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Planning technology into your building

A guide for school leaders

Building to transform education

The scale and ambition are in themselves impressive: the government is investing more than £50 billion in capital building programmes that will see nearly every secondary school, and half of all primary schools, rebuilt or refurbished within 15 years.

But as the first schools built under the programmes open their doors to pupils, an underlying significance is becoming clearer. These schools use innovative design and technology to support fresh ways of teaching and learning. By treating technology as a fundamental building block in school design, the programmes offer a major opportunity to transform education for all learners.

The capital building programmes

There are four major capital building programmes in progress for schools in England.

Building Schools for the Future is a £45 billion programme to rebuild or refurbish secondary schools. Rolled out over 15 years, and with around 15 local authorities taking part in each wave, the programme is being managed by the Partnerships for Schools agency.

The **One School Pathfinder** programme is designed to give some local authorities a chance to design and test approaches to educational transformation before receiving full Building Schools for the Future funding. So before they join the full programme in its later waves, they can select a single secondary school as a 'pathfinder', which will then receive between £20 million and £30 million for rebuilding or refurbishment.

Academies are publicly-funded independent secondary schools, often in disadvantaged areas. Around 230 should be open or under construction by 2010, with the national total eventually expected to reach 400. Many of these will be built as part of the Building Schools for the Future programme.

The **Primary Capital Programme** is a 14-year £7 billion project to rebuild, remodel or refurbish at least half of all English primary schools. Twenty-three local authorities are involved in the pathfinder phase, for which building starts in 2008-09. All local authorities will be submitting Primary Capital strategies in June 2008, to receive funding in 2009-2010.

Achieving educational transformation through one of these programmes demands thinking around three key areas from the outset:

- the overall vision for transforming education

- the contribution technology can make to transforming teaching and learning – in particular how technology can be used to personalise learning

- the sorts of buildings and spaces required.

Developing a vision for technology

These high levels of investment and new patterns of teaching and learning (often empowered by new technology) have combined to create an urgent new imperative for schools and local authorities: they must develop a clear overall vision for their use of technology in education. The radicalism of this strategic vision will determine the scale of possible transformation.

The actual building design must follow from this vision, so you need to start not with immediate architectural or construction issues, but by defining the desired outcomes for teaching and learning. What kind of relationships do you want to build within the school? How will they be influenced by communication and collaboration? What kind of flexibility do you need in your learning spaces to support new ways of working and more personalised learning?

The ICT, which typically will be about 10 per cent of the expenditure on a new school building, must advance the school's aims for learning, teaching, management and administration. That means your planning must start with thorough consultation with all stakeholders including the local authority, but also staff, governors, pupils, parents and the wider community. From this process you'll need to develop a comprehensive vision for technology, which in turn is likely to have a significant influence on the building design.

This vision must be in place from the outset, and not treated as an add-on once the building has been conceived.

Becta can provide information, guidance and a range of services to help you develop this vision and understand its implications for building design.

The Building Schools for the Future programme is normally delivered by a local education partnership, (involving the local authority, Partnership for Schools and private companies including the main construction contractor). This partnership acts as the single point of procurement and service provider for design, construction, project management and maintenance of newly built and refurbished schools – including technology services. With the other capital investment programmes the management mechanisms vary, and schools should clarify their position with the local authority before taking any further action.

Schools and local authorities will need to develop a vision of how technology enables new ways of teaching, learning and management:

- how new technologies and the physical access to them could contribute to personalising learning

- how technology could enable students' access to resources from home

- how technology investment and infrastructure could support new ways of working

- how the school site could promote student engagement

- how technology can be used to involve parents and the wider community

- how technology can be used securely to share appropriate information about learners and their learning

- how technology can help reduce a school's environmental impact – for example by reducing travel.

Becta's support for schools

Developing the vision

The first section of Becta's self-review framework focuses on creating and reviewing a vision for ICT. The self-review framework is designed to help schools review and develop their use of technology in every area of learning, teaching and management, and is supported by an online tool, which will guide you through every stage of a review.

You will also find ideas and inspiration from the winners of our ICT Excellence Awards. They have approached technology in outstanding or innovative ways, inside and outside the school buildings. Our website has more information including videos of the award winning schools.

Procurement frameworks

When developing a vision and procuring technology, external consultants can prevent expensive mistakes and ensure that the solution meets the needs of the school. Your local authority project leaders may already be providing these services, but if not Becta's Consultancy Services Framework provides a list of suppliers to help you with the specification and procurement process.

Becta also has frameworks for purchasing infrastructure services including technical support and maintenance, learning platform services and software licenses.

You should always talk to your local authority before considering independent procurement: alternative procurement routes may already be in place and may be mandatory for some programmes such as Building Schools for the Future. Single school re-builds are encouraged to use EU procurement frameworks such as Becta's infrastructure services framework to purchase their infrastructure equipment and services.

Specifications

We have developed a series of functional and technical specifications, defining technology requirements for schools and common specifications and standards for that technology.

All of Becta's Framework Suppliers are required to supply to these specifications, and we are encouraging any supplier to the education sector to adopt them. The specifications are embedded in the Building Schools for the Future ICT Output Specification, and form the basis of the model specification for ICT in academies.

These functional requirements or specifications set out what you should expect your technology to do for you, and can be useful tools when defining your technology vision. The technical specifications are primarily aimed at suppliers and support providers.

Further information

For information on the capital buildings programmes
www.becta.org.uk/schools/capitalbuilding

Becta offers guidance about how to get started and helps you make some decisions about how you are going to engage with the self-review framework
www.becta.org.uk/schools/selfreview

Becta's website highlights advice on procurement and Becta's procurement frameworks
www.becta.org.uk/schools/procurement

Specifications for learning platforms, institutional infrastructure, information management (including MIS) and connectivity are available on our website
www.becta.org.uk/schools/techstandards

A Becta planning tool, 'ICT investment planner' is available on our website
www.becta.org.uk/schools/ictinvestmentplanner

To find out how to register your interest in the 2008 ICT Excellence Awards and see the 2007 winners
www.becta.org.uk/excellenceawards

A Becta Framework for managing and supporting technology, 'Framework for ICT Technical Support (FITS)' is available on our website
www.becta.org.uk/schools/fits

To find out more about the Building Schools for the Future Programme and One School Pathfinders visit the Partnerships for Schools website
www.p4s.org.uk

To find out more about the Academies programme visit the DCSF website
www.standards.dcsf.gov.uk/academies

For further information on the Primary Capital Programme visit the Teachernet website
www.teachernet.gov.uk/management/
resourcesfinanceandbuilding/Primary_Capital_Programme

For the latest news on how innovative technology and practice is transforming the way people learn
www.futurelab.org.uk

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