



Digital Repository of Ireland  
*Taisclann Dhigiteach na hÉireann*

# Preservation and Trust at DRI

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Department of Jobs, Enterprise and Innovation



Ireland's EU Structural Funds  
Programmes 2007 - 2013  
Co-funded by the Irish Government  
and the European Union

HEA

Higher Education Authority  
An tÚdarás um Ard-Oideachas



EUROPEAN REGIONAL  
DEVELOPMENT FUND

## Overview:

- Who we are
- App stack
- Trust & Trusted Repositories
- Auditing & Certification
- Preservation Storage

## DRI Mission Statement:

“The Digital Repository of Ireland is an interactive trusted digital repository for contemporary and historical, social and cultural data held by Irish institutions.”

## DRI Project Partners:

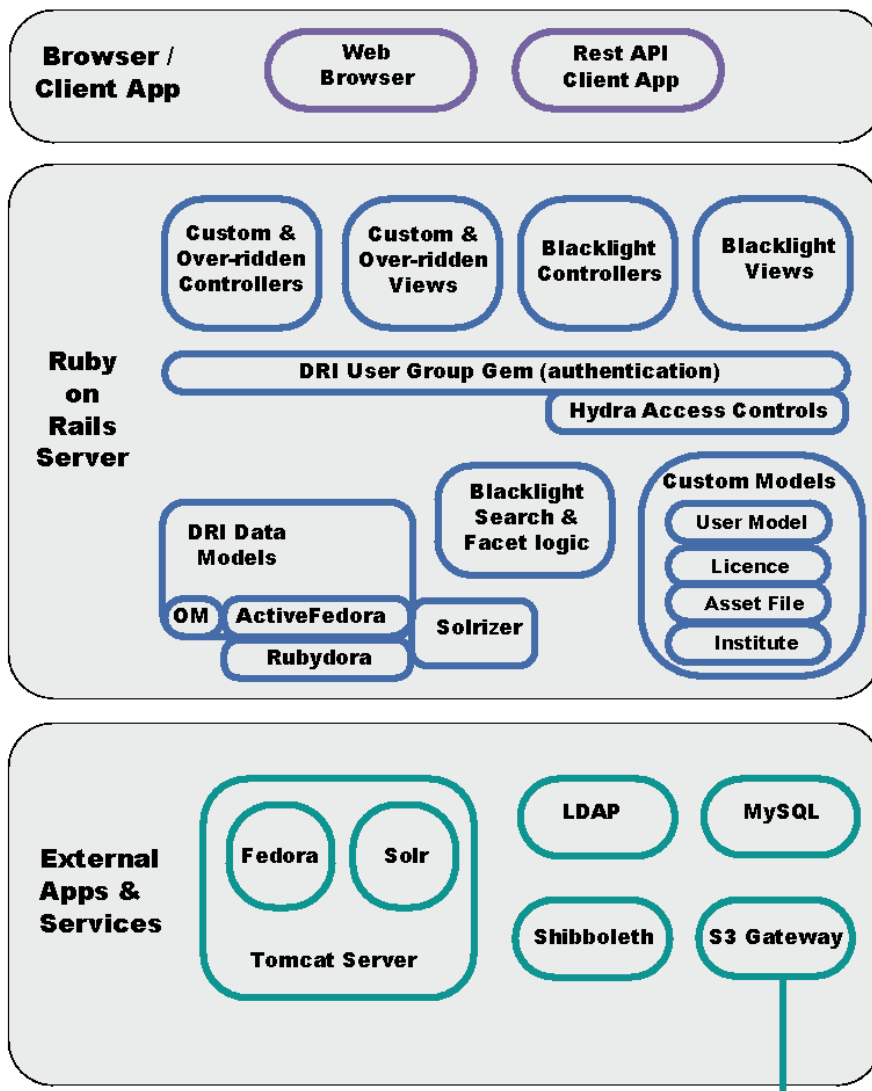
Royal Irish Academy (RIA, lead institute),  
Maynooth University (MU) ,  
Trinity College Dublin (TCD),  
Dublin Institute of Technology (DIT),  
National University of Ireland, Galway (NUIG),  
National College of Art and Design (NCAD)

## OAIS Model:



Source: [www.digital-preservation.com](http://www.digital-preservation.com)

## DRI Stack:



## Trusted repositories:

“One whose mission is to provide reliable, long-term access to managed digital resources to its designated community, now and in the future.”

- RLG-OCLC report “Trusted Digital Repositories: Attributes and Responsibilities”

## Trust:

How can we interpret trusted digital repository definition into actionable requirements?

How can we project a sense of trust to our user community?



## Auditing & Certification:

Have the dual purpose of providing:

- clear, definite guidelines to follow
- a certification

## Auditing & Certification:

- Trusted Repositories Audit Checklist (TRAC)
- Data Seal of Approval (DSA)
- ISO16363: TDR Standard

## Auditing & Certification:

DSA → ISO16363

(European Framework for Audit and Certification of  
Digital Repositories )

## Auditing & Certification: DSA

Self assessment consists of 16 guidelines:

*“The data repository applies documented processes and procedures for managing data storage.”*

## Auditing & Certification: DSA

Guidelines further broken into questions:

“Does the repository have a preservation policy?”

