



**information  
standards board**  
for education, skills  
and children's services



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# The Information Standards Board for Education, Skills and Children's Services

Annual Report 2008-2009



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## Independent Chairman's Report

2008-2009 was a key phase in the life of the Information Standards Board (ISB) for Education Skills and Children's Services (ESCS). During this time we've reinforced the organisational structure that underpins what we do. We've also raised awareness of our work – and its potential for improving outcomes for children and learners through better quality information.

Although it will continue to evolve, I believe we now have the right organisational structure in place to encourage and support the businesses<sup>1</sup> within ESCS to develop standards, for the benefit of the entire system.

I am also pleased to report a number of examples that show our positive impact on the system and we have highlighted some of these in this annual report. I fully expect this impact to increase as we move in to 2009-2010.

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<sup>1</sup> In this context the ESCS businesses refer to those agencies and non-departmental public bodies that make up the ESCS system.





# Independent Chairman's Report continued

## Looking ahead

### The ISB has agreed the following top level aims for next year<sup>2</sup>:

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- ▶ increase the ISB's impact by approving a small number of highly visible standards that will bring the greatest benefits to the system
- ▶ through authoritative leadership encourage ESCS businesses to proactively support the development of standards, and to ensure that standards approved by the ISB are adopted by the system
- ▶ continue to develop persuasive, clear messages that explain why the work of the ISB is important, relevant and beneficial

“ This is just the start of our journey. In many cases the standards we're developing and approving today may take a number of years before the benefits are felt. However, this doesn't mean the work we're doing is any less important. I strongly believe the ISB will make a key contribution in the push to do more for less, by reducing duplication and increasing reuse. This in turn will bring benefits for all children and learners – higher quality outcomes through better information, and at less cost. ”



**Dorian Bradley**

Independent Chairman of the Information Standards Board

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<sup>2</sup> Further details on next year's priorities will be provided in the 2009-2010 business plan.



## Our performance against the Plan

**At the beginning of the year we set ourselves three high level objectives in the 2008-2009 business plan, to:**

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- 1 deliver a portfolio of business led standards initiatives
- 2 successfully engage standards stakeholders from across the system
- 3 establish and operate a high quality standards advisory and approval service

### **Successfully engage stakeholders across the system**

2008-2009 saw the establishment of Special Interest Groups (SIGs) and Standards Working Groups (SWGs). These groups are the principal interface between the ISB and the businesses that use the standards we approve.


**SIGs are focused on particular topic areas, and their membership is drawn from key stakeholders across ESCS. Those in operation at the moment are:**

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- ▶ data management
- ▶ identity management
- ▶ portfolios, learning opportunities and transcripts
- ▶ e-Learning and content packing
- ▶ vocabularies



There is often a need to develop standards for specific sectors within the ESCS system. When this is the case, the work of the Special Interest Groups is supported by subject matter experts: those who form Standards Working Groups. Current working groups include those leading on workforce codes, ethnicity codes, address formats, examination and results notification, and Systems Interoperability Framework data standards.





## **In addition to the SIGs, the ISB is also actively engaging with a wide range of stakeholder organisations including:**

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- ▶ cross government – through the cross-Government Enterprise Architecture (xGEA)
- ▶ inter-departmental – with the Information Standards Board of Health and Social Care (HaSC). The two bodies have agreed a ways-of-working protocol
- ▶ the devolved UK nations – through regular four nations' meetings
- ▶ industry groups – including SIFA and SALTIS (Suppliers Association for Learning Technology and Interoperability in Schools). This includes integrating the SIF (Systems Interoperability Framework) working groups into the ISB processes
- ▶ standards setting organisations – BSI, CEN and ISO<sup>3</sup>

## **Deliver a portfolio of business-led standards initiatives**

Working with a panel of standards experts led by the Technical Support Service, the Board established an initial baseline of the key information and data standards within ESCS. This work has now been uploaded to the ISB website library for all to see. This is a significant milestone for the system. For the first time ever, key stakeholders can access information on data standards from one central point.

