



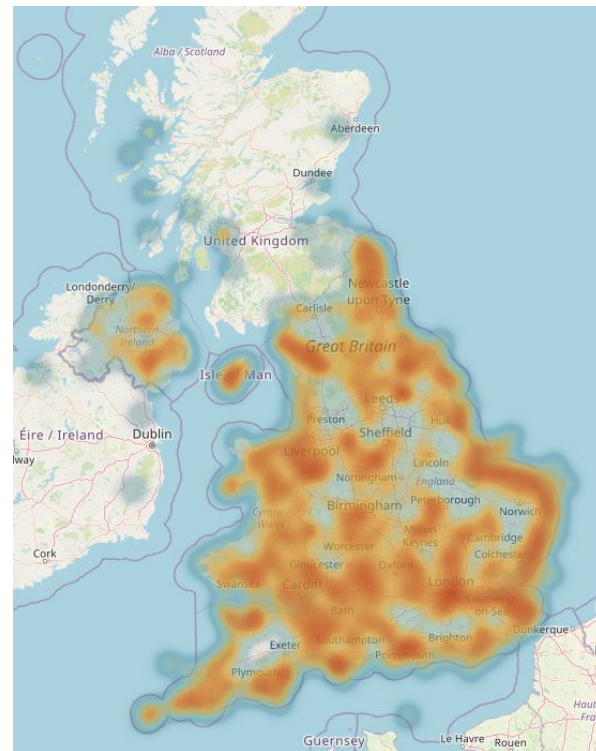
Archaeology  
Data Service

# Introduction to the ADS

*Dr Tim Evans, Deputy Director ADS*

## Introducing the ADS

- Accredited digital archive for UK heritage data.
- Founded in 1996.
- Based at the University of York.
- Data Preservation for UK-based archaeology and heritage projects (Industry and Higher Education).
- Undertake research and collaboration.
- Deliver training and advice within our sector.
- For more information see our [Annual Reports](#).



# Core Principles of the ADS



## Introducing the ADS (people)

- **One** Director (Prof. Julian Richards OBE).
- **One** Deputy Director.
- **Six** Managers.
- **Four** Application Developers.
- **Eight** Curatorial + Technical staff (CaTs).
- **One** Data Engineer.
- **One** Internet Archaeology Editor.
- **One** User Support and Finance Assistant.
- **Two** placement students/interns.



## Rationale for *an* ADS

Archaeology generates a lot of data!

Excavation is inherently destructive.

Notions of 'Preservation by Record' feed into moral and legal obligation to ensure data is preserved **and accessible**.



Wellington Quarry. Worcestershire.  
Worcestershire Historic Environment and  
Archaeology Service (2011).  
<https://doi.org/10.5284/1000392>

# Preservation

Physical media is vulnerable

Technologies change

File formats evolve (obsolescence)

Accidents!



Bill Gates in 1994 showing a CD-ROM could hold more info than a stack of 330,000 pieces of paper.



## Access

No preservation without re-use.

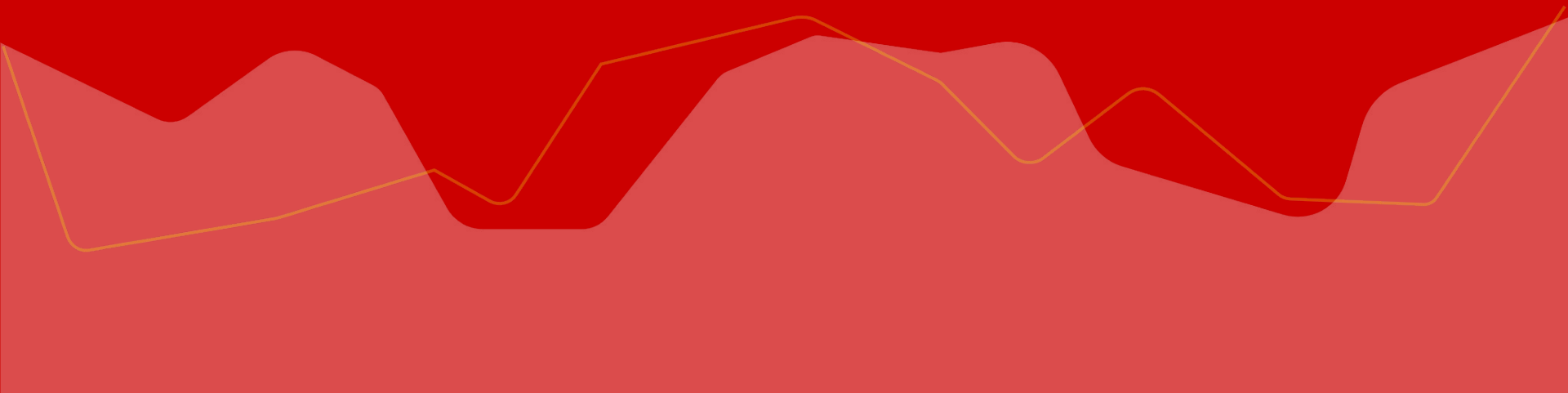
Reduce barriers to access.

