The future of the document supply service - Presentation to FIL, March 2011
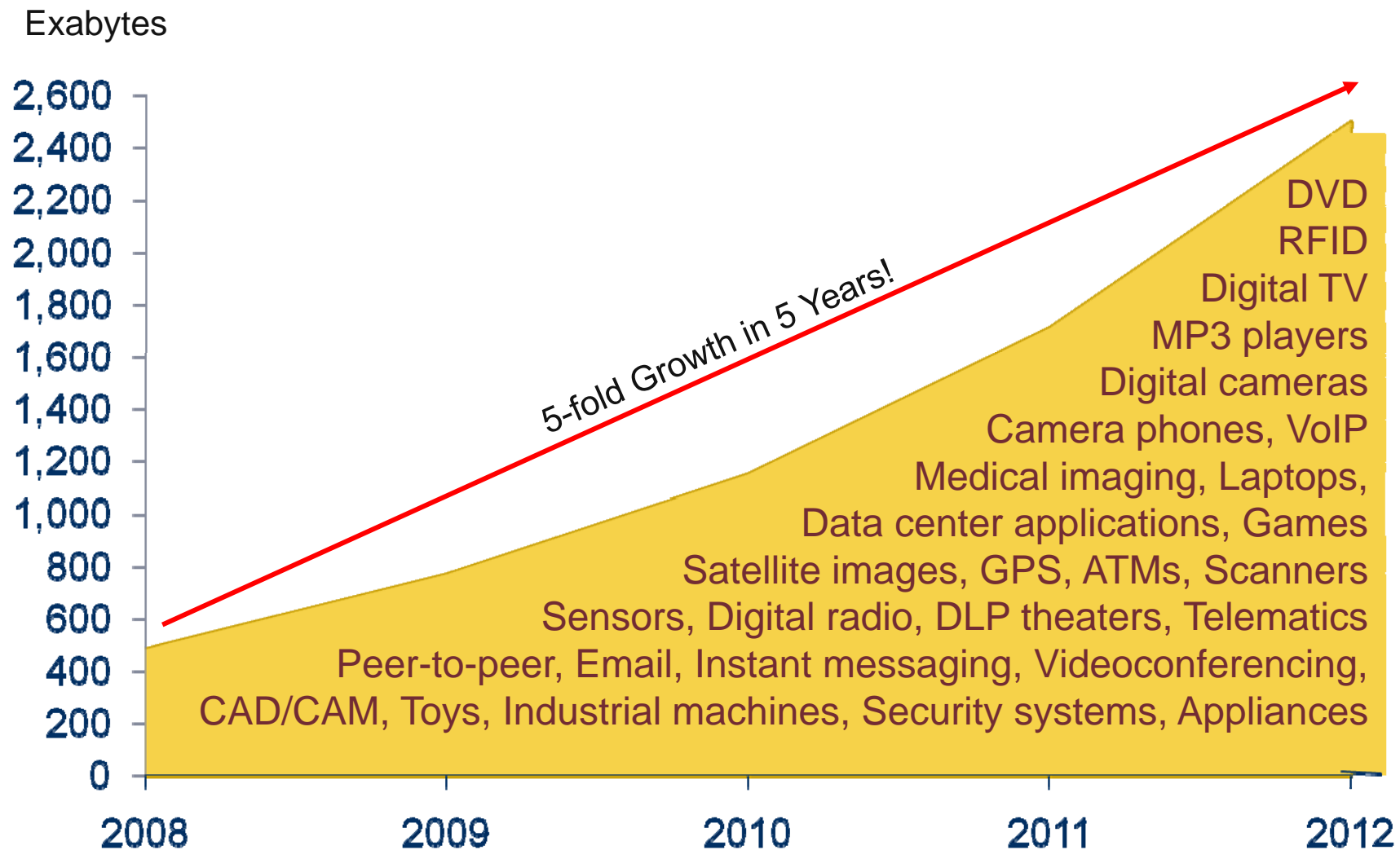
The amount of digital data being gathered is exploding!

Exabytes

DVD
RFID
Digital TV
MP3 players
Digital cameras
Camera phones, VoIP
Medical imaging, Laptops,
Data center applications, Games
Satellite images, GPS, ATMs, Scanners
Sensors, Digital radio, DLP theaters, Telematics
Peer-to-peer, Email, Instant messaging, Videoconferencing,
CAD/CAM, Toys, Industrial machines, Security systems, Appliances

5-fold Growth in 5 Years!

2008   2009   2010   2011   2012

Source: IDC Device Base Model, 2009

…..and you ain't seen nothing yet!

- Digital information will grow by a factor of 44, to 35 ZB in 2020
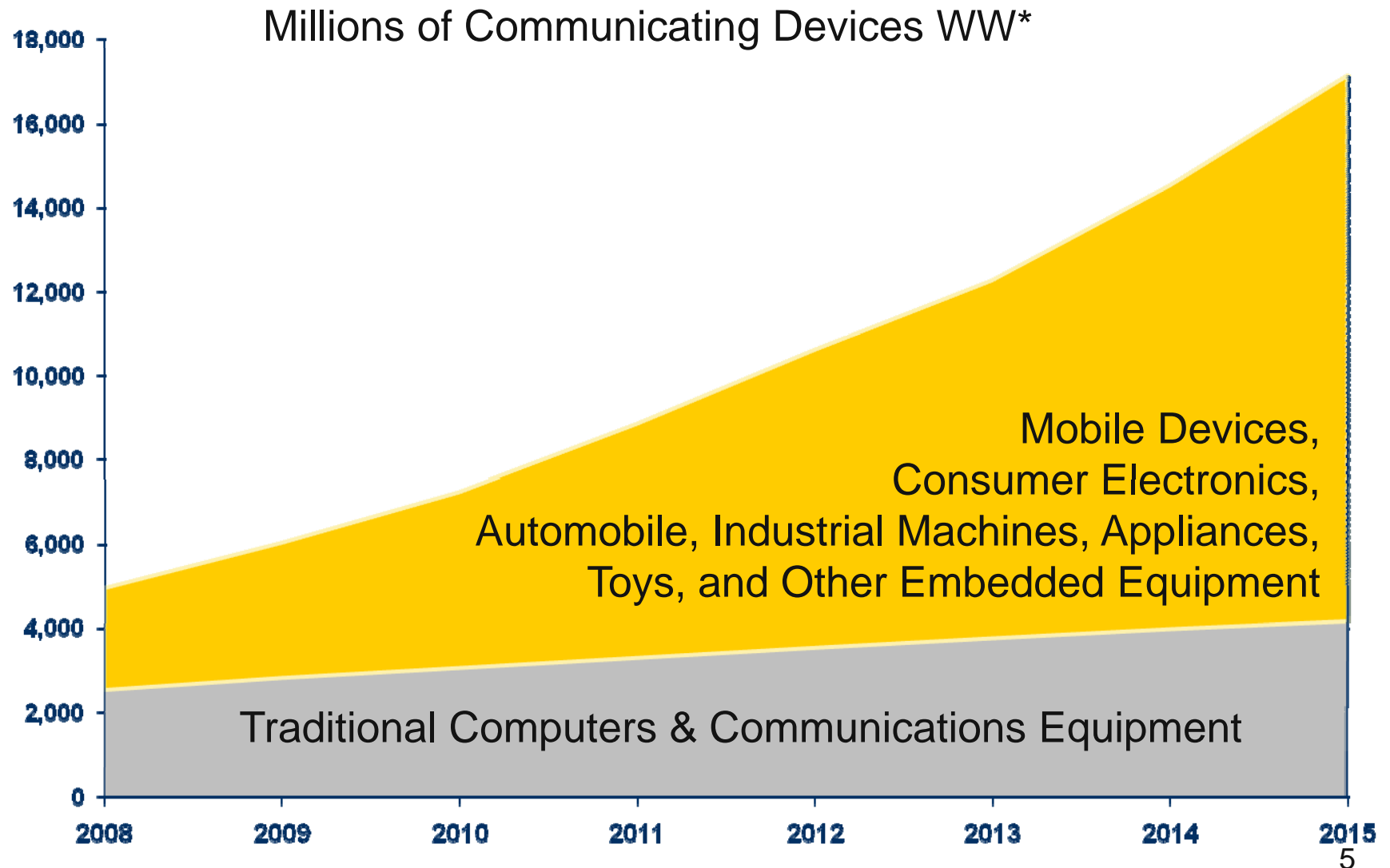- 25 quintillion files or records

0.8 ZB

2009

2020

35 Zettabytes*

*Zettabyte: 1,000,000,000,000,000,000,000 bytes
(1 trillion gigabytes)

Where we look for information is changing…..

