.11. Standardisation will reduce timescales. We would expect a reduction in design time as project-specific design will be minimised; in consultation time as stakeholders will have a known baseline; in procurement time as bidders will be familiar with designs; and in build time due to the potential for modular build and the manufacture of standardised components off-site.
- 3.12. There may be a concern that standardising designs and specifications could stifle innovation. The Review found little evidence of genuinely innovative designs that radically improved the educational agenda. Nevertheless, the team envisaged that, at regular intervals, for example every 20 projects, there could be extra capital allocated to allow for the introduction of some more radical ideas into a project. This would be subject to an even more rigorous evaluation process to identify those elements which have been successful and therefore should be incorporated into all future designs.
- 3.13. For standardised drawings and specifications to create the best fit-for-purpose environments, the regulations covering educational facilities

need to be proportionate. The Review has seen a number of instances where these have had a perverse effect, and are overly restrictive. The Department is already reviewing its space standards and we welcome this. This is not about compromising on quality, but taking a practical and reasonable view on what safeguards are needed.

- 3.14. Standardised designs will enable us to ensure that regulations are taken into account – designed in - from the outset and do not require multiple approvals for each and every project.

Regulation and Planning

- 3.15. The different premises regulations governing independent and maintained schools have created a situation where state-funded independent schools are required to meet different standards to maintained schools. There is also an inconsistency in the details underpinning each of the standards. Some give quite detailed technical information that schools must comply with, others merely state that the issue must be managed appropriately or adequately, without setting detailed standards.
- 3.16. There is a clear rationale to keep a minimum standard for all schools: it would provide clarity across all sectors, create a level playing field as more schools become Academies and ensure that the inspection of fee-paying independent schools is not adversely affected.
- 3.17. The amount of guidance available to schools and authorities is immense, regardless of whether it is compulsory or not. This creates confusion about the status of guidance, and it is all too often followed with rigidity rather than used as a tool or example of best practice.
- 3.18. Whilst the current move to simplify BREEAM should be welcomed, it could go further, and the expectation that it should be used at all times does not allow for Local Authorities to best determine the tools that they should use to ensure sustainable buildings.
- 3.19. In terms of the overarching planning framework, the Government had taken some steps to make it easier to gain planning permission to build a new school, such as issuing updated guidelines to local planning authorities to make it clear that there is a presumption in favour of new schools, but more will be needed to make it easier for new schools to be set up.

Recommendation: That the Department revises its school premises regulations and guidance to remove unnecessary burdens and ensure that a single, clear set of regulations apply to all schools. The Department should also seek to further reduce the bureaucracy and prescription surrounding BREEAM assessments

The BSF and Academy Legacy Pipeline

- 3.20. There is of course still a very sizeable pipeline of projects to be delivered through the remaining BSF and Academies programme. We are pleased that efficiencies have been secured from across these projects, and understand that the contractual and build status of many projects means that the scope to further adjust designs or build processes is limited. However, we do think that the Department should look to identify (and incentivise) projects where Local Authorities, Sponsors and Contractors are willing to work in a different way and pilot the reforms described in this report. It is essential that the best of design and build learning is gathered from across this existing pipeline of work and fed back into the development of standardised approaches. A key way to do this should be through structured assessment of how the users of new buildings are finding them as places to work in and run (post occupancy evaluation).
- 3.21. Work has been started by members of the Review Team, working with PfS, to seek benefits in this area using learning from the Review's pilot project in Doncaster. This has been successful with worthwhile savings achieved by applying revised funding rates, more efficient area allocations and focussing on addressing building condition needs to provide fit for purpose learning environments. Additional benefits in reducing the maximum procurement period, reducing private sector bid costs and reducing pre-procurement costs are also being achieved as a direct result of the pilot project in Doncaster.

Recommendation: There should be a clear, consistent Departmental position on what fit-for-purpose facilities entail. A suite of drawings and specifications should be developed that can easily be applied across a wide range of educational facilities. These should be co-ordinated centrally to deliver best value.

Recommendation: The standardised drawings and specifications must be continuously improved through learning from projects captured and co-ordinated centrally. Post occupancy evaluation will be a critical tool to capture this learning.

Recommendation: As many projects as possible currently in the BSF and Academy pipeline should be able to benefit from the Review's findings to ensure more efficient procurement of high quality buildings. This should be an early priority to identify where this could be done.

4. EFFECTIVE PROCUREMENT AND MAINTENANCE

Key considerations for determining a new procurement strategy

- 4.1. Any entity spending public money is subject to EU Regulations, which require a procuring body to comply with a specified regime that is intended to ensure fairness, open competition and transparency.
- 4.2. There is wide variation in the type of procurement models used to deliver education capital investment projects. A mapping exercise with returns from 88 out of 152 Local Authorities has shown that there are at least 229 different frameworks and strategic partners that could potentially be used to deliver education capital schemes.
- 4.3. Each of these arrangements has different terms and conditions and has necessitated private sector bidders preparing multiple bids, with little or no certainty about the pipeline of work to be delivered via these arrangements. Of the Local Authorities that responded to our call for evidence, 16% reported that they do not make use of any framework arrangements and conduct one-off procurements. Significant amounts of capital funding are invested in schemes that are procured as one-off projects at Local Authority, VA body or individual institution level.
- 4.4. There are also 30 LEPs in place across 33 Local Authorities that have exclusivity to deliver substantial secondary school projects where the funding is received by the relevant Local Authority.
- 4.5. Further detailed work needs to be carried out in the implementation phase, in relation to the detailed structure of the best future procurement model, resourcing plans, implementation timescales and any suitable private financing opportunities that may be available. It is clear though that the Department needs to take advantage of scale and the potential to co-ordinate investment from the centre more effectively, in order to drive quality improvements and cost-savings.

Recommendation: That the Central Body should put in place a small number of new national procurement contracts that will drive quality and value from the programme of building projects ahead.

Central or local procurement and contract management of major projects

- 4.6. We have recommended that partners in every Local Authority area submit investment plans so that thematic pipelines of works can be identified. The centre should retain the funding for the projects identified in these pipelines, and then procure and contract-manage the projects on behalf of local areas, acting as an expert client on their behalf. The Review team believes that it is important that there should be a cultural shift towards the Department providing the Responsible Body with a finished building rather than with funding to procure a

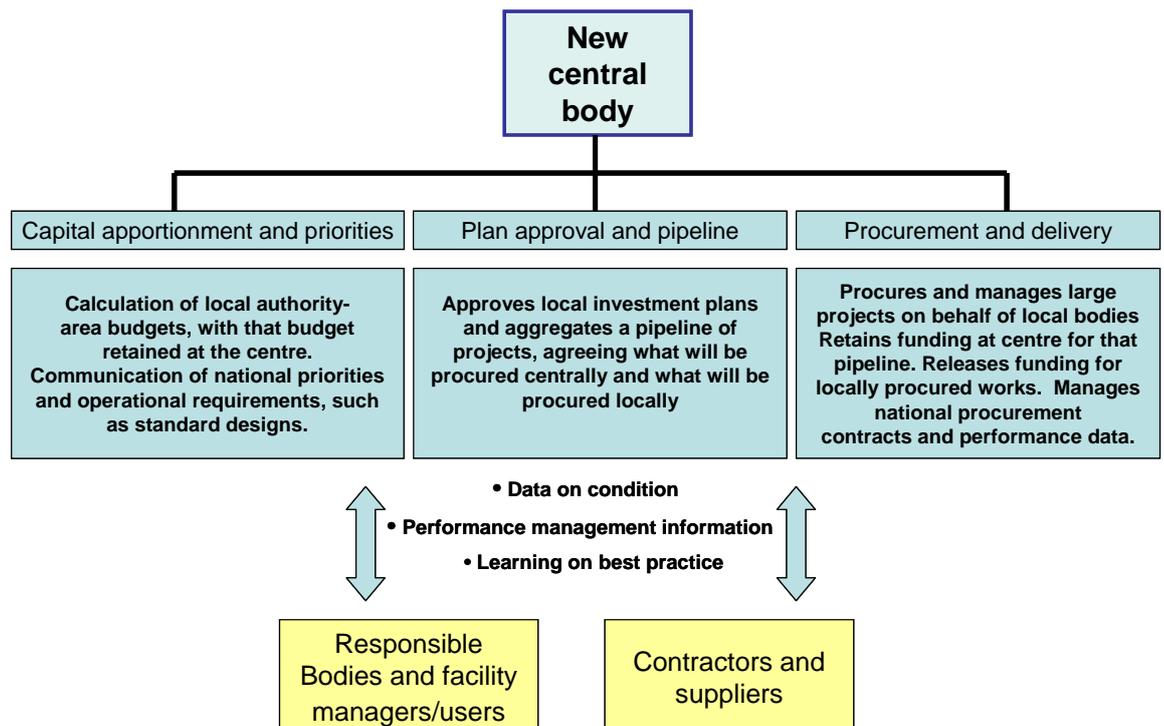
building.