Use digital to overcome traditional problems in compiling data for synthesis and understanding.



Museum of London Archaeology (2019) The Prittlewell princely burial: excavations at Priory Crescent, Southend-on-Sea, Essex 2003. <https://doi.org/10.5284/1050095>

# Collections





## National Collections

From an early stage the ADS began to receive external project-level funding and build partnerships from a variety of other organisations, such as Historic England to provide archiving services for national datasets.



PILLBOX (TYPE FW3/22) - England, Berkshire, Speen. Council for British Archaeology (2002). <https://doi.org/10.5284/1000327>

## Industry

The majority of archaeological data in the UK was/is being generated in the commercial sectors and so the ADS continued to take on a wider role to act as data repository for these projects.



Chemring Countermeasures, High Post, Salisbury. Wessex Archaeology (2019).  
<https://doi.org/10.5284/1057524>

# Buildings

Briefs and requirements set through Planning, but not necessarily by the Archaeological Officer.

Most units have teams that work on historic buildings, but still common to find individual architects or groups.



Historic Building Recording and Archaeological Monitoring and Recording at Mount Pleasant Methodist Chapel, New Mills, Derbyshire. Archaeological Research Services, 2023.

<https://doi.org/10.5284/1116906>

## Maritime + Intertidal

Work done under national legislation for protection of wrecks and submerged landscapes.

Increased work in the intertidal zone (offshore wind farms).



Watching Brief, Hornsea Offshore Wind Farm Project One (HOW01). Wessex Archaeology (2024) .<https://doi.org/10.5284/1116860>