Top Information Sources in 2010	%
Internet search engines such as Bing, Google, Yahoo and others	93
Colleagues: Direct contact or through email	64
Wikipedia	40
News sites like New York Times, Financial Times, Wall St. Journal, CNN	33
Company Intranet	27
Subscription services from aggregators like LexisNexis, DowJones, Dialog	17
Colleagues: Through networks like Facebook, MySpace, LinkedIn	15
Other: desktop search, hardcopy files and books	8
Source: IDC Enterprise Panel QuickLook Survey, 2010, n=332	

…and what we look for it on

Millions of Communicating Devices WW*

Mobile Devices,
Consumer Electronics,
Automobile, Industrial Machines, Appliances,
Toys, and Other Embedded Equipment

Traditional Computers & Communications Equipment
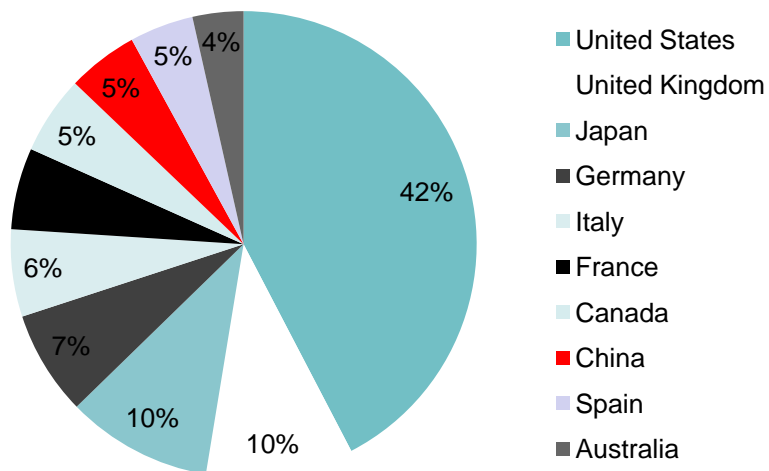
Source: IDC Device Base Model, 2009

* Excludes voice- and SMS-only phones

Pressures on libraries are changing! – Part 1

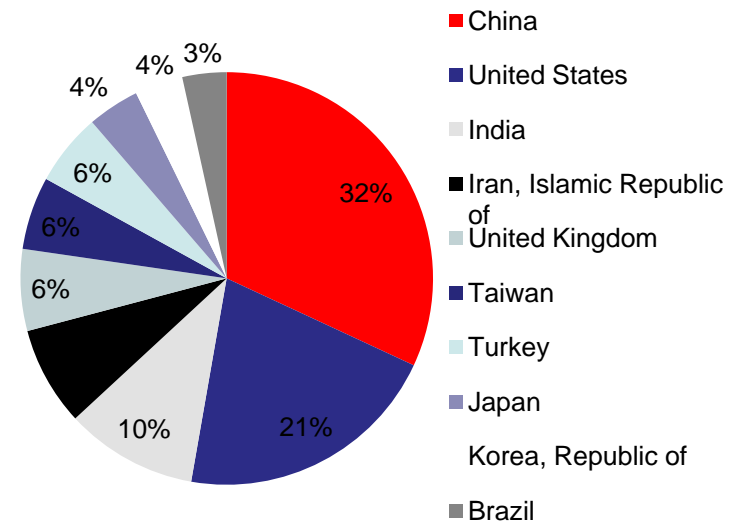# There is more research being generated……and its coming from different places

Top 10 countries submitting manuscripts

2003

2013 Projected

2003 Legend	2013 Legend
United States	China
United Kingdom	United States
Japan	India
Germany	Iran, Islamic Republic of
Italy	United Kingdom
France	Taiwan
Canada	Turkey
China	Japan
Spain	Korea, Republic of
Australia	Brazil

38% non-native English countries
5% China, 42% USA, 10% UK

63% non-native English countries
32% China, 21% USA, 6% UK

Source: Thomson Reuters

Pressures on libraries are changing! – Part 2

Libraries are being well used, but for different things…

• Printed books are nearly unused

• Libraries are heavily used as study spaces

• Social spaces and research spaces are decreasingly distinguishable

•No one begins an information search on a library website
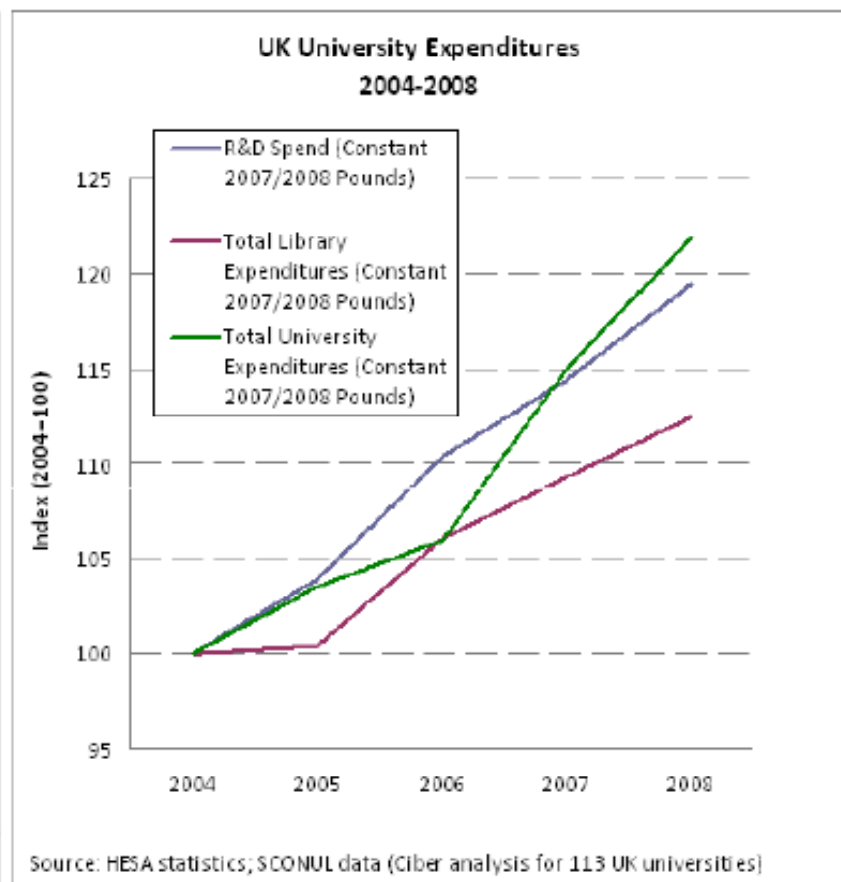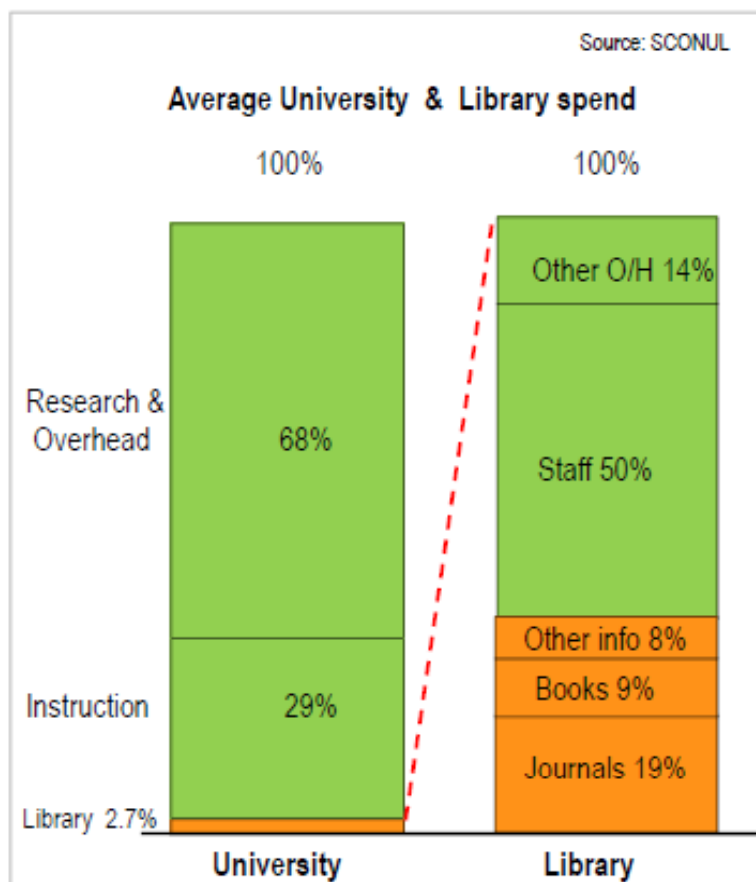
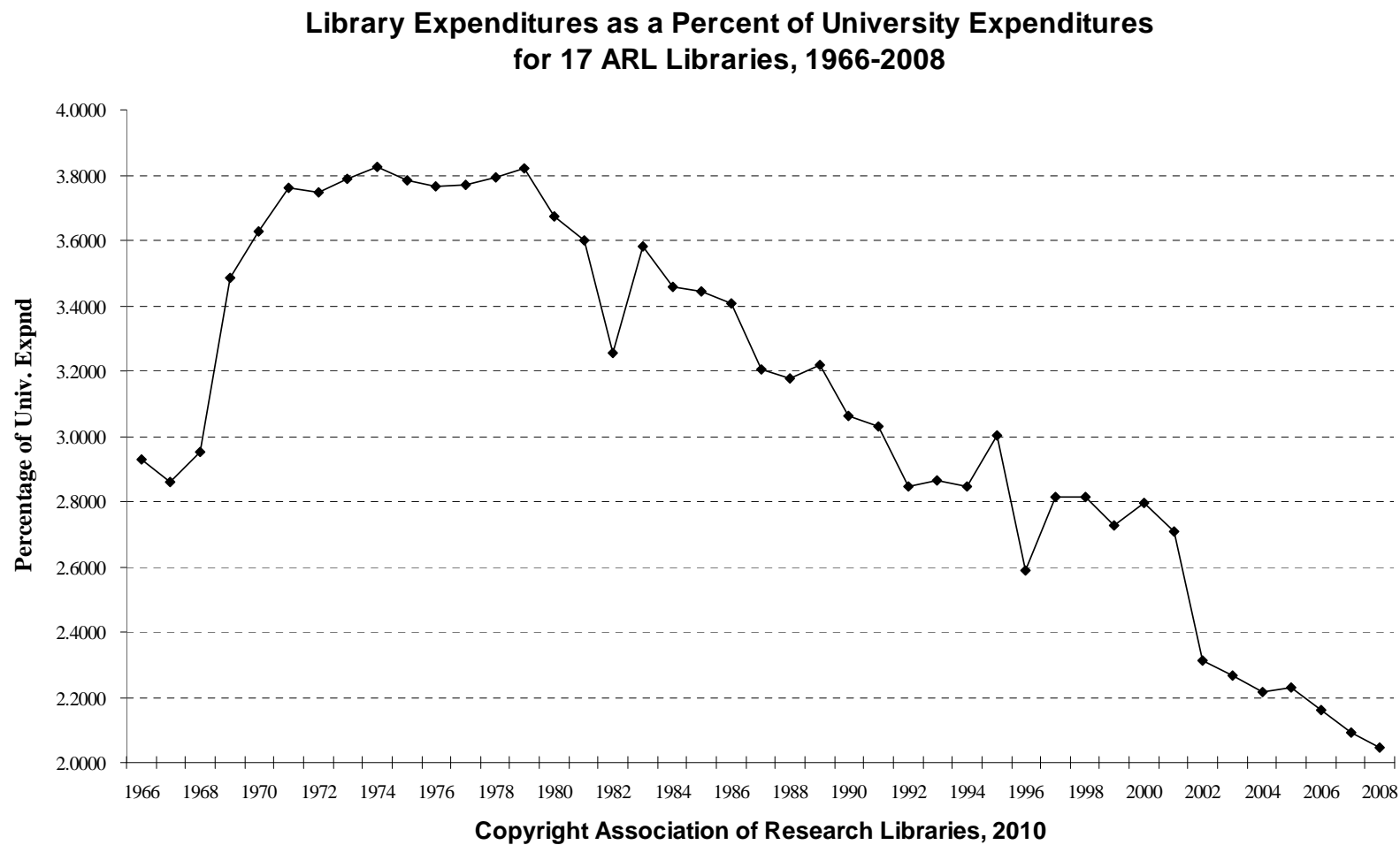• Ready-reference means Wikipedia or Google