- 4.7. Procurement would be centrally managed by the strong, expert, intelligent client – the Central Body – through a small number of new national procurement contracts, allowing for different sizes of project and also allowing local Small and Medium-sized Enterprises (SME's) the opportunity to bid for and win contracts. This should seek to ensure that:
- the benefit of scale from a national development pipeline is exploited;
 - procurement will be quicker, simpler and cheaper without the need for a new procurement vehicle to be set up locally in every case;
 - expert contract managers are available, with the skills to deal with large companies;
 - cost and quality data is captured and shared, allowing a greater understanding of market prices, and ensuring value for money is achieved across all local areas;
 - all contracts would be managed through one simplified set of documents, including a streamlined approach to the management of risk;
 - there will be a simpler pre-qualification process for all contractors – ideally a single process; and
 - any aggregation of supply will allow for fair payment throughout the supply chain, ensuring commitment and security for sub-contractors.
- 4.8. A simpler approach will allow smaller and local players to have access to this substantial body of work.
- 4.9. Giving a Central Body responsibility for procuring all major capital projects, and standardising drawings and specifications will improve value for money in capital spending by providing a highly experienced and professional approach to this activity. Currently, Responsible Bodies enter into such contracts relatively infrequently and therefore find it very hard to develop deep expertise in the practice.
- 4.10. A Central Body would build up expertise in negotiating and monitoring the performance of contractors. By using standardised drawings and specifications and also standardising contracts, it would be easier for a Central Body to compare and assess relative contractor performance. A body responsible for central management of the entire capital budget also has an incentive to minimise the costs of each project which could be lost by devolving a set budget for a project to a local area.

- 4.11. However, we must recognise that there are currently some effective and highly-regarded local and regional procurement arrangements in place. Many staff, for example in Local Authorities, VA bodies and Academy chains are skilled at procurement and contract management.
- 4.12. Given that some current or future local procurement arrangements may well prove capable of delivering similar benefits to centralised procurement, we think that whilst the default should be central procurement of large projects, the model must allow for individual Responsible Bodies to earn the ability to procure autonomously, based on their proven delivery capability. This would be consistently measured based on cost, quality and delivery to time; should happen only where agreed by the Central Body; should follow the same standardised design brief and procurement processes; and should have clear step-in rights for the Central Body in the event of failure to deliver.
- 4.13. There will clearly be the need to clarify the level of project to be procured centrally. Thresholds could be set according to project costs or project type.

Figure 3: Central Body – Proposed Role

A new Central Body would deliver three main roles across this model, in order to act as an ‘expert client’ for DfE capital investment



- 4.14. A concern could be that only a few large firms may tender for contracts with a Central Body, giving them significant power over prices and the fulfilment of contracts. However, a Central Body focused on achieving value for money would encourage tenders from a wide range of contractors, including small and medium sized enterprises; indeed it may be able to draw from a wider pool than for example Local Authorities, and promote competition.

Procuring and Delivering Smaller Projects and Maintenance

- 4.15. In Chapter 1 we recommended that a modest amount of capital continues to be allocated to schools locally to support appropriate small works, maintenance, and other capital pressures. We recommended that where possible these DFC allocations are aggregated-up to Responsible Body level. The Review considered the extent to which all maintenance and smaller value capital projects could reasonably be managed and delivered centrally. It was concluded that the level of bureaucracy which would inevitably follow such an approach - particularly when the maintenance backlog is so significant, along with the need to ensure decisions can be made and acted on quickly - would negate any cost benefits which could be achieved through aggregation.
- 4.16. However, it is important that every effort is made to realise value for money from this capital funding, and also from inspections and works that are paid for by school revenue funding.
- 4.17. Current school estate maintenance and lifecycle solutions vary considerably, from in-house provision, where all responsibilities and risk will remain with the procuring body (be that a head teacher, or a Local Authority running a scheme for schools that wish to opt-in); to solutions such as PFI, and Design, Build, Operate and Maintain (DBOM) where the risk on maintenance and Facilities Management (FM) is transferred to the service provider, who is contracted to carry-out works and provide services. As a result of this diversity of approaches, a variety of procurement types are being used, from PFI contracts through to ad-hoc arrangements at school level. The school or the Local Authority may contract out all maintenance services, directly employ staff, or use a direct labour organisation (where the Local Authority maintains one, e.g. Hampshire County Council) that can carry out maintenance at maintained schools.
- 4.18. An effective maintenance programme, including one that considers the natural lifecycle of elements such as roofs, windows, and boilers, will ensure school facilities continue to be available to meet users' needs, provide a safe and sustainable school environment, and maximise value for money by reducing the need for facilities to be replaced at a greater cost than would have been the case if they were simply well maintained in the first place.
- 4.19. Across the construction industry, there is a multiplicity of contractors of

all sizes and shapes, from small-scale local operators to multinational industry-leading players, who deliver a varied range of services for lifecycle and maintenance of the school estate. This position means that Local Authorities and schools are not capitalising on economies of scale and other efficiency savings that could be realised through a more strategic and centralised approach to maintenance and lifecycle. This is often directly related to the level of allocated funding available, the level of understanding of maintenance management within Local Authorities, a lack of vision in respect of achieving wider savings by joining up work packages, and the subsequent contract management control exercised by the procuring body.

- 4.20. To date, Local Authorities do not appear to have set consistent parameters for the use of the funding available for maintenance at school level. Indeed, there is anecdotal evidence that suggests many schools adopt, at best, a reactive maintenance approach rather than investing more in planned, preventative maintenance. Ultimately this lack of a standard process results in:
- a relatively high funding requirement nationally, with virtually no economies of scale available;
 - services of greatly varying quality;
 - failure to deliver value for money solutions;
 - limited and ultimately ineffective management of the national school estate's maintenance needs, with decay of the estate that eventually needs addressing at higher cost; and
 - occasional emergencies, where a building fails or is deemed unsafe, with loss of teaching and learning time.
- 4.21. Accordingly, future aims should seek to adopt a more strategic and planned approach to the procurement of maintenance and lifecycle for the school, and indeed broader educational estate. This should be informed by accurate condition data and seek to reduce the level of expenditure on reactive maintenance to allow greater investment in planned preventative maintenance and lifecycle replacement. This approach should standardise the level and quality of maintenance services that are provided, generate economies of scale, and provide better data on how maintenance is impacting on the condition of facilities.
- 4.22. When considering the development of new national procurement contracts, we think that the Department should include contracts for routine, small-scale maintenance and annual buildings inspections that could be called upon locally. These contracts, for example frameworks, could be established centrally but selected and appointed by the Responsible Body locally on an annual basis. The service levels and core elements would be established within the framework, so selection would be based on cost and the contractors' delivery to promise, measured and decided locally with performance data fed back to the centre to measure overall contractor performance. A Responsible Body

or local team would have the choice to appoint a local contractor if they wished as long as the contractor was willing to agree to the terms of the national contract.

Information and Communications Technology

- 4.23. The Department needs to ensure a clear menu of core and additional Regional Broadband Services for schools which will allow schools to select and pay only for the services that they need. It needs to develop a clear market strategy for the provision of internet services to schools which takes into account value for money and internet service standards.
- 4.24. A strategy should be developed to leverage the value of existing public sector broadband networks, aligned with the roll out of Superfast Broadband and working with commercial providers, Local Authorities, and Regional Broadband Consortia to establish a minimum bandwidth standard of 10Mbps for primary schools and 100Mbps for secondary schools, thus maximising the potential benefit of local ICT investment by schools by enabling the use of web-based curriculum and other resources, including many that are free at the point of use. For smaller schools with tighter budgets, for example some free schools, consideration should be given to providing higher than normal internet bandwidth to allow the use of remotely hosted solutions, maximising the impact of DfE investment while retaining choice and flexibility where it is required for curriculum innovation.
- 4.25. A simple and cost effective condition survey methodology for the local network infrastructure needs to be developed together with a clear ICT funding allocation model for projects that require extraordinary funding for ICT (i.e. where they are part of a major new build or refurbishment project).
- 4.26. The support model for ICT procurement needs to be reviewed to reduce external consultancy costs and provide direct central advice supplemented by tools and guidance for individual institutions and education providers.
- 4.27. The ICT Services Framework, or similar approaches, should be used for all large scale ICT procurements. The Department should consider developing a web-based price comparison catalogue or similar tool to enable “virtual aggregation” so that individual institutions can purchase ICT equipment at the best possible price.
- 4.28. The Department should procure a central framework for school Management Information Systems (MIS) to address concerns about the legality of the current procurement of such systems by individual schools and to address poor value for money caused by variable pricing structures for different types of institutions.
- 4.29. Above all, the Central Body should take responsibility for providing the

basic backbone infrastructure and should not seek to go further in the provision of ICT equipment as part of the building programme.