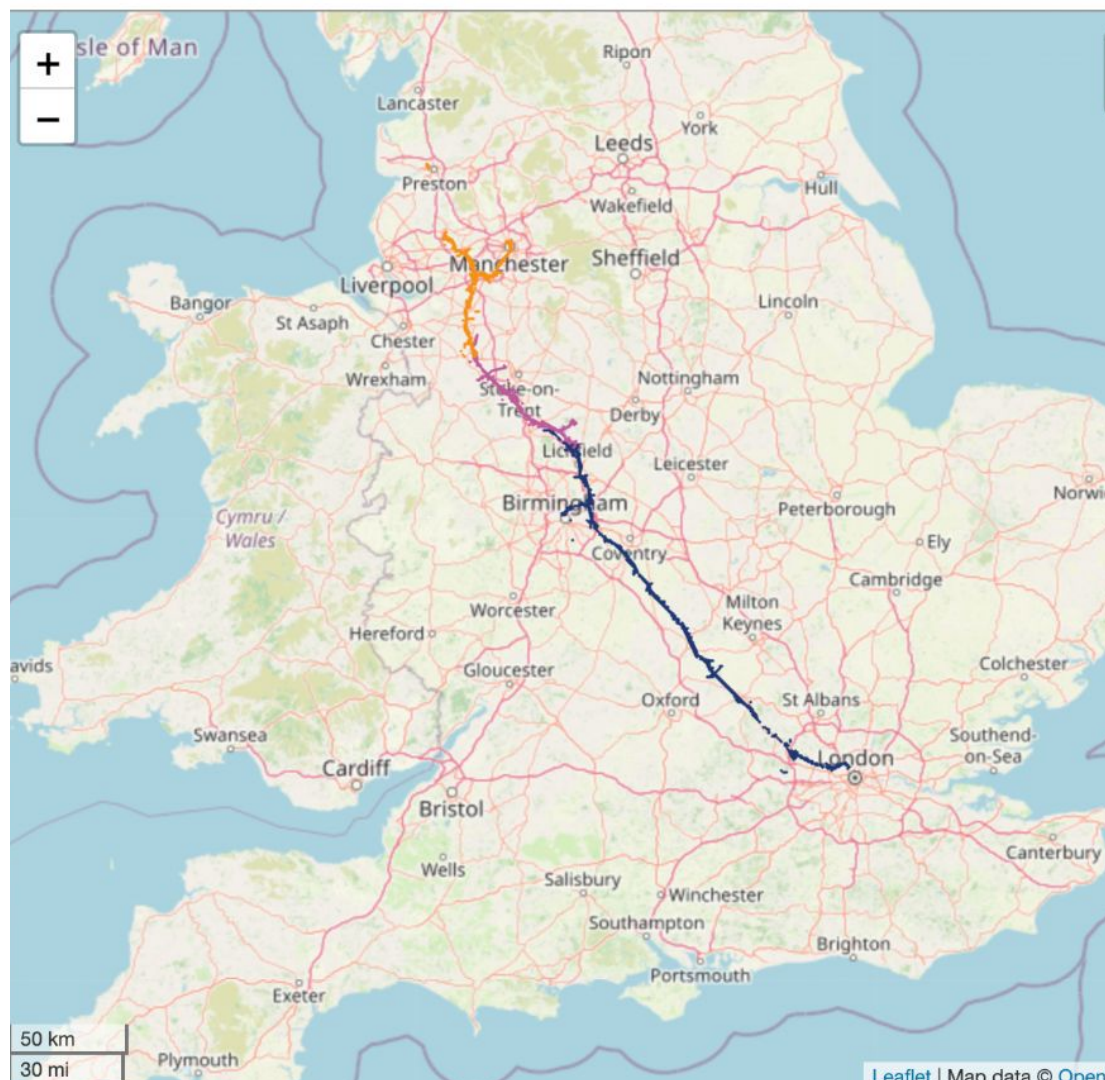


## High Speed Two

- UK's largest linear infrastructure project
- Unprecedented opportunity
- Excavated by commercial archaeologists

## Historic Environment Research and Delivery Strategy Objective

**03:** To develop and deliver a highly accessible archive and outstanding archival legacy that will be actively promoted.









MOLA. Data from an Archaeological Recording at St Mary's Church and Churchyard, Stoke Mandeville, Buckinghamshire, 2020-2022 (HS2 Phase One)

## 3D data

### Files

<p><b>Title:</b> Reiter tombstone of Insus son of Vodallus, Lancaster - ES30 3D Model (OBJ) <b>Filename:</b> ES30-OBJ.zip (150 MB)</p>	 ZIP	<p><a href="#">Info</a> <a href="#">Download</a></p>
	<p><b>Title:</b> Reiter tombstone of Insus son of Vodallus, Lancaster - ES30 <b>Filename:</b> ES30.jpg (2 MB)</p>	 JPG
<p><b>Title:</b> Reiter tombstone of Insus son of Vodallus, Lancaster - ES30 Leo 1-1 (WRL) <b>Filename:</b> ES30_Leo_1-1.zip (1228 MB)</p>	 ZIP	<p><a href="#">Info</a> <a href="#">Download</a></p>



Powered by 3DHOP

Ian Haynes, Lindsay Allason-Jones, Alex Turner (2023) Digital Archive from the Analysing Britain's Most Elusive Roman Sculptures Project [data-set]. <https://doi.org/10.5284/1090382>



# How we operate

A decorative graphic at the bottom of the slide. It consists of a thin, light yellow line that fluctuates across the width of the page, resembling a line graph. Below this line is a larger, semi-transparent yellow shaded area that also fluctuates, creating a layered, abstract effect.

# Funding Model

- **National Funding:** In 2021 AHRC via UKRI resumed digital infrastructure core funding for ADS.
- **Research Funding:** UK Funding Councils and EU for specific time-limited projects, often as part of consortia.
- **Commercial Income:** Charging Policy – passing cost onto Developer



Archaeological Strip, Map and Sample Excavation at Bury Spinney, Houghton Regis, Dunstable. Cotswold Archaeology (2024). <https://doi.org/10.5284/1116728>

## Designated Community

Researchers

Professional archaeologists

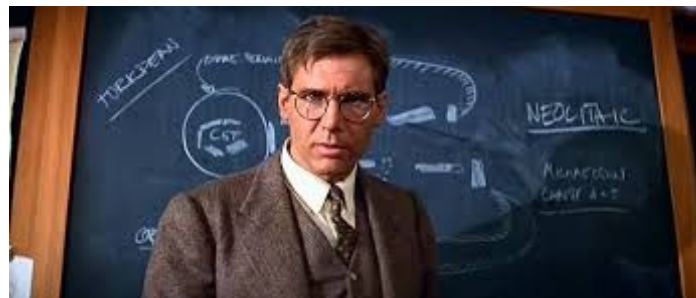
Curatorial archaeologists

Local Government archaeologists

National Government

Archaeological Specialists

Built Heritage Specialists



## Audience

Community Groups

Schools

Creatives/Creative industries

Geologists/Historians

Interested people!