UKRR
Imperial
College

Pressures on libraries are changing! – Part 3

Source: SCONUL

Average University & Library spend

100%   100%

Research & Overhead — 68%

Instruction — 29%

Library 2.7%

University

Other O/H 14%

Staff 50%

Other info 8%

Books 9%

Journals 19%

Library

UK University Expenditures 2004-2008

- R&D Spend (Constant 2007/2008 Pounds)
- Total Library Expenditures (Constant 2007/2008 Pounds)
- Total University Expenditures (Constant 2007/2008 Pounds)

Index (2004=100)

Source: HESA statistics; SCONUL data (Ciber analysis for 113 UK universities)

- Libraries in 2008 received only 2.7% (net 2.4%) of UK universities' budgets, down from 3% in 2004
- Library funding is outstripped by R&D funding and outputs, and by total university expenditures

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... and getting smaller…..

**Library Expenditures as a Percent of University Expenditures
for 17 ARL Libraries, 1966-2008**

Copyright Association of Research Libraries, 2010

Pressures on libraries are changing! – Part 4

In case you hadn't heard…..

Research funding cuts: 'I just feel discouraged'

Carlos Gias, a stem-cell researcher at University College London, tells Jeevan Vasagar why he is considering moving away from the UK to further his career

Anti-cuts campaigners plan 'carnival of civil disobedience'

Student groups and tax avoidance protesters will stage occupations to coincide with TUC demonstration on 26 March

University funding 'to be slashed to control fees'

Higher education funding could be cut by as much as £777million if universities attempt to impose maximum tuition fees, according to research.

Universities may face penalty for charging high tuition fees

Coalition considers fines for unreasonable charges as Vince Cable enters visas battle with home secretary

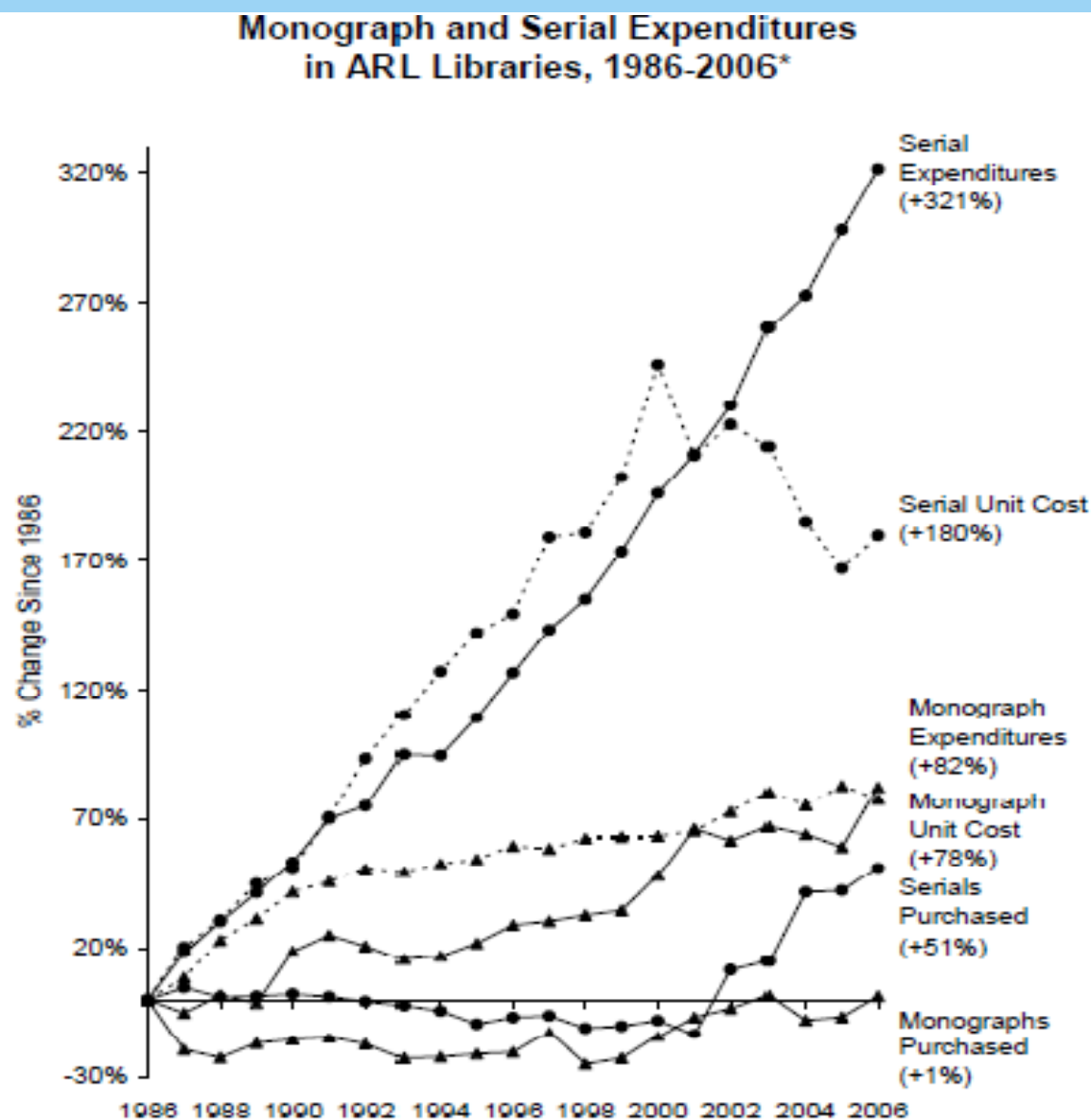## Universities 'more reliant on foreign students' despite visa fears

Universities are increasingly reliant on fees from foreign students to boost their finances, figures show.

…but its not just the funding cuts….

- **Fall in value of Sterling has impacted UK Libraries. Library purchasing power reduced by 16% in 2008-2009**

- **Even optimistic estimates of income from students shows teaching income flat over the next few years (after an initial dip).**

- **STEM research funding flat - real-term cuts**

- **Arts and Humanities research funding disappearing**

- **Libraries, in line with all parts of HE, are facing real-term cuts**

Pressures on libraries are changing! – Part 5

Libraries have invested heavily in information in recent years…

Monograph and Serial Expenditures
in ARL Libraries, 1986-2006*

Source: ARL Statistics 2005-06, Association of Research Libraries, Washington, D.C.
*Includes electronic resources from 1999-2000 onward.

