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Make it Happen – Carrying out Research and Analysing Data (PARTHENOS Webinar)

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PARTHENOS

Pooling Activities, Resources and Tools
for Heritage E-research Networking,
Optimization and Synergies

Make it Happen - Carrying out Research and Analysing Data

(George Bruseker & Carlo Meghini)

A Webinar of the PARTHENOS eHumanities and eHeritage Series

Picture: Linking Open Data cloud diagram 2017, by Andrejs Abele, John P. McCrae, Paul Buitelaar, Anja Jentzsch and Richard Cyganiak. <http://lod-cloud.net/> [CC-BY-SA](#)

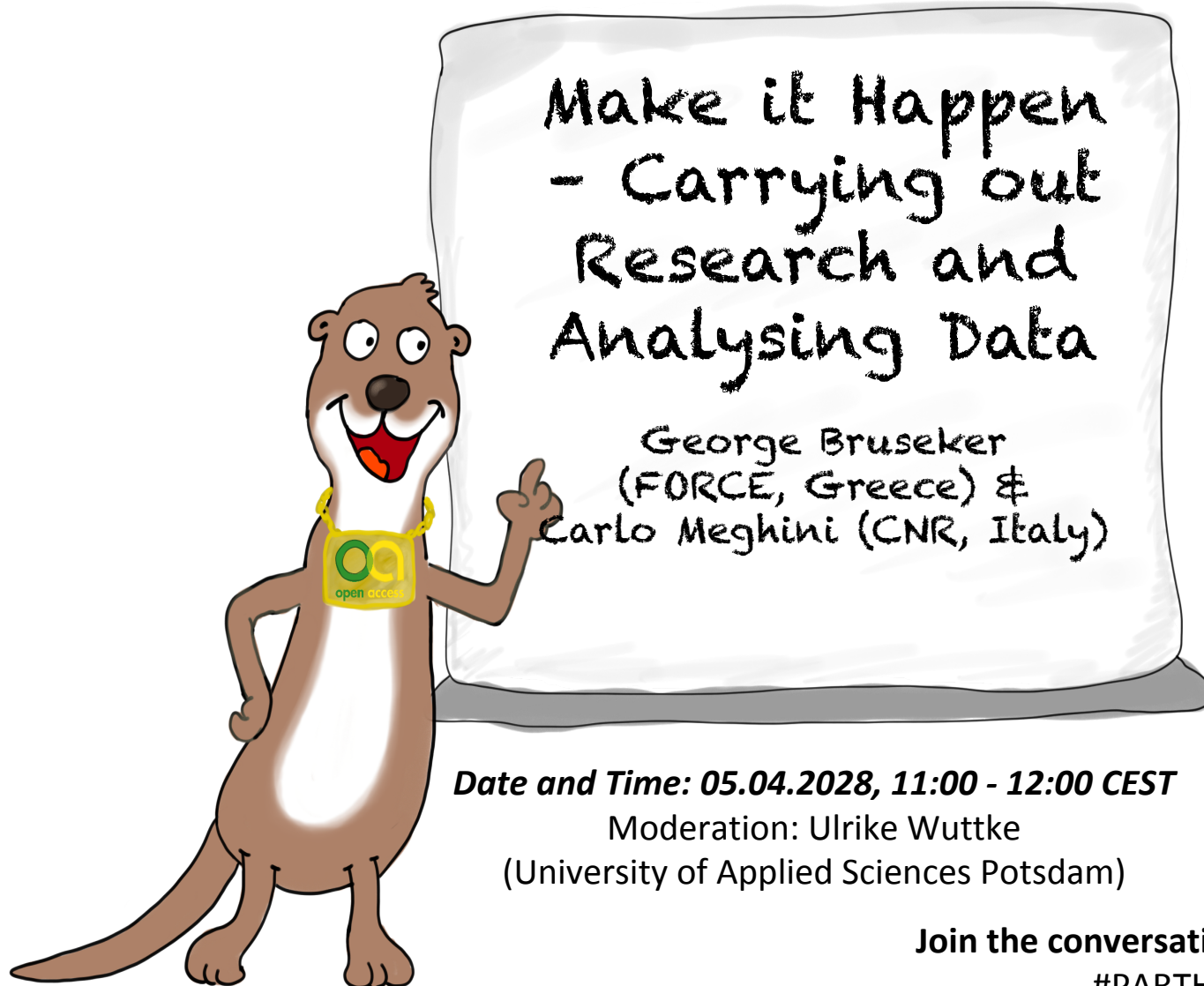
Webinar start: **05.04.2018, 11:00 CEST**
Moderation: Ulrike Wuttke
(University of Applied Sciences Potsdam)

FH;P Fachhochschule Potsdam
University of
Applied Sciences

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PARTHENOS eHumanities and eHeritage Webinar Series



Date and Time: 05.04.2028, 11:00 - 12:00 CEST

Moderation: Ulrike Wuttke
(University of Applied Sciences Potsdam)

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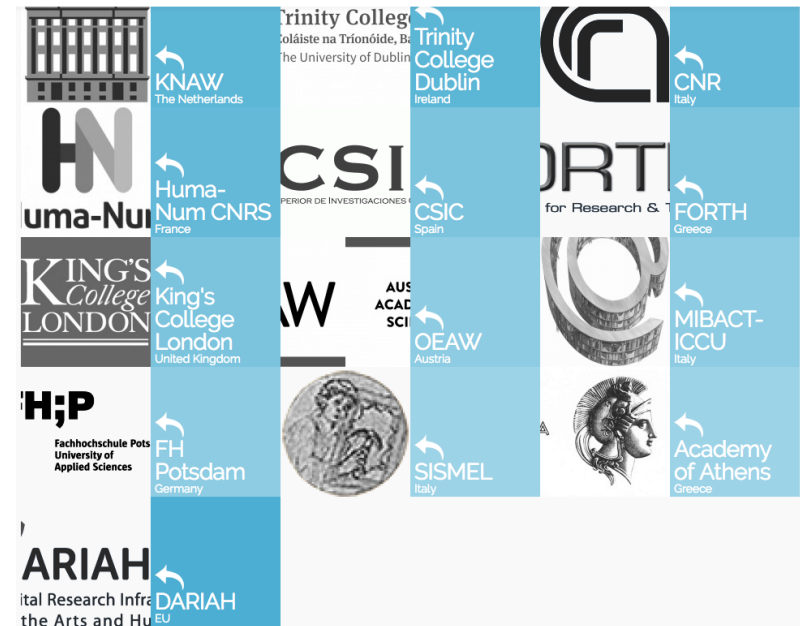
Some Housekeeping...

- As a participant you will be **muted** and not be seen throughout the webinar.
- For **questions** and **remarks** please use the **chat**. For questions, please use the word **question**.
- Your questions are going to be answered by the trainers during / after the presentation.
- If you have **sound problems**, please test your technical settings. You have to click on the **speaker symbol** on top to to be able to hear (it has to be **green**).
- **Help us improve**: Follow up e-mail with a link to a short **feedback survey**.