## Structure and Organisation

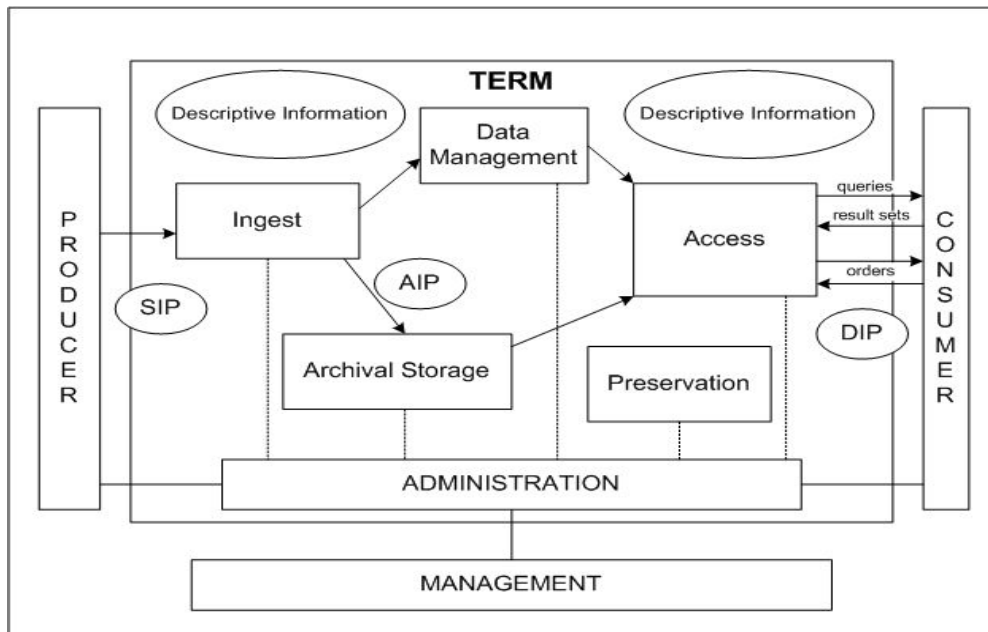


Fig. 1. Major functions of the OAIS Reference Model from Consultative Committee for Space Data Systems (CCSDS), CCSDS 650.0-W-1, Producer-Archive Interface Methodology Abstract Standard. (OAIS). White Book, Issue 1. Draft Recommendation for Space Data System Standards.

