

The ADS and SWORD-ARM: Deposit charges, costing tools and e-repository sustainability



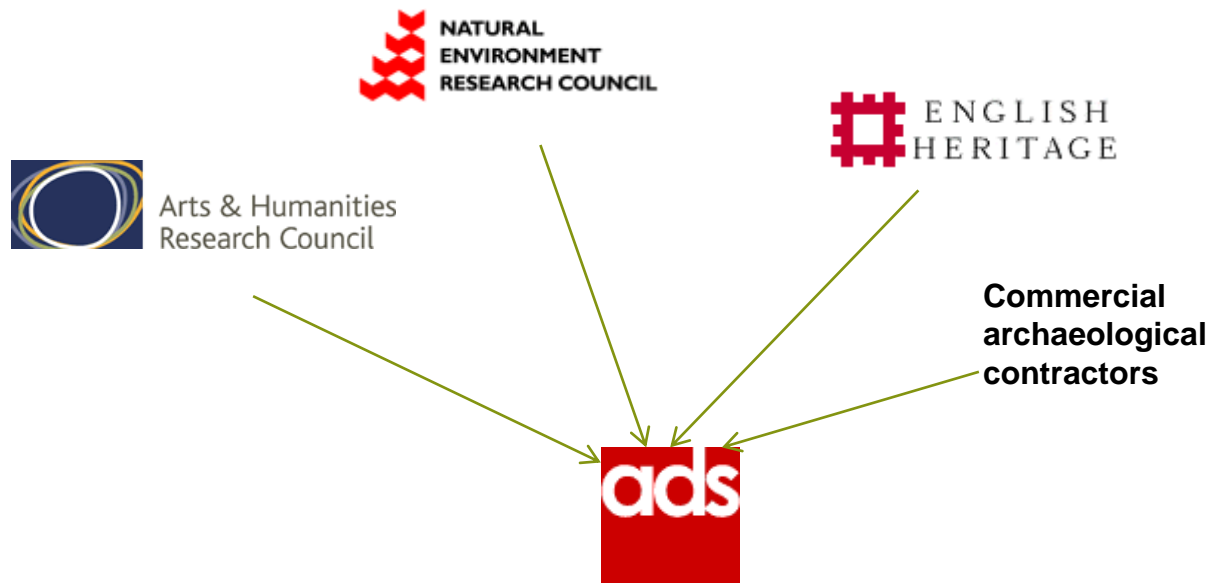
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25th October 2012

JISC

How did it all start ?

“Supporting research, learning and teaching with free, high quality and dependable digital resources.”



The Archaeology Data Service: Staffing

- Set up in 1996 – 2 members of staff
- Currently c.15 members of staff
 - Director
 - Deputy Director (Collections)
 - Deputy Director (Access)
 - Administrator
 - Systems Manager
 - 3 Applications Developers
 - 6 Digital Archivists
 - 1 IfA/HLF trainee
- Based within the University of York

ADS one-off deposit charge levied at point of deposit:

- Included in project costing – to research council, public body, or commercial contractor
- Starts at c. £250; can be up to c.£50,000
- Generally < 3% of project costs
- Costing based on:
 - Number of files
 - Complexity
 - Size

- ADS digital data deposit charges followed principle of museum 'box charges'
- Archaeological contractors familiar with this approach – a one-off charge for deposit
- English Heritage introduced Digital Storage grants, to be applied for at end of project
- But - archiving has to be seen as part of project publication process, and planned from outset

Costs of digital preservation

$$C = A + I + D + R$$

C (Cost of preservation) =

A (Management and Administration)