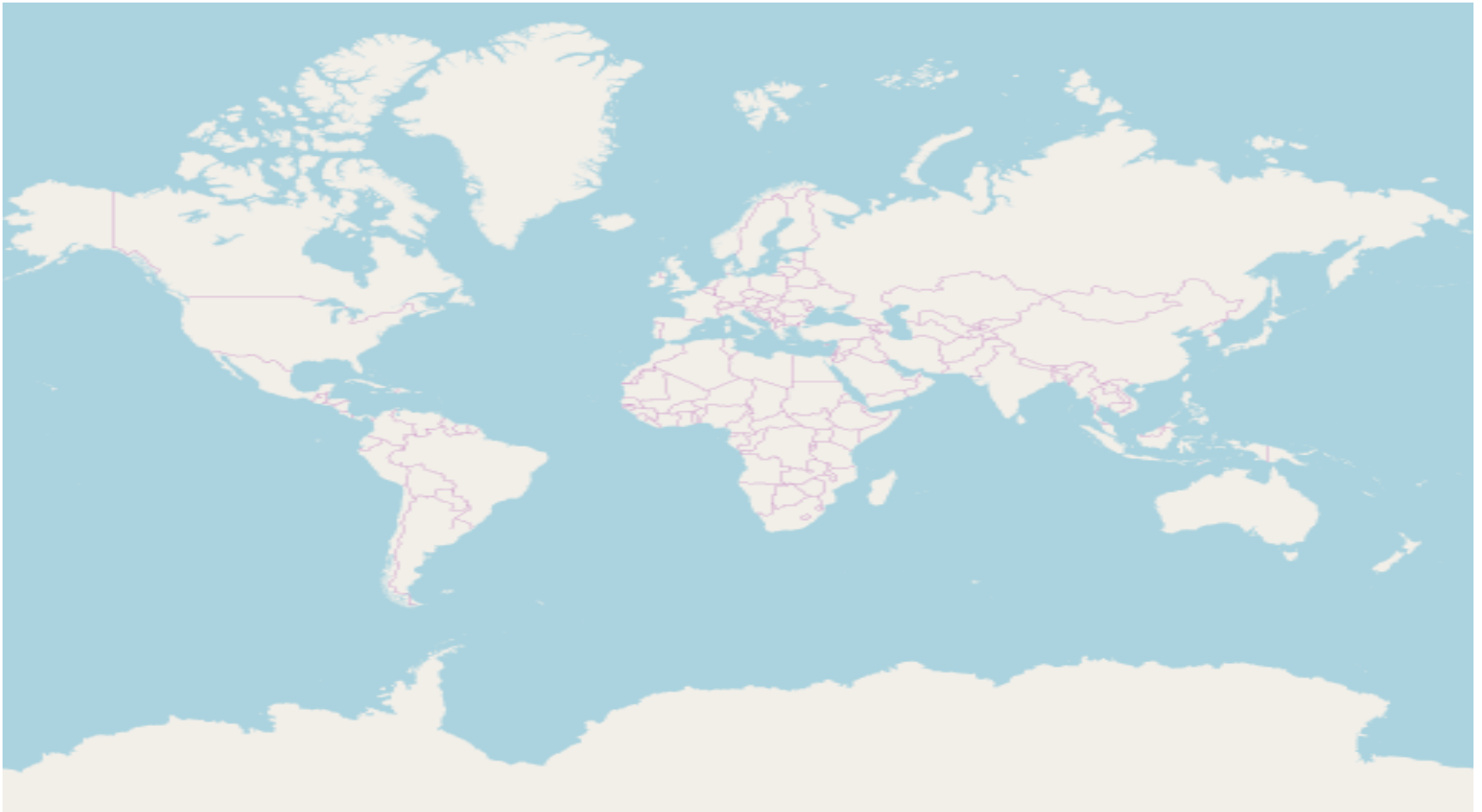
Some words about PARTHENOS...

- **PARTHENOS** stands for: Pooling Activities, Resources and Tools for Heritage eResearch Networking, Optimization and Synergies
- PARTHENOS is a **Horizon 2020** project with the aim to **strengthen the cohesion of Heritage related E-research**
- Running time: 1 May 2015 - 30 April 2019
- PARTHENOS has 16 partners from 9 European countries
- PARTHENOS Coordinator: PIN Scrl (Italy)
- The PARTHENOS webinar series is a **cross PARTHENOS training effort**





Which country are you participating from?



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Make it Happen – Carrying Out Research and Analysing Data

Trainers



George Bruseker
(FORTH, Greece)



Carlo Meghini
(CNR, Italy)

Moderation

Dr Ulrike Wuttke
(University of
Applied Sciences
Potsdam,
Germany)



“MAKE IT HAPPEN”

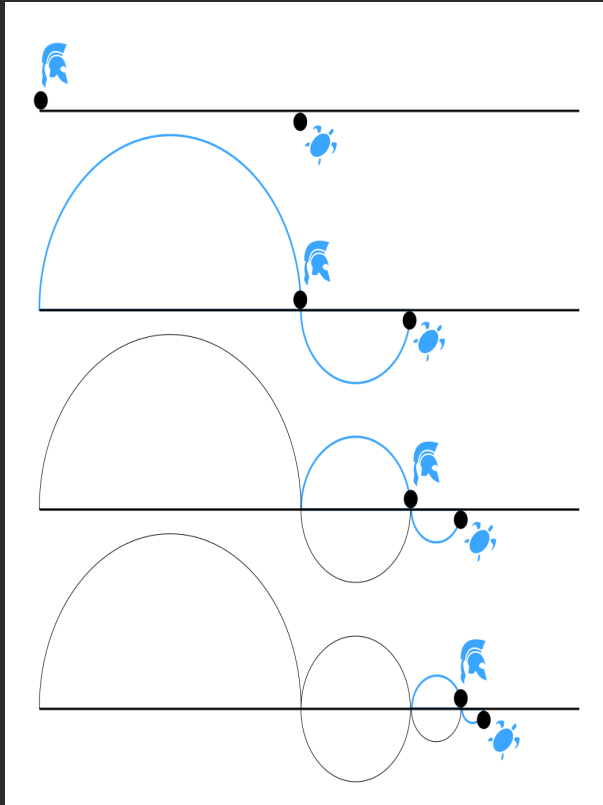
CARRYING OUT RESEARCH AND ANALYSING
DATA in a Research Infrastructure

A Webinar of the Parthenos eHumanities and eHeritage Series

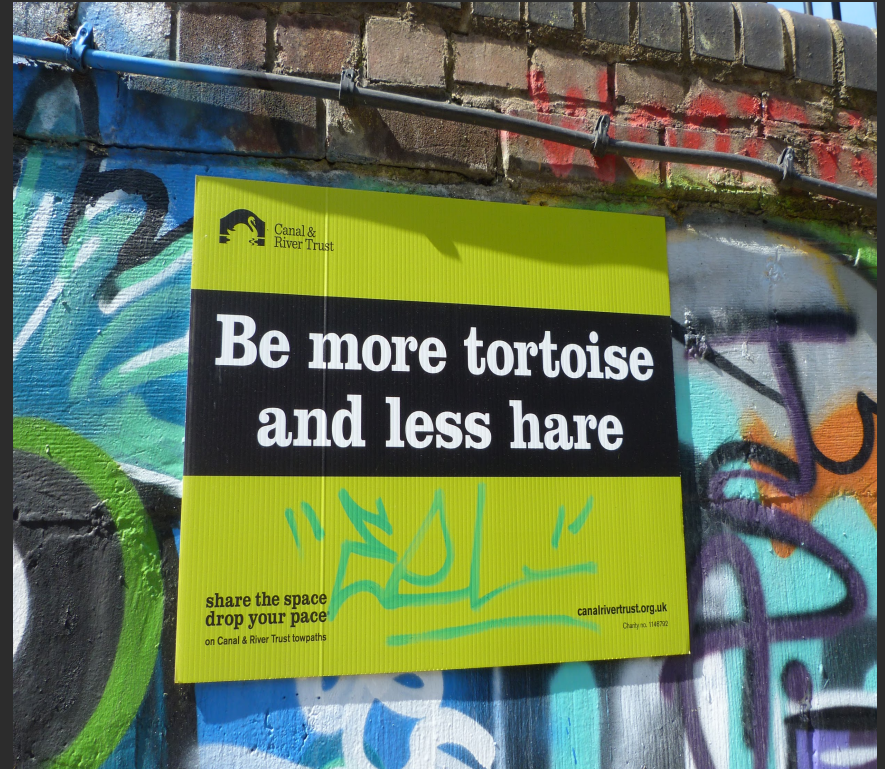
Webinar Programme

1. Benefits and Challenges of Research Infrastructures for Researchers
2. Technical Challenges to Setting up an Effective RI and the Parthenos Proposition
3. Step-by-Step of the Research-Register-Research, On-demand Integration Cycle