The Procurement Capacity of the Centre

4.30. For a Central Body to manage its part in the various processes discussed and recommended in the second part of this report, it will need specific capacity and expertise. It is absolutely essential that this is secured if the benefits are to be achieved and the model is to have credibility with local partners and industry.

4.31. We think that it is right that these skills and roles need to be held within a specific Central Body which acts as the expert client across the system, with some key functions. It should:

- collect and process pupil number and condition data and allocate funding to local areas using this data and in line with ministerial priorities; and set expected outputs;
- sign off the overall development plan for each local area agreeing that it is necessary, deliverable, funding is available and that ministerial priorities have been taken into account;
- directly procure and manage national contracts with suppliers;
- ensure the maximum benefit is gained across the estate for the funds available by sharing knowledge and negotiating with our combined scale;
- directly procure most new build and other major projects, and manage delivery of those projects;
- oversee the establishment of a database on the condition of the education estate;
- monitor the overall performance of contractors, and Responsible Bodies;
- ensure continuous improvement through the system by gathering and consolidating the shared learning across education and feeding that back into a library of best practise designs, procurement frameworks (new build and maintenance), standard contracts, surveys etc;
- work with the industry supply chain to drive down cost and time and improve quality by a measurable amount each year; and
- deliver high quality buildings on time and on budget.

4.32. PfS currently carries out some aspects of most of the above functions for schools investment, though not to the scale envisaged by the

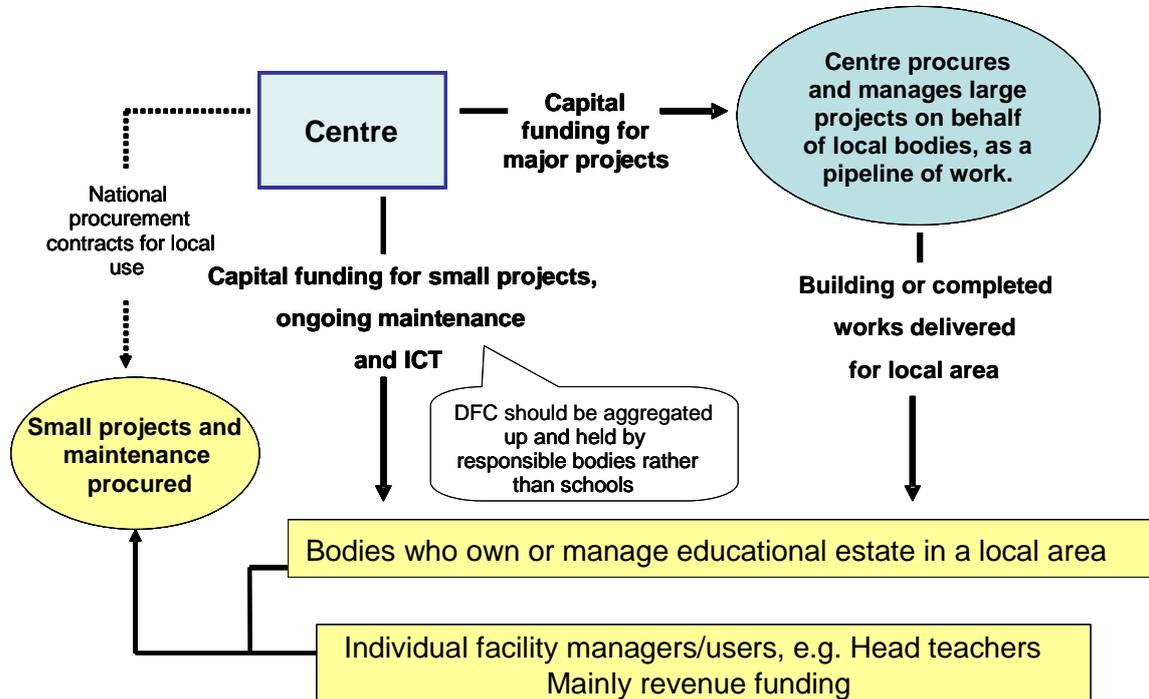
Central Body that this review is recommending. While most of the above functions would properly belong to the Central Body in the new model, the allocation of funds to local areas according to Ministerial priorities could be split away and housed with the Department or its new agency for revenue funding, the Education Funding Agency. Indeed, providing funds were only confirmed on the back of a local plan, there are some advantages to such a division of responsibility as it would allow the Central Body to maintain an exclusive focus on the excellent delivery of assets rather than straying into the more politically sensitive territory of allocating the funds to pay for them.

Recommendation: That the Department uses the coming spending review period to establish a central delivery body and procurement model, whereby the pipeline of major projects – to a scale determined by the Department – is procured and managed centrally with funding retained centrally for that purpose.

Recommendation: The Department quickly takes steps to maximise the value for money delivered through maintenance and small projects and puts in place a simple and clear national contract to make this happen.

Figure 4: Procurement of Works

Large projects from local investment plans are funded, procured and delivered from the centre. Funding for smaller works and maintenance goes direct to the local level, with local procurement making use of national contracts.



Insurance

- 4.33. Insurance in the public sector has been characterised by long established relationships between brokers and insurers leading to an imbalance of influence towards the supplier and, generally speaking, a poor deal for the customer. Current statistics indicate an overall spend of approximately £1 billion per year through the commercial insurance market. The vast majority of public sector spend is procured via a small group of brokers through an equally small selection of insurers, notably Zurich.
- 4.34. In addition, contracts are very often negotiated at school level and vary widely. Conversations with some insurers have indicated that claims ratios are very low on a national basis. In addition, schools are widely dispersed assets on the whole and the maximum loss across the estate is relatively small. As a result it seems likely that there will a better way to insure the estate than to enter into individual contracts on a school by school basis.
- 4.35. The problems regarding school buildings' insurance have been recognised by the Department previously and in 2004 a large study was undertaken for the Department by Cap Gemini to look at the way the insurance markets for schools operates and recommend options for improving it. Evidence obtained through the Capital Review indicates that not much, if anything, has changed on the back of that report.
- 4.36. We consider that the recommendations of the 2004 report remain valid, for example conducting a scoping exercise looking at an alternative risk financing model. The Department should see whether there have been any benefits to the Local Authorities involved in pilots in terms of reductions in premiums or easier claims handling.
- 4.37. Looking forward, options could include a national framework for a range of insurance cover for all educational institutions. This framework could include commercial insurance providers or a range of self-insurance options to allow for local variation. Currently, however, we have insufficient data to determine the options that will provide the best value for money and the Department should continue to work with the public sector and the insurance industry to collect and analyse data on the way the current arrangements work.

Recommendation: That the Department revisit its 2004 Cap Gemini report and implement proposals where they are appropriate.

Energy

- 4.38. The Review was asked to consider options for reflecting Government policies on carbon reduction. We understand that work is already underway within the Department to put in place a national procurement process for energy, in addition to adopting Energy Service Companies to reduce consumption.

- 4.39. Energy Service Companies (ESCos) are organisations and businesses that reduce energy consumption through investment and maintenance of efficient plant and fabric in buildings, and through active monitoring and management of performance. The services provided can be wide ranging, from roof insulation and low energy lighting systems to large projects such as full heating installations.
- 4.40. Energy efficiency offers a clear opportunity to make both financial and carbon efficiencies. Evidence shows that school energy bills can be reduced by as much as 30% through the involvement of ESCos, equating to an annual saving of around £90m on a spend of over £500m pa.
- 4.41. We fully support the Government's work in this area and feel there is significant value in placing the responsibility for managing any possible contracts for national energy procurement and ESCos with the new Central Body, which should develop a level of expertise in this field, offering support to local Responsible Bodies and help in securing best value.

Appendices

Appendix A - Summary of Recommendations

1	Capital investment and apportionment should be based on objective facts and use clear, consistently-applied criteria. Allocation should focus on the need for high-quality school places and the condition of facilities.
2	Demand-led programmes, such as Free Schools, are most sensibly funded from the centre and a centrally retained budget should be set aside for them.
3	The Department should avoid multiple funding streams for investment that can and should be planned locally, and instead apportion the available capital as a single, flexible budget for each local area, with a mandate to include ministerial priorities in determining allocations.
4	Notional budgets should be apportioned to Local Authority areas, empowering them fully to decide how best to reconcile national and local policy priorities in their own local contexts. A specific local process, involving all Responsible Bodies, and hosted by the Local Authority, should then prioritise how this notional budget should be used.
5	The local prioritisation decisions should be captured in a short local investment plan. There should be light-touch central appraisal of all local plans before an allocated plan of work is developed so that themes can be identified on a national level and scale-benefits achieved. This must also allow for representations where parties believe the process has not assigned priorities fairly.
6	Individual institutions should be allocated an amount of capital to support delivery of small capital works and ICT provision. Wherever possible, this should be aggregated up to Responsible Bodies according to the number of individual institutions they represent, for the Responsible Body then to use for appropriate maintenance across its estate, working in partnership with the institutions.
7	The Department ensures there is access to clear guidance on legal responsibilities in relation to maintenance of buildings, and on how revenue funding can be used for facility maintenance.

