Interactive whiteboard content

The increasing international adoption of **interactive whiteboard** technologies in schools is currently providing commercial publishers and content developers with opportunities to create new types of innovative teaching and learning content at the same time that authoring software from IWB vendors is supporting the development of user generated and open educational resources. In this context, Ministries in European Schoolnet's Interactive Whiteboard Working Group have been supporting the Becta initiative in the UK to define a common file format for IWB content. **Will Ellis, formerly Head of Digital Learning Resources at Becta** and now leading the European Schoolnet iTEC project, will explain the background to Becta's work and explore how an IWB common file format can be taken forward at a European level in a way that mutually benefits technology users and providers.

The Becta Harnessing Technology survey 2008

Interactive Whiteboards are now ubiquitous, and embedded in UK Schools !

100% of Primary schools with an average of 18 IWBs per school

98% of Secondary schools with an average of 38 per school

Fit-for-purpose, sustainable technology

Choice within a national framework
Institutional leaders need to be able to innovate within a coherent national framework. They therefore depend on an underpinning architecture which provides **interoperability across all aspects** and overcomes problems of inefficient data transfer, dependency on specific proprietary systems which limits choice and value, and technological **restrictions on using educational content on different devices such as interactive whiteboards** and mobile technologies.

March 2005
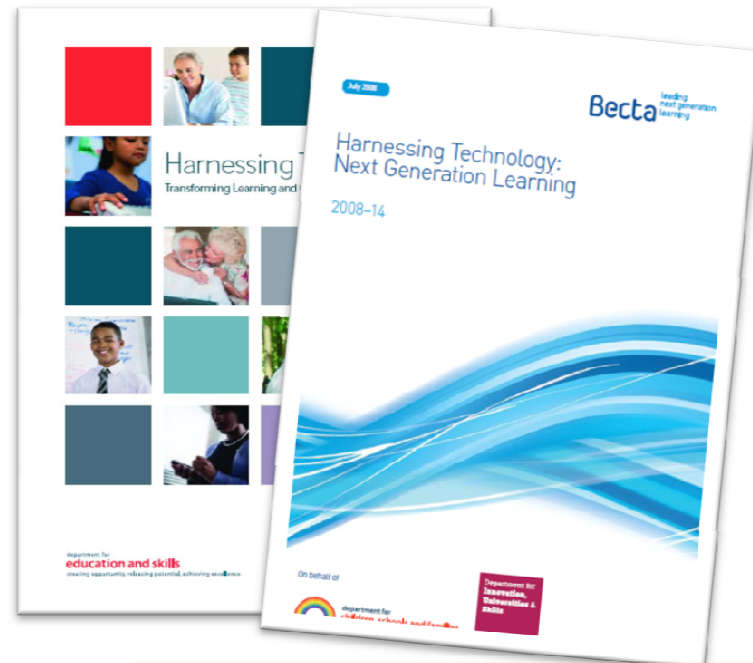
Alongside mandated open standards this means working with the ICT industry, and across education and children's services, to agree a common systems framework for e-learning and e-delivery, with interoperable components. This will give everybody the chance to take advantage of new technologies as they are developed, avoiding the constraints of proprietary systems.

Question.
Is there an argument for an interoperability specification??

Arguments against?

- Dumbing down limiting innovation.
- Implementation cost/priority.

Arguments for?

- Allows reuse of resources.
- Allows sharing.
- Allows access from home
- Avoids lock in to a single supplier.
- Allows publishers to produce for a single format
- Allows new drive in IWB use focused on quality content, learning from home.
- Support the IWB software as the default tool for learning content creation.

Other arguments??

The software is compatible with any board – its interoperable.

It exports in other suppliers formats or PowerPoint!

Conforming to a common standard will result in simplistic tools that all do the same thing.

If everyone buys the same technology then interoperability is solved.

Who's responsibility is it to resolve this issue?