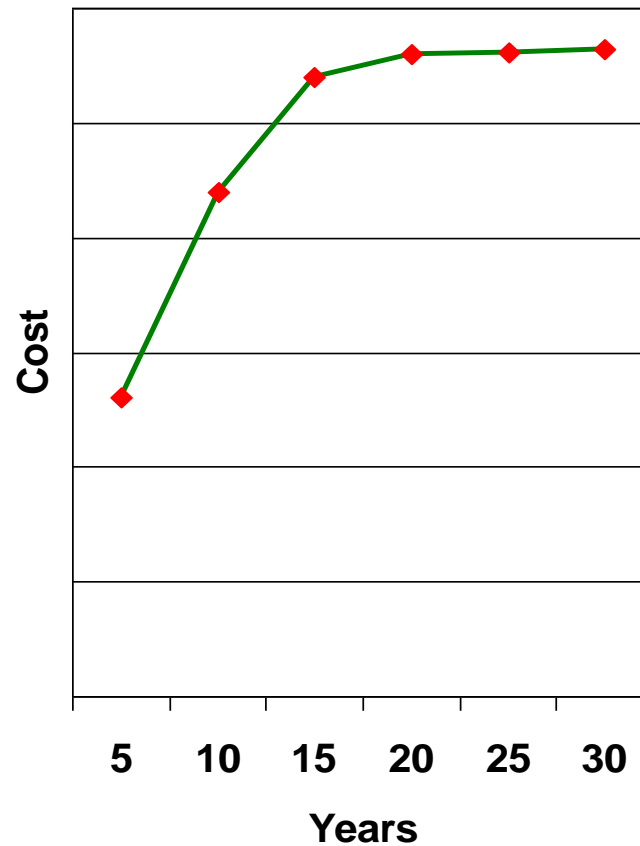
I (Ingest costs)

D (Dissemination costs)

R (Refreshment costs)

Refreshment costs

Retention period	Cost for refreshment	Cumulative total (pence)
5 years	$9 + 4 = 13$	13
10 years	$9 - 3 + 4 - 1 = 9$	22
15 years	$9 - 6 + 4 - 2 = 5$	27
20 years	$9 - 9 + 4 - 3 = 1$	28
ongoing		28.1



ADS charging policy: widely emulated

The screenshot displays two overlapping web pages. The background page is the ADS 'Charging Policy' page, version 4 from November 2007. It features a navigation menu with 'HOME', 'ARCHSEARCH', 'ARCHIVES', and 'LEARNING'. The 'Charging Policy' page lists a table of contents with sections: 1. Preamble, 2. Introduction, 3. Charging levels (subdivided into 3.1 Management and administration, 3.2 Ingest, 3.3 Dissemination, 3.4 Storage and refreshment), 4. Conditions of deposit of data, 5. Charging community categories, and 6. Conclusion. The '1. Preamble' section states that the principles are shared with Management and Administration, Ingest, and Dissemination. The '2. Introduction' section is partially visible.

Overlaid on this is a page for 'Charles Beagrie', which includes a navigation menu with 'Home', 'Clients', 'People', 'Resources', 'KRDS', 'Publications', 'Contact', and 'Blog'. The main content area is titled 'Project Funder' and features the JISC logo with the text 'This project is funded by the Joint Information Systems Committee'. Below this is the title 'Keeping Research Data Safe 2 - a JISC-funded Project' and the subtitle 'The identification of long-lived digital datasets for the purposes of cost analysis'. An 'Introduction' section follows, stating that the page was set up to support dissemination of information on digital preservation costs for research data. It mentions that identified long-lived data for cost analysis and built on the work of the first 'Keeping Data Safe' study completed in 2008. The text continues: 'The first Keeping Research Data Safe study funded by JISC made a major contribution to the study of preservation costs by developing a cost model identifying cost variables for preserving research data in UK universities. This work has had considerable impact and received international interest. Copies of the report were downloaded from the JISC website during 2008, making it JISC's most popular publication in 2008.' It then states: 'The Keeping Research Data Safe 2 project commenced on 31 March 2010 and the final report was published in May 2010. The project identified and sourced long-lived data and developed longitudinal data on associated preservation costs and benefits. We believe these outcomes will be crucial for developing preservation costing tools and cost benefit analyses for justifying and sustaining major investments in repositories and data curation.' The page concludes with: 'For further information see details below and our final report. Regular updates on related projects and future implementations of KRDS2 will be posted to the Beagrie Blog.'