8	<p>That the Department:</p> <ul style="list-style-type: none"> gathers all local condition data that currently exists, and implements a central condition database to manage this information. carries out independent building condition surveys on a rolling 20% sample of the estate each year to provide a credible picture of investment needs, repeating this to develop a full picture of the estate's condition in five years and thereafter.
9	<p>That the Department revises its school premises regulations and guidance to remove unnecessary burdens and ensure that a single, clear set of regulations apply to all schools. The Department should also seek to further reduce the bureaucracy and prescription surrounding BREEAM assessments</p>
10	<p>There should be a clear, consistent Departmental position on what fit-for-purpose facilities entail. A suite of drawings and specifications should be developed that can easily be applied across a wide range of educational facilities. These should be co-ordinated centrally to deliver best value.</p>
11	<p>The standardised drawings and specifications must be continuously improved through learning from projects captured and co-ordinated centrally. Post occupancy evaluation will be a critical tool to capture this learning.</p>
12	<p>As many projects as possible currently in the BSF and Academy pipeline should be able to benefit from the Review's findings to ensure more efficient procurement of high quality buildings. This should be an early priority to identify where this could be done.</p>
13	<p>That the Central Body should put in place a small number of new national procurement contracts that will drive quality and value from the programme of building projects ahead.</p>
14	<p>That the Department uses the coming spending review period to establish a central delivery body and procurement model, whereby the pipeline of major projects – to a scale determined by the Department – is procured and managed centrally with funding retained centrally for that purpose.</p>
15	<p>The Department quickly takes steps to maximise the value for money delivered through maintenance and small projects and puts in place a simple and clear national contract to make this happen.</p>
16	<p>That the Department revisit its 2004 Cap Gemini report and implement proposals where they are appropriate.</p>

Appendix B - Glossary of Terms

AMP	Asset Management Plan The investment strategy that each children and young people's service produces. The strategy prioritises their school stock through analysis of the condition of the building and suitability for purpose (in size, form, location, etc.)
BRE	Building Research Establishment BRE helps government, industry and business to meet the challenges of the built environment. BRE is an independent and impartial research-based consultancy, and testing and training organisation, offering expertise in every aspect of the built environment and associated industries.
BREEAM	BRE Environmental Assessment Method BREEAM assesses the performance of buildings in the following areas - management, energy use, health and well-being, pollution, transport, land use, materials, and water. Schools in BSF were required to meet or exceed the BREEAM 'very good' standard.
BSF	Building Schools for the Future The aim of the BSF programme was to see every state secondary school in England - around 3,500 in total - rebuilt or remodelled over the lifetime of the programme. Launched by the Department in February 2004, BSF was the largest and most ambitious scheme of its kind anywhere in the world. It aimed to transform education for some 3.3 million students aged 11-19.
BSFI	Building Schools for the Future Investments LLP The central investment business for BSF. BSFI invests in Local Education Partnerships alongside each Local Authority and their private sector partner, and appoints a Director to each LEP's Board.
CABE	Commission for Architecture and the Built Environment The Government's adviser on architecture, urban design and public space, CABE was established to encourage a high quality of architectural design in public buildings and spaces. CABE was the advisory body to the BSF programme in design issues, funded by the Department to support LAs with design enablers, providing 15 days of free time allocated to each Local Authority BSF project.
CPD	Continuing Professional Development This is a requirement for school staff and many other professions – those involved in BSF and other capital investment programmes would include architects and lawyers. CPD is usually achieved through attendance at nationally accredited courses.
DBOM	Design, Build, Operate and Maintain A form of contract in which a consortium takes responsibility for the design, construction, financing and operation (including maintenance) of an asset for a period of years.
DFC	Devolved Formula Capital An amount allocated each year to primary and secondary schools to be spent by them on their priorities in respect of buildings, ICT, and other capital need.

Department	The government department with responsibility for education and schools. This is currently the Department for Education and formerly the Department for Children, Schools and Families and Department for Education and Skills.
DCSF	Department for Children, Schools and Families See Department above.
DfE	Department for Education The government department with responsibility for education and schools, which encompasses Building Schools for the Future and the Academies Programme.
DfES	Department for Education and Skills See Department above.
ESCo	Energy Service Company An energy service company is a commercial business providing a broad range of comprehensive energy solutions including designs and implementation of energy savings projects, energy conservation, energy infrastructure outsourcing, power generation and energy supply, and risk management.
FM	Facilities Management The delivery of services to a given facility, such as cleaning, pest control, waste management, etc. which provide a safe and efficient working environment. In BSF, the Local Education Partnership would normally provide these services.
FE	Further Education Post-compulsory education (in addition to that received at secondary school), distinct from the education offered in universities (higher education). It may be at any level above compulsory education, from basic training to Higher National Diploma or Foundation Degree.
HMT	Her Majesty's Treasury Her Majesty's Treasury (commonly known as HM Treasury) is the United Kingdom's economics and finance ministry.
ICT	Information and Communications Technology In the BSF context, the provision of a managed ICT service and a managed learning environment to schools by the LEP.
LSC	Learning and Skills Council Formerly responsible for funding and planning education and training for over 16-year-olds in England, the LSC was replaced in 2010 with two successor organisations; the Young People's Learning Agency and the Skills Funding Agency.
Local Authority	Local Authority An organization that is officially responsible for all the public services and facilities in a particular area.

LEP	Local Educational Partnership The bespoke delivery vehicle for a local BSF programme within a defined geographical area, whereby a private sector consortium (including all the skills and services required to deliver the Local Authority's BSF vision) comes together in a formal partnership with the Local Authority and BSFI (a sister company to PfS), after Financial Close. Through the LEP, the Local Authority is able to procure wider local services beyond secondary schools, including primary schools, healthcare and leisure facilities.
MDS	Minimum Design Standard The MDS is a tool for the review of sample schools with a significant proportion of new build. The aim is to encourage architects and contractors to strive for the very best in transformational school design as part of the national Building Schools for the Future (BSF) programme.
NAO	National Audit Office The NAO scrutinises public spending on behalf of Parliament.
OBC	Outline Business Case The OBC set out in detail the scope, costs, affordability, risks, procurement route and timetable of the project in order for it to be approved by PfS, the Department and the Project Review Group (if PFI was included), before a project was allowed to enter the procurement stages. The OBC was written using guidance provided by PfS.
PfS	Partnerships for Schools The Non-Departmental Public Body responsible for delivering the BSF programme and, since April 2006, the Academies programme. PfS is a joint venture between the Department and Partnerships UK.
PCP	Primary Capital Programme The Department's programme for investment in primary schools in England. This funding can be delivered by LEPS.
PFI	Private Finance Initiative A procurement route established in 1995, and more widely adopted since 1997. It is an important route for much Government spending on assets as it transfers significant risks to the private sector. PFI requires private sector consortia to raise private finance to fund a project, which must involve investment in assets, and the long-term delivery of services to the public sector.
RtD	Readiness to Deliver A document submitted by Local Authorities prior to entry to the BSF programme which was used by PfS/DCSF to assess which wave Local Authorities should be allocated to. The RtD covered in summary form the education strategy, the procurement strategy and the project governance.
Responsible Body	Responsible Body A body that makes strategic investment decisions and which takes responsibility for the maintenance and management as well as the use of the asset. Usually, the Responsible Body will be the LA, the diocese, the Academy trust (either individual or multiply sponsored) or the charitable foundation.

SCAP	School Capacity The capacity of a school is the number of pupil places available.
SfC	Strategy for Change The SfC was the first formal component of the BSF approvals process. It was designed to capture both the Local Authority's strategy for secondary education and the requirements that strategy placed upon the physical school estate.
SME	Small and Medium-sized Enterprises In the UK, sections 382 and 465 of the Companies Act 2006 define a SME for the purpose of accounting requirements. According to this a small company is one that has a turnover of not more than £6.5 million, a balance sheet total of not more than £3.26 million, and not more than 50 employees. A medium-sized company has a turnover of not more than £25.9 million, a balance sheet total of not more than £12.9 million, and not more than 250 employees. It is worth noting that even within the UK this definition is not universally applied.
SEN	Special Educational Needs Children with SEN have learning difficulties or disabilities that make it harder for them to learn than most children of the same age. Children with SEN may need extra or different help from that given to other children of the same age. Secondary-age SEN schools and some 'all through' (i.e. taking pupils of all school ages) schools were included in the scope of BSF.
VfM	Value for Money The technical term used to describe the analysis of whether investing in a proposal will produce the outcomes sought at an 'acceptable' cost. It does not mean choosing the cheapest option.
VA	Voluntary Aided Voluntary Aided schools are owned by a variety of trusts, many of which are linked to a particular faith. The VA sector is actively involved in every part of BSF.

