

Anticipated costs and a case to justify them

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Overview

Costs and Benefits :

- Costs
- Benefits
- Building a business case

Approaches and examples primarily from Keeping Research Data Safe 1 (KRDS1) and KRDS2 projects funded by JISC

Keeping Research Data Safe (KRDS)



What was Produced?

- Cost activity model in 3 parts: pre-archive, archive, support services;
- Published cost data (case studies and costs survey – rare data);
- Benefits taxonomy (link to costs);

KRDS Factsheet (4 page summary of key findings – see print copies)

KRDS High-level Activity Model

Pre-Archive Phase	Outreach
	Initiation
	Creation
Archive Phase	Acquisition
	Disposal
	Ingest
	Archival Storage
	Preservation Planning
	First Mover Innovation
	Data Management
	Access
	Support Services
Common Services	
Estates	

Putting it all together

- **Activity model** helps identify cost allocations across preservation process
- **Service adjustments** helps identify and adjust costs to specific requirements
- **Economic adjustments** help spread these costs appropriately over time
- **Resource framework**: pulls all of it together into a TRAC-friendly costing model

KRDS Cost Findings

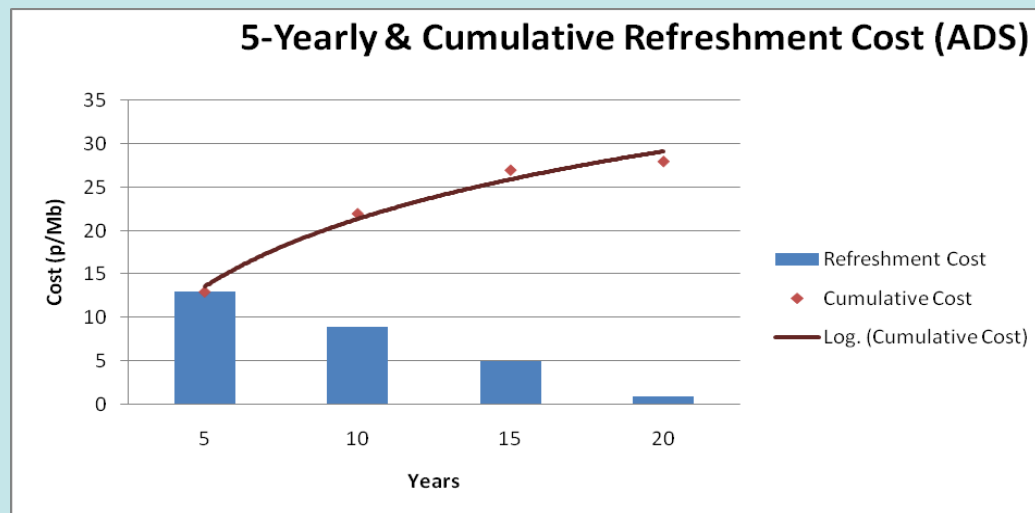
- National subject repositories costs (UKDA)

Acquisition and Ingest	Archival Storage and Preservation	Access
c. 42%	c. 23%	c. 35%

“getting stuff in and out” costs more than “keeping it (bit preservation + migration)”;

