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Developing a shared national research data service for UK HE: feasibility and costs

Keynote Item

Developing a shared national research data service for UK HE: feasibility and costs

Jean Sykes

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SHARE conference

UKRDS

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What's the problem?

- Research data – an untapped resource
- Often unstructured and inaccessible
- Lack of coherent policies and standards
- Many formats and disciplines
- HE Library and IT services under pressure to help (mainly storage) - unsustainable

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What's the problem?

- Whole data lifecycle, not just storage
- Creation, selection, ingest, storage, metadata, retrieval, review, preservation
- Access/analyse/synthesise others' data
- It's the *management* of the data that needs a UK-wide approach

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Aims of the project

- Develop an understanding of the UK's current and future research data service needs
- Test the feasibility of a UK-wide shared service for the management of research data
- Develop a detailed business plan
- Avoid reinventing the wheel in any proposed solution

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The approach

- SERCO appointed as consultants
- Governance from Steering Committee and Project Management Board
- Over 40 Stakeholder institutions identified and representatives interviewed
- Iterative process to achieve maximum understanding

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The approach

- Four case study universities: Bristol, Leeds, Leicester, Oxford
- Questionnaires and focus groups at first three
- Complementary internal project at Oxford dovetailing with UKRDS
- Total number of individuals consulted: 700

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What have we learned?

- Over 360% growth in data volume expected over the next 3 years
- c50% of data estimated to have a useful life of up to 10 years; 26% seen as having indefinite retention value
- Most research is currently held locally

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What have we learned?

- 21% use a national or international facility
- Most share data within research teams (12% do not); 18% share via a data centre
- 43% would like access to others' data
- Those with no access to a national facility are particularly keen on a UKRDS

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What have we learned?

- There’s a lot of good stuff out there already:
- Data repositories with considerable skills and resources (eg UKDA, NERC, ADS)
- Data Curation Centre Life Cycle Model
- Data management plans (Wellcome)
- JANET and JISC’s integrated infrastructure

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What have we learned?

- More good stuff out there:
- JISC's Federated Access Management scheme to provide trusted access to data
- Recent studies by JISC (eg data audit framework, data handling skills shortage)
- Recent studies by RIN (eg data stewardship, preservation costs)

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What have we learned?

- Much work is going on in this area in Europe (particularly Germany), USA, Canada and Australia
- A service is probably feasible that brings:
  - coherence to current fragmented and incomplete provision
  - a framework for future development
- A large centralised service is unlikely to work

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Are we in step?

- Cliff Lynch in Nature: “Researchers need to be obliged to manage their data with as much professionalism as they devote to their experiments” and:
- “Universities and funding agencies need to provide and support curation facilities, tools and training”

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Are we in step?

- Canadian government says there is “urgent need for action to propel Canada into a new and transformational data-intensive paradigm for Canadian research” and:
- “The research process generates huge amounts of data that are an important part of Canada’s scholarly record and hold enormous potential as an additional discovery and problem-solving tool for researchers”

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Are we in step?

- Alliance of German Science Organisations wants to equip scientists and scholars “with the infrastructure best suited to meeting their research needs” and:
- “In the digital age, this entails digital access to publications [and] primary research data, available to the user without costs or other barriers”
- This is in the explicit context of “increasing Germany’s competitiveness in world-class research”

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Interim report recommendations

- UKRDS should add coherence to what is already there and should be a service which:
- Is governed by a set of policies
- Delivers a set of processes
- Supports a set of standards
- Is measured by an agreed set of KPIs
- Is funded to ensure it can be relied on long term