“Does the repository have a strategy for backup / multiple copies? If so, please describe”

“Are data recovery provisions in place? What are they?”

## Auditing & Certification: DSA

Some questions are vague/unclear:

*“Does the repository maintain links to metadata and to other datasets, and if so, how?”*

## Auditing & Certification: DSA

Some questions are vague/unclear:

*“Linking between the metadata and data are maintained in the operational database, and FSD metadata includes links to other datasets. In addition, the metadata includes links to publications based on the data.”*

- Finnish Social Science Data Archive

## Auditing & Certification: DSA

Some questions are vague/unclear:

*“Links to metadata are provided through the Digital Library web interface and are expressed as menu links when descriptive records are displayed.”*

- UCD Digital Library



## Auditing & Certification: DSA

Some questions are vague/unclear:

*“The data model incorporates a set of Fedora datastreams so as to handle the different types of metadata required by the system. Examples of metadata types include descriptive metadata, technical metadata, and DRI administrative metadata, which incorporates preservation metadata (stored as PREMIS xml).”*

- DRI

## Auditing & Certification: DSA

- Submit your self assessment answers for peer review
- DSA is awarded if requirements are met
- DSA self assessment document and review published

## Preservation Policy

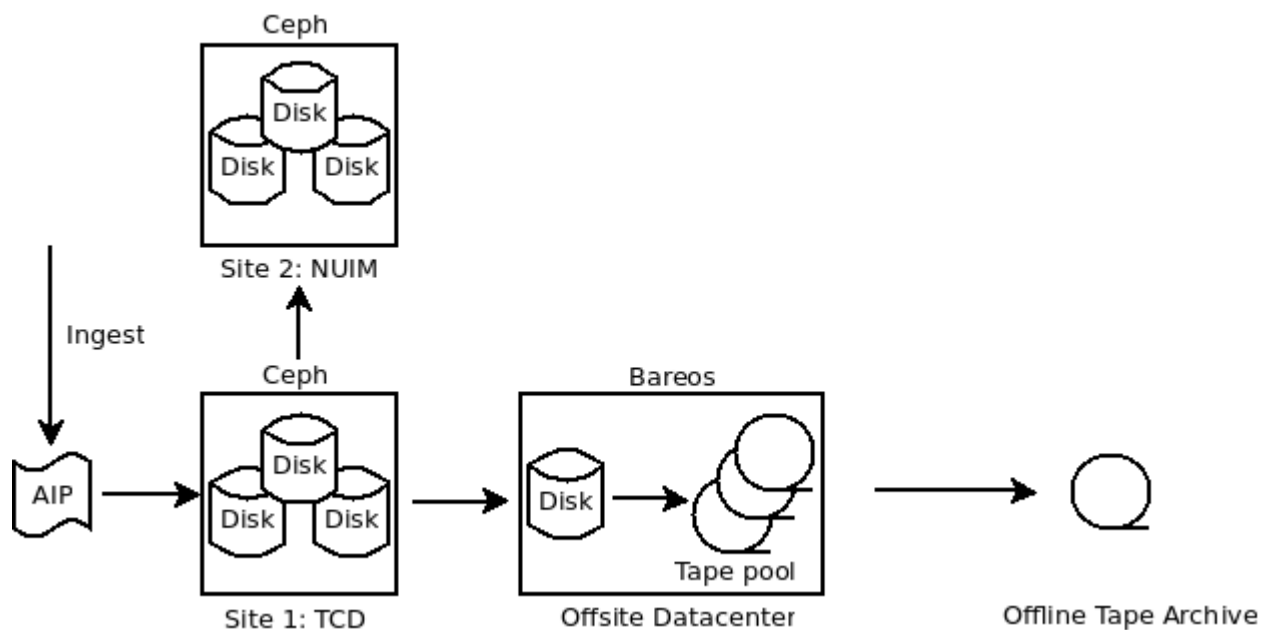
- Technical problems are easiest to overcome and explain
- Organisational, Staffing and Funding are hardest

## Preservation Policy

How to address fixed term or uncertain funding in preservation policy?

How to describe the future of your organisation/staffing/roles/responsibilities when they doesn't exist yet?

## Preservation Storage



## AIP: MOAB

```
AIP1/  
|-- currentversion.txt  
|-- V001/  
    |-- data/  
        |-- asset.jpg  
    |-- metadata  
        |-- descmetadata.xml  
        |-- PREMISmetadata.xml  
        |-- versionmetadata.xml  
    |--manifests/  
        |-- manifest.xml  
|-- V002/  
    |-- data/  
        |-- asset.jpg  
    |--manifests/  
        |-- manifest.xml
```

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## Integrity:

- Currently implemented using bareos
- New process to check all copies of AIP
- Result back to AIP metadata & database
- Made available to user in object audit page
- Data recovered as new version

## Todo:

- Properly implement MOAB bag format
- Build integrity check process
- Deploy tape server and develop tape strategy
- Gain ISO16363 Certification



## Questions?

DRI: [www.dri.ie](http://www.dri.ie)  
Trinity HPC: [www.tchpc.tcd.ie](http://www.tchpc.tcd.ie)  
Trinity College Dublin: [www.tcd.ie](http://www.tcd.ie)