guidance for leaders

Becta

improving learning
through technology

making the most of
your investment in ICT

introduction

ICT plays an important role in improving and supporting teaching, management and administration. The internet and digital technologies are enabling both information and resources to be shared by learners, teachers, support staff and management teams. Most schools have networked broadband access to the internet, so communications within and beyond the school are fast and reliable.

The next stage of development in linking schools, colleges, local authorities, government and communities together has now arrived – the national digital infrastructure.

This provides a range of benefits for schools:

• Access to a coherent and reliable technological system that is affordable and sustainable

• Safe and secure access to a wide range of online educational resources

• Effective data handling within and between schools and children's services

• Support, through the development of single usernames and passwords for every learner, for personalisation of learning.

Developments are taking place that will combine data services, learning content, the school's ICT infrastructure and connectivity into a coherent system – so what should schools be doing now in order to gain the benefits from them? This document provides guidance on some key areas of ICT purchasing, policy and practice to ensure that your school is ready for the national digital infrastructure.

purchasing ICT products and services

In the past, many schools have purchased ICT products and services in a piecemeal fashion, dependent on funding to serve their immediate needs. This has not provided a consistent level of service or the best value for money. The cost of ICT must now be met out of the core budget of schools, so it is essential to have a range of best value procurement arrangements in place.

Schools and local authorities are required to make all of their purchases in accordance with public procurement regulations and best value principles. Becta's procurement frameworks follow and promote best practice and comply with current procurement legislation. They also provide an auditable assurance of value for money, with suppliers being continuously monitored for performance and value throughout the life of the framework.

As the Government's key partner in delivering the e-strategy, Becta recommends that purchasing should not be done by individual schools but by a larger organisation, such as a local authority, regional broadband consortium (RBC) or purchasing organisation that can aggregate the requirements of many schools.

Becta is making available a range of EU Procurement Frameworks through which purchases can be made. These offer:

- a range of suppliers who understand the needs of schools
- products and services delivered at a high standard set by Becta
- a simplified purchasing route that ensures compliance with EU procurement law
- consistent contractual terms with controlled local flexibility
- ongoing monitoring of suppliers
- reassurance that Becta will arbitrate when conflicts arise
- better value from purchases through aggregation, monitoring of suppliers, and consistent terms and conditions
- products and services supplied that meet educational standards and specifications.

Finding purchasing partners for ICT products and services

- Contact your local authority – does it offer a procurement service for schools?
- Contact Becta, who can put you in touch with an organisation which is purchasing for schools.
- Ensure that, whoever you are in partnership with, purchases are made through Becta's EU Procurement Frameworks.

For further information email **engage@becta.org.uk**

making the most of your investment in ICT

To ensure that your investment in ICT achieves fitness for purpose and makes best use of finite resources, Becta recommends schools complete the self-review framework.

The self-review framework is an online tool that helps senior management teams to adopt a systematic approach to ICT development.

"It has enabled us to check that we are getting value for money from our equipment, to enrich the curriculum and to see how to personalise learning through ICT."

Rekha Bhakoo, Headteacher, Newton Farm First and Middle School, Harrow

To support your progress towards this, Becta has also developed a five-step approach to improving your technology:

1. Management and support of ICT
2. Making the most of your broadband
3. Ensuring your ICT equipment meets your needs
4. Preparing for learning platforms and personalised learning
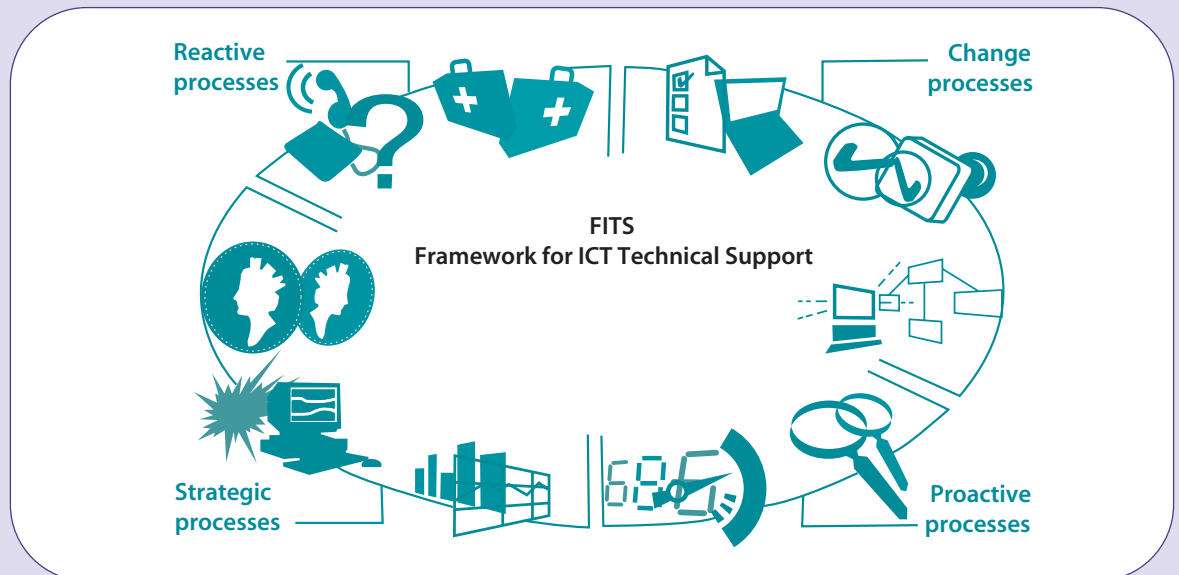5. Being able to make the most of your data

1. management and support of ICT

To maximise the investment in ICT and enhance the quality and effectiveness of learning and teaching, a school must have a reliable ICT infrastructure. Reliability is achieved through high-quality technical design, technical support and service provision.

Becta's Framework for ICT Technical Support (FITS) helps schools achieve high-quality technical support and service provision. FITS is the recognised standard for managing ICT in schools and enables internal and external technical support providers to implement best practice with minimum effort.
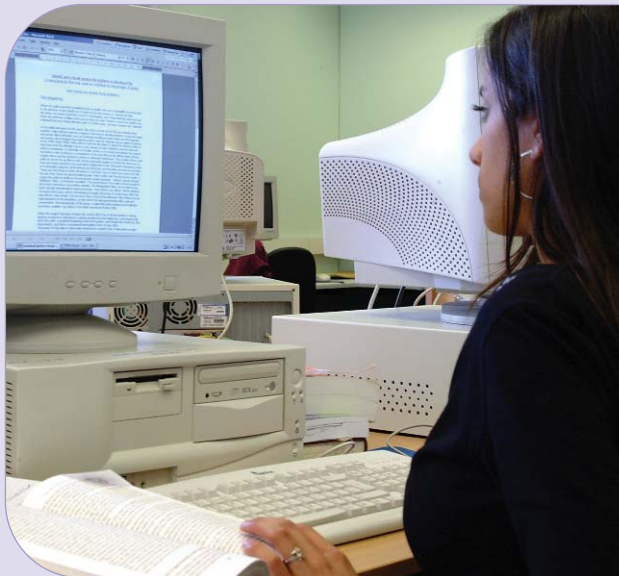
Schools that have implemented the FITS processes have benefited from:

- increased reliability of the ICT services and delivery of technical support
- improved user confidence in the provision of ICT services and technical support
- a change from reactive to proactive technical support
- better use of technical support resources
- improved communications between technical support, users, senior managers and suppliers.

Reactive processes

Change processes

FITS
Framework for ICT Technical Support

Strategic processes

Proactive processes

www.becta.org.uk/schools/fits

"Implementing Primary FITS has led to a noticeable improvement in the confidence of ICT users in the school. They are now able to plan for teaching and learning activities in the knowledge that they should be able to deliver what they plan."

Mark Lacey, headteacher,
Parson Street Primary School, Bristol

Schools should implement FITS to make the most of their investment in ICT. Becta has developed a separate toolkit to guide primary and secondary schools through implementation.

Primary schools

Primary FITS is for schools that rely on an external provider for the majority of their ICT service delivery and support. Contact your external provider and ask them to prepare you for implementation and to provide ongoing support.

Secondary schools

FITS is for schools that have an internal ICT support team for the majority of their ICT service delivery and support.

• Read the FITS guidance on the Becta website.
• Attend the FITS expert workshops to create an action plan for implementation.

See **http://www. becta.org.uk/schools/fits** for more information.