Overlaid on the right side is a page for 'DIGITAL ANTIQUITY', dedicated to access, preservation, and use of archaeological information. It has a navigation menu with 'Welcome', 'About', 'Grants', 'News', 'Publications', 'Staff', 'Clients', 'Contact Us', and 'The Digital Archaeological Record'. The 'Welcome' section states: 'Digital Antiquity is a collaborative non-profit organization devoted to enhancing preservation of and access to irreplaceable archaeological records and data. Digital Antiquity supports archaeological research, resource management, education, and public outreach by providing new and innovative ways of finding, managing, preserving, and using archaeological information. Archaeologists, computer scientists, and information management experts have created Digital Antiquity with two basic goals. One is to improve substantially the ease of accessing and using archaeological information. The other, equally important, is to provide for the long-term preservation of the irreplaceable records of archaeological investigations.' It continues: 'By meeting these goals, we will improve the management and preservation of archaeological resources. Achieving these goals also will enhance the ways in which researchers can more effectively create and communicate knowledge of the long-term and historic human past. We expect that improving access and preservation will also make archaeological investigations and the curation of the physical and digital results of the investigations more efficient.' The final sentence reads: 'As a part of fulfilling its goals, Digital Antiquity oversees the use, development, and maintenance of the Digital Archaeological Record (tDAR), a unique digital repository for archaeological data.'

At the bottom right, there is a sidebar for 'tDAR The Digital Archaeological Record' with the tagline 'Connecting to our past, and advancing archaeologists' ability to engage in research'. It includes a section for 'Guides to Good Practice' described as 'A comprehensive resource for archiving archaeological data. Read Online.' and a 'RECENT NEWS' section with an entry: '1960's Archives of Archaeology Series Finds New Home in the Digital Archaeological Record (tDAR)'. Below this is a mention of 'Digital Antiquity's Brin and McManamon Guest Blog for SHA Tech Week'.

The situation in 2012: explosion in data deposits

After 15+ years experience of digital archiving within archaeology, we are seeing a move toward organisations submitting digital archives to the ADS as a norm.

Southampton's Designated Archaeology Collections Programme

Wessex Archaeology Image Archive

	<p>Stricklands, Chapel Road, Southampton OASIS ID wessexar1-92058 Excavation 23 Aug 2009 - 27 Sep 2009 Wessex Archaeology</p>
	<p>The Deanery, Chapel Road, Southampton OASIS ID wessexar1-92410 Field evaluation 06 Feb 2006 - 10 Feb 2006 Wessex Archaeology</p>
	<p>The Deanery, Chapel Road, Southampton OASIS ID wessexar1-97044 Open-area excavation 04 Aug 2008 - 22 Oct 2008 Wessex Archaeology</p>
	<p>20-26 College Street, Southampton OASIS ID thamesva1-40314 Field evaluation 28 Jan 2008 - 29 Jan 2008 Thames Valley Archaeological Services</p>
	<p>Woolston Riverside, Southampton SITE CODE SOU1483 Field evaluation 2 Jul 2008 - 18 Dec 2008 Thames Valley Archaeological Services</p>
	<p>The 'Coach House', 16 Bevois Valley Road, Southampton SITE CODE SOU1516 Building Recording 2 Nov 2009 - 12 Nov 2009 Southern Archaeological Services Ltd</p>



The origins of the SWORDARM project

These, and other, projects have highlighted the need for an automated system for file upload and metadata deposition if the process of a scalable and sustainable digital archive is to become a reality.