But can't afford to continue to in the future…

- In the UK, journal prices rose 158% between 1991 and 2001, over five times the level of CPI inflation

- Prices of the "Big Deals" for Elsevier and Wiley-Blackwell journals rose by more than double the rate of CPI inflation in the six years from 2004 to 2010

- With exchange-rate fluctuations this has translated to cost increases of over 50% in the last four years

- Some big deals now cost the institution over £1m per year

- Arbitrary 'list prices' for individual journal titles mean breaking the big deals could actually be *more* expensive for institutions

So, where does the document delivery service fit into this picture?

Just in case vs. just in time

" …it [is] more and more difficult to justify large programs of speculative purchasing – the likelihood of waste is simply too high, and newly emerging patron-driven acquisition models offer a variety of ways for libraries to acquire only what is needed, at – or very close to – the time the need is felt by patrons."
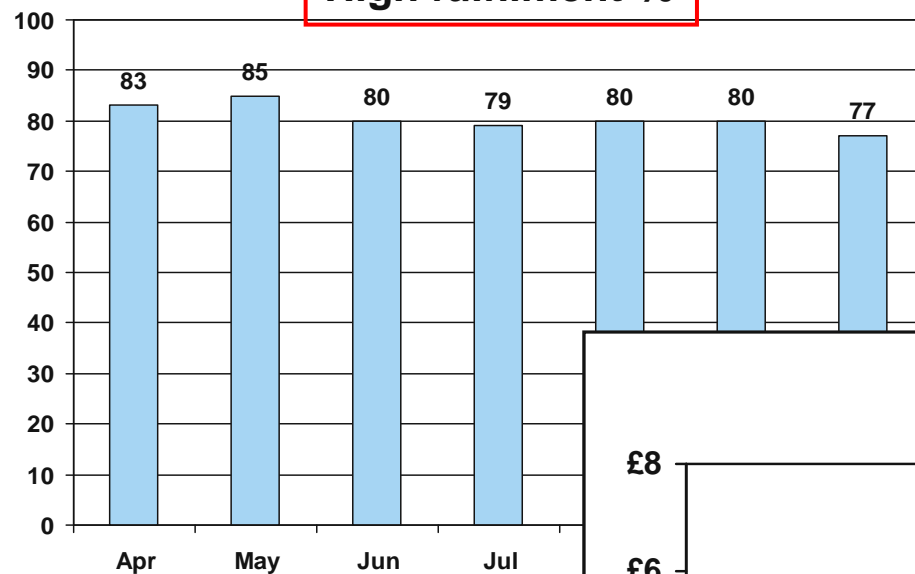
Rick Anderson

Associate Director for Scholarly Resources and Collections

Marriott Library, University of Utah

Extracted from: If I were a Scholarly Publisher

EDUCAUSE Review, vol 45, no 4

The components that determine a successful document supply service
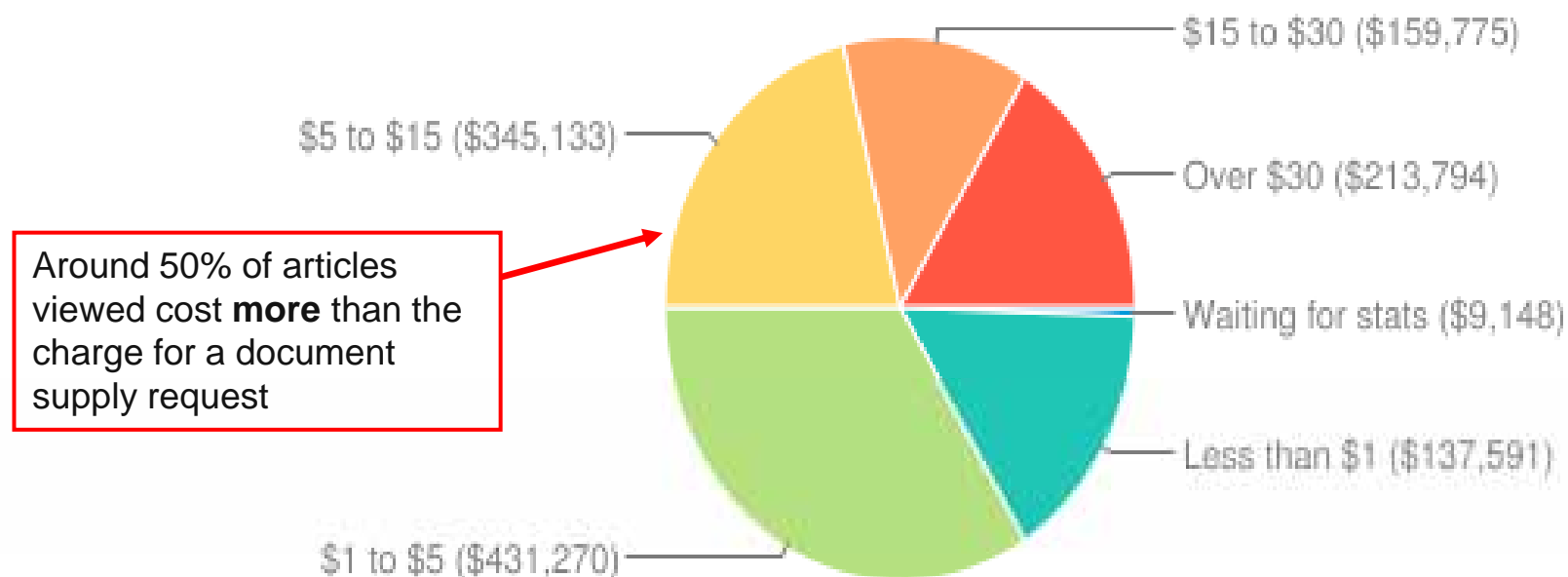
High fulfilment %

100
90
80
70
60
50
40
30
20
10
0

83 85 80 79 80 80 77

Apr   May   Jun   Jul

Low price

Price of COPIES to UKHE - 2003-12

£8
£6
£4
£2
£0

£4.25   £4.25   £4.25   £4.50   £4.95   £5.40   £5.85   £6.00

2004/5   2005/6   2006/7   2007/8   2008/9   2009/10   2010/11   2011/12
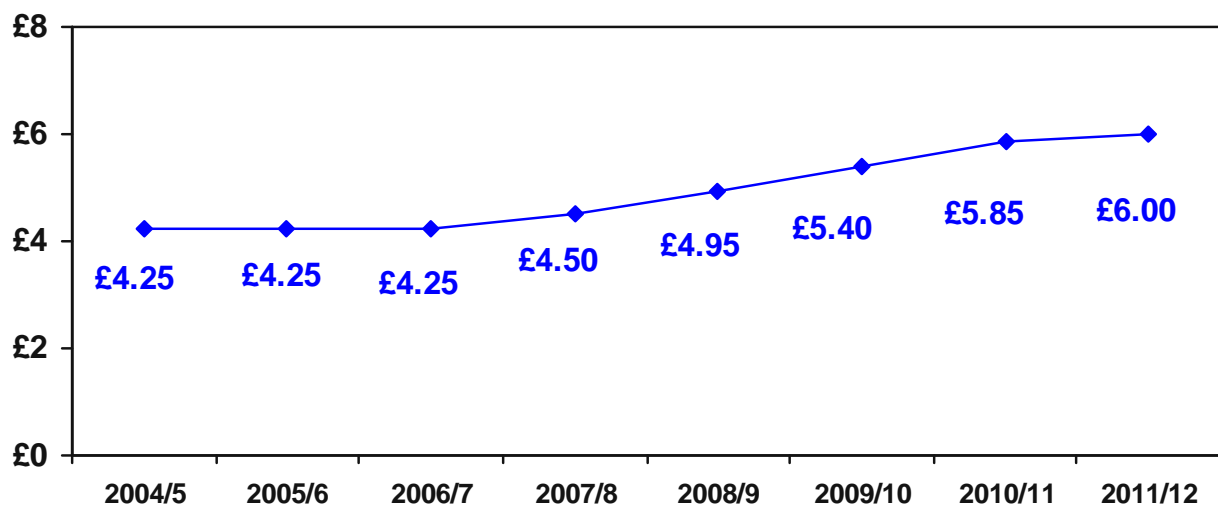
Pubget Pagestats 2011 – what you are paying for each article

Breakdown: What you're paying for each article viewed

$15 to $30 ($159,775)

$5 to $15 ($345,133)

Over $30 ($213,794)

Around 50% of articles viewed cost **more** than the charge for a document supply request

Waiting for stats ($9,148)

Less than $1 ($137,591)

$1 to $5 ($431,270)

What does a Document Supply service of the future look like?..........find out after the break!

Document Supply:
- Customer Facing

BRITISH LIBRARY

Barry Smith

Set the scene – general document supply

– Document Supply industry is in decline everywhere – for competitors as well as BL (show +5 year projections based on past 10 year trends) (15-17% decline year on year 2009)

– the BL must offer mixed economic and service models i.e. 'public good' library privilege services (cost recovery under Treasury rules) as well as commercially viable copyright fee paid services, so we cannot make decisions based on straight commercial logic

–BL has unique position in document supply (unrivalled collection, track record in surfacing hard to find content, strong library privilege services)

– a compromise or hybrid service model is likely outcome

Challenges for Document Supply

Licensing restrictions

New technology

Acquisition cuts

Customer funding cuts

Document Supply Today

BL funding

Opportunities

Customer funding cuts

BL brand and reputation. "A public sector body with a private sector attitude!"