"Implementing FITS in our school has encouraged a greater use of technology in teaching and learning"

J G Porteous, headteacher, Turton High School, Bolton

2. making the most of your broadband

For a school, being connected to the internet opens up access to many resources for learning and teaching. The National Education Network is a dedicated education network that will provide every learner and teacher with access to a consistent set of resources, services and applications, improving the availability and use of high-quality educational content and helping to ensure that schools maximise the return on their investment in broadband.

Internet access also brings potential threats to safety and security. The National Education Network is delivered exclusively through the ten regional broadband consortia (RBC) and the opt-out local authorities, and offers the level of safety and security required by schools. To receive the benefits of it, you must connect to the internet through these.

The National Education Network offers a safe and secure network for schools.

- For purposes of learning and teaching, broadband connectivity joins teachers and learners and mentors to each other within and beyond counties, including video conferencing between schools

- For purposes of management and leadership, broadband connectivity joins schools to their partners, their local authority, the DfES and agencies

- For purposes of professional development, broadband connectivity is important both at a local and a regional or national level, to join education professionals, mentors, trainers and teacher educators.

www.nen.gov.uk

3. ensuring that ICT equipment meets your needs

For a school to embed the use of ICT in all aspects of its operation, the school must have access to consistent, reliable and sustainable ICT that meets its needs.

Becta has developed a functional specification for institutional infrastructure that sets out what educators and learners can expect to be able to do with ICT. Alongside this there is an Infrastructure Services Framework for purchasing a comprehensive range of ICT products and services from educational suppliers. These products and services can be purchased individually or as a package and should include these components:

- **Design:** the design of appropriate ICT systems by qualified personnel, based on Becta's functional and technical specifications, taking into account legacy equipment
- **Provision:** the purchase of high-quality, warranted equipment including interactive whiteboards, network equipment, desktops, laptops and mobile technologies
- **Implementation:** the installation and testing of ICT equipment including integration of new equipment with existing equipment
- **Proactive maintenance:** the ongoing maintenance of both existing and new systems

- **Reactive service and support:** a technical support service that is compliant with Becta's Framework for ICT Technical Support (FITS)
- **Training:** a selection of training options which meet the needs of technical and non-technical staff.

Becta advises schools to purchase all the services to meet their requirements from an accredited supplier and to use the Infrastructure Services Framework. This Framework is designed to:

- reduce the technical burden on schools
- increase reliability of ICT systems
- reduce time spent on ICT management and support that can be used elsewhere
- establish predictable costs to help plan for a sustained level of ICT
- reduce risk, as with a service-based approach to ICT most of the risk is transferred to the supplier.

Schools should:

- use Becta's self-review framework to evaluate and plan improvements to ICT
- have a vision that takes account of the national digital infrastructure
- develop their vision for the role of ICT in learning and teaching through engagement with SMT, teachers, governors, parents and learners
- use Becta's Institutional Infrastructure tool to help gain an understanding of their current position and what actions they need to take in order to realise their vision
- plan how they will progress towards that vision – setting targets and timescales and allocating budgets – both Becta's Institutional Infrastructure tool and Investment planner can assist with this
- purchase ICT products and services using Becta's Infrastructure Services Framework
- ensure that their ICT maintenance and support, whether provided internally or externally, meets Becta's Framework for ICT Technical Support (FITS) for best practice with minimum effort.

4. learning platforms and personalised learning

Personalising learning is at the heart of achievement for all learners. Enabling learners to learn at the pace and place that suits them is difficult for education providers to achieve, but is supported by new developments in technology. The implementation of learning platforms enables learners and teachers to share and store resources that can be accessed from within the school and outside. From 2008, learners should have access to a personalised online learning space with the potential to support e-portfolios.

Becta has developed functional and technical specifications for learning platforms to meet the needs of schools in consultation with industry and educators.

Supported by a well-functioning ICT infrastructure, a learning platform meeting these specifications will enable:

- continuity of learning and out-of-hours learning
- increased parental involvement
- increased collaboration between learners
- increased involvement of pupils in their own learning and opportunities for re-engaging those who are disaffected
- sharing of learning aims and progress with pupils

- access to a greater range of resources which can be shared, adapted and repurposed
- reduction of administrative burden through more effective communication and collaboration tools
- opportunities to engage remote and hard-to-reach learners
- opportunities for professional development through peer-to-peer networks and online research databases.

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Learning
Platform
Services
Supplier

Schools should:
- prepare to implement a learning platform by completing the Learning Platform Functionality tool
- discuss with their local authority what plans it has for a learning platform for its schools
- consult their local authority to explore the procurement options under the Becta Learning Platform Services Framework.