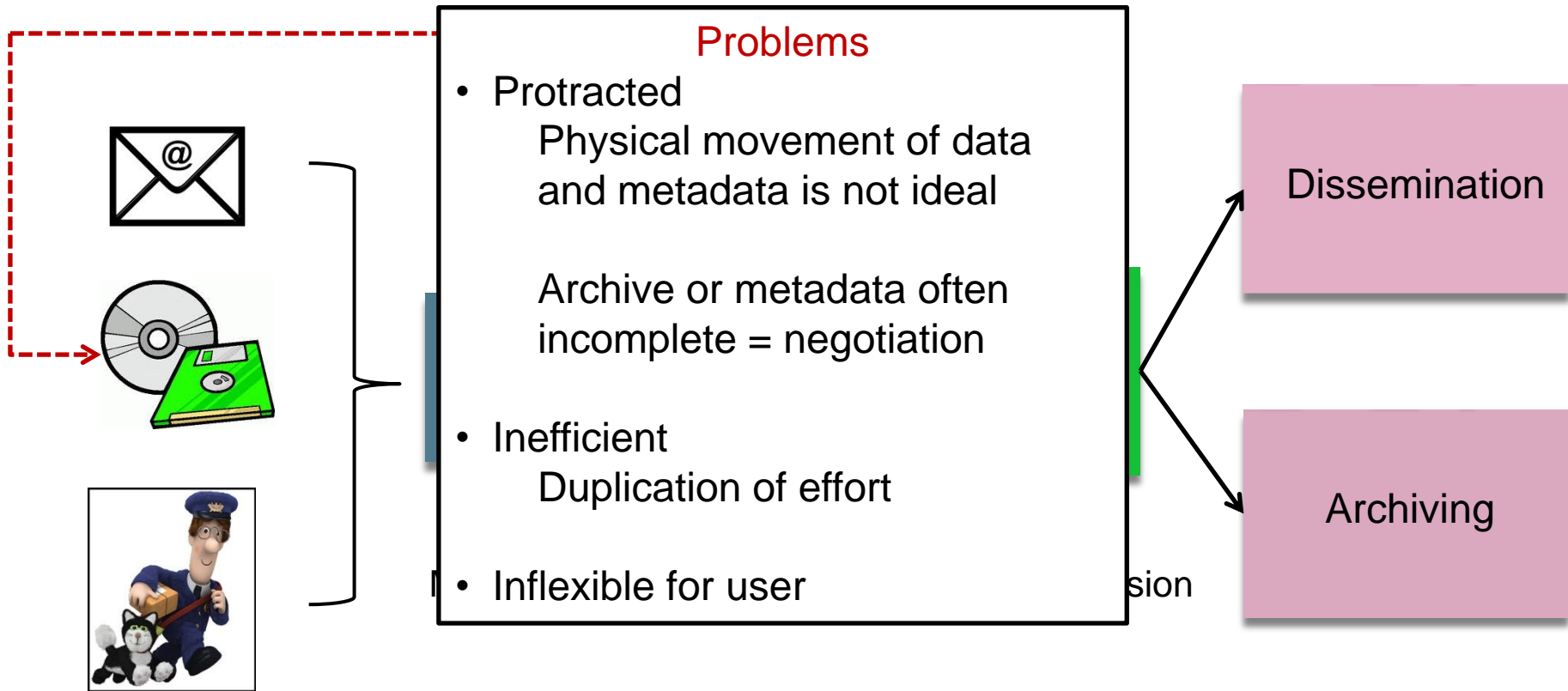


... a semi-automated, project-based system, that allows for the deposition of archaeological data and metadata through the use of a SWORD-style protocol. It will develop a costing module that will make the charging process more transparent for the community. It will streamline the ADS infrastructure making its procedures more efficient and, perhaps more significantly, make the future of the digital repository more sustainable in the long-term.