## Structure and Organisation

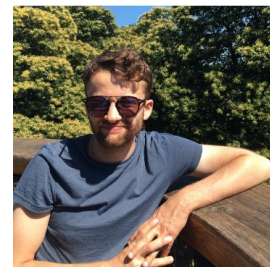
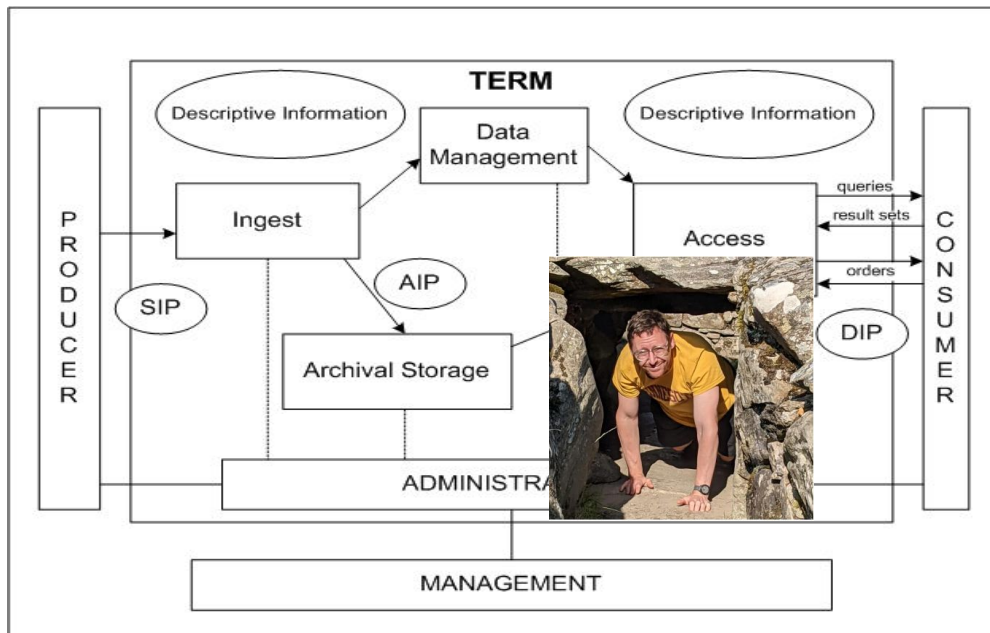
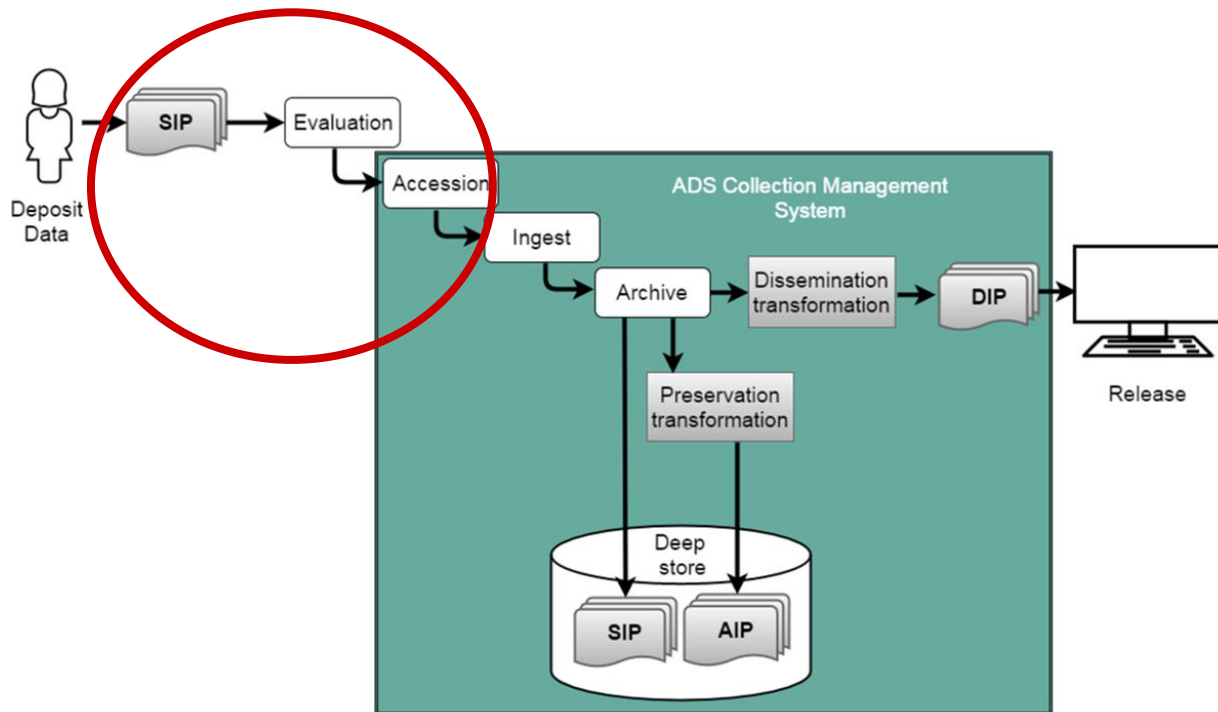


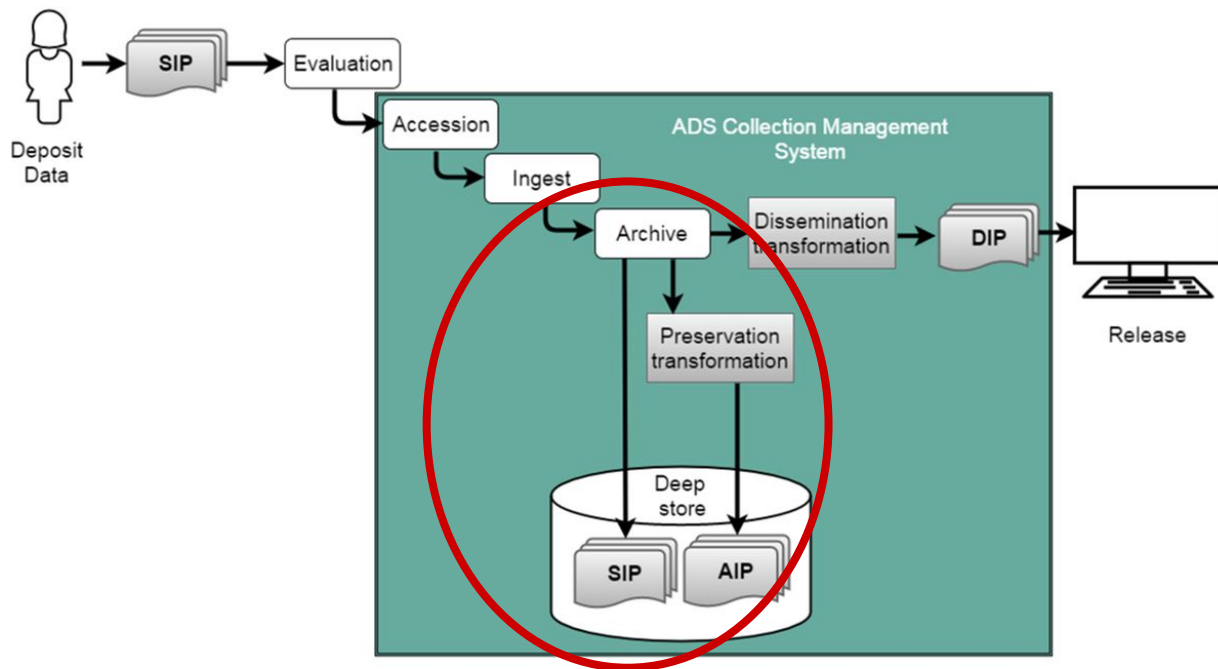
Fig. 1. Major functions of the OAIS Reference Model from Consultative Committee for Space Data Systems (CCSDS), CCSDS 650.0-W-1, Producer-Archive Interface Methodology Abstract Standard. (OAIS). White Book, Issue 1. Draft Recommendation for Space Data System Standards.