5. being able to make the most of your data

With the implementation of learning platforms, there will be an increased amount of data available which, if handled effectively, will reduce workload in other areas. Becta is working to ensure schools:

- are able to share information about pupils and the school with other people, institutions and services

- receive more targeted support from their local authority advisers based on better access to up-to-date school performance data and pupil targets

- can choose appropriate MIS products and services from a range of suppliers as part of their wider information management

- can share assessment data between the learning platform and the MIS to enhance whole-school reporting and analysis

- can adopt the use of the best MIS packages with confidence that they will work seamlessly with existing and new software packages.

Schools should:

- review their current needs and anticipate their future needs for information management

- compare the functionality of their current MIS solution with Becta's Functional Requirements for Information Management

- register with the online community for learning platforms and MIS to join in discussions and participate in consultations

- undertake elements of the self-review framework to enhance use of MIS and information management to achieve the full benefits of ICT investment

- undertake NCSL's use of data learning modules.

communities.becta.org.uk/technology

further information

Purchasing ICT products and services

Procurement advice including purchasing tools
http://www.becta.org.uk/schools/procurement

ICT investment planner
http://www.becta.org.uk/schools/sustainability

Sustainability community
http://communities.becta.org.uk/sustainability

Managing ICT Costs in Schools:
Summary & Report
http://www.becta.org.uk/publications

What is the national digital infrastructure?
http://www.becta.org.uk/schools

Ensuring ICT equipment meets your needs

Becta's Infrastructure Services Framework
Agreement
**http://www.becta.org.uk/schools/
infrastructureservices**

Functional specification: Institutional
infrastructure
Technical specification: Institutional
infrastructure
http://www.becta.org.uk/schools/techstandards

Institutional Infrastructure tool
http://matrix.becta.org.uk

Becta's Framework for ICT Technical
Support (FITS)
http://www.becta.org.uk/schools/fits

Technical support community
**http://www.becta.org.uk/
technicalsupportcommunity**

Making the most of your broadband

What is the National Education Network?
http://www.nen.gov.uk

Becta's internet service providers accreditation
http://www.becta.org.uk/schools/ispsafety

Internet Safety
http://www.becta.org.uk/schools/esafety

Personalised learning

Learning platforms Q and A
**http://www.teachernet.gov.uk/
learningplatforms**

Learning platforms case studies
**http://www.becta.org.uk/schools/
learningplatforms**

Learning platform functionality tool
http://matrix.becta.org.uk

Learning platform and MIS community
**http://communities.becta.org.uk/
learningplatformsandmis**

Information management and MIS

Learning platform and MIS community
**http://communities.becta.org.uk/
learningplatformsandmis**

