

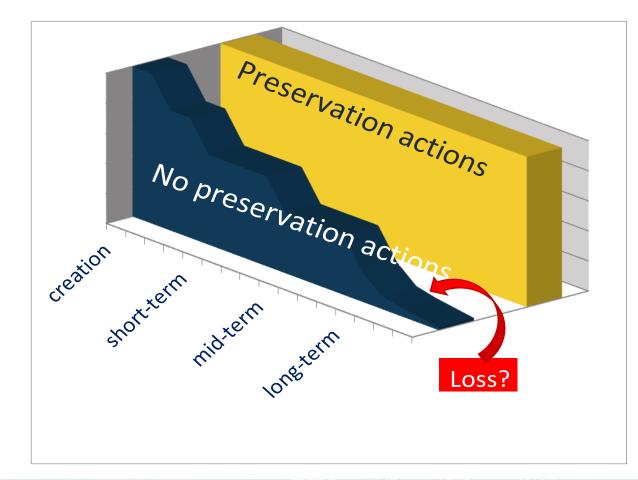


Integrating EOSC services to enable FAIR principles Olivier Rouchon (CINES)



#RealisingEOSC

Long-term preservation



EOSC-hub

Main objectives:

- Preserve the content and form
- In the long-term (over decades)
- Making it accessible

Main risks deal with:

- Comprehension, knowledge of content
- File format obsolescence
- Corrupted storage media
- Software / hardware obsolescence

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Long-term preservation

A SE Magick *	JHVE OpenOffice.org	HANDLE.NET [®]	<> .jpg	
	Challenge	Solutions	HTML OPS	
	Loss of content knowledge	Metadata;Persistent, unique identifiers.		
	File format obsolescence	 Handling of a limited set of durable formats; File format identification, validation; Logical migration (format conversion). 	netCDF	
	Storage media failure	Management of media ageing;Physical migration.		
	Software or hardware disappearance	 Technology watching , anticipation , proactivity. 		
			⇒₽₽?	
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Long-term preservation

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Include

- Capacity and resource planning,
- Application of long-term preservation techniques and technologies.

Combine policies, actions and (automated) processes

- To ensure access to "born-digital" and reformatted data,
- Regardless of the challenges of technological changes or failures (metadata, file format, media).

Rely on front-ends and interfaces to allow the ingestion of datasets.

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To ensure that digital information remains available, understandable over time !



Long-term preservation & FAIR

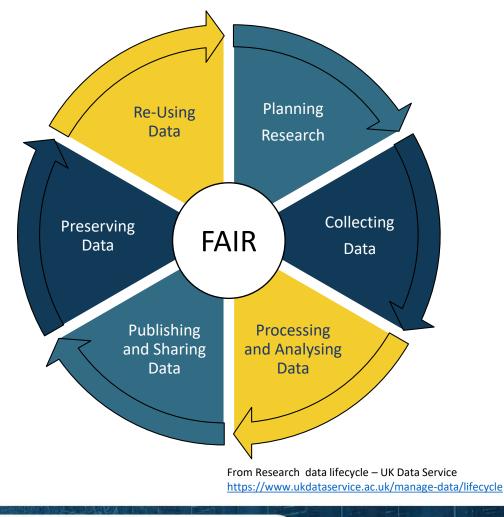
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- One phase in the Research data lifecycle
- Adresses the most of the FAIR principles
 - Persistent identifiers, provenance, authentication, etc.
 - Room for improvement
- Includes a « time » parameter which is not (yet?) considered in FAIR

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B2-Services enabling FAIR

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B2ACCESS service offers easy-to-use and secure Authentication and Authorization platform with different methods of authentication (home organization identity provider, Google account, EUDAT ID)

B2SAFE service offers functionality to replicate datasets across different data centres in a safe and efficient way while maintaining all information required to easily find and query information about the replica locations

B2HANDLE service offers data persistency by maintaining opaque, globally unique PIDs.

B2FIND service offers an interdisciplinary data discovery service based on a comprehensive metadata catalogue. Metadata are harvested from widely spread and inhomogenous services