Negative | Positive

+3yr +2yr +1yr 0 +1yr +2yr +3yr
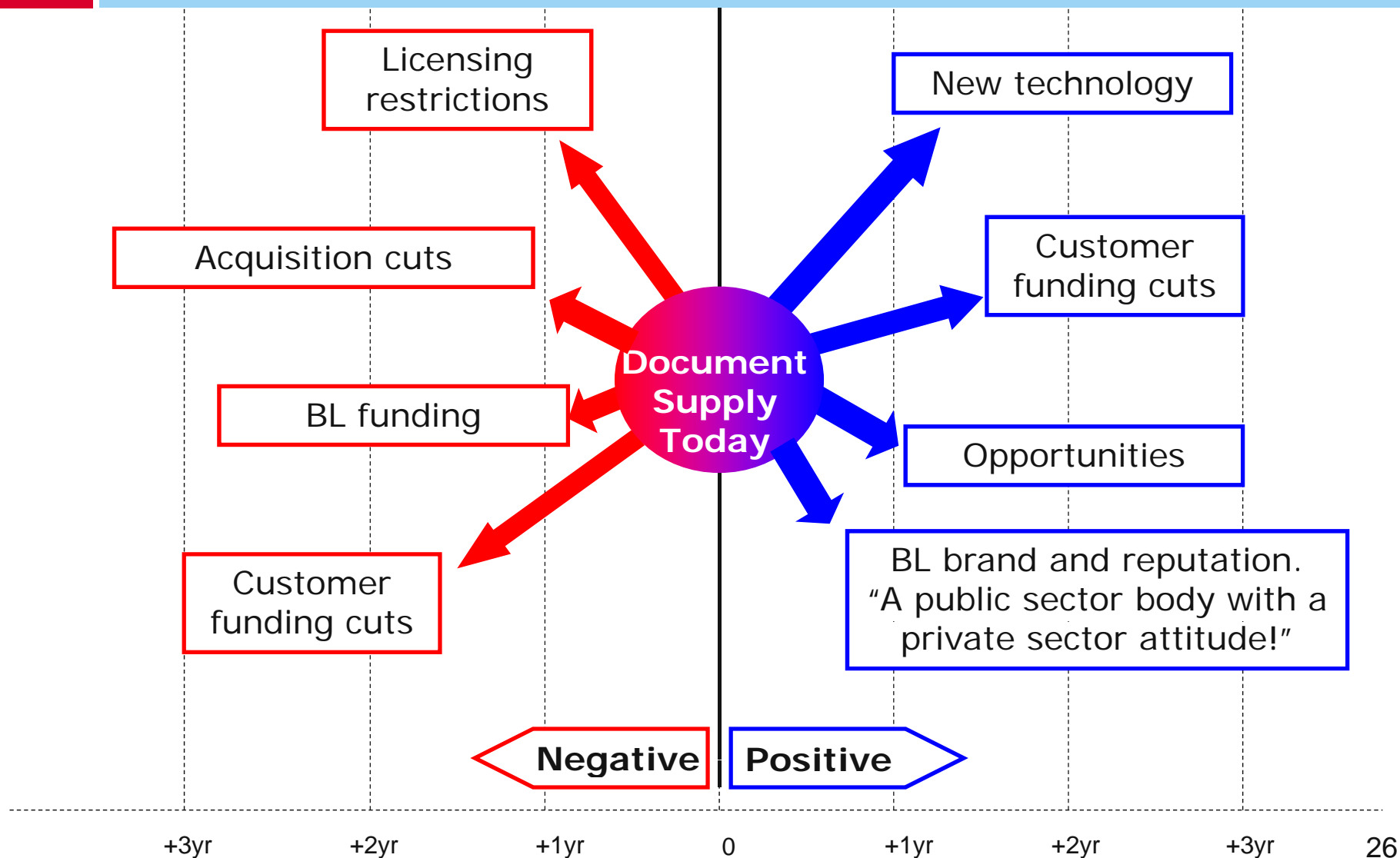
BLDSS – the total solution

What – challenges in the eyes of the customer?

- Reducing budgets

- High expectations of students (paying high fees)

- More and more research content available

- Combinations of print & electronic

- Publisher subscriptions increasing

- Advances in technology

BLDSS – the total solution
How - must the service deliver (New Technology)?

-Expectations of customers in technology.

- Research on the move (hand held devices / remote login)

- Collaborative research & social media

- Search and Discovery across various media

- Cheap, reliable, trustworthy, quick & innovative

- Choice, options, mash ups

- Intuitive, easy, convenient

BLDSS – the total solution
How - will the service delivery model change?

– Focus on partnership with HE

–The preferred search option (but linked to popular search engines).

– Comprehensive collections from print in the long tail to

   contemporary electronic.

– Easy ordering interface, linked to HE B2B systems

– Added value services with support available 24 x 7

– Success measured by Speed, Quality, VfM and user experience.

– Single Point of Customer Contact (for all Research services).

BLDSS Collaborative storage/service options

How has the UKRR collaboration changed the way in which Document Supply will be delivered?

UKRR

– Funding

– Overall project aims

– Relationship to IRMDS

BLDSS – the total solution
Future vision

– Aggregator of content mashed & delivered to suit the customer

– Big shop window of BL & Publisher content

– Search and Discovery using Web 3.0

– High quality, demonstrable value for money

– Added value services – support & help

– Partnerships – BLDSS + Publisher + HE

Document Supply:
- BL Facing (internal)

Andy Appleyard

BLDSS – the total solution
What – internal challenges / opportunities

- Reducing budgets (more for less)

- Acquisition changes

- Integration & optimisation of IRMDS (new technology)