The Journey



Martin Grandjean. Henri Bergson et les paradoxes de Zénon : Achille battu par la tortue ?. Wikimedia Commons. CC-BY SA4.0.
https://commons.wikimedia.org/wiki/File:Zeno_Achilles_Paradox.png



Gordon Joly. Be more tortoise and less hare. Flickr. CC-BY SA2.0.
<https://www.flickr.com/photos/loopzilla/26687633281>

1. Benefits and Challenges of Research Infrastructures for Researchers

What is a Research Infrastructure

A complex IT system, set up and constantly enriched by a research organization to provide its scientific community with digital resources for conducting research.

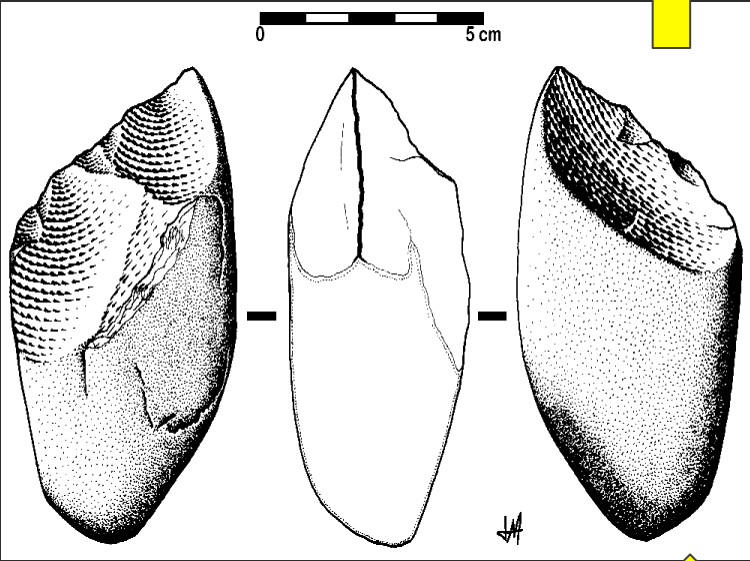
A virtual doppelganger of the real community

Resources:

- Data and Knowledge, including scientific literature
- Data and Knowledge Processing Tools
- Services
 - Authentication, Authorization, Accounting
 - User and Community Management
 - Resource Discovery and Access
 - Virtual Research Environments
 - ... and more

Poll: Are you happy with the data, tools and services
you have access to?

Research in an RI Context - Benefits



José-Manuel Benito Álvarez. Picture of Stone Tools. Wikipedia. CC BY-SA 2.5
https://upload.wikimedia.org/wikipedia/commons/3/32/Chopping_tool.gif



Unknown. Picture of Tools as 'Tools'. Pxhere.com CC 0 https://c.pxhere.com/photos/a9/84/tools_logo_work_equipment_pictorial_letters_image_letters_tool_set_equipment-1347523.jpg

Shared Tools

Research in an RI Context - Benefits



Four Blair Services Pvt. Ltd., Graphic Representing Services. Wikimedia. CC ASA 4.0
<https://commons.wikimedia.org/wiki/File:Services4.png>

Shared Services

Research in an RI Context? - Ends



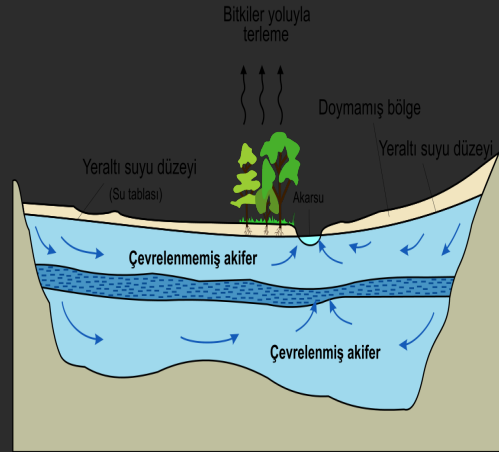
Unknown. Graphic of Sharing Economy. Escuela de Organizacion Industrial. Unknown
<http://www.eoi.es/blogs/imsd/what-you-have-is-what-i-need-collaborative-economy/>

Efficient and Trustworthy Sharing of Knowledge

Research in an RI Context? - Problems

Lack of:

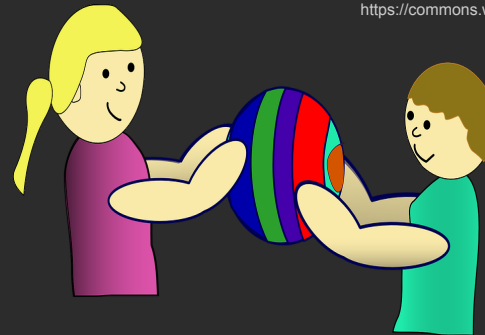
- Visibility of Resources
- Standards
- Shared/sharing Culture



Hans Hillewaert .Graphic of Aquifer. Wikimedia Commons. CC
ASA 3.0
https://commons.wikimedia.org/wiki/File:Aquifer_tr.svg