Government, Becta
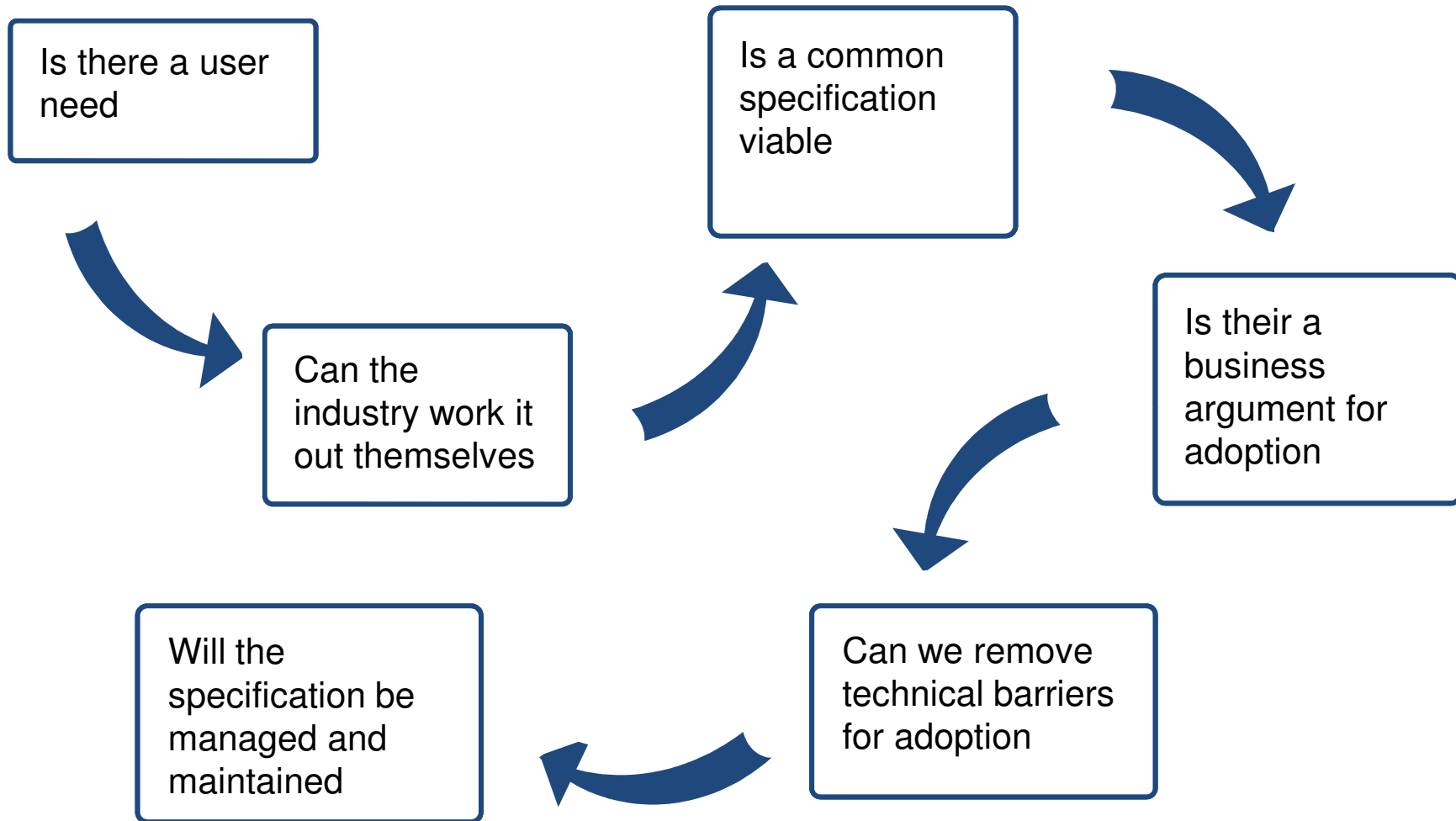
Not a standards Body ?

Industry, suppliers

Need leadership ?

Standards experts, academics

Research not solutions ?

Who's responsibility is it to resolve this issue?

Govern...   Suppliers

Becta provide leadership!

Industry supply specification!

"Experts" provide independent review!

Standards experts, academics

Is there a user need

Can the industry work it out themselves

Is a common specification viable

Is their a business argument for adoption

Can we remove technical barriers for adoption

Will the specification be managed and maintained

The Process

Identifying and engaging stakeholders – 02/08

Defining CFF functionali[**Critical checkpoint 1**]