NCSL's use of data learning modules
**http://www.ncsl.org.uk/managing_
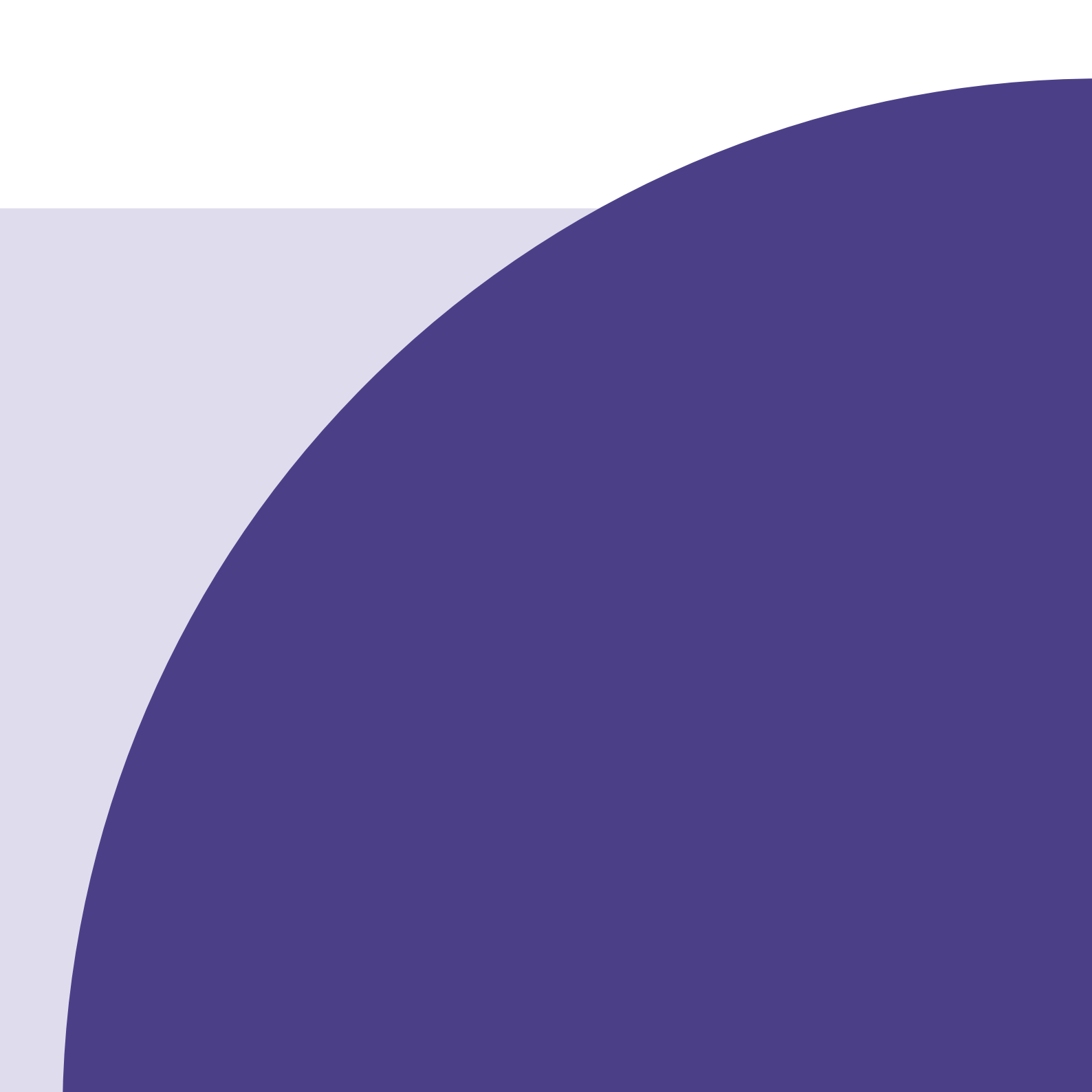your_school/use-of-data/index.cfm**

Self-review framework
**http://www.becta.org.uk/schools/
selfreviewframework**

The e-strategy: Harnessing Technology
**http://www.dfes.gov.uk/publications/
e-strategy**

For further information email
engage@becta.org.uk

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Where you see a Becta supplier mark you can be sure that:

- our suppliers understand the needs of schools
- products and services will be delivered to a high standard set by Becta – and we've evaluated suppliers rigorously to ensure their capability
- products and services will meet functional and technical specifications set by Becta and developed in consultation with industry and educators
- you will benefit from a simplified purchasing route that ensures compliance with EU procurement law and best value principles
- you will benefit from better value through aggregation and consistent terms and conditions
- you will get consistent contractual terms with controlled local flexibility
- Becta will be continually monitoring suppliers and will arbitrate if conflicts arise

Who can use the frameworks?

The frameworks are available to any UK educational organisation, local education partnership, local authority, government agency, or agents acting on their behalf. We strongly encourage individual schools to purchase via their local authority or another consortium, in order to achieve best value for money.

framework and accredited suppliers

maintenance, as well as service and support, and training. The full range can be purchased as a 'managed service'. You can also buy individual services that can be integrated with existing ones.

Consultancy Services Framework

This framework is for those who need to buy educational ICT, technical ICT or procurement consultancy. Often this will be when an extensive rebuilding or refurbishment programme leads to major investment in new ICT infrastructure. It will also be useful if you need support to review your current ICT provision and to plan future investment, or if you need support buying a managed service. The framework is most likely to be of value to consortia of organisations and local authorities.

Accredited Internet Service Providers

(Please note that this is a Becta accreditation, not an EU-compliant framework).

This service allows schools to buy internet services that meet the special requirements of the education sector for content filtering and service performance. Our accreditation includes both commercial internet service providers (ISPs) and public bodies such as local authorities and regional broadband consortia. In some cases, internet access is supplied by a commercial company, while filtering of unsuitable internet content is provided by a local authority.