Appendix C – Background, Terms of Reference and Methodology for the Review

Background

On 5th July 2010, the Secretary of State for Education announced a Review of all areas of the Department's capital spending. The Review teams aim was to develop a series of recommendations to ensure that future capital investment represents good value for money, deals urgently with the demand for additional school places, addresses dilapidation and strongly supports the Government's ambitions to reduce the deficit, raise standards and tackle disadvantage.

Terms of Reference

Purpose

1. To review, in the context of the Government's fiscal consolidation plans and emerging policy, the department's existing capital expenditure and make recommendations on the future delivery models for capital investment for 2011-12 onwards.
2. The overall aim of the Review is to ensure that future capital investment represents good value for money and strongly supports the Government's ambitions to reduce the deficit, raise standards and tackle disadvantage.

Scope

3. The Review will consider how all Department capital expenditure within any spending constraint and PFI policy could be distributed more effectively over the next Spending Review period (2011-12 to 2014-15).

The Review will be broken down into four main strands:

Allocation of Capital Funds:

- To evaluate the extent to which value for money has been achieved in capital expenditure to date;
- To consider how to generate sufficient places to allow new providers to enter the state school system in response to parental demand;
- To review current methods of allocating capital (for example, by formula to Local Authorities);
- To consider options for reflecting Government policies on carbon reduction;
- To enable the establishment of new schools.

Distribution of Capital Investment

- To assess the scope and make recommendations for how to distribute capital more efficiently and less expensively, including simplification of procurement, and increased use of standard and modular design;
- To develop a clear understanding of current approach, waste and issues associated;
- To consider the relationship between schools, local government and central government;
- To increase choice locally determined by parental demand;
- To review the current procurement/delivery models, including:
 - the use of frameworks to deliver capital (currently used for Academies and a third of BSF projects); and
 - the BSF Investments (BSFI) investment vehicle.
- To review the roles of bodies involved, specifically the Department, Partnerships for Schools (PfS), Local Authorities, the local education partnerships (LEPs) and National Framework;
- Provide recommendations for central structure required to manage.

Reducing the burden on schools

- To review and reform the requirements on schools including the building/School Premises Regulations, design requirements and playing field regulations.

Capital return

- Establish processes to monitor value for money and return on future capital investments (to include expenditure, impact etc).

Relevant considerations for the Review

4. The Review will draw on previous and current related work to examine the role of the capital programmes including:
 - Existing internal management data;
 - the National Audit Office report on BSF in February 2009 which examined the progress of the programme and the delivery mechanisms at national and local level;
 - annual reports (in December 2008, January 2009 and March 2010) by PricewaterhouseCoopers giving the results of their evaluation of the programme;

- other publicly available reports, including those carried out by the Children, Schools and Families Select Committee (now the Education Select Committee) and the CBI; and
- internal reports, including those carried out by the Major Projects Review Group, as well as PfS's procurement reviews, the second of which is due to report in July 2010; and newly commissioned work such as on condition assessment and pupil place data carried out by PfS.
- The Review should take account of value for money issues and resource considerations in any recommendations. Recommendations should be costed and regard should be had to affordability.

Governance of the Review

5. The Review will be chaired by Sebastian James and supported by a Review panel.

Outcome of the Review

6. The Review will commence in July 2010. It will report to Ministers in mid-September and a forward plan for capital investment over the next spending review period will be produced by the end of the calendar year.

Methodology

The Capital Review official call for evidence ran from 6th August 2010 to 17th September 2010. In total, 492 responses were received. A breakdown by types of respondents can be found below.

Type of respondent	Number of responses
Teacher/staff	137
Local Authority	122
Building Suppliers	106
Parent/pupil	36
Interest Group	31
Governor	30
Voluntary Aided organisation	17
Academy Sponsor	12
Other	1
Total	492

Along with site visits and individual meetings the Capital Review team ran a series of workshops involving a range of key partners (more than 100 people were involved) including Academy sponsors and Local Authority representatives, designers, contractors, consultants, and project managers. Their expertise has been invaluable in mapping out existing capital processes and developing recommendations for a future approach to capital management.

A thorough review of all published research on the Department's capital programmes has been conducted and references to major reports such as the National Audit Offices' report of 2009 and can be found throughout this report. The Review team also analysed international evidence available from the Organisation for Economic Cooperation and Development (OECD) focussing on how civic building programmes and property management are managed in other developed countries.

The Steering Group

Sebastian James

Sebastian James is the Group Operations Director of Dixons Retail plc leading both the Retail and Services teams, as well as being responsible for the Supply Chain. Previously, as Group Development Director, Sebastian managed the Currys store building and transformation programme. In both roles he has been responsible for significantly improving quality and customer experience while reducing costs by over 25 percent.

Sebastian has wide retail experience including (as Strategy Director) responsibility for developing and implementing the turnaround strategy at Mothercare plc. He was also involved, as operating partner, in the foundation of eGS, a leading e-Government procurement platform. He started his career at The Boston Consulting Group having completed an MBA at INSEAD and a BA at Oxford University. He is Chairman of the Investment Committee of Milestone Capital Partners, an Anglo-Turkish property investment fund.

Barry Quirk

Barry Quirk has been Chief Executive at Lewisham since 1994. Lewisham is a diverse area of inner London undergoing significant regeneration. It is home to 260,000 people and over 90 schools. It was one of the pilot authorities in the Building Schools for the Future programme.

Barry is a former President and Chairman of SOLACE (the professional body for Local Authority chief executives). He has experience advising on national issues: between 2004-09 he was the national champion for efficiency for English local government; he has been an independent member of two capability reviews of HM Treasury (in 2001 and 2008); and in 2007 he produced a landmark report on the benefits of transferring public assets to local community groups.

Barry has a PhD in geography, is a Visiting Fellow in Social Policy & Politics at Goldsmiths College, University of London, and is an Associate to the independent Institute for Government.

Dr John Hood

Dr John Hood is President and CEO of the New York-based Robertson Foundation. He is also a director of BG Group plc and chairman of Matakina Ltd, a New Zealand registered medical imaging software venture.

Dr Hood was admitted as Vice-Chancellor of the University of Oxford on 5 October 2004. He was the first person in the institution's 900-year history to be elected to the Vice-Chancellorship from outside the University's current academic body. In the course of his five year term, he was appointed a Business Ambassador by the British government, served on the DTI Advisory Board, and served on a number of university-related bodies.

Before Oxford, Dr Hood was for five and a half years Vice-Chancellor of the University of Auckland. During that time, he served on a number of external bodies, including the New Zealand Vice-Chancellors' Committee, of which he was Chairman from 2002-2004; the Knowledge Wave Trust, which he also chaired; and Universitas 21 Limited and Universitas 21 Global, of which he was a Director.

He was also a Member of the Prime Minister's Growth and Innovation Advisory Board and of the Prime Minister's Enterprise Council; New Zealand Secretary for The Rhodes Trust; Trustee of the Asia 2000 Foundation; and a Governor and Trustee of the King's School. Dr Hood has also been a Director of ASB Bank Limited and ASB Group and of the Fonterra Co-operative Group Ltd, and Chairman of Tonkin & Taylor Ltd.

Prior to his return to academia, Dr Hood spent 19 years with one of New Zealand's largest companies, Fletcher Challenge Ltd. He held a number of senior positions at the company and headed, at various times, its Paper, Building, and Construction arms.

Dr Hood took a BE and a PhD in Civil Engineering at the University of Auckland. He then went to Oxford as a Rhodes Scholar to read for an MPhil in Management Studies.

Kevin Grace

Kevin's career with Tesco covers more than 25 years. In which, he has held a number of Senior Executive roles throughout the business, including Stores, Supply Chain and Commercial within the UK and also in South Korea and Poland, where he was CEO.

In 2006 he returned to the UK as Property Services Director, accountable for capital investment in the UK and ROI.

Within this accountability Kevin has led the Tesco team with responsibilities for cost effective construction (changing working practice with well known businesses within the industry), meeting Tesco environmental goals and fulfilling Tesco strategic development plan.

Kevin is 45 years old, a cricket enthusiast and a keen supporter of his county of birth, Yorkshire. He is married to Sarah and they have 5 sons. His spare time is often spent developing their cricketing skills and reliving his own, albeit few, cricketing successes

Sir John Egan

Sir John Egan joined the board of Severn Trent in October 2004 and became Chairman on 1 January 2005. He is a director of Warwick Castle Park Trust Ltd and Borwick Group Limited and a non-executive of Governance for Owners Group LLP. He was previously Chairman of Inchcape plc and

Harrison Lovegrove & Co Limited.