## Structure and Organisation: Ingest

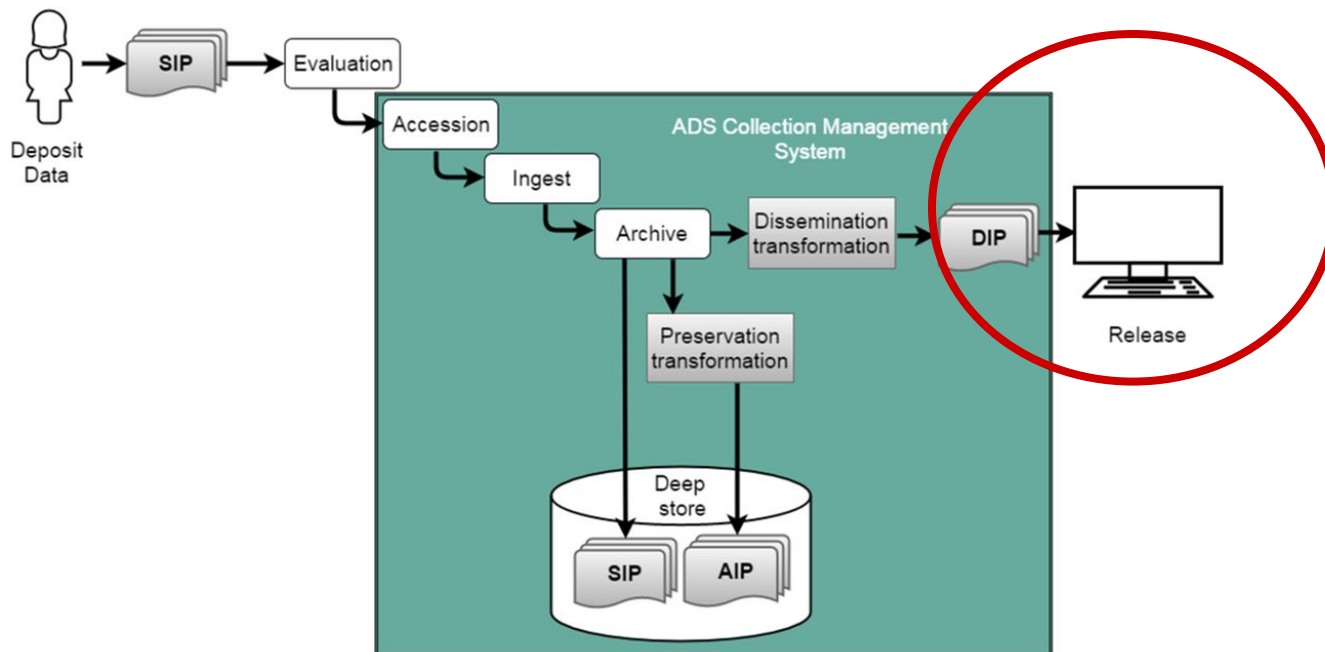




## Structure and Organisation: Archive



## Structure and Organisation: Dissemination

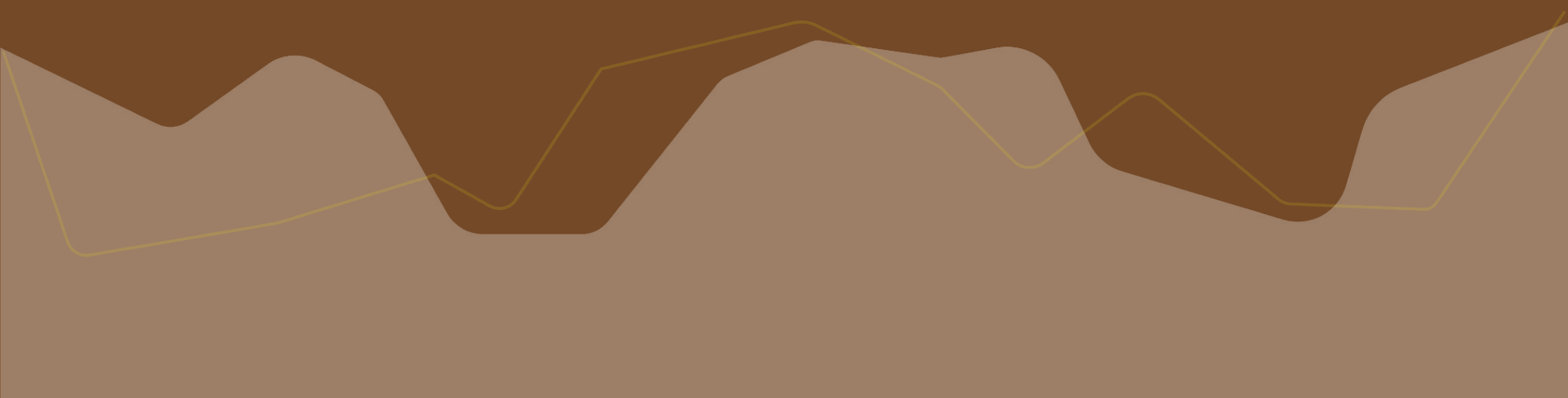


## Internal + External Assessment

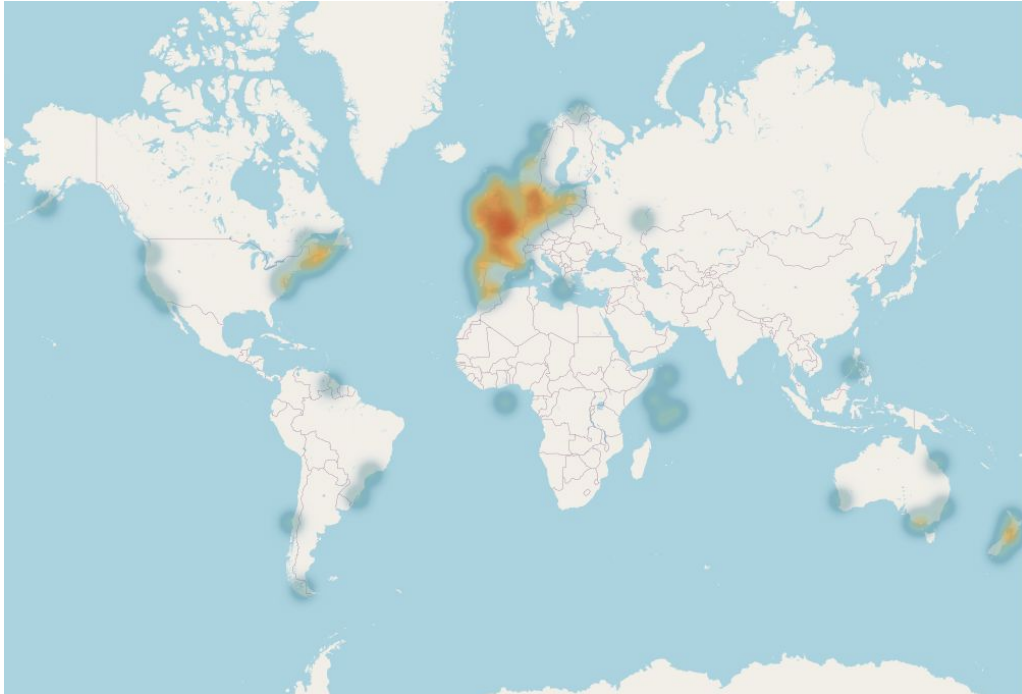
- CoreTrustSeal (CTS)
- Encourage reflection, and assessment of where we can improve
- Often feed into developing Policy and ensuring workflows are documented.