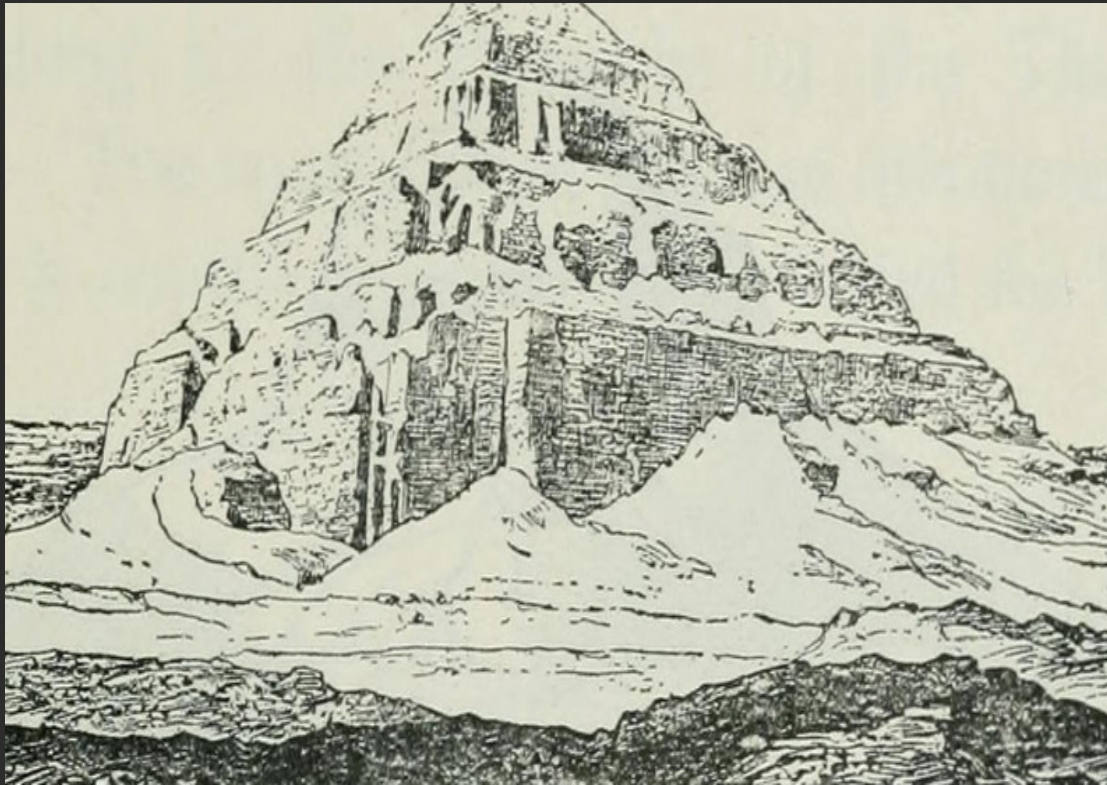


Agnico-Eagle .Photograph of Gold bars created by Agnico-Eagle.
Wikimedia Commons. CC0 1.0
https://commons.wikimedia.org/wiki/File:Gold_Bars.jpg



Pixabay .Graphic of Sharing. Pixabay. CC0 1.0
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Move to RI based Research Requires



4. Deploy Critical Scholarly Apparatus in Virtual Research Environment

3. Common Workflows

2. Common Research Infrastructure Context

1. Shared General Priorities

2. Technical Challenges to Setting up an Effective RI and the Parthenos Proposition

Poll: What percentage of your time do you devote to downloading, installing, configuring, and maintaining IT tools or trying to understand and clean existing datasets for your research?

How do we get there?

Meeting the Info Integration Challenge

1 - Unknown. Graphic Representing Actors. Pixabay. CC0
<https://pixabay.com/en/business-team-people-group-894846/>
 2 - Unknown. Graphic Representing Actors. Pixabay. CC0
<https://pixabay.com/en/objects-things-icons-beach-sun-1315199/>
 3 - Moini. Graphic Representing Tools on the wall. Public Domain Files. None.
http://www.publicdomainfiles.com/show_file.php?id=13526406018618
 4 - Unknown. Graphic Representing Actors. Pixabay. CC0
<https://pixabay.com/en/arrow-target-range-bullseye-sport-2889040/>

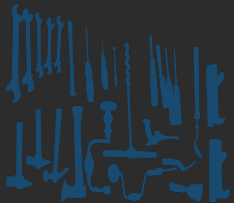
Data are inherently heterogeneous owing, inter alia, to the diversity of:



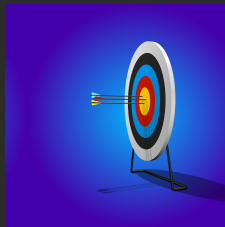
Actors₁



Objects₂



Tools₃



Goals₄



motivates

Common Information Integration Solutions

	Minimalist	Maximalist
Core Fields	Few or None	Comprehensive
Extensibility	Open	Closed
Advantages	Light, Flexible, Expressive	Complete and comprehensive for its time
Disadvantages	Weak Automated Integration, difficulty of maintenance	Heavy conversion and update price, unevenness of source data, takes a strong position

Info Integration Challenge and the Supermarket Bias



Information Integration perceived as:

- List of Items
- Maximalist List
- Minimalist List

But this is **not adequate for science and scholarship**. We need to know:

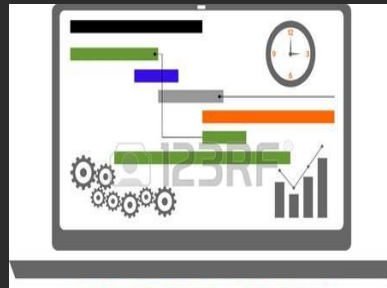
- Where it came from?
- How was it made?
- Who is responsible for it?
- How can we learn more about it?

Not a list of items, but a picture of a scientific/scholarly environment.

Down with the Catalogue, Up with the Register!



Services



Projects



Datasets



Software



Actors



Research Infrastructures

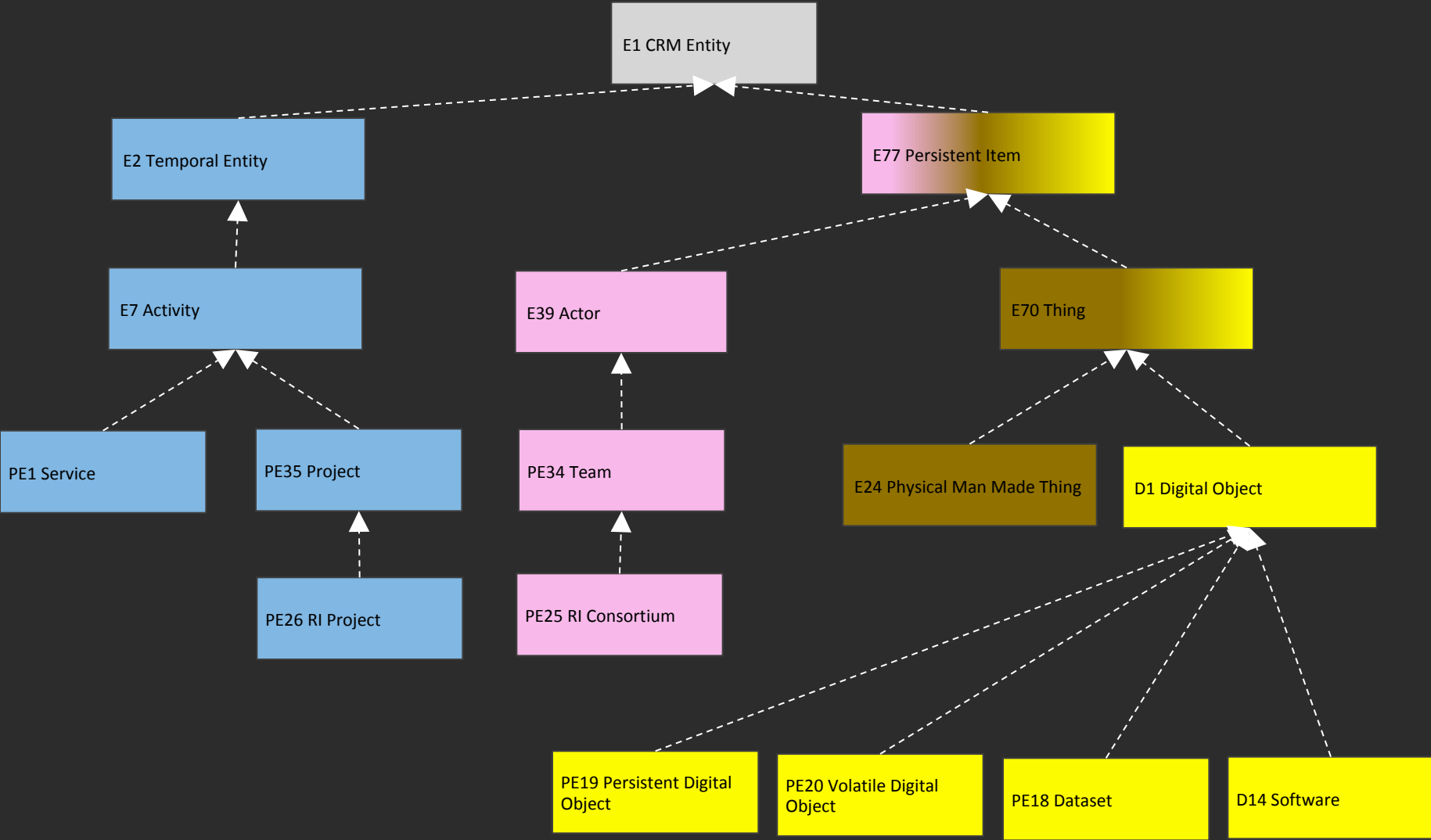
An adequate Data or Conceptual Model for RIs should provide a framework for describing and mapping basic relations that hold between:

Services, Actors, Projects, Datasets, Software, Research Infrastructures

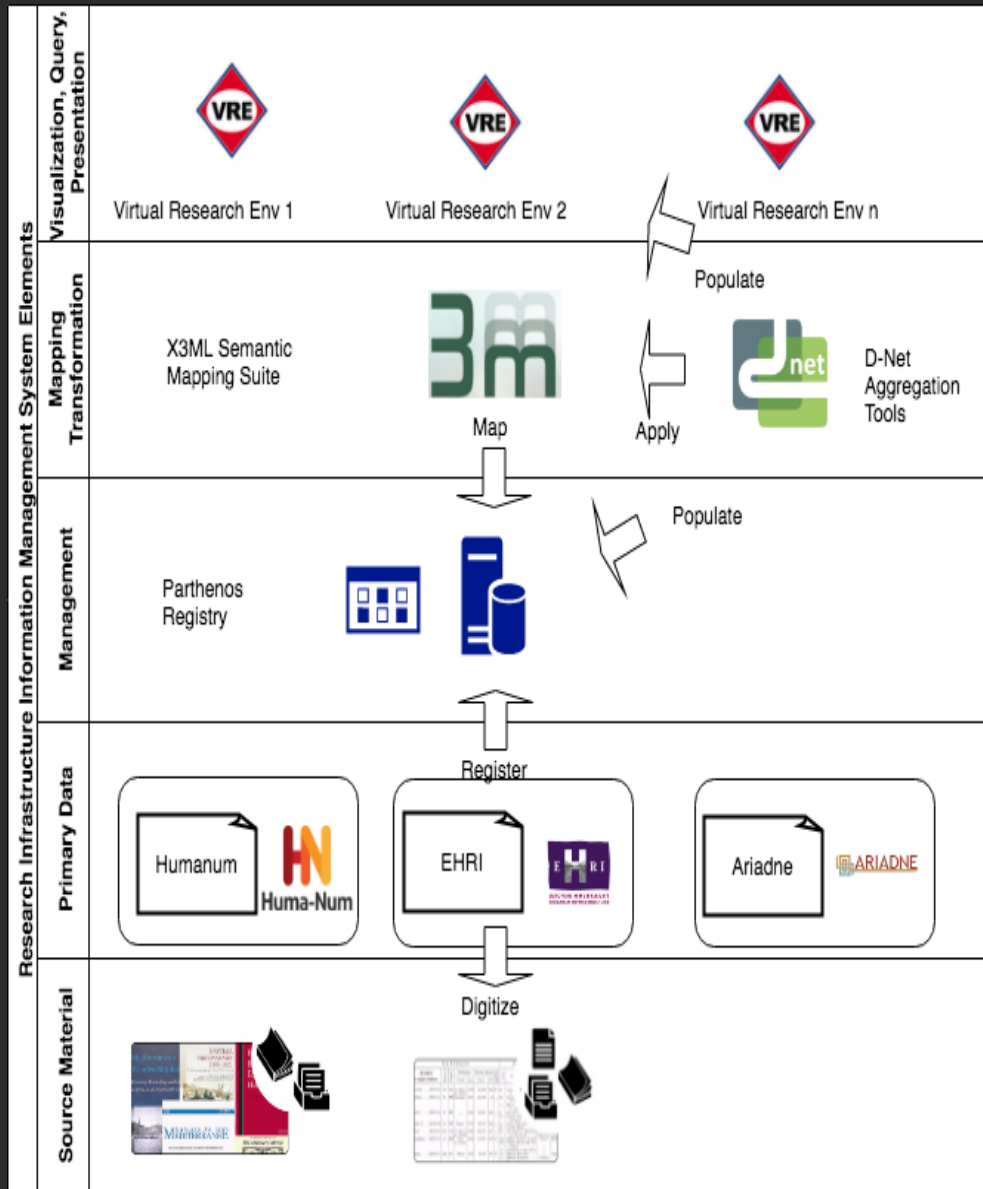
This will **provide** not yet another aggregation but **a picture of the research infrastructure and information integration landscape itself to identify, support and build useful and sustainable aggregations.**

This picture serves the function of determining what has been integrated, where and by who and gives the ability to plan and managed the continuous activity of multiple integrations for different purposes

Parthenos Entities



Research Infrastructure Components for Scholarship



A register linked to an aggregation environment supports targeted, on-demand integration of datasets, software and services in VREs for scholars to carry out critically grounded research.

What's a VRE?

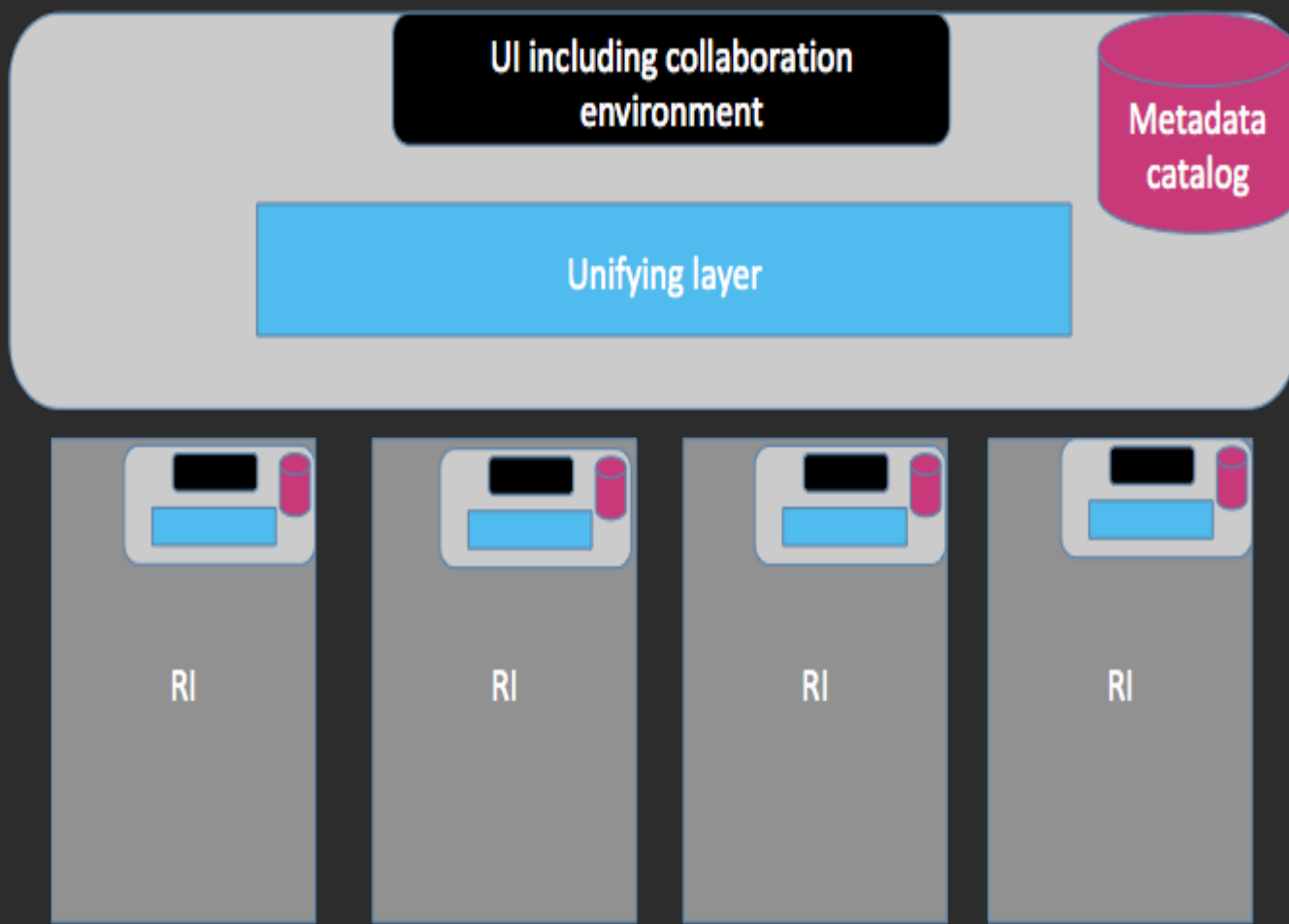
A complex IT system, made available by one or more RIs for a designated research community to collaboratively conduct research on a specific theme.