## **Establish and operate a high quality standards advisory and approval service**

The Technical Support Service (TSS), formally appointed by the ISB, is now providing expert guidance to the system on information standards. The TSS works with projects and programmes from around the system on data and information issues. It also provides a quality and assurance service to make sure standards conform to pre-established, high-quality criteria.

## **The TSS has also taken the lead on standards issues that are impacting the system including:**

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- ▶ working with the cross government enterprise architecture on the development of a useable standard for managing addresses
- ▶ providing a report on the cost benefits of adopting SIF within schools
- ▶ supporting the development of a data sharing agreement with a view to reducing the data burden to the frontline

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<sup>3</sup> The British Standards Institution (BSI), The European Committee for Standardization (CEN), International Organization for Standardization (ISO).



## The ISB for ESCS: Everything you need to know



We have a Technical Support Service (TSS) providing expert advice and guidance on standards issues for the ESCS system. The TSS also manages the ISB website, incorporating a standards library, collaboration space and vocabulary management service.



### What is the ISB?

The Information Standards Board for Education, Skills and Children's Services in England is the system-wide<sup>4</sup> authority for all information and data standards.

We are a non-statutory body that creates and defines formal standards across the education, skills and children's services (ESCS) system. Our work covers both DCSF (Department for Children, Schools and Families) and DIUS (Department for Innovation, Universities and Skills) policy areas – and we have the authority to approve information and data standards on behalf of the system.

Our mission is to create and maintain a sufficient, minimum set of standards to support the information strategy for the system, and to reduce the overall costs of IT development. With ministerial backing, the ISB also has the full support of the permanent secretaries from both DIUS and DCSF.

### Why is the ISB needed?

The ISB's aim is to reduce the spread of competing information standards. Information standards help ensure data is stored in common, consistent formats. This means that, where appropriate, information and data can be understood, used and shared between different users across the system.

It also allows developers to re-use standards developed for a specific purpose in another application. This makes common information standards an essential building block for the system's information strategy. It's about taking forward the Transformational Government agenda of information systems: systems that are increasingly joined-up and centred on customers – such as children, parents, learners, employers – rather than institutions.

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<sup>4</sup> In this context system-wide refers to the businesses (agencies and non departmental public bodies) that fall within the remit of DIUS and DCSF.

£1m

▶ Reduced implementation time and costs<sup>5</sup>

£5m

▶ Open and competitive software market<sup>5</sup>

£19m

▶ Reduced operational cost through data reuse<sup>5</sup>

## What are the benefits?

### The ISB aims to bring the following benefits to the frontline:

- ▶ reduced implementation time and costs of delivering projects and programmes for the system
- ▶ reduced operating costs by allowing data to be used many times across different sectors
- ▶ standards developed for one issue, used as a means of tackling others – increasing value for money
- ▶ learner and child outcomes achieved more easily, by making new, innovative, high value online services possible
- ▶ making a reality of government-wide strategies, including the transformational government agenda
- ▶ potential savings across the system – either in the form of cashable savings or cost avoidance – of up to £25m a year

## How does the ISB fulfil its remit?

The ISB encourages and supports the businesses within ESCS to develop standards – for the benefit of the entire system.

We work closely with business teams across the DCSF, DIUS and their partner organisations, that specify, develop, use and maintain the system's information standards.

### The work of the ISB includes:

- ▶ ensuring the right standards are available at the right time, by setting strategic priorities and helping in their development
- ▶ co-ordinating the development and use of standards around the system to avoid duplication
- ▶ providing assurance on quality
- ▶ formally approving standards for use within the system
- ▶ publishing and promoting standards
- ▶ ensuring changes to standards are both controlled and communicated
- ▶ formally recognising the standards approval role of other bodies – such as BSI – where appropriate
- ▶ co-ordinating relevant standards across the government and the UK
- ▶ tracking and influencing standards work, undertaken by standards making organisations

<sup>5</sup> More information on the estimated financial benefits of information standards is presented in the ISB 2008-2009 business plan.





