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Building Schools for the Future in the United Kingdom

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### Building Schools for the Future in the United Kingdom

State-of-the-art school buildings can improve educational standards and have a positive effect on everyone who uses them. That is why England’s Department for Education and Skills (DfES) launched an ambitious five-year strategy to improve educational facilities for all children in the country and create high quality resources for the whole community. The programme, Building Schools for the Future, is backed by a record level of investment in school infrastructure, takes into account changes needed in the educational built environment, and gives special attention to exemplar designs.

### Investment

Investment in England’s school facilities in 2004/05 is GBP 5.5 billion and will rise to GBP 6.3 billion by 2007/08, including credits from private funding investment. This compares with less than GBP 700 million in 1996/97.

The increase in funding marks a leap forward in investment planning. It will enable strategic and radical changes to be made to the school estate. Around GBP 2 billion a year will be spent on the Building Schools for the Future programme between 2005 and 2008, with the aim of rebuilding or renewing all secondary schools over the next ten to 15 years. Over the same period there will also be substantial investment in primary school buildings.

### Changes needed

The Building Schools for the Future initiative offers a rare opportunity to transform the educational built environment, but mistakes made in the past must not be repeated. The last major school building programme is still being paid for. The many over-glazed, poorly-insulated and often porous buildings of the 1960s and 1970s generally have high running costs and, unless well maintained, do not provide the learning and working environments needed today. There are also many school buildings that, while functioning well, are not interesting places for children or adults to be in, nor do they contribute to raising educational achievement. While the designs of offices, research centres, galleries and museums have changed enormously in the last 20 years, most school designs have not evolved.

To deliver the best and most effective education, exploiting all the possibilities of information and communications technology (ICT), school buildings need to be designed to stimulate children’s imaginations and reflect advances in technology. They need to provide high quality environments that are conducive to learning, functional and exciting. They must be able to cope with changes in a future that we cannot predict. For this reason DfES is trying new ideas.

The Department is looking at ways of designing inspirational, flexible buildings that can adapt to technological and educational changes. ICT can give schools the option of teaching children in a variety of ways, and can provide electronic links to other schools and facilities within the country and abroad. This will not happen if spaces in schools do not facilitate various patterns of individual and group working. Flexibility is key, because whatever visions of education we design our buildings around now, they will likely need to perform in a different way in a few years’ time.

The major drivers of change in school building design can, however, be predicted. These include:

- Developments in education, such as spreading the expertise of the most able teachers more widely, changes to the curriculum, greater numbers of support staff who bring a wider variety of skills to the classroom, and the need to accommodate a range of group sizes that vary during the course of a lesson.

- The challenge of making schools inclusive, both for those with special education needs or disabilities, and, outside the school day, for the wider community.

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**Capital expenditure is rising**

![Graph showing rising capital expenditure from 1996/97 to 2007/08](chart.png)
• Changes in school organisation, such as greater administrative autonomy, more individualised learning, different school hours and a different calendar, and “all-through” schools (combining primary and secondary education).

• Structural changes, such as rural schools forming clusters or federations to overcome the problems of size and isolation, or the development of education parks where schools, colleges and other institutions share a campus.

• Growth in the provision of extended schools and increased networking between them so that facilities are not unnecessarily duplicated.

• ICT (although a question remains: will its rapid evolution decrease its impact on school building design over the next few years, while offering alternatives to traditional schooling for some?).

Exemplar designs

To promote new ways of developing designs that are deliverable and to help create schools for the future, DfES produced the publication *Schools for the Future: Exemplar Designs, Concepts and Ideas*. The book aims to demonstrate how high standards of school building design can be achieved within England’s area standards and cost guidelines, and to help streamline development and procurement procedures.

After a rigorous selection process, 11 firms were appointed to develop the exemplars to “outline design” stage for publication. Each team was given two real sites and a brief with the following requirements:

• Inspirational designs to stimulate both pupils and the school workforce.

• Flexibility to allow short-term changes in teaching methods and the integration of ICT.

• Adaptability to suit longer-term changes in the size or number of rooms and to provide a “kit of parts” that could suit a variety of sites and types of schools.

• Inclusive designs for those with special education needs or disabilities.

• Community use outside the school day.

• Excellent environmental designs that at least meet the environment standards of the DfES Building Bulletin 87 and the acoustic standards of Building Bulletin 93.

• Safe, secure and sustainable designs.

• Suitability of designs for some off-site construction.

Each team was allocated a partner school to act as a “client”, and the design teams attended a series of seminars with experts on ICT, landscaping, sustainability, security, etc. The teams worked with each other, sharing ideas, and at key stages carried out presentations to groups of teachers.

The results are 11 highly inspirational and innovative designs of schools: five primary schools, five secondary schools and one all-through school. By publishing the designs DfES hopes to:

• Develop a shared vision of schools for the future.

• Create benchmarks for well-designed schools.

• Push forward the boundaries of innovation and inspiration.

• Support the delivery of the Building Schools for the Future programme.

• Encourage industry to develop new ways of delivering school buildings.

The exemplars were developed as a stimulus to innovative, high quality design; they can be used to help create briefs or as advanced starting points in the design process. The exemplar designs could be built if developed further, but they are not intended as single solutions
IRELAND’S PROGRAMME FOR RESEARCH IN THIRD LEVEL INSTITUTIONS

The largest-ever evaluation of an Irish research programme has concluded that the PRTLI is “the beginning of a major and most beneficial transformation of the research landscape of Ireland that will help to install an innovation-driven economy”. The PRTLI, the Programme for Research in Third Level Institutions, is managed by the country’s Higher Education Authority. The comment above was made by Enric Banda of Spain who, along with experts from Finland, the United Kingdom and the United States, chaired the impact assessment of the PRTLI in 2004.¹

According to the PRTLI impact assessment report, the Programme “breaks new ground in research funding schemes; especially in its focus on strengthening the linkages between teaching and research, its emphasis on institutional prioritisation of research investments, and its support for institutions working together to create more competitive critical mass of research effort.”

The Programme for Research in Third Level Institutions is funded under Ireland’s National Development Plan 2000-2006, with assistance from the European Regional Development Fund and with private funding through a public/private financial framework. Within the National Development Plan, the PRTLI was charged with the task of building world-class infrastructure across all disciplines.

Objectives

The PRTLI approach is characterised by the following essential elements:

- Supporting institutional research strategies.
- Establishing centres of research excellence.
- Laying the foundations for advanced research in eligible institutions through “baseline” rather than incremental funding.
- Promoting and embedding inter-institutional collaborative research in order to counterbalance limitations of scale in the Irish system.
- Encouraging efficient and effective management of research in the institutions.
- Assisting the development of institutional missions and strategies for research.
- Strengthening the synergies between research and education.
- Providing multi-annual funding for both capital expenditures (buildings and equipment) and recurrent programme costs (people, materials, etc.).