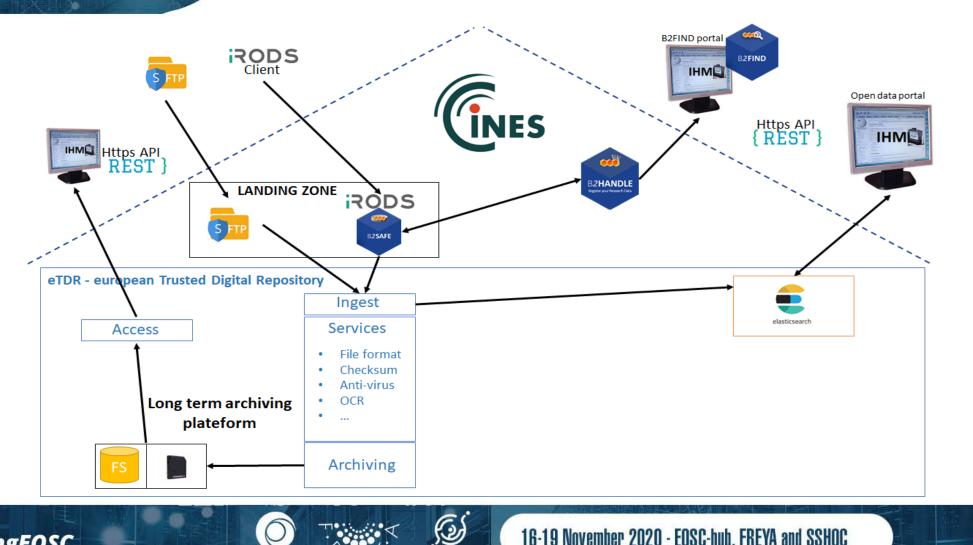
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eTDR@CINES integration



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- PIDs assigned through B2HANDLE can be resolved
- <u>http://hdl.handl</u>
 <u>e.net</u>
- 21.T12996/f925
 c0ce-b9dd-11ea 9704 525400276111

Handle PIDs resolution

→ C ① ▲ Non sécurisé | hdl.handle.net

Handle.Net®

Resolve a Handle and View the Values

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The web form below will enable you to resolve individual handles and view their associated values. It uses a proxy server, which understands both the Handle protocol and HTTP protocol.

If you type a handle into the text box, and that handle has a URL associated with it as one of its values, the proxy server will instruct your browser to display the location of that URL. If you select "Don't Redirect to URLs", the proxy will display the handle record.

The Handle proxy server uses caching to speed handle resolution. If you check "Authoritative Query", the proxy will bypass the cache, go directly to the responsible handle server, and then refresh the cache with the data for that handle.

Simply appending a handle to the URL <u>http://hdl.handle.net/</u> and giving the string to a browser as a location will also resolve that handle. The proxy also supports a REST API, returning handle records in JSON format. <u>Further documentation is available here.</u>

Handle: 21.T12996/f925c0ce-b9dd-11ea-9704-525400276111

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Authoritative Query
 Don't Redirect to URLs
 Don't Follow Aliases

Submit

<u>Handle Proxy Server Documentation</u> <u>Handle.net Web Site</u>

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Contact hdladmin@cnri.reston.va.us with your handle questions and comments

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EOSC-hub achievements

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- eTDR @ CINES now part of EOSC-hub catalogue <u>https://marketplace.eosc-portal.eu/services/etdr-european-</u> <u>trusted-digital-repository</u>
- Demonstrate the possibility of archiving datasets from B2SHARE (another interface) in the DANS datavault – code published on Git-hub : <u>https://github.com/ekoi/b2sharedtap</u>

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- Business model in progress
 - Annual fee

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Subject to change pending the EOSC business model







Realising the European

European certification framework



Trustworthy Data Repositories

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CoreTrustSeal certification

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- Replaces DSA & WDS certifications
- 16 evaluation criteria for trustworthy data repositories
 - Designated community, mandate, organization, security, in addition to data quality

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- 100 certified repositories
- Open to all data repositories
- Self-assessment/certification tool available online
- CoreTrustSeal Standards and Certification Board -<u>https://www.coretrustseal.org/</u>

OSC-hu

• Assembly of Reviewers



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EOSC-hub & FAIRsFAIR

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	D 40	F1. (meta)data are assigned a globally unique and eternally persistent identifier. F2. data are described with rich metadata. F3. metadata specify the data identifier.	 CTS+FAII
	R13	R13. Data discovery and identification	Certifica
	R15	F4. (meta)data are registered or indexed in a searchable resource. R15. Technical infrastructure	
		A1 (meta)data are retrievable by their identifier using a standardized communications protocol.	support
	R15	A1.1 the protocol is open, free, and universally implementable.	
Λ		R15. Technical infrastructure A1.2 the protocol allows for an authentication and authorization procedure, where necessary.	program
	R16	R16. Security	
	R10	A2 metadata are accessible, even when the data are no longer available. R10. Preservation plan	 Joint Act
		I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge	hub & F/
	R15	representation. I2. (meta)data use vocabularies that follow FAIR principles.	
		R15. Technical infrastructure (Business Information? Object Model?)	
	R11	I3. (meta)data include qualified references to other (meta)data. R11. Data quality	
	D14	R1. meta(data) have a plurality of accurate and relevant attributes.	
	R11	R11. Data quality R1.1. (meta)data are released with a clear and accessible data usage license.	
D	R2	R2. Licenses	
	R7	R1.2. (meta)data are associated with their provenance.	
	D1E	R7. Data integrity and authenticity R1.3. (meta)data meet domain-relevant community standards.	Foste
	R15	R15. Technical infrastructure	

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IR mapping

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- tivity EOSC-AIRsFAIR



Thank you!

Olivier Rouchon – olivier.rouchon@cines.fr



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