The members of the designated community find in the VRE the digital resources:

- Data and Knowledge, including scientific literature
- Data and Knowledge Processing Tools
- Services

that they need for their activity. These digital resources are provided by the underlying RIs.

In their most general form, VREs have an overarching role, enabling interoperation across RIs



* Courtesy of the VRE4EIC Project: www.vre4eic.eu

3. Step-by-Step of the Research - Register - Research on-demand integration Cycle

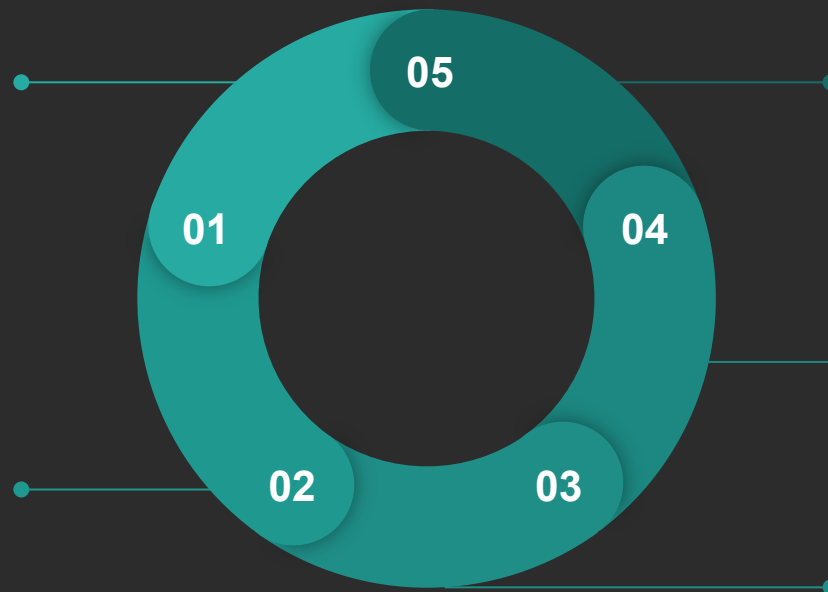
The Research and Register Data Cycle Overview

Register Initial Resources

Creates the map of available resources for the community and their potential relations.

Map Major Data Structures to Registry

Fills out initial knowledge map of available resources



Carry out Research and Register Results

Research undertaken in VRE has association to its inputs and new data is registered back to central registry

Setup VRE and populate

Initiate VRE on top of registry and setup for research, create necessary mappings from resources to create rich data network in appropriate format

Determine useful Integrations and map

Use register to identify combinations of services, datasets and software that would support research

1. Register Resources

This step is the foundation of all further research. It establishes the basic knowledge of who holds what data, how it was produced, and how it can be accessed.



Tools General

- Spread-sheet
- RDMS
- Triple Store

Particular

- G-Spread-sheets
- Drupal
- OrientDB

Resources

- [Parthenos Minimal Metadata Recommendation](#)
- [Basic G-Spreadsheets](#)

1. Register Resources

<https://www.ehri-project.eu/>

LATEST NEWS

SHARE

Parthenos Registry Top Level

File Edit View Insert Format Data Tools Add-ons Help Last edit was made 8 days ago by Maria Theodoridou

Rich text editor toolbar with various icons for text formatting, alignment, and insertion.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Typology	ID	Title	Description	competenc e1	competenc e2	competenc e3	Provided by	Provided by2	Provided by3	Declared Begin/End of operation	Last confirmation	Date of Registration (w/Parthenos)	Availability	Conditions of use/rights Type
14	PE17	11	EHRI Portal	The EHRI portal offers access to information on Holocaust-related archival material held in institutions across Europe and beyond.	Holocaust Related Archive Material			EHRI Consortium			2015				https://www.ehri-project.eu/

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Title	Description	Part of	Hosted by	Curated by	Curation Plan	Encoding Type	EncodingType 2	Schema/Forma t	Schema/Forma t2	Schema/Forma t3	subject1	subject2	Subject3
14	EHRI Portal Dataset	The EHRI portal offers access to information on Holocaust-related archival material held in institutions across Europe and beyond.		EHRI Portal	EHRI Portal				EAD			Holocaust Related Archive Material		

3. Resource Analysis

This step proceeds to an analysis of the available resources in relation to research questions. It considers the available data sources and their formats as well as the tools available and their ability to work with certain formats.



Tools

General

- Registry
- Research Questions

Particular

- Your Registry
- Your Research Questions

Resources

- [Parthenos Minimal Metadata](#)

3. Resource Analysis

REGISTRY

PARthenOS Registry Administration Members Catalogue Virtuoso Registry

Subject Item
n2-dk-002313-flygtningedatabasen_1933_1945

rdfs:type
crm:E70_Thing crm:PE18_Dataset crm:PE19_Persistent_Digital_Object crm:PE22_Persistent_Dataset crm:E73_Information_Object crm:E1_CRM_Entity crm:E71_Man-Made_Thing crm:E72_Legal_Object crm:E28_Conceptual_Object crm:E77_Persistent_Item crm:dg:D1_Digital_Object crm:E89_Propositional_Object crm:E90_Symbolic_Object crm:E33_Linguistic_Object

rdfs:label
dk-002313-flygtningedatabasen_1933_1945

crm:P121_was_present_at
n10:6687095c-2ebf-4409-8749-7ba2980c94c4

crm:P129_is_about
n7:1933-1945

crm:PP231_is_dataset_part_of
n5:20Dataset

crm:P1_is_identified_by
p9-dk-002313-flygtningedatabasen_1933_1945

crm:P2_has_type
n6:metadata

crm:P102_has_title
p9-dk-002313-flygtningedatabasen_1933_1945

crm:P72_has_language
n12:English

crm:P941_was_created_by
n10:6687095c-2ebf-4409-8749-7ba2980c94c4

crm:P106i_forms_part_of
n5:20Dataset

crm:P921_was_brought_into_existence_by
n10:6687095c-2ebf-4409-8749-7ba2980c94c4

crm:PP181_is_digital_object_part_of
n5:20Dataset

crm:P67_refers_to
n7:1933-1945

Metadata Record for Flygtningedatabasen 1933-1945

Followers 0

[Follow](#)