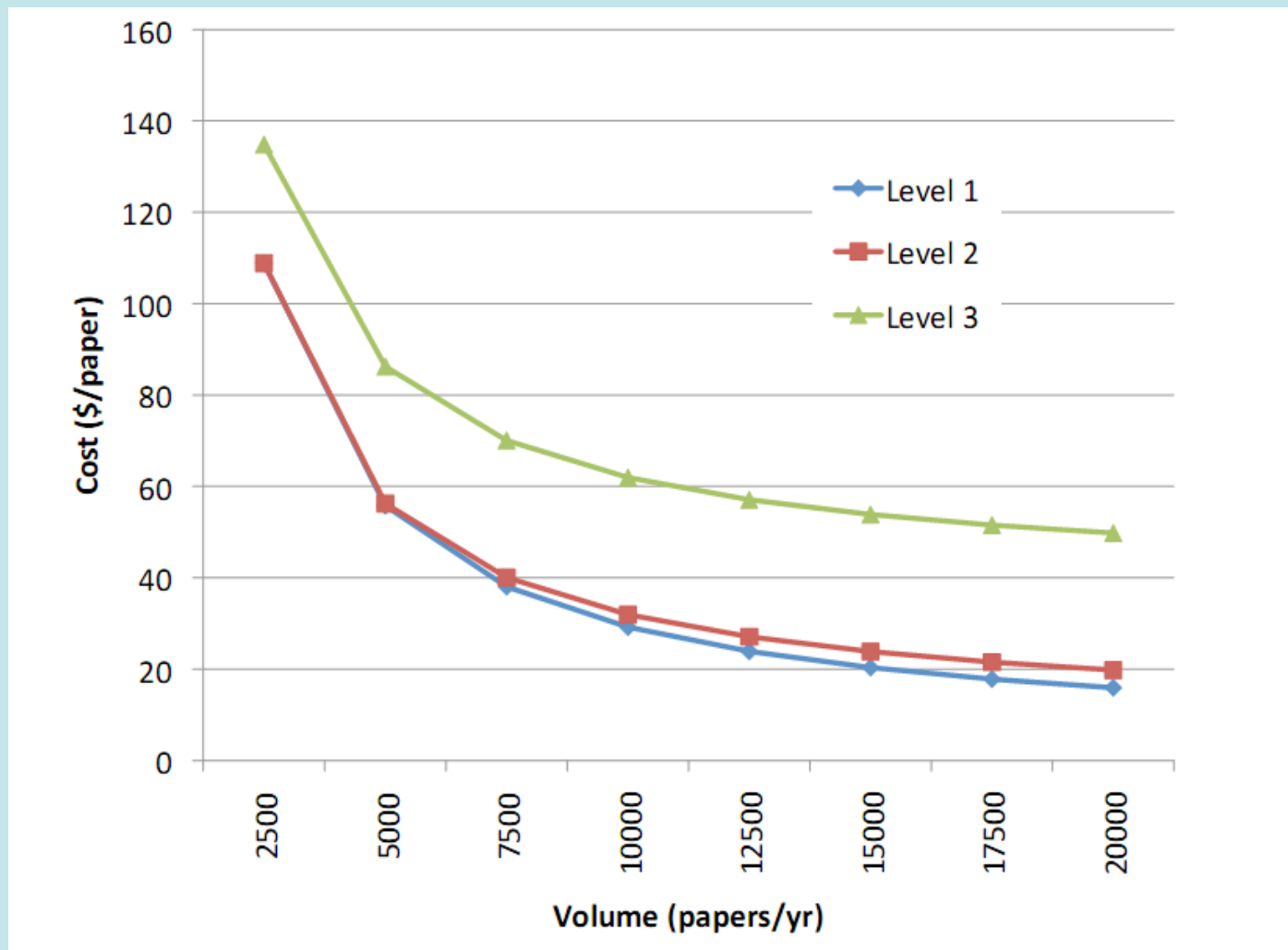
KRDS Cost Findings

- ADS projection of long-term preservation costs
- Decrease sharply over time



- Includes preservation interventions (file format migrations)
- Declining long-term storage costs
- Assumptions of archive growth (economies of scale)
- Assumptions on “first mover innovation”/technical development

Dryad Costs per Paper: effects of curation levels and volume



Cost Analysis

Implementation issues:

- Scope;
- Level of detail;
- Mapping and standardisation;
- Sources of data;
- Degree of confidence in results;
- Application overhead (workload).

Guidance in KRDS User Guide (forthcoming)

Some Key Reminders

- Staff costs most significant factor (c 70%)
- Accession/access cost more than preservation
- Costs of preservation found to decline over time
- Costs depend on the service adjustments like NSB Data Collection levels (key cost variables)
- Economies of scale important
- Like restaurant meals – final bill and unit costs depend on the choices and volume

KRDS Benefits - Outline

KRDS2 Benefits Taxonomy	
Dimension 1 (Type of Outcome)	
Direct	Indirect (costs avoided)
Dimension 2 (When)	
Near-Term Benefits	Long-term Benefits
Dimension 3 (Who)	
Private	Public

Benefits Framework

- Some benefits can be costed (direct or counter-factual)
- Some benefits can be measured in other ways (e.g user stats)
- Some benefits only have qualitative metrics best illustrated by case studies/ scenarios

Benefits

- JISC Data Management Programme:
 - programme guide on cost/benefit analyses for research data http://www.beagrie.com/DMIcost&benefit_programmeguidev1.pdf
 - AIDA benchmarking <http://aida.jiscinvolve.org/wp/2010/09/29/adapted-aida-for-idmp/>
 - Forthcoming DMP projects implementations of KRDS e.g. I2S2
 - Forthcoming Business Case Templates and guidance for RDMI projects

Further Information



“KRDS Factsheet” at

[www.beagrie.com/KRDS Factsheet 0910.pdf](http://www.beagrie.com/KRDS_Factsheet_0910.pdf)

“Keeping Research Data Safe” and JISC DMI
programme Cost/Benefit support links from

<http://www.beagrie.com/resources.php>

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