Sir John worked in the motor industry until 1990 at General Motors, Massey Ferguson and British Leyland, rising to become Chairman and Chief Executive of Jaguar plc. He was Chief Executive of BAA plc from 1990 to 1999 and Chairman of MEPC from 1998 to 2000. He was also President of the Confederation of British Industry from 2002 to 2004.

Sir John was knighted in the Queen's Birthday Honours List in 1986. He is a deputy lieutenant of the County of Warwickshire and since September 2007, Chancellor of Coventry University.

Ben Gordon

Ben Gordon was appointed as Chief Executive to Mothercare plc in December 2002. He was formerly Senior Vice President and Managing Director, Disney Store, Europe and Asia Pacific. Ben has also held senior management positions with the WH Smith group in Europe and the USA and L'Oreal S.A., Paris. Ben is a Non-Executive Director of Britvic plc.

Appendix D - Ownership of the Educational Estate

The ownership of schools buildings and land has evolved over time and is now a fairly complex picture with a mix of Local Authority (LA) owned, trust owned and leased properties:

Community Schools are owned by the LA. The LA may only dispose of playing fields with the Secretary of State's consent. It must also seek consent to dispose of any land used for the purposes of a community school in the past 8 years.

Foundation Schools are owned by the governing body. It must give LA notice of intention to dispose of non-playing field land, and reinvestment proposals. LA can object to proposals and claim share of proceeds attributable to public investment. It may only dispose of playing fields with the Secretary of State's consent.

Trust Schools are owned by a charitable foundation. Trustees must give Local Authority notice of intention to dispose of non-playing field land, and reinvestment proposals. LA can object to proposals and claim share of proceeds attributable to public investment. Schools Adjudicator determines where there is not local agreement; trustees may only dispose of playing fields with the Secretary of State's consent.

Voluntary Aided schools are owned by a charitable foundation. Trustees must give LA notice of intention to dispose of non-playing field land, and reinvestment proposals. LA can object to proposals and claim share of proceeds attributable to public investment. They may only dispose of playing fields with the Secretary of State's consent (LA usually owns playing fields.)

Voluntary Controlled Schools are usually owned by the charitable foundation. It must give the LA notice of intention to dispose of non-playing field land, and reinvestment proposals. LA can object to proposals and claim share of proceeds attributable to public investment. They may only dispose of playing fields with the Secretary of State's consent (LA usually owns playing fields).

Academies' buildings and land are usually leased by the Academy trust but where there was a trust existing prior to conversion, this may retain an interest in the land.

Responsibility for capital investment decisions across this estate is also complex and it is not simply the owner of an asset that takes the decision as to whether a particular school receives investment, for example it may be the diocese rather than the charitable foundation for a VA school. **Throughout the report, bodies that make such strategic investment decisions are referred to as the *Responsible Body*.** Usually, the *Responsible Body* will be the LA, the diocese, the Academy trust (either individual or multiply sponsored) or the charitable foundation.

Appendix E – Breakdown of Capital Funding Streams for 2010-11

Breakdown by Type of Funding	£m
Strategic (including BSF)	£3,113
Devolved	£2,495
Targeted	£2,020
Total	£7,628

Strategic programmes include BSF, Academy and Primary Capital Programmes.

Devolved programmes include Basic Need, Modernisation and LCVAP allocations to Local Authorities, DFC for schools, Harnessing Technology and other ICT funding.

All other funding is **targeted** and covers capital for Play, Sure Start and Youth programmes, along with departmental capital.

Stated funding levels are based on the 2007 spending review allocations for 2010-11 and a further more detailed breakdown is provided overleaf.

Capital Programmes	2010-11 Allocation Figures from 2007 Spending Review Settlement before fiscal stimulus re-phasing and not including End Year Flexibility or in-year savings (£m)
Schools Capital	
BSF (including Academies via Pfs)	2,263
"Traditional" Academies	25
New Pupil Places (Basic Need)	400
Prior Commitments (TCF including BN Safety Valve 2007)	253
Devolved Local Authorities (Modernisation)	517
Devolved VA (LCVAP)	218
Primary Capital	850
Devolved Formula Capital	959
Other ICT	279
New TCF (Standards and Diversity)	135
Collocation	200
Specialist Schools	15
Sustainable Transport	20
Schools Access Initiative	96
Extended Schools	46
14-19 SEN or Diploma Delivery	456
School Kitchens	100
Children's Plan Excluded pupils	12
Schools Capital Sub-total (ex PFI)	6,844
CFD Capital	
Sure Start Children's Centres	315
Secure Accommodation	20
Aiming High SEN and Disability	45
Social Work ICS Maintenance	3
Safeguarding Vulnerable Children	7
CFD Capital Grant	13
CFD Capital Sub-total	404
YPD Capital	
16-19 Capital: Entitlements and RPA	240
Youth Capital Fund	27
YPD Capital sub-total	267
Other, including ALB capital, departmental needs and contingency reserve	114
GRAND TOTAL	7,628

Not included because funded from savings, End Year Flexibility and contingency

16-19 Diploma Exemplar Projects	40
Play	75
Basic Need Safety Valve 2009	245
Myplace	137
Total	497

Appendix F – Case Studies of Projects with Significant Issues

Case Study

Isambard School is an 11 to 16 mixed school in Swindon built as part of a group of PFI projects. Fundamental flaws with the building's design have created a range of problems for teachers and pupils. The school was designed with a main central corridor or 'street', it has a raised roof with a one metre gap which allows snow and rain to enter the 'street area' making it slippery and unpleasant as well as forcing students to put on coats to go to the canteen from their classes. The curved nature of the 'central street' makes supervision from both ends impossible as there is no clear line of sight.

The new school theatre was designed in such a way that the stage cannot be seen properly from a third of the seats. The control booth for the lighting and sound rig, built to a high specification, has no view of the stage. The lighting rigs (due to the roof design) are set at approximately 2.8m high which makes dance routines where one dancer lifts another very perilous. The sinks in the home economics kitchens were adapted for disabled students - but the cookers, preparation areas and other equipment was not, limiting disabled students' participation in lessons.

Case Study

Unity City Academy is a mixed-sex school for 11 to 16-year-olds in Middlesbrough. The new buildings opened in July 2004 at a cost of over £21 million. However, the building's design was so problematic that a further £2 million was needed to rectify building problems, create much needed playground space and provide designated staffing areas for finance, teaching and facilities staff. A further £4 million was required to develop the vocational centre as the 'new' Academy was designed without provision to provide vocational learning. The bespoke nature of ICT, its maintenance and security, fixtures and fittings, and non functional design of the buildings continues to create problems with day-to-day upkeep.

From benchmarking exercises (in 2009) with other Academies, Unity found that its energy bills in 2009 came to £199,000 - 67% higher than the average for Academies (£119,000). Problems with the building and a lack of formal handover when the building was completed continue to throw up additional financial costs, for example all the staircase fire doors need to be replaced. There continue to be problems with the roof. The builder has accepted that these are latent building defects but has yet to agree a date with the Academy to mend the roof.

Appendix G – Schematic of Campsmount School in Doncaster





Furniture Layout Overview showing
integration of new and legacy FF&E
Ground Floor

Appendix H - Building Schools for the Future Current Process

The table below represents the output of a workshop on current capital allocation models. We have detailed the key next steps below. Whilst we recognise that the timescales and approximate costs vary considerably by programme, we nevertheless wanted to show the length, time, cost and complexity that a BSF project usually involves. The table below relates to the design of a BSF school and the procurement of a LEP. The one-off design of a school or Academy via an alternative route or a LEP that has already been established would be about 6 months pre-procurement, 9 to 12 months for design and 18 months for construction.