- Licensing changes / compliance

- Recent - asbestos

BLDSS Performance
Annual Demand 1990 - 2010

Document Supply Demand 1989 - 2009
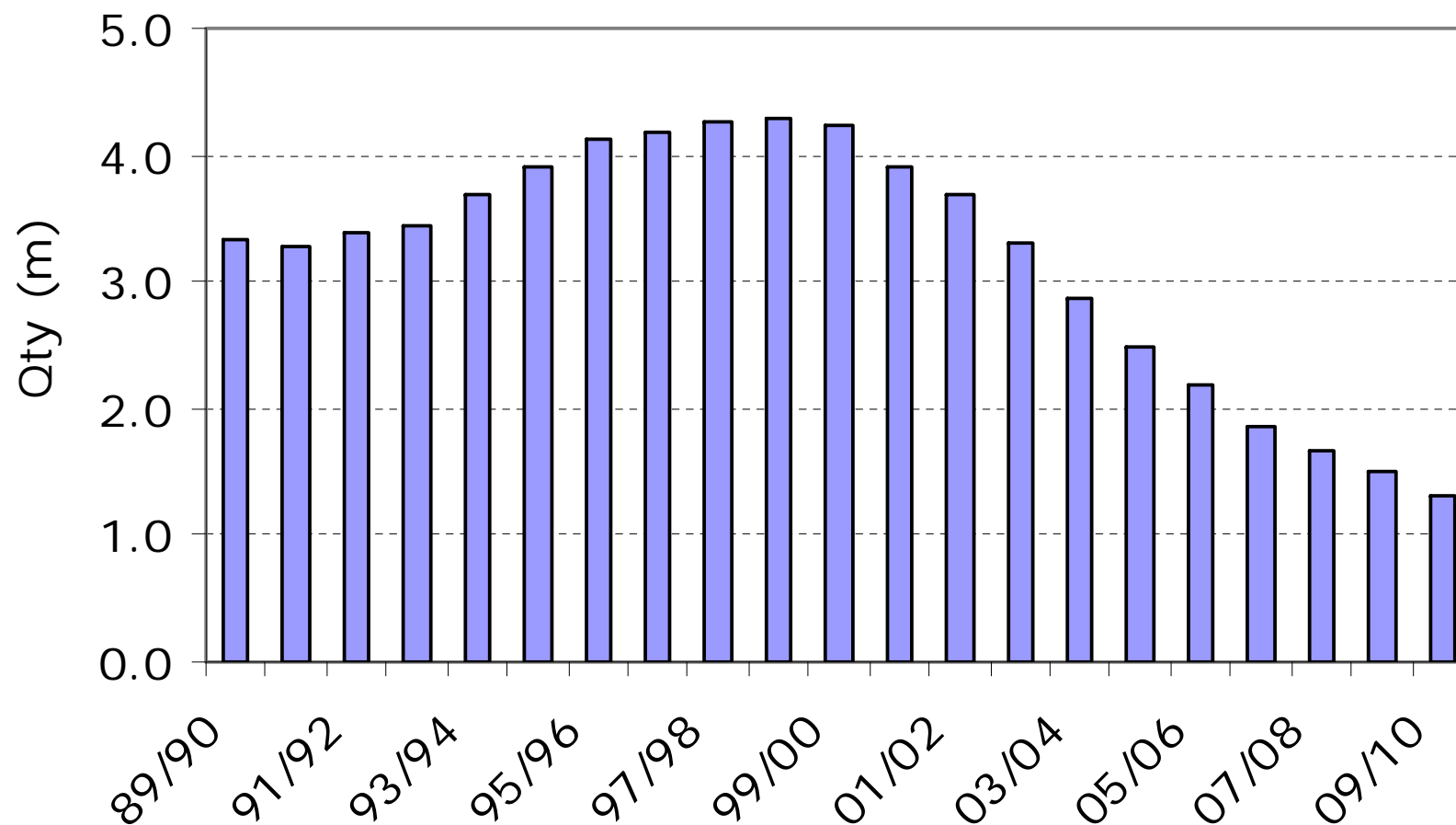
BLDSS Performance
Monthly Demand 2010-11
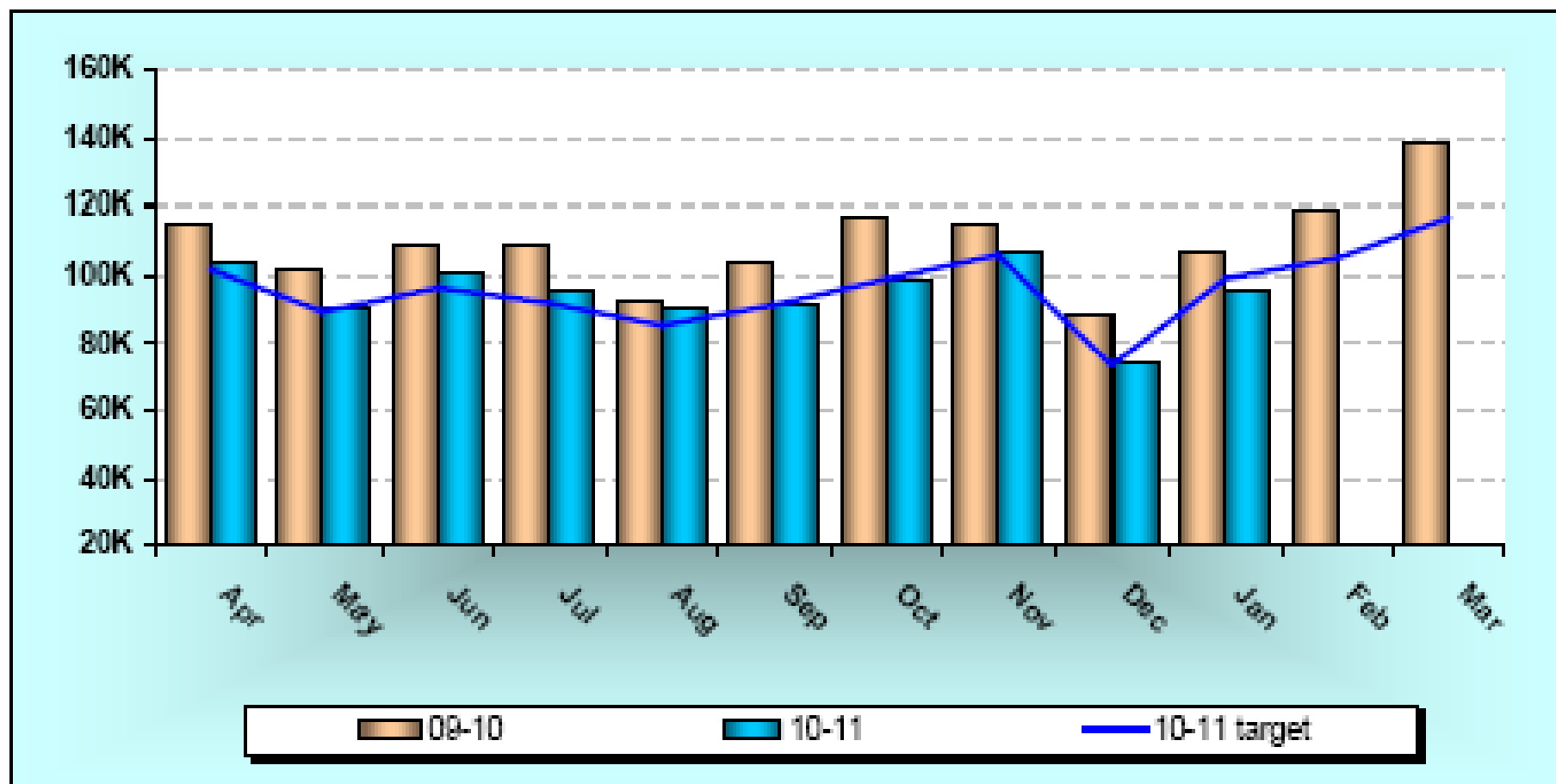
BLDSS Performance
2009-2011 Metrics

SLA	Target %	Actual %	Result
2 Hour	99	98	🟠
24 Hour	99	98	🟠
Standard	99	98	🟠

Speed of Service
(% requests inside the target)

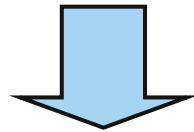| SLA	Target	Actual	Result
Quality (Re-Opens)	0.85%	0.83%	🟢
Electronic Delivery	72%	72%	🟢
Reqs / FTE	55	64	🟢

Quality
(% of requests re-opened)

Productivity
(Qty of requests / fte / day)

BLDSS Performance
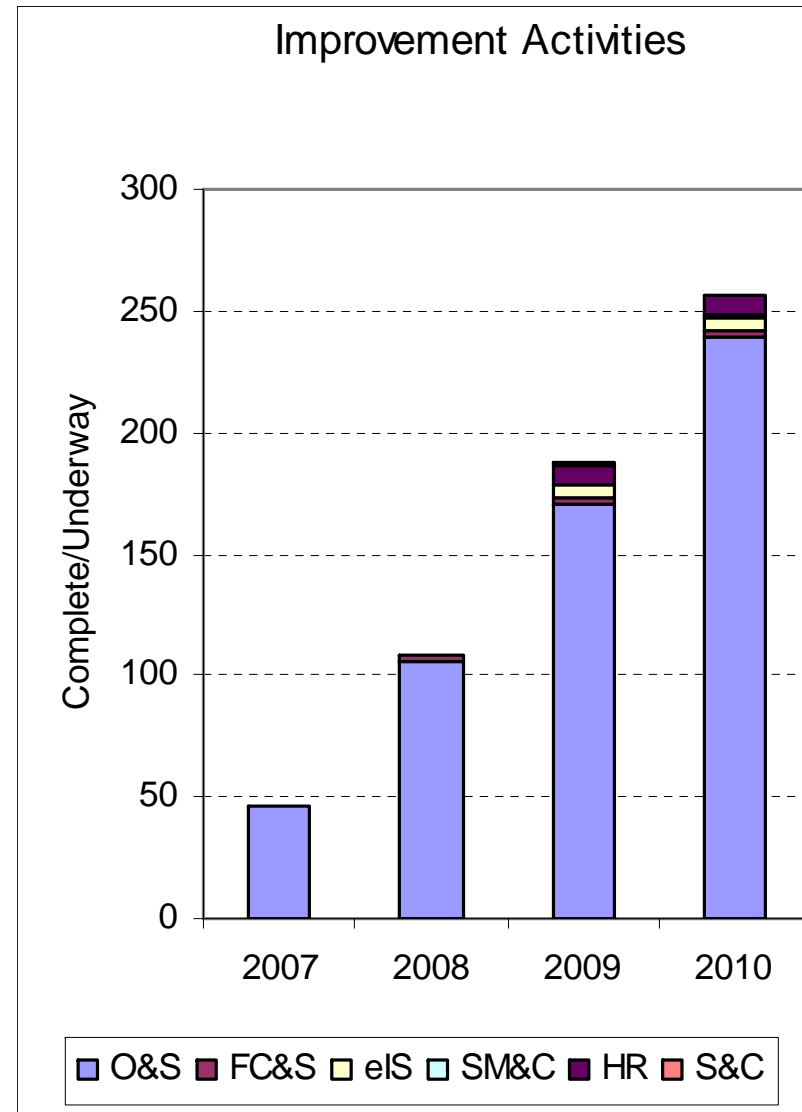## Continuous Improvement / Kaizen

- Customer Satisfaction
- Employee Satisfaction
- Value for Money

Team Based Kaizen
(Improvement Teams)

National Audit Office Conference 2011
"Concentrate on delivering structured and sustainable cost reduction while maintaining value for money based on using Continuous Improvement tools & techniques".

Improvement Activities

Complete/Underway

300
250
200
150
100
50
0

2007   2008   2009   2010

☐ O&S ☐ FC&S ☐ eIS ☐ SM&C ☐ HR ☐ S&C

Team based kaizen - Case Study 1

Merger of two areas in order to create space and improve productivity (winners of 2009 convention).

Low use serial store (Before)

Centralised on floor 7 building 6. Satellite base remained on mezzanine. Space created for storage

Previously less current & non current journals spread across 4 locations

Benefits:

- Staffing reduced by 6 staff
- Space saving 250² m
- (850 m shelving created)

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Team based kaizen - Case Study 2

Improvements in procedures for procuring & storing cardboard in order to create space & reduce cost.

BEFORE

Previously bespoke boxes purchased from an overseas supplier.

Long lead times, high stock levels & high cost.

AFTER

Standard designs created.
Local supplier sourced.