## Impacts 2008-2009



At the ISB, we've approved a wide range of data standards for the ESCS system. You can see the breadth of our impact, in terms of subject area and sector, in the following examples.



### Exchanging prospectus information

The ISB has approved the system-wide standard – Exchanging Course Related Information (XCRI) Course Advertising Profile (CAP) v1.1. This work, funded by our colleagues in JISC (Joint Information Systems Committee), will make it easier for course brokers and aggregators such as UCAS, the National Learning Directory and 14-19 prospectus websites, to collect prospectus information from learning providers.

At the moment, exchanging online prospectus information usually means re-keying data and information that's already published on the learning providers website into bespoke web-based forms provided by the aggregators.

### **Introducing the approved standard will remove the need to do this, and provide the following benefits:**

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- ▶ time and cost savings for learning providers and aggregators from reducing manual data entry – estimated at around £6m a year
- ▶ improved accuracy of content
- ▶ easier comparison of prospectus information for those looking to apply for courses







£6m

▶ Estimated savings from the adoption of the XCRI standard

### Standard for single sign-on

Through Special Interest Groups and its Technical Support Service, the ISB is leading the way towards a standard specification for IT system access and authentication. SAML 2.0 is an existing, widely recognised standard underlying many web-based single sign-on applications.

A standard in this area will make it easier for practitioners and citizens to get the information they're looking for. They will only have to log in once to access multiple systems. It also makes sure that systems are secure by supporting two-factor identification. This could generate up to around £50m in cost savings and cost avoidance for ESCS primarily from the bulk purchase and shared use of authentication tokens.

### Address standards

Although a British Standard (BS7666) for address information exists, it does not meet all the requirements of ESCS. As a result, many different ways of entering and storing address information have been used. This causes problems in terms of complexity and cost – for example, when address information needs to be exchanged and validated across IT systems.

The impact of this is felt within the ESCS and across other, wider sectors. So the ISB's Technical Support Service raised the issue with the cross-government group responsible for addresses. Our intention: to agree a government-wide solution.

An agreed standard in this area will greatly benefit future projects and programmes, through avoiding one-off costs, as well as preventing the need for different systems to deal with different address formats. Costs would also be lowered, as the overhead to manage variations – and consequent data quality issues – will be removed.

## The ISB Members



► **Dorian Bradley** – Independent Chairman of the Information Standards Board

Dorian Bradley is the first independent chairman of the Information Standards Board (ISB). He's held this position since retiring as the Children's Director at Ofsted in August 2007.

"As a former teacher, HM Inspector and, most recently, Ofsted's first Children's Director, I have first hand knowledge of many of the issues the ISB is trying to resolve.

My aim is to make the Board's work understandable and persuasive, so that businesses in the system take full advantage of the information standards we approve. This will realise our ambition of better outcomes for children and learners, through better quality information."



► **Barry Kruger** – Board Member

Barry Kruger is Director of Knowledge and Intelligence at the Learning and Skills Improvement Service (LSIS). He's responsible for knowledge systems, legal compliance, customer relationship management and the Excellence Gateway portal programme.

As a member of the British Standards Institution IST/43 committee, Barry develops technical standards for learning technologies. He also worked on international standards as Chair for the International Standards Organisation (ISO) learning technologies committee.



► **Adam Cooper** – Board Member

Adam Cooper has worked with the ISB since joining JISC CETIS (Centre for Educational Technology and Interoperability Standards) in 2006. Here he oversees the technology work of CETIS on behalf of UK higher and further education. He also chairs the British Standards Institute Committee IST/43 – ICT Standards for Learning Education and Training.