DESIGN – PRE-PROCUREMENT

PROCESS STEP	Elapsed time	Approx cost	COMMENT
Prepare for the start of the capital programme including condition surveys, asset management plans, pupil place planning, assessing co-location opportunities, appointing advisors, consultation with GBs, desktop surveys and scoping of the proposals with cost estimates	9 months	£133k across batch of schools	Activities are varied by the type of programme and involve multiple consultation and data collection exercises. The length of time varies by Local Authority and some of the activities do not assist a school in delivering their core functions. School re-organisation proposals would add an additional 12 months to the timescales.
LA submits Readiness to Deliver document to apply for entry into BSF or other funding source	10 months	£20k	BSF Specific Usually prepared by a consultant on their behalf.
Set sustainability targets for the design	9 months (concurrent activity)	£1k	BSF Specific Targets not referred to again
School uses ICT Self Review Framework to identify areas for development	8 months (concurrent activity)	£3k	BSF Specific Identifies where a school is at in terms of their ICT capability. This is not a requirements list.
School carries out a Total Cost of Ownership Exercise for their existing ICT	9 months (concurrent activity)	£2k	BSF Specific
Consultants assist the school to prepare an ICT Vision including wide consultation with school stakeholders	12 months	£7k	BSF Specific This takes significant time and cost

PROCESS STEP	Elapsed time	Approx cost	COMMENT
LA and school hold a school visioning workshop including all staff	12 months (concurrent activity)	£5k	BSF Specific This creates wide ranging needs and desires which increase design variability further. Often uses up one of the school's 5 INSET days per year when the school is closed to pupils for staff training.
Hold pupil workshops and exercises to help capture what they do not like about their current school buildings and what they would like in their new school design	13 months (concurrent activity)	£5k	BSF Specific Most pupils will have left school before the new build is complete. Pupil workshops happen at regular intervals and can often involve the work of a private consultancy to facilitate the workshops.
Develop Education Vision for the school	15 months	£15k	BSF Specific. Often put together by consultants, using input from the school and LA.
Meet with all faculty heads and key staff to identify the curriculum strategy and requirements for each area	17 months	Included in vision costs	This should exist already
Consultants prepare curriculum plan including all information on the curriculum pattern and timetable, in consultation with the school	18 months	£2.5k	Often involves at least 2 meetings with the school and submission of detailed timetable information
Consultants analyse space need and agree with the school	18 months	£1k	
School develops organisation diagram for the school showing the adjacencies between departments and the pastoral model	19 months	Unknown cost of school time	
Consultants prepare schedule of accommodation for the school using Building Bulletin 98 as a guide	19 months	£2k	
Consultants prepare Education Brief to describe the design priorities for the school	20 months	£5k	BSF Specific Can be very detailed and up to 50 pages in length. This could be developed by the school, if necessary.
Complete School Strategy for Change setting out the school's priorities and strategies for improving the learning experience offered, how these improvements will make a difference to young peoples' learning experience and what the learning experience will look like, including ICT	20 months	£5k	BSF Specific Not clear what the purpose of this is, aside from pulling together many of the other elements that have already been developed.

PROCESS STEP	Elapsed time	Approx cost	COMMENT
Outline Business Case			
Commission and execute surveys for the school and site including: <ul style="list-style-type: none"> • Type 2 Asbestos survey • Intrusive ground investigation and chemical testing • Measured building survey • Structural survey • Topographical survey • Ecology survey • Bat Survey • Tree Survey • Acoustic survey • Statutory utilities surveys • Underground utilities searches, including drainage • Archaeological survey (where required) • Unexploded ordnance survey (where required) 	23 months	£60k per school	
Conduct searches to identify title, including any third party rights of way, easements or legal restrictions on the development of the site	22 months (concurrent activity)	£10k	
Review Local Development Plan and planning guidance for the area	22 months (concurrent activity)	£1k	
Meet with the Planners to discuss the development and any restrictions they have including building height, extent of development, operating hours and consultation requirements	22 months (concurrent activity)	£2.5k	
Identify whether an Outline Planning Application is required	23 months	Cost Included above	

PROCESS STEP	Elapsed time	Approx cost	COMMENT
If an outline planning application is required produce documents including, but not limited to, the following: <ul style="list-style-type: none"> • Site Plan • Planning Statement • Design & Access Statement • Transport Assessment • Site Surveys • Application Form 	27 months	£20k (including application fee)	Design information has to be produced at a level of detail that is often abortive and repeated at later stages.
Architects meet with the school to discuss the Education Design Brief and any operational or security requirements	25 months (concurrent activity)	£1.5k	
Complete an audit of all furniture, equipment and ICT at the school and assess the amount of legacy items that may be used in the new scheme	25 months (concurrent activity)	£2.5k	Schools do not keep accurate inventories of their existing furniture & equipment, which means full surveys of every room in the building are necessary to log every item.
School leadership teams visit other schools to see how they could operate in their new buildings and get ideas of what they would like from their buildings	26 months	£5k	BSF Specific Involves travel and days out of school for the leadership teams. Some LAs organised more elaborate
Develop consultation and engagement strategy for the design process	25 months (concurrent activity)	£2k	BSF Specific
Identify all third party users of the school site such as sports clubs and community groups	25 months (concurrent activity)	£1.5k	BSF Specific

PROCESS STEP	Elapsed time	Approx cost	COMMENT
Meet with any key third party users to identify their requirements for the new design and whether their use will continue	26 months	£1.5k	BSF Specific
Meet with ward Councillors to discuss the development and any requirements or concerns they have	27 months	£1k	
Meet with the Highways Authority to discuss the development and any requirements or concerns they have	27 months (concurrent activity)	£1.5k	
Meet local Police Architectural Liaison Officer to discuss any requirements they have for the specific scheme	28 months	£1k	BSF Specific
Contact local neighbourhood police team to advise them of the development and ask if they have any comments	28 months (concurrent activity)	£1.5k	BSF Specific
Attend and present proposals to area committee meetings and/or local community groups	29 months	£1k	
Present preliminary proposals to the school governing body	29 months	£1k	Done once per term
Hold 1 day Design Quality Indicator workshop with school representatives	29 months (concurrent activity)	£5k	BSF Specific This involves many people discussing the conclusions already reached and building further expectations about the design. Change at this stage is difficult and expensive and the workshops have limited impact on the design.
Carry out pre-assessment of Building Research Establishment Environmental Assessment Method (BREEAM) to identify how many credits may be achieved for the design	29 months (concurrent activity)	£3k	BSF Specific This includes an analysis of what needs to be done to satisfy each credit, such as contacting local wildlife groups, as well as organising and recording engagement sessions with pupils in a very particular manner.
Complete carbon calculator to identify the potential reduction in carbon emissions the eventual design could achieve	29 months	£1.5k	BSF Specific

PROCESS STEP	Elapsed time	Approx cost	COMMENT
Carry out design option appraisals for the site including: <ul style="list-style-type: none"> • Site block plans with neighbourhood scale maps • Estate strategy map • Adjacency diagrams • Site analysis drawings • Massing studies • Review of Educational Drivers 	26 months (concurrent activity)	£25k	Significant piece of work is carried out at an earlier stage if an outline planning application is required. Work is repeated by Bidders during procurement. BSF Specific BSF Specific BSF Specific
Hold option appraisal workshop with the LA and school to identify their preferred control option	26 months	£1.5k	
Set out strategy for facilities management	27 months (concurrent activity)	£1.5k	
Develop external works proposals including the type and quantity of sports facilities	25 months (concurrent activity)	£2.5k	
Send agreed control option to Sport England and arrange a meeting to discuss their requirements and any changes needed	25 months (concurrent activity)	£1.5k	Well drafted basic guidelines could prevent this cumbersome intervention.
Send estimated load requirements for electricity, gas, water and drainage to the statutory providers and await responses about whether existing capacity is sufficient or extra works are required	25 months (concurrent activity)	£1.5k	
Estimate abnormal costs and agree funding required	26 months	£2.5k	
Prepare detailed cost estimates for the scheme	26 months (concurrent activity)	£2.5k	

PROCESS STEP	Elapsed time	Approx cost	COMMENT
Review school design brief and ensure the following are included: <ul style="list-style-type: none"> • Description of how the school will be organised • Description of what the school want to do within the buildings • Description of the types of spaces required and how they will work • Description of how the school grounds should be developed • Description of which areas of the design will need to be future-proofed • Description of the school security strategy • Description of the design context 	27 months	£3k	Collates and often replaces earlier work.
Assemble Outline Business Case (OBC) <ul style="list-style-type: none"> • Obtain sign-off letters from the school/Academy/VA provider to prove that they are happy with the content of the OBC • Obtain LA Cabinet Approval for the OBC 	29 months	£5k	BSF Specific
Submit OBC to PfS for approval	29 months		BSF Specific

PROCESS STEP	Elapsed time	Approx cost	COMMENT
<p>Finalise Output Specifications for the design of the buildings including:</p> <ul style="list-style-type: none"> • Education Brief • Design Brief • Furniture & Equipment Brief • Facilities Management Brief • ICT Brief and Output Specification • Include a full list of all legislation and guidance that must be adhered to by the Bidders, including any local guidance and school specific policies • Prepare area data sheets that set out the detailed requirements for each room of the school • Sign-off area data sheets in a series of meetings with school staff • Update school accommodation schedule and insert within tender documentation 	<p>28 months (concurrent activity)</p>	<p>£5k</p>	<p>BSF Specific</p> <p>Up to 40 meetings with individual teachers to agree exact details for rooms (e.g. bins, clocks, numbers of sockets, etc). Staff do not usually know this level of detail and details are changed again during the design phase.</p>