Developing the technical specification - 08/08

Obtaining supplier commitment - 10/08

Critical Checkpoint 2

Developing open source code and file viewer - 06/09

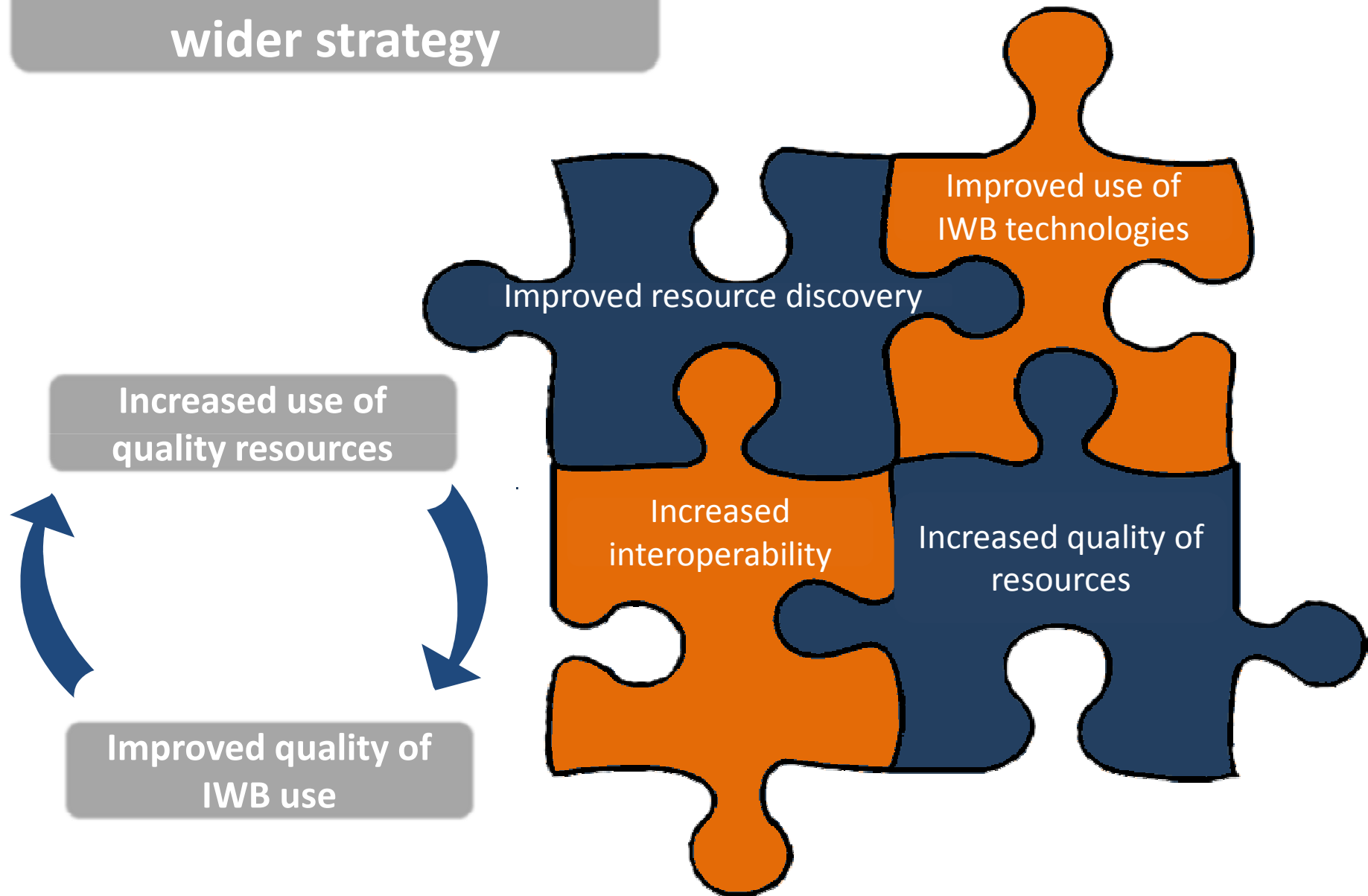Specification/standard adoption and maintenance - Summer 2010

Total Whiteboard tool functionality

Common functionality

Commonly used

- eInstruction (http://www.einstruction.uk.com/)
- Hitachi (http://www.hitachi.co.uk)
- Luidia (http://www.luidiauk.com/)
- Mimio (http://www.mimio.com/)
- RM (www.rm.com)
- Sahara Presentation Systems (http://www.saharaplc.com/)
- Smart Technologies (http://smarttech.com/)
- TeamBoard (http://www.teamboard.com/)
- Promethean (http://www.prometheanworld.com)

Interoperability and the wider strategy

Improved use of IWB technologies

Improved resource discovery

Increased interoperability

Increased quality of resources

Increased use of quality resources

Improved quality of IWB use

What does this mean for publishers?

Irrelevant - limited market for IWB resources, no business case for adopting specification!

Opportunity – a new area of potential resource development either packaged content or assets, with a growth in the use of tools!

Challenge – business models for content that will inevitably be shared!

Threat – explosion in user generated content, drop of in sales!

Further details, example CFF files and download the CFF viewer tool:

http://iwbcff.sourceforge.net/