Rating ☆☆☆☆☆ (0)

Your rating ☆☆☆☆☆

no rating given

Item Groups Activity Stream Manage

Metadata Record for Flygtningedatabasen 1933-1945

Tags

D1_Digital_Object E1_CRM_Entity E28_Conceptual_Object
E33_Linguistic_Object E70_Thing E71_Man-Made_Thing
E72_Legal_Object E73_Information_Object E77_Persistent_Item
E89_Propositional_O... E90_Symbolic_Object PE18_Dataset
PE19_Persistent_Dig... PE22_Persistent_Dat... Resource

Data and Resources

This item has no data, [why not add some?](#)

Additional Info

Field	Value
Item URL	http://data-d4science.org/ctlg/PARthenOS_PRE/dk-002313-flygtningedatabasen_1933_1945
Parthenos URL	http://parthenos.d4science.org/handle/EHRI/PORTAL/Dataset/dk-002313-flygtningedatabasen_1933_1945
curated by	
curation plan	
has part	
hosted by	
instance of	PE22_Persistent_Dataset
is part of	http://parthenos.d4science.org/handle/Parthenos/REG/Dataset/EHRI%2520Portal%2520Dataset
spatial coverage	
subject	Flygtningedatabasen 1933-1945

Organisation

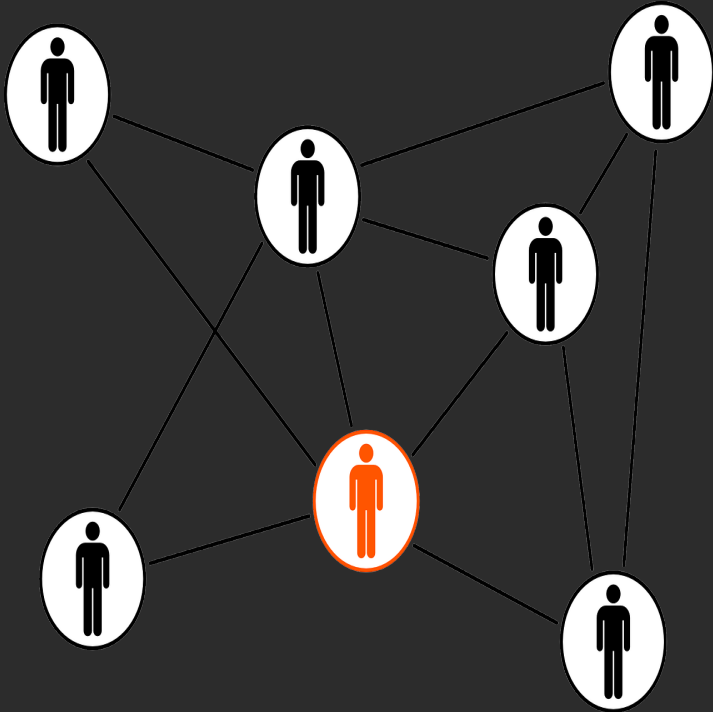
PARthenOS_PRE
There is no description for this organisation

License

License Not Specified

4. VRE Setup and Population

This setup establishes a custom environment for plugging in available services and tools to work on harmonized and integrated datasets.



Tools

General

- VRE Software Platform

Particular


- D4Science

Resources

- [D4Science Documentation](#)

The D4Science VREs' of Carlo

Statistics



ACTIVITY GOT SPACE US
9 0 2 6 16 1,34%

PROFILE STRENGTH
50%

My Virtual Research Environments

SUPPORTED PROJECTS AND INITIATIVES

- ARIADNE
- E-RIHS
- SmartApps

PARTHENOS


- ACE
- NERLIX
- PARTHENOS_Reg..
- Parthenos**

Search News Feed

Parthenos Members Issue Tracker X3ML mapping tool

Statistics

Your Stats in Parthenos



ACTIVITY GOT
9 0 2 6 16

Share updates

Share an update or a link, use "@" to mention and "#" to add a topic

Notify members

Share

News feed

MD Matej Durco Dear all, especially Alessia Bardi , George Theodore Bruseker , we would like to raise/escalate some issues concerning the delivery of aggregated & transformed metadata (via solr and sparql) which are showstop...

5. Research, Results, Register

Using the resources deployed in the VRE, researchers carry out primary research generating new datasets and then re-register them to the overall system register. This creates fully provenanced knowledge.



Tools

General

- As per research goal

Particular

- As per research goal

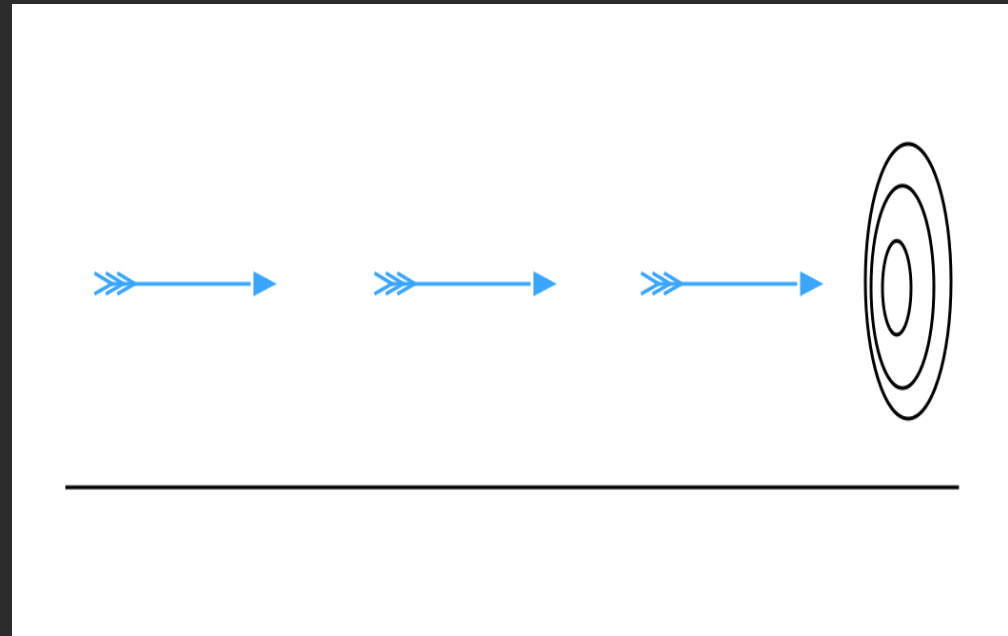
Resources

- Domain dependent

Poll: What are the chief benefits you hope from an
RI?