"I bring eight years of experience in standardisation work, gained from working in further and higher education – in both the public and private sectors. I aim to combine my practical experience of teaching and managing educational technology development, with my experience in designing and implementing interoperability standards."



I bring to the Board my long experience of working in Education, Skills and Children's Services (ESCS).

*Dorian Bradley – Independent Chairman of ISB*

► **Una Bennett** – Board Member



Una Bennett is the Head of *the information authority*, representing the further education system for the ISB. *The information authority* sets data standards within further education, and helps to reduce bureaucracy across information collection, analysis and reporting.

“Working within further education, it is clear that common data standards are vital to allow the transfer of information to support learners – whether they’re starting an apprenticeship straight from school, moving on from further education to university, or acquiring new skills in employment or to change career path. The work of the ISB in developing and promoting data standards is important in helping learners and all involved in education.”

► **Richard Stiff** – Board Member



Richard Stiff is statutory Director of Children's Services at North Lincolnshire Council, and Chair of the ADCS Information Systems and Technology Policy Committee. He has strategic responsibilities for children's services (including schools), adult social care, HR, culture, asset management and ICT.

He was nominated as a member of the ISB by ADCS, having previously represented the Association on the ISB Working Group. He is now the Council's Deputy Chief Executive – with strategic responsibilities for children's services (including schools), adult social care, HR, culture, asset management and ICT.

► **Professor Robin Sibson** – Board Member



Professor Robin Sibson is the Chief Executive of HESA – a not-for-profit company owned by higher education institutions. It's the official agency for the collection and dissemination of higher education data, UK-wide.

“As a former Vice-Chancellor of the University of Kent and in my present role as CE of HESA I bring my experience of institutional leadership, and a broad knowledge of the HE sector. For a long period I was a member of the MIAP Programme Board and here at HESA, my team led the work on the initial development of the MIAP Common Data Definitions. My academic background is in mathematics and statistics. I am a Chartered Statistician, which allows me to make a professional contribution to many of the issues faced by the ISB.”

## The ISB Members continued

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### ► Paul Shoemith – Board Member



Paul Shoemith spent 18 years working with schools on a wide range of technology projects, before joining Becta in 2004. As Director of Technical Strategy, he develops and maintains Becta's national strategy for technical architecture – including institutional networks and the National Education Network. He is also an executive board member of the Schools Interoperability Framework Association (SIFA).

“I aim to improve the way information is managed and shared across the education, skills and children's services system. And as a result, to benefit teaching, learning and outcomes for young people. I believe the work of the ISB is vital to achieving this.

Technology in education is becoming increasingly embedded, bringing fresh challenges. It is essential to address these – by making it easier to access information securely, when and wherever it's needed. I look forward to working with the ISB to achieve this.”

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### ► Stephen Crunkhorn – Board Member



Stephen Crunkhorn has been Chief Information Officer (CIO) for the Qualifications Curriculum Authority (QCA) since 2007. He oversees the Director of Strategic Systems Group (SSG) and Information Technology Services (ITS).

Stephen joined the QCA after 20 years with the Home Office, where he gained experience at CIO, CTO and IT Director level, championed project management and gained in-depth knowledge of shared service creation and enterprise project management.

As Project Director for Minerva, he leads the delivery of the Diploma Aggregation Service, and is responsible for systems support – from Web Based Accreditation (WBA) to the National Database of Accredited Qualifications (NDAQ).

“I aim to improve the way information is managed and shared across the education, skills and children's services system.”

*Paul Shoemith – Board Member*



## Members Representing Organisations

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### ► **Colin Hurd** – DCSF CIOG



Colin Hurd is Deputy Director of the DCSF Chief Information Officer Group – responsible for the information strategy for the ESCS system. He is also DCSF's senior sponsor for the Information Standards Board.

"I am passionate about improving the way we develop and deliver services for citizens. This includes making sure we have a coherent and collaborative delivery system backed fully by partners and stakeholders. And the ISB has a crucial role to play in this.