PROCUREMENT

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
Set criteria for evaluation of design within the bids and finalise scoring matrix	30 months (concurrent activity)	£1.5k	
Agree dates for CABE design reviews	28 months (concurrent activity)	-	BSF Specific
Prospective bidders and their design teams attend bidders day	30 months	£4k (plus costs of Bidder attendance)	
Bidders review all design information and produce responses on how they will approach the design process at pre-qualification stage	32 months	£25k +	
Bidders prepare presentation to client team including their approach to the design process and early thoughts on the specific design	33 months (concurrent activity)	£5k	
Shortlisted Bidders commence detailed design process	34 months	-	
Review survey information	34 months		Approximate cost of the entire design process is £2.7m. Breakdown by area is unknown.
Review design brief and full output specification	34 months (concurrent activity)		
Review full suite of legislation, guidance, local policies and school specific policies that have to be adhered to for the design of the school	34 months (concurrent activity)		

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
Dissect accommodation schedule into a scaled pictorial representation of each separate space	34 months (concurrent activity)		
Produce early sketch design options showing potential building form	35 months		
Engage with the school at formal engagement meetings to understand their wants and get feedback on the sketch designs	31 to 38 months		Numerous weekly and fortnightly design meetings held with each Bidder
Develop concept design proposals and get feedback from the school, LA and technical advisors	31 to 38 months (concurrent activity)		
Prepare phasing plans for the scheme	35 months (concurrent activity)		
Meet with the LA sustainability officer to discuss the sustainability strategy	33 months (concurrent activity)		
Meet with the highways authority to identify any constraints on site access and any enhancements they want including for the surrounding highways	34 months (concurrent activity)		
Meet with the planning department to get feedback on the developing options and any further requirements they have	34 months (concurrent activity)		
Meet with the LA to discuss their requirements for promoting local employment opportunities as part of the scheme	35 months (concurrent activity)		
Contact the Fire Officer to discuss the	35 months		Expectations do not always meet the brief that has been

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
design of the scheme and any requirements they have	(concurrent activity)		issued
Contact the Environment Agency to discuss the scheme and any requirements they have	35 months (concurrent activity)		
Meet with English Heritage and the local conservation officers if the building is listed or near a conservation area and discuss their requirements/limitations on the scheme design	35 months (concurrent activity)		
Meet with Building Control officers to discuss how building regulations will apply to the scheme	36 months (concurrent activity)		
Meet with other LA officers including the disability access officer, school travel officer, cycling & rights of way officer and tree/parks officer to discuss their requirements	36 months (concurrent activity)		
Bidders meet with other local representatives, as directed by the Local Authority, typically including Local Faith Leaders, Local Colleges, Local Sports Clubs, Local Employment Initiatives, Local Wildlife Groups, community groups, archaeological bodies, and English Nature	36 months (concurrent activity)		
Bidders hold pupil engagement workshops to discuss what they would like to see in the design of the school	34 months to 45 months (concurrent activity)		BSF Specific Can be very detailed with interactive surveys, visits, workshops and briefings.
Bidders hold briefings with school staff to	34 months to 45		BSF Specific

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
get feedback on their design proposals	months (concurrent activity)		Can be very detailed and often repeats work that has already happened in developing the design brief. Confusing for Bidders.
Bidders attend CAGE School Design Review Panel and receive feedback report	39 months and 44 months		BSF Specific Most commonly involves substantial changes to the design, which may conflict with the brief that Bidders have been given.
Bidders incorporate CAGE feedback and continue to engage weekly with the school and LA	44 months and 48 months		BSF Specific Requires repeated consultation with school and LA stakeholders to explain the issues.
Bidders hold mid-design stage Design Quality Indicator Workshop with school and LA stakeholders	44 months	£5k	BSF Specific Limited benefit at this stage and confuses Bidders with feedback that may not align with that from the CAGE Panel or the Design Brief.
Bidders produce 3D fly-through animations of their designs	44 months		Costly items that are popular with schools and unnecessary
Bidders produce 3D models of their design proposals	44 months		Costly items that are popular with schools and unnecessary
Bidders present to evaluation team as part of their submission at key stages of the procurement process	45 months		

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
<p>Remaining bidders produce final design submission including the following typical output:</p> <ul style="list-style-type: none"> • Floor Plans • Roof Plan • Elevations • Site Layout Plan • Building Sections • Roof Sections • External wall sections • Window and door schedules • Staircase details • Completed area data sheets for each room, including furniture layouts • Partition Layouts • Ironmongery Schedule • Door Elevations • Internal Screen Elevations • Floor Finishes • Ceiling finishes • Levels drawings • Site boundary drawings • Hard & soft landscaping plans • External furniture schedules • Planting schedules and plans • Foundation plans • Steelwork plans • Masonry details • Hard paving specification • Drainage layouts • Mechanical and electrical (M&E) layouts 	49 months		Note, this level of detail is done entirely bespoke, at least twice per school

PROCESS STEP	Elapsed Time	Approx cost	COMMENT
Successful/Preferred Bidder organises and attends pre-planning application consultation session with the local community	50 months		
Preferred Bidder organises local employment bidders day for local companies who would like to be part of their supply chain	50 months (concurrent activity)		BSF Specific
Preferred Bidder has follow up meetings with the Highway Authority, Police Architectural Liaison Officer, Fire Officer and Building Control to discuss the final scheme prior to submitting the Full/Detailed Planning Application	50 months (concurrent activity)		Note, these are follow up meetings for meetings that have already happened
Preferred Bidder submits planning application and provides any supplementary information requested by the Local Planning Authority	51 months to 54 months		The current planning process is complex and time consuming, much more so than any other EU country
Preferred Bidder holds a series of detailed meetings over a number of months to finalise the design details with the school	50 months to 54 months		This process adds little value and often results in poorer eventual output.
Preferred Bidder develops full Contractors Proposals for the scheme and submits to the LA for approval	50 months to 54 months		
Preferred Bidder agrees list of Reviewable Design Data with the LA and the School, which includes items that the school will approve at a later date	53 months		Bidders try to minimise this as much as possible to prevent the school making too many changes later on.

Construction

PROCESS STEP	Elapsed Time	Approx Cost	COMMENT
During the construction process, the Contractor meets weekly with the school to discuss progress and no less than monthly to review any design decisions	54 months to 72 months		
Contractor engages a consultation officer to co-ordinate engagement with the local community	54 months to 72 months		BSF Specific Average cost of £30k per school.
Contractor engages a corporate & social responsibility officer to co-ordinate activities with the school such as sponsoring sports teams, arranging site visits, brickwork workshops, mock interviews, design projects, etc.	54 months to 72 months		BSF Specific Average cost of £50k per school.
Head Teacher requests a variation or addition to the design during construction, which starts the following chain of events: <ul style="list-style-type: none"> Contractor requests their designers to produce options to alter the design to include the variation 	54 months to 72 months (duration of 1 change is 6 weeks on average)	£3k in process costs per change request and unlimited costs for changes instructed	The average number of variations per school is 60, with the maximum for one school being over 240.

PROCESS STEP	Elapsed Time	Approx Cost	COMMENT
<ul style="list-style-type: none"> • Contractor requests their Quantity Surveyor to cost the variation and design proposal the design team have put together • Contractor provides estimate of the variation to the Local Authority representative • The Local Authority representative consults with their technical advisors and quantity surveyor and whether the price and design is accurate • The Local Authority advises the school whether they are prepared to go ahead with the requested variation • If the Local Authority wishes to proceed with the variation they advise the Contractor to provide a firm price • The Contractor consults their sub-contractors and suppliers to firm up the price and supplies the firm quote to the Local Authority • The Local Authority makes a final assessment of the cost and amended design 			

PROCESS STEP	Elapsed Time	Approx Cost	COMMENT
<p>and issues a formal change order to the Contractor</p> <ul style="list-style-type: none"> The Contractor alters the design, the contract price and their programme and identifies any knock-on effects to the design 			
<p>Contractor produces samples for the review of the school including:</p> <ul style="list-style-type: none"> Light fittings sample brickwork panels carpet tiles Vinyl flooring doors and door handles furniture including chairs, tables and screens cycle store Colours for walls Ceiling tiles Blinds WC cubicles Kitchen server Acoustic panels Internal & external signage Paving Window frames Fencing & fence colours Vents/louvers External lighting 	<p>54 months to 72 months</p>	<p>£2k per item in process costs for each item, which rises as items are rejected</p>	<p>These elements can change the feel and look of a school and we think are important to keep with the school.</p>

PROCESS STEP	Elapsed Time	Approx Cost	COMMENT
Power socket and data point locations Plant specifications and heights			
School works with ICT Provider and Suppliers to choose the ICT equipment they would like			
School inspects sample rooms as they are completed and requests changes to the room layouts	64 to 72 months	Varies	A function of not having best practice school layouts – this just adds time and cost unnecessarily
ICT Providers liaise with the building contractor to request changes to ICT infrastructure or M&E layouts to incorporate their chosen equipment	59 months to 72 months	Varies	Knock on costs can be substantial if M&E has already been fixed within the new building.

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