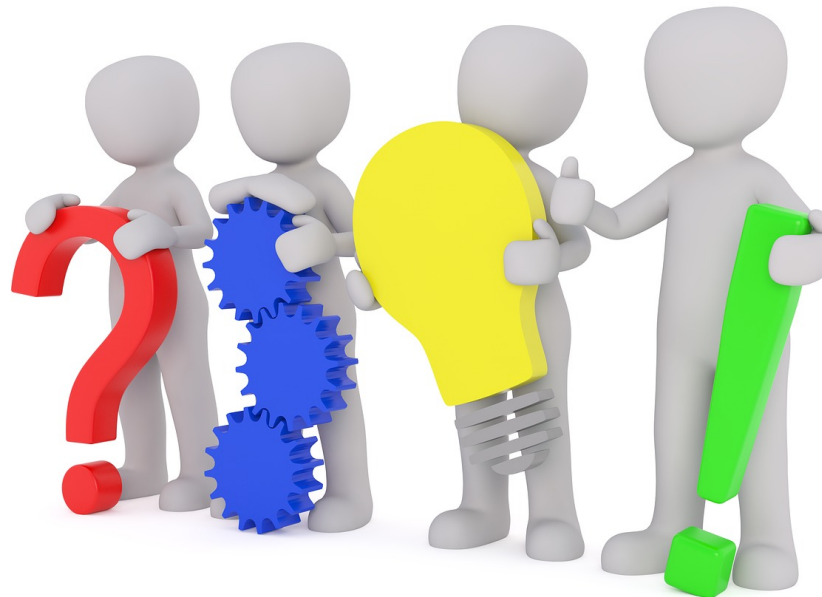
Conclusions

1. Share and Understand Priorities
2. Build the data foundations, build the knowledge foundations (register what you have and what you know)
3. From the foundations extend your knowledge through targeted VREs
4. Slow but steady cross the infinite distance





Questions & Answers



(Picture CC0 <https://pixabay.com/photo-2999583/>)

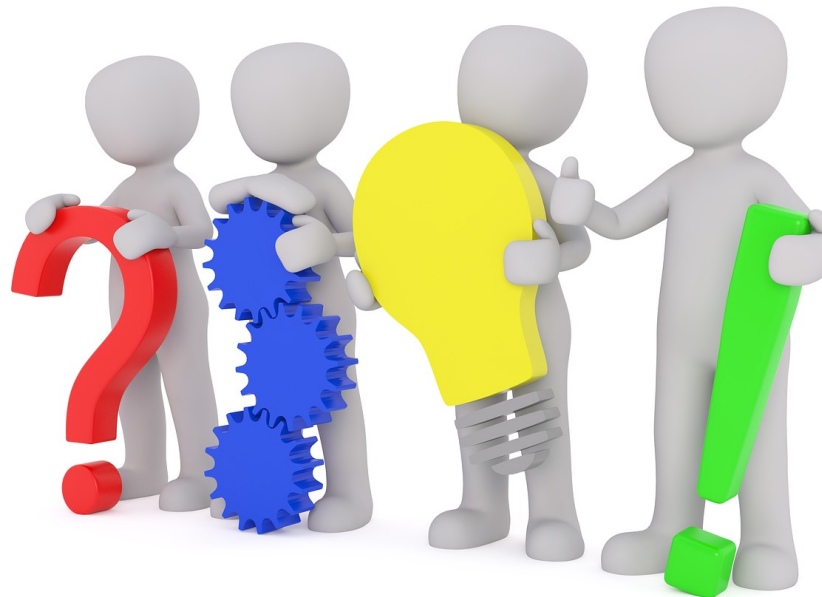


Announcements

- **Next PARTHENOS webinar:**
 - 24.04.2018, 13:00 CEST:
[Boost your eHumanities and eHeritage research with Research Infrastructures](#) (Darja Fišer, Ulrike Wuttke)
- **New PARTHENOS Training Suite module:**
[Manage, Improve and Open Up Your Research and Data](#)
- **PARTHENOS YouTube Channel:** e.g.
[PARTHENOS TRAINING: Ontologies Explained \(in 5 minutes or less\)](#) (with Kristen Schuster, KCL)
- **PARTHENOS Webinar Workshop** at the European Summer University in Digital Humanities 2018 (ESU), Leipzig:
[How Research Infrastructures empower eHumanities and eHeritage Research\(ers\)](#)



Questions & Answers



(Picture CC0 <https://pixabay.com/photo-2999583/>)



Thank you for joining us!

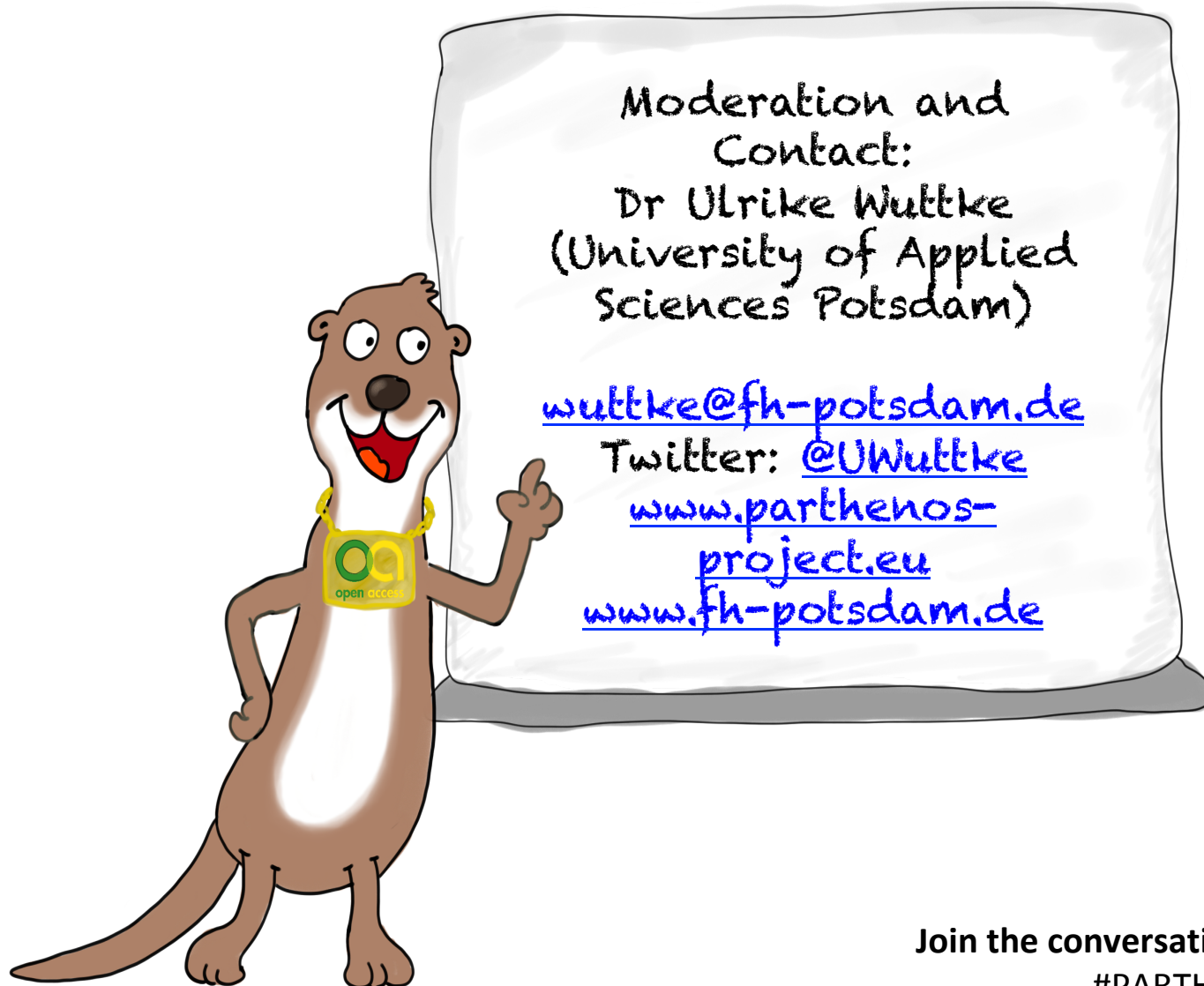


- ✓ Please help us improving the PARTHENOS Webinar Series and fill out the short Feedback Survey that we'll sent you in a follow-up e-mail.

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PARTHENOS eHumanities and eHeritage Webinar Series



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