My range of knowledge and experience is highly relevant to the work of the ISB. This includes delivering national IT-enabled policy initiatives (notably transforming educational technology in UK schools and developing an information management strategy)."

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### ► **Stuart Edwards** – DIUS



Stuart Edwards is a Deputy Director in the Learning, Quality and Systems Directorate at the Department for Innovation, Universities and Skills.

He handles improvements in quality, workforce development, harnessing technology across the FE and Skills sector and more. Stuart holds a Doctorate in Educational Administration and is a Chartered Fellow of the Institute of Personnel.

"I oversee my department's relationships on a variety of issues with the Learning and Skills Improvement Service, Lifelong Learning UK, the Institute for Learning, and Becta. I really welcome the opportunity to contribute to the work of the ISB, which has a critical bearing on my current role in DIUS."

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### ► **David Riley** – ISB HaSC



David is the National Lead for Social Care for the ISB for HaSC and is their representative for the ISB for ESCS. He also works for the London Borough of Greenwich as Information Governance Manager and Caldicott Guardian.

"I bring with me the knowledge from a board with several years experience. Experience such as appraising and approving information standards that are fit-for-purpose, safe, interoperable and implementable.

I also bring more than 30 years' experience working in local government. That includes several years in the youth service, more than 15 years in social care – including children's social care – and significant experience in Information Governance."



## Appendix

### Benefits Measurement and Customer Feedback Questionnaire

A benefits questionnaire was developed and distributed to 35 programmes and projects. 20 of which responded. As well as providing important information on this year's performance, the results will also be used as a basis for future comparison.

The results suggest a good awareness of the ISB's work. Responses showed that a high percentage (70%) of programmes and projects have heard of the ISB – half of which had visited the ISB website. 40% of programmes and projects had direct contact with the ISB and TSS, and use the ISB website as their first port of call to find out about data and information standards.

Responses showed that projects and programmes are engaging with the ISB through the Special Interest Groups and Working Groups. A smaller number, five, called on the ISB and TSS to act on specific standards issues, sought advice from the TSS or used the Vocabulary Management Service.

In the first full year of its operation the ISB has successfully established the organisation and processes necessary to support its work. To date the ISB's financial impact on projects and programmes has been relatively small. It should be recognised however, that standards approval and adoption is a long process. Even when standards are approved the benefits may not be felt at the frontline for a number of years.



One respondent commented that:  
local authorities and schools are  
constantly struggling with the effects  
of interoperability issues.





As part of the 2008-2009 Business Plan, the ISB is committed to monitoring its effectiveness and contribution to the Education Skills and Children's Services (ESCS) system. ”

**Finally, responses indicated that there is strong requirement for the work of the ISB in increasing standardisation**

**Key findings that support this are:**

- ▶ 76% of those who responded said they had identified benefits which depend on specific information standards
- ▶ 80% claimed to be taking steps to identify whether they could and should adopt standards when developing a system
- ▶ 41% experienced additional development costs due to incompatible data models operating between systems
- ▶ 33% experienced additional operating costs due to the input of same or similar information on multiple occasions
- ▶ one respondent commented that “local authorities and schools are constantly struggling with the effects of interoperability issues”

**Based in part on the results of the benefits questionnaire, we intend to pursue the following goals in the coming year:**

- 1 increase the ISB's impact by approving a small number of highly visible standards that will bring the greatest benefits to the system
- 2 through authoritative leadership encourage ESCS businesses to proactively support the development of standards, and to ensure that standards approved by the ISB are adopted by the system
- 3 continue to develop persuasive, clear messages that explain why the work of the ISB is important, relevant and beneficial

76%

▶ Said they had identified benefits which depend on specific information standards

80%

▶ Claimed to be taking steps to identify whether they could and should adopt standards when developing a system

41%

▶ Experienced additional development costs due to incompatible data models operating between systems

33%

▶ Experienced additional operating costs due to the input of same or similar information on multiple occasions









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