Internet service providers can apply for accreditation at any time, and we accredit them for one year. See our website for the current list on http://becta.org.uk/schools/ispsafety.

www.becta.org.uk/schools/procurement

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framework and accredited suppliers

Software Licensing Framework

This service provides a straightforward, user-friendly method to get the most appropriate licences for your needs. It is specifically for operating and office productivity software, covering a broad range of applications. The framework offers both proprietary and open source options. It does not cover teaching aids, national curriculum content, learning environments and management information systems.

Learning Platform Services Framework

This framework provides the services and associated software solutions needed to deliver a dynamic teaching and learning environment. As well as web-based access to curriculum software, your learning platform will provide communications services such as email and bulletin boards, assessment and progress tracking. Learners will be able to save and access their work at any time. Your learning platform can provide learners with access to the learning environment out of school hours and opportunities for parents to get involved. The service also provides full support and training.

Infrastructure Services Framework

This framework can be used to buy a range of services and equipment that make up your school infrastructure system. The Infrastructure Services Framework covers infrastructure design, provision, implementation and

Framework suppliers

Key: * – maintenance, service and support, training

Framework suppliers	Software Licensing	Learning Platform Services	Infrastructure Services	Consultancy Services	Contact
Apple	✓				*Apple Education Department* email:uk.education@euro.apple.com tel:0800 912 0207 url:http://www.apple.com/uk/education
Azzuri Communications Limited		✓	✓		*Ed Collins* email:ed.collins@azzu.co.uk tel:08452 606022 url:http://www.azzurieducation.com
Brian Farrington Limited				✓	*Stephen Ashcroft* email:s.ashcroft@brianfarrington.com tel:01744 20698 url:http://brianfarrington.com
Cambridge Education Limited				✓	*Eugene O'Connor* email:eugene.oconnor@camb-ed.com tel:01223 463763 url:http://www.camb-ed.com/cef.asp
Centerprise International Limited			✓		*Beatrice Hyams* email:beatrice.hyams@centerprise.co.uk tel:01256 378047 url:http://www.centerprise.co.uk
Civica	✓				*Education Team* email:becta@civica.co.uk tel:020 7760 2802 url:http://www.licencetoclick.com/education
Computer Systems in Education Limited (CSE)			✓		*Gordon Derham* email:sales@cse-net.co.uk tel:0845 345 8775 url:http://www.cse-net.co.uk
Deloitte MCS Limited				✓	*Jo Mann* email:ukdeloittetenders@deloitte.co.uk tel:020 7303 7114 url:http://www.deloitte.com
EdICTs				✓	*David Sutton* email:david.sutton@edicts.com tel:0870 243 0013 url:http://www.edicts.com
Edunova				✓	*Martin Coleman* email:martin.coleman@edunova.co.uk tel:020 7314 5000 url:http://www.edunova.co.uk
Egton Education		✓*			*Debbie Sproul* email:debbie.sproul@egtonsoftware.com tel:0113 218 1090 url:http://www.egtoneducation.co.uk
Enterprise MPC Limited				✓	*Tim Hall* email: tim.hall@enterprise-mpc.com tel:0845 601 9005 url:http://www.enterprise-mpc.com
Ergo Computing Limited			✓		*Kate Cooper* email:katec@ergo.co.uk tel:0115 914 4144 url:http://www.ergo.co.uk
Etech Group		✓			*Mike Damiano* email:info@etechgroup.co.uk tel:0845 434 8087 url:http://www.etechgroup.co.uk
European Electronique Limited			✓		*Mike Gill* email:sales@euroele.com tel:0845 345 8340 url:http://www.happyICT.co.uk
Fronter		✓			*Jennifer Gordon* email:uk@fronter.co.uk tel:020 7921 0509 url:http://www.fronter.co.uk
Gaia Technologies plc			✓		*Kevin Evans* email:becta@gaia-tech.com tel:01248 374000 url:http://www.gaia-tech.com