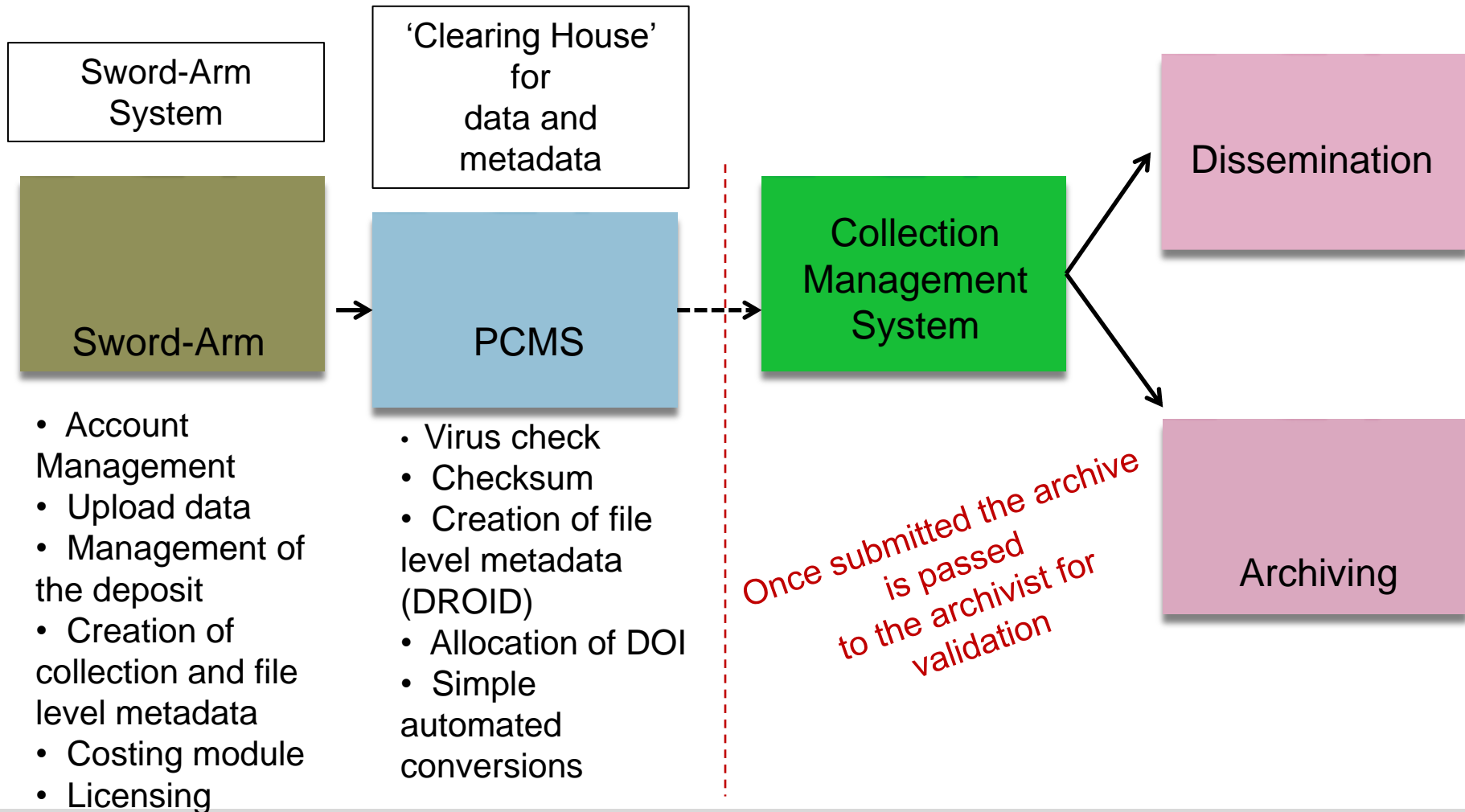
What will the automated ingest system do?

1. Allow users to upload files directly to the ADS repository
2. Building on existing structure it will link files to existing metadata from the online recording form for fieldwork projects (OASIS)
3. Allow users to add additional and new metadata for projects
4. Semi-automate the accessioning of files and associated metadata within the ADS Collections Management System, streamlining the archiving process
5. Allow users to set up and manage 'accounts' that will allow for the creation of sample costings, allowing them to make informed decisions over selection and retention and provide for the semi-automated billing of charges.

Managing deposits: current workflow



Managing deposits: SWORDARM workflow



The most important questions...