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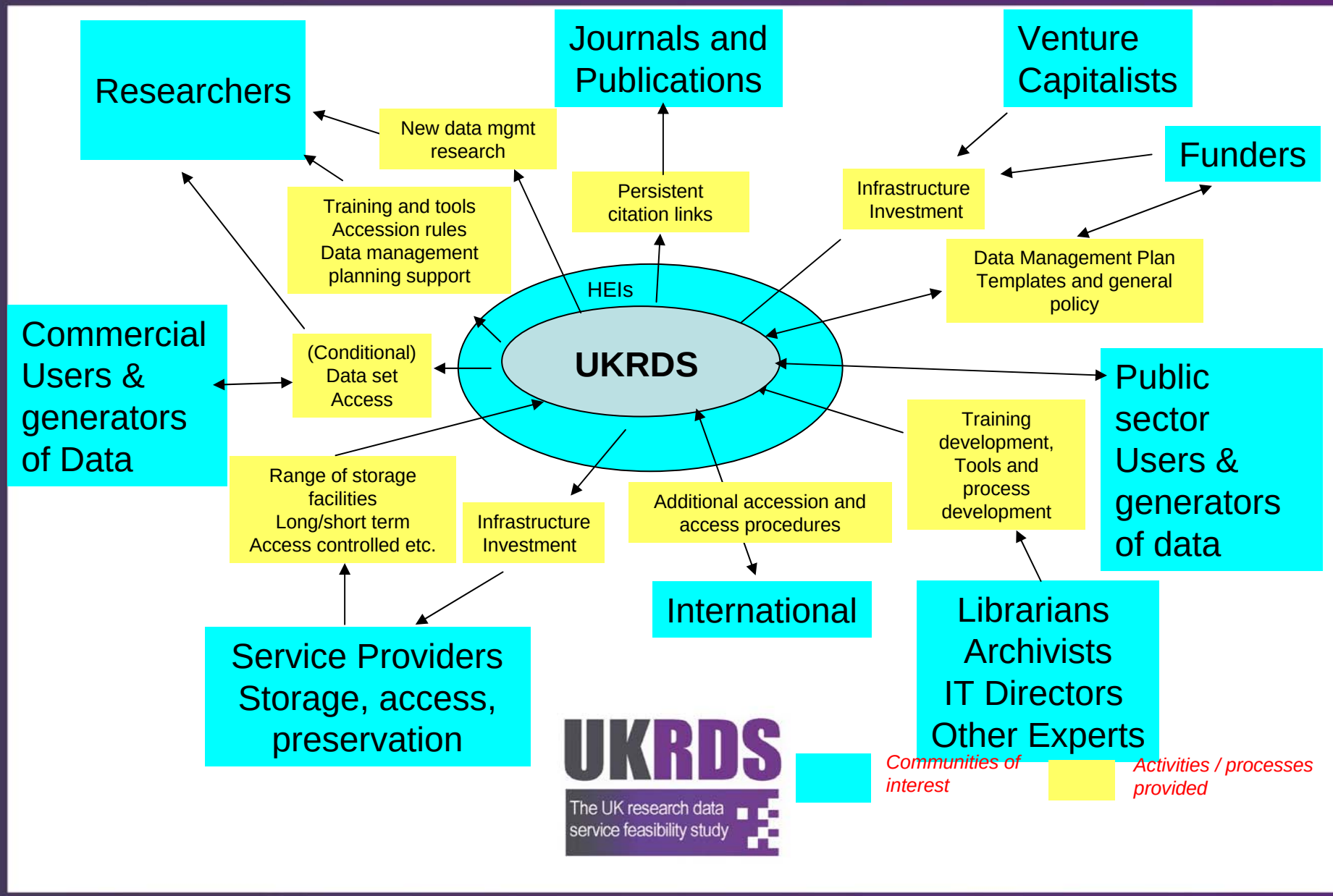
Researchers
Journals and Publications
Venture Capitalists
New data mgmt research
Funders
Training and tools
Accession rules
Data management planning support
Persistent citation links
Infrastructure Investment
Data Management Plan Templates and general policy
HEIs
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Commercial Users & generators of Data
(Conditional) Data set Access
Public sector Users & generators of data
Range of storage facilities
Long/short term
Access controlled etc.
Infrastructure Investment
Additional accession and access procedures
Training development, Tools and process development
International
Service Providers
Storage, access, preservation
Librarians
Archivists
IT Directors
Other Experts
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Communities of interest
Activities / processes provided

The next steps

- Cost existing provision
- Estimate likely costs of filling gaps and developing provision without a UKRDS
- Develop process models
- Develop a value proposition
- Develop a business plan and a governance model

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The next steps

- Design a service portfolio, organisation and legal structure and find it a home, ideally in an existing UK HE entity
- Engage stakeholders in the detailed proposals
- Present draft report to Steering Cttee 31 Oct
- Produce final report for HEFCE December 2008

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The next steps

- Seek interim funding in 2009 for a start-up service in co-operation with case study institutions and some existing providers
- Hold an international conference in February 2009 to promote the proposed service and highlight developments in the UK and abroad

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Key messages

- The study is looking for the optimum business case to address the sustainability of what researchers need
- It’s not just about storage
- It’s about the management of the whole data lifecycle
- It will not reinvent wheels

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Key messages

- Many building blocks already in place in UK
- A UKRDS would embrace rather than replace existing facilities
- There are also significant gaps to be filled
- It’s about the leverage of more research value and a higher global research reputation for the UK

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Conclusion

- A UKRDS is likely to be feasible
- Need to work out a practical business case and organisation to make it happen
- Need support of funders, HEIs and other stakeholders to get it established and stable for the long term

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