HBS Business Services Group Limited			✓		*Ivy Garcia-Packwood* email:ivy.garcia-packwood@hbs.uk.com tel:01908 247332 url:http://www.hbs.uk.com
Insight Direct	✓				*Education Team* email:becta@uk.insight.com tel:0800 336688 url:http://www.insight.com/uk/becta
Improcom Limited				✓	*Roger Hutchinson* email:roger.hutchinson@improcom.co.uk tel:01455 550101 url:http://www.improcom.co.uk
Joskos	✓				*James Ray, Gareth Johnson* email:bectasales@joskos.com tel:0845 370 0038 url:http://www.joskos.com
Linetex Computers Limited		✓*			*Simon Platt* email:education@linetex.co.uk tel:01483 253000 url:http://www.linetex.co.uk
LogicaCMG UK Limited				✓	*Alan Teece* email:alan.teece@logicacmg.com tel:0800 389 2348 url:http://www.logicacmg.com/uk
Mason Communications Limited				✓	*Richard Cooke* email:consulting@mason.biz tel:0161 877 7808 url:http://www.mason.biz
Misco	✓				*Stuart Nicholson* email:education@misco.co.uk tel:0800 035 0799 url:www.misco.co.uk/publicsector
Mouchel Parkman Services Limited				✓	*Kim McAllister* email:bectaict@mouchelparkman.com tel:01932 337148 url:http://mouchelparkman.com/managementconsultancy
NCC Group				✓	*Charley Snape* email:charley.snape@nccgroup.com tel:0161 209 5288 url:http://www.nccgroup.com
Netmedia Education		✓			*Dylan Jones* email:enquiries@netmedia-ed.co.uk tel:0800 912 2321 url:http://www.netmedia-ed.co.uk
Northgate Information Solutions			✓		*Stuart Gunning* email:education@northgate-is.com tel:028 9085 9085 url:http://www.northgate-is.com/education
Novatia plc				✓	*Richard Sambrook Smith* email:richard.sambrooksmith@novatia.plc.uk tel:07831 722214 url:http://www.novatia.plc.uk/education/bectaframework
On-line Computers	✓				*Fiona-Elizabeth Ani* email:becta@olc.co.uk tel:01524 386600 url:http:www.olc.co.uk
PC World Business	✓				*Jarrod Cairns* email:jarrod.cairns@pcwb.com tel:0161 447 3304 url:http://www.pcwb.com
Pearson Education Limited		✓			*Tracey Dingwall* email:pheonix.info@pearson.com tel:01722 344800 url:http://www.pearsonphoenix.com
Phoenix Software	✓				*Chris Bartlett* email:info@phoenixs.co.uk tel:0870 836 8000 url:http://www.phoenixs.co.uk
Pugh	✓				*Regional Account Manager* email:sales@pugh.co.uk tel:01974 200201 url:http://www.pugh.co.uk
PWC				✓	*Ali Hamza* email:ali.hamza@uk.pwc.com tel:020 7804 2152 url:http://www.pwc.com/uk
Ramesys	✓	✓	✓		*Rob Wileman* email:rob.wileman@ramesys.com tel:0115 971 2000/ 07815 117646 url:http://www.ramesys.com
RM Education plc	✓	✓	✓	✓	*Barry Taylor* email:btaylor@rm.com tel:01235 823548 url:http://www.rm.com
Serco Limited (Serco Learning Solutions)		✓	✓	✓	*Peter O'Hagan* email:peter.ohagan@serco.com tel:07718 195107 url:http://www.serco.com
Socitm Consulting				✓	*Peter Hunter* email:peter.hunter@socitm.gov.uk tel:01935 881820/ 07889 752768 url:www.socitm.gov.uk
Stone Computers Limited	✓		✓		*Mark Whitfield* email:sales@stonecomputers.com tel:01785 812100 url:http://www.stonecomputers.com
Tribal Group PLC				✓	*Justin Wilson* email:justin.wilson@tribalgroup.co.uk tel:01480 461807 url:http://www.tribalbecta.co.uk
TrustMarque	✓				*Robert Newburn* email:robert.newburn@trustmarquesolutions.com tel:0870 121 0325 url:www.trustmarquesolutions.com
UniServity (Goldmine Media Limited)		✓			*David Meredith* email:info@uniservity.com tel:0870 855 5751 url:http://www.uniservity.com
Viglen Limited	✓	✓			*Cheryl Lapham* email:softwarelicensing@viglen.co.uk tel:01727 201890 url:www.viglen.co.uk
VT Four S			✓	✓	*Josie Precious* (Infrastructure Services) email:josie.precious@fours.co.uk tel:01372 834046 *Liam Donnison* (Consultancy Services) email:liam.donnison@fours.co.uk tel:01372 834444 url:http://www.fours.co.uk
XMA Limited			✓		*Carol Burnell* email:contracts@xma.co.uk tel:0115 846 4716 url:http://www.xmaonline.co.uk

Key: * – maintenance, service and support, training