Shortened lead time.
Stocked line side (kanban)

Benefits:

- Space saving 500² m
- Safety & environmental benefit
- Reduced cost
- Housekeeping improved

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Acquisition Changes

Serial demand (10 ~ 15% of demand on 1st year of issue)

- Selection and acquisition processes (separate DSC & Reading Room)
- Different financial impact depending on type of supply route (see below)

Alternative supply routes

- ILL / surrogate from back up libraries
- Publishers sites (Fulfil via non subscribed licensed content) &/or aggregators
- E Book deals
- Purchase of archives
- Purchase JIT
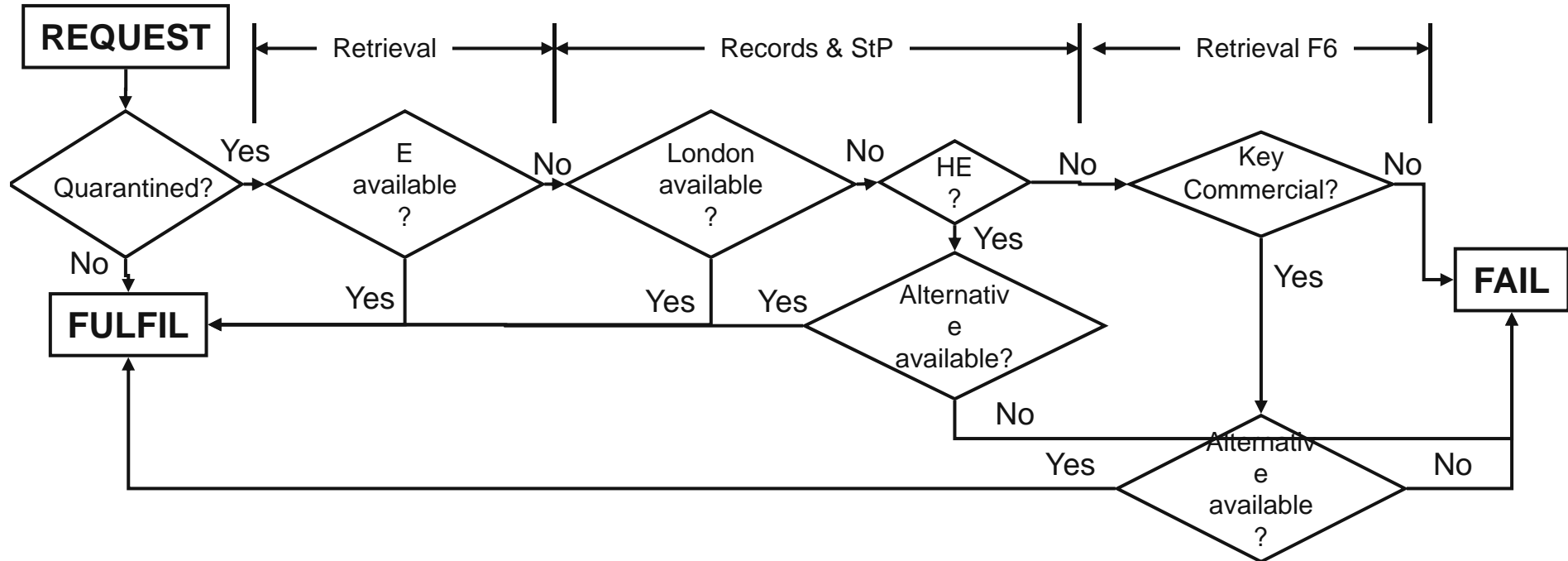
Asbestos:
Management and Action Plan

Decanting area

Contents of crates being checked before placing in storage, to ensure the correct shelving sequence has been maintained during the stock cleaning process.

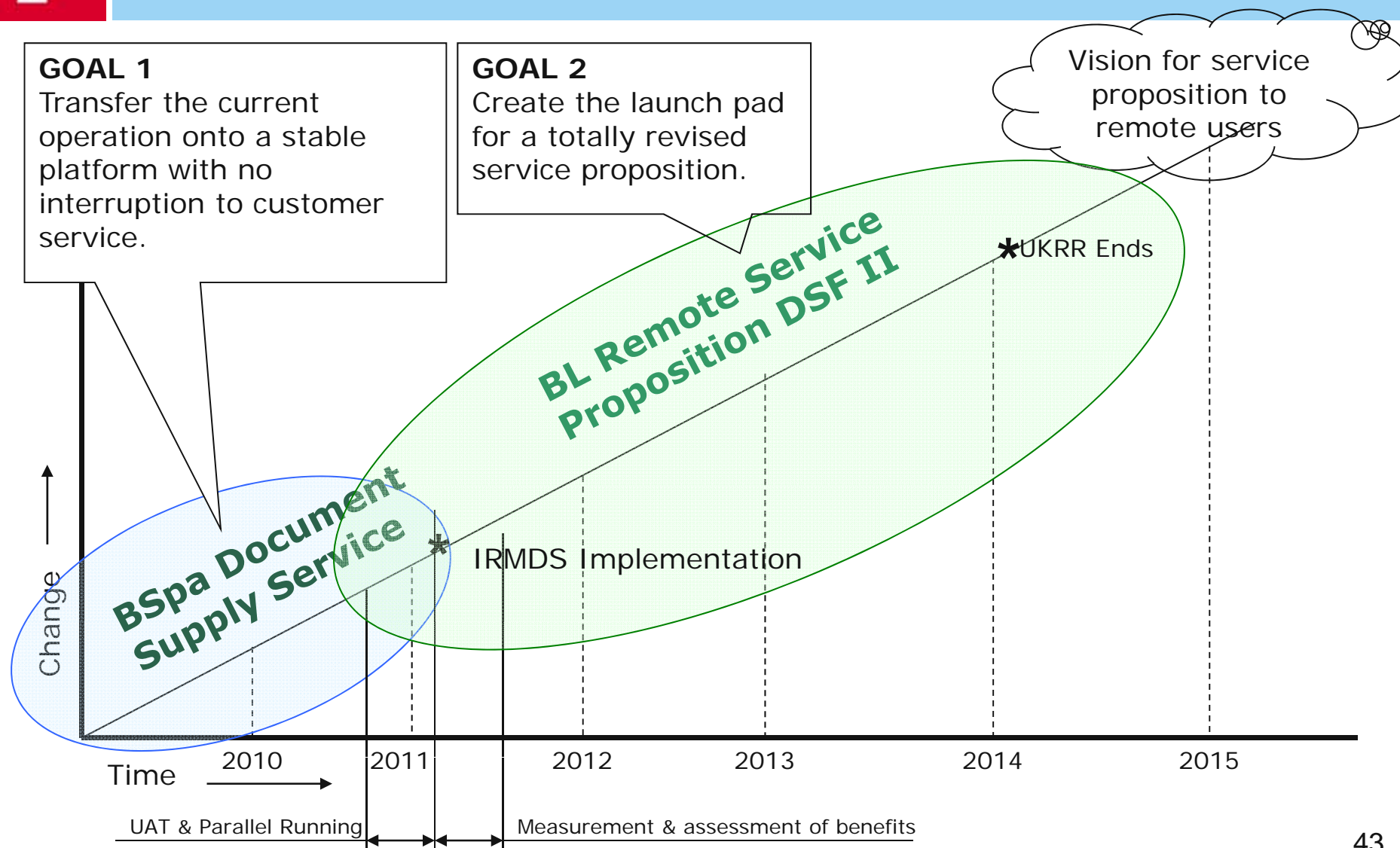# Asbestos
Alternative supply routes

Clean Up Planning (new Programme Board)

Approach agreed, prioritise clean up based on income & Reading Room

- Phase 1 – Floor 4 (Current Serials, 55% demand, due back May)
- Phase 2 – Remainder (PQQ issued, ITT April award May)

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The first steps..

Integrated Request Management Delivery System (IRMDS) technology platform followed by the Document Supply Futures 2 (DSF2) Project

GOAL 1
Transfer the current operation onto a stable platform with no interruption to customer service.

GOAL 2
Create the launch pad for a totally revised service proposition.