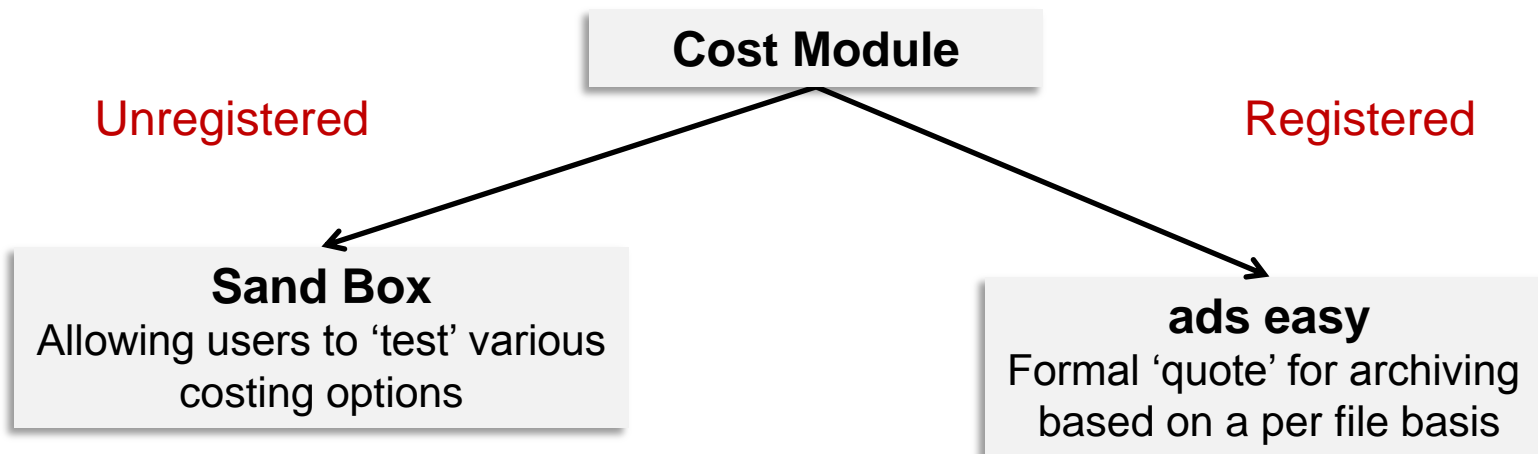
1. What to call the system when it is finished!
ADS e-archiving system or **ADS easy**



2. How much will it cost to use?

Deposit using **ADS easy** will be c. 50% cheaper than using the standard manual methods

Cost Module



- Cost control
- Depositor control of archive allowing involvement in selection and retention of files
- Manage multiple depositions
- Pricing based upon 'economies of scale'
- Financial encouragement for use, making it 'cheaper'

ADS e-archiving system

Home Costing Calculator Help [Login]

Costing Calculator

This tool can provide estimated expenses associated with depositing different types of data at the ADS.

Data Type: Choose Data Type

File Extension:

Quantity: + Add

Data Type	File Extension	Quantity (File)	Unit Price	Remove
No records found.				

Subtotal (excl. VAT): £0.00

TOTAL (incl. £150.00 project start up fee & VAT 20%): £0.00

Reset Calculator

If you choose to deposit by traditional methods, the estimated price is considerably higher at: £0.00

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How have we come up with the levels of cost?

... we have tried to keep things simple with a start up fee covering elements of management and administration for each project and then a range of prices usually per file; the more complex the file type the more expensive to deposit. So we'd charge £1 for a .csv file and up to £6 for an .au audio file that takes a lot more time to check, document and preserve. Experience has taught that the only circumstance where we can really benefit from economies of scale is when dealing with image files and that too is taken into consideration within the charging model.

ADS Blog
March 21st 2012

<http://archaeologydataservice.ac.uk/blog/sword-arm/>

Follow-up

SWORD-ARM

Information on the SWORD-ARM project

<http://archaeologydataservice.ac.uk/research/swordarm>

Keep up to date with SWORD-ARM through the project blog

<http://archaeologydataservice.ac.uk/blog/sword-arm/>