# Collaboration

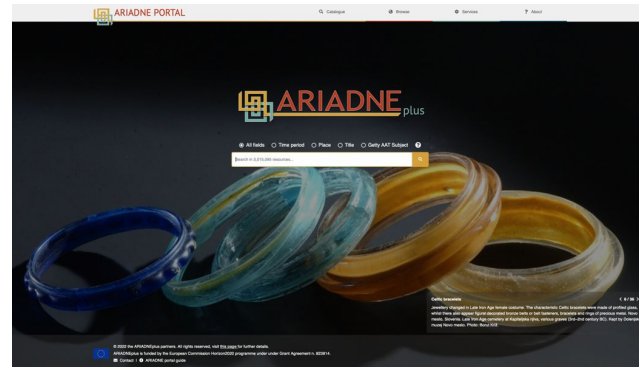


## Sharing our metadata



## Ariadne

- The largest research infrastructure for Archaeology & heritage - anywhere in the world.
- 4m resources records in the ARIADNE Catalogue.
- 50+ countries.
- ARIADNE RI AISBL – not for profit association, with office in Brussels – 30 members – focussed on putting heritage data online, with charging policy being developed via EU COST Innovators Grant



## Current EU Research projects

- ATRIUM – Advancing Frontier Research in the Arts and Humanities, with DARIAH, CLARIN, OPERAS, 4 years started Jan 2024
- ECHOES – establishing the European Collaborative Cloud for Cultural Heritage (ECCCH), 5 years, starting June 2024, led by CNRS and CNR – €110m until 2025
- AUTOMATA – ECCCH project – Archaeology, AI and Robotics, 4.5 years, starting Sept 2024
- E-RIHS – European Research Infrastructure for Heritage Science



# HSDS





## Heritage and Conservation Science Data Service

York awarded the £14.4m RICHeS Digital Research Service: the Heritage Science Data Service (HSDS), starting 1 September 2024.

Consortium includes:

STFC Hartree

National Gallery

National Heritage Science Forum

British Museum

Natural History Museum

Historic England

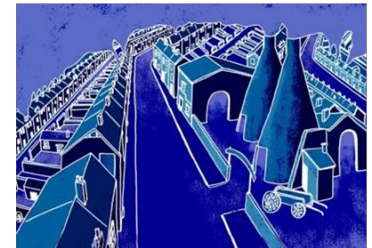
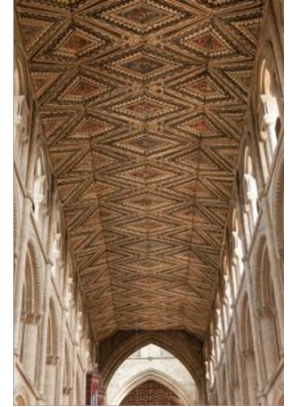
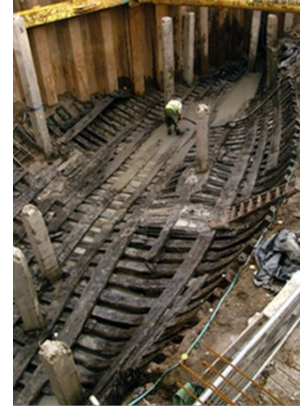
British Geological Survey

Historic Environment Scotland

Museum Data Service

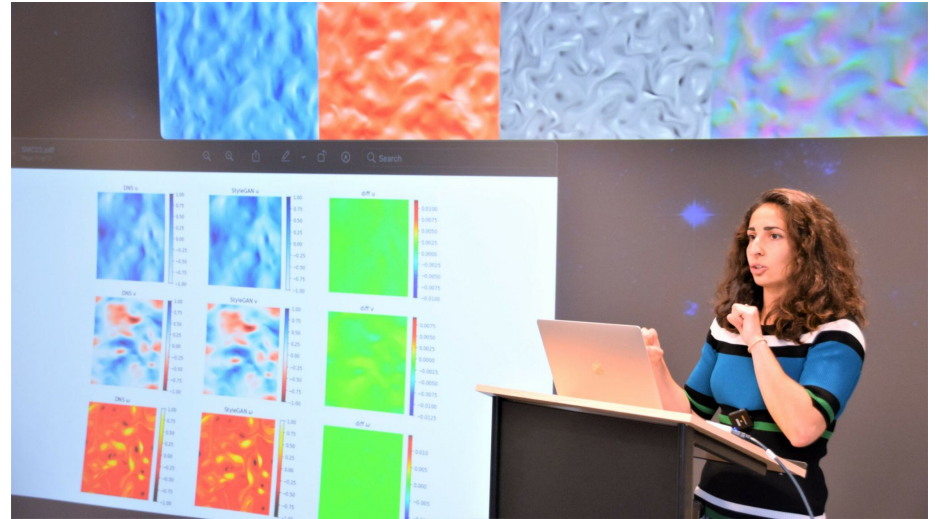
National Museum Wales

The National Archives



## Heritage and Conservation Science Data Service

Working with STFC Hartree on Virtual Research Environments for analysis of data.





Archaeology  
Data Service

# Thankyou!

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