Vision for service proposition to remote users

BL Remote Service Proposition DSF II

*UKRR Ends

BSpa Document Supply Service

*IRMDS Implementation

Change

Time

2010   2011   2012   2013   2014   2015

UAT & Parallel Running

Measurement & assessment of benefits

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Document Supply:

- Integrated Request Management Delivery Systems (IRMDS)

Anthony Troman

Phase 1 – New technology Platform 1

Implement & optimise the Integrated Request Management Delivery System (IRMDS)
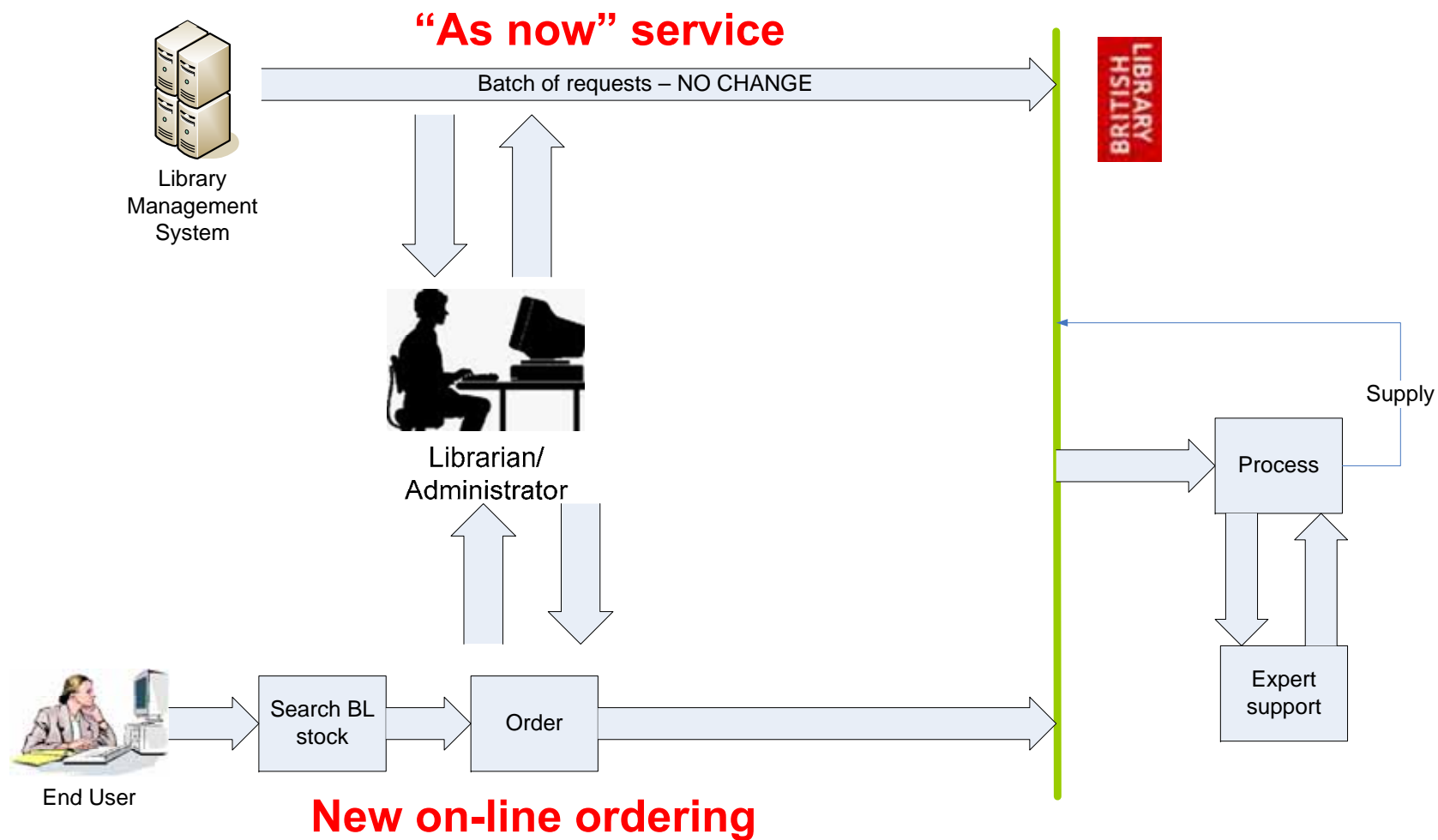
1. Implementation of IRMDS
    - £5-6m project over 2 years, 50% funded by HEFCE
    - Replace ALL of the current technology supporting Document Supply
    - Close to the end of testing
    - Then Pre-Deployment / Deployment (go live July – Sept)

2. Not just technology!
    - Optimise Document Supply Service from the inside out!
    - BPR (Business Process Re-Engineering)
    - More efficient workflow supported by technology
    - Standardisation, Rationalisation, Optimisation
    - 10% efficiency saving used to model CSR reductions.

IRMDS - Business Architecture Overview v0.7

The New Service – so what's new?

"As now" service

Batch of requests – NO CHANGE

Library Management System

Librarian/ Administrator

End User

Search BL stock

Order

New on-line ordering

Supply

Process

Expert support

I use my Library System and I don't want to change!
Everything the same, but better

- Customers ordering via their Library System **don't have to change anything at all**, but:

- Significant reduction in number of Reply Codes (25 rather than 100+)

- 'Looser' Automated Request Transmission format

- Faster responses
    - Improved matching – right job to the right place first time – 40m article records to support matching
    - Improved item access rights coding – immediate response
    - Automated Waiting Lists – immediate response
    - Digital? – immediate download
    - Electronic routing of jobs – quicker processing

- 4 day standard service – 24 hours UKRR

- Colour as standard!

Hmmmm! – Any benefits if I change a little?
Yes there are! In addition to those benefits stated already:

- Fix batch formatting errors on-line

- Select correct item from 'possible' matches on-line

- On-line tracking of orders

- Better, plain English communications – human-readable emails supplement reply codes

And a new Customer Interface!
Which knows who you are, allows you to order via your account(s) and tells you how much something costs and whan you can have it!
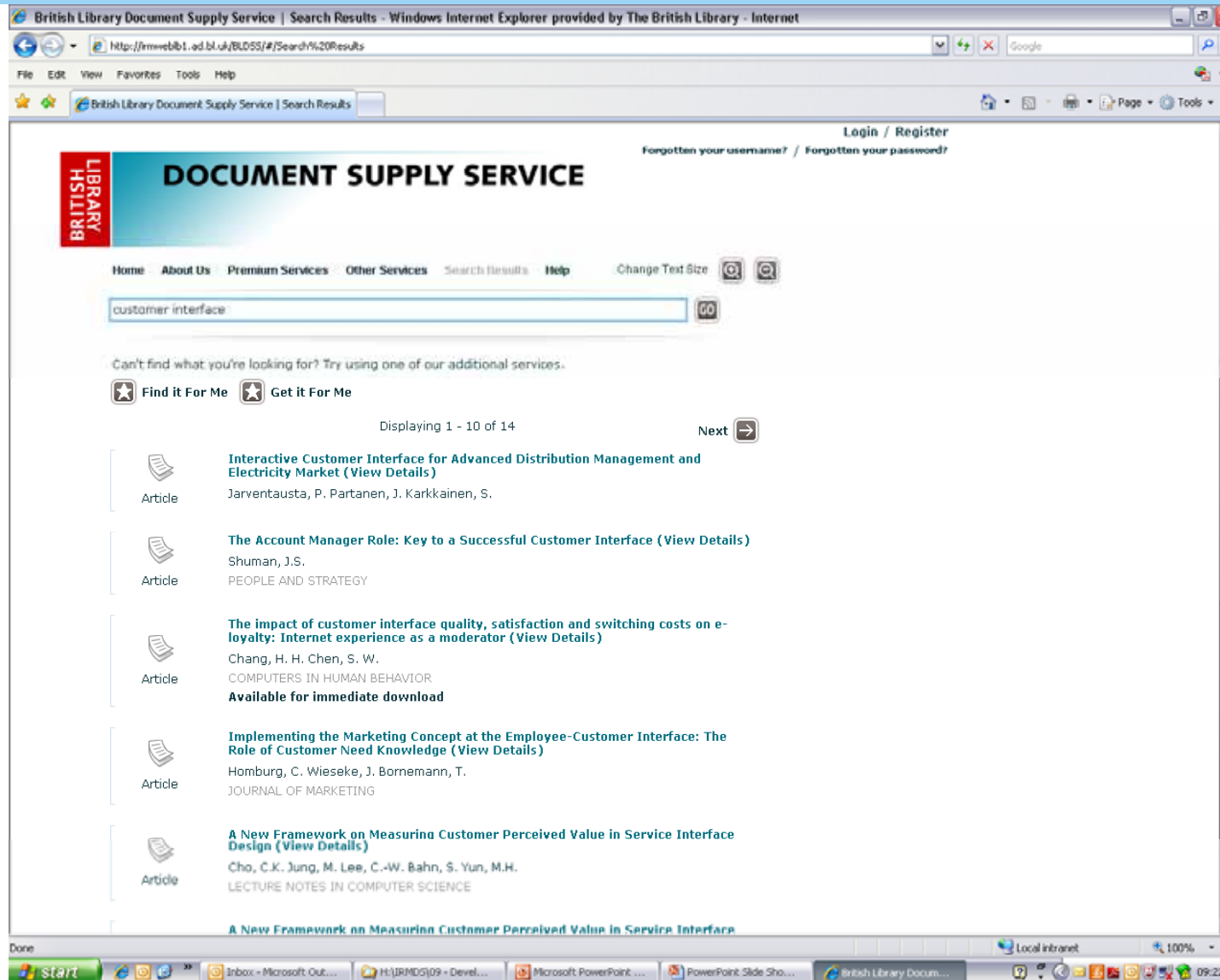
But BLDSS is only the start!
Possible customer benefits in the future

- More e-sourced material

- Scanned documents OCR'd

- Hybrid service (scanned "long tail" combined with contemporary e)

- Even more searchable records

- A replacement for ARTEmail with more immediate information (suggested by UKHE Panel partners and Library System Vendors)

- End user budgets – assign a budget to your researchers and monitor use

- "Your library pays, you pay" price display

- Adobe DRM – no plug-ins

- Remote Supply Research Service – What have you got on…..

- Grey Literature services