



ARIADNE

The European E-Infrastructure for
FAIR Digital Archaeological

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The ARIADNE project

- ARIADNE: Research Infrastructure project aiming at the integration of archaeological datasets in Europe
- Four years' duration, from 1/2/2013 to 31/1/2017
- 23 partners from 17 countries
- Goals:
 - Overcome the fragmentation of archaeological datasets
 - Foster/support interoperability and standardization
 - Enable resource discovery with faceted searches based on time (“when”), place (“where”) and subject (“what”)
 - Make archaeological data discoverable, accessible, understandable, usable
 - Connect datasets in an overarching catalogue (the **Registry**) accessible via the ARIADNE Portal



The initial ARIADNE Partnership



Accessing the registry via the ARIADNE Portal

The screenshot shows the ARIADNE Portal website. The browser address bar displays "portal.ariadne-infrastructure.eu". The page has a navigation bar with "Catalog", "Services", and "About" links. The main content area features the ARIADNE logo, a search bar with a dropdown menu set to "All fields", and a search button. Below the search bar is a "Welcome" section with a brief description of the portal's purpose. Further down is a "Browse the Catalog" section with three interactive panels: "Where" (a map of Europe), "When" (a timeline graph showing data peaks around 1000 BC and 1000 AD), and "What" (a word cloud of archaeological terms including "houses", "structures", "barns", "churches", "farms", "kilns", "hearths", "cist graves", "gatehouses", and "settlements").

<http://portal.ariadne-infrastructure.eu>



The result list

The screenshot shows the Ariadne portal search results page. The browser is Chrome, and the URL is ariadne2.isti.cnr.it/index.php/search?page=10000. The page features a search bar at the top with the text "Start a new search...". Below the search bar, the "Total results: 1,949,381" is displayed, circled in red with an arrow pointing to it. The results are listed in a table with columns for "Type" and "Publisher". The first few results are:

- MILNCROFT**
Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service
- Building (site of), SW of Cowl House, Bransdale**
Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service
A small rectangular building is shown to the SW of Cowl House on the OS 1857 6 map. Also shown on earlier estate plans of 1819 and 1828 [2] [3]. Not shown on OS 1912 25 map [4]. This may be a building named as a bankhouse in a survey of 1648 [5]. Site visit 11/03/2000: No obvious signs...
- No title**
Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service
Boundary mound, Post Medieval date.
- No title**
Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service
Possible round barrow identified by O.G.S. Crawford and W.J. Hemp in 1937. The earthwork survives as a low flat-topped platform, circular in outline and 30-35 metres in diameter. It stands to a height of 0.6 metres above ground level where best preserved on the south and it has been truncated.
- EDINBURGH, CORSTORPHINE ROAD, 3-4 DOWNIE TERRACE, HOTEL**
Type: Sites and monuments databases or inventories Publisher: Archaeology Data Service
- DUN LEIGH**

On the left side of the page, there are filters for "Where" (a world map) and "When" (a bar chart showing the distribution of results over time).

A page of the result list with no search parameters, showing the total amount of datasets registered (little less than 2 million)

Accessing the source datasets

Accessing the source data

1. Search the registry
2. Choose one result
3. Follow the link to the original repository
4. Access the source data

The collage illustrates the steps to access source datasets:

- Top Screenshot:** The Ariadne portal search results page. It shows a search for 'ariadne2.latl.cnr.it/index.php/search?page=10000' with 1,949,381 results. The 'Where' filter shows a map of Europe with a red dot in Italy. The 'When' filter shows a timeline from 100,000 to 0.
- Middle Screenshot:** The 'Library of Unpublished' page for the 'Latton Lands Gravel Pit, North Wiltshire' project. It includes contact information for the 'Primary contact' (Lisa Brown, Senior Project Manager, Oxford Archaeology (South)) and a 'Send e-mail enquiry' button.
- Bottom Screenshot:** The 'Downloads' section of the 'Latton Lands Gravel Pit' project. It lists various data files for download, including 'Final Report - text' (1.4 Mb), 'Final Report - All figures' (10.4 Mb), 'Animal bone' (179 Kb), 'C14' (313 Kb), 'CBM Final' (116 Kb), 'charcoal report' (216 Kb), 'Coins' (152 Kb), 'Cu alloy debris' (90 Kb), 'Fired Clay Latton Lands' (193 Kb), and 'FLINT publication' (228 Kb).



Above and beyond ARIADNE

- Proposal for an ARIADNE*plus* extension
- Goal: make archaeological data **FAIR**
- Now with 41 partners to cover all of Europe
- Improved coverage of scientific datasets
- Ready for the European Open Science Cloud
- Implementing Virtual Research Environments
- Advanced services for users:
 - GIS integration across national archaeological maps
 - Natural Language Processing to enrich report metadata (already developed within EOSCpilot as a science demo)
 - Linked Open Data



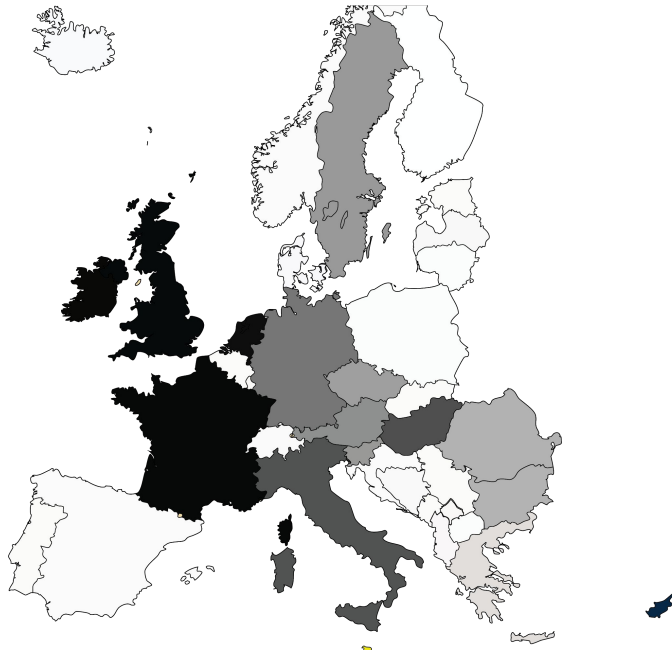
FAIRness of archaeological data

<i>For archaeological data to be</i>	<i>The integrating infrastructure must be</i>
Findable	Inclusive: all key data sources participate in the integrating effort and effective search tools are in place
Accessible	Linked: source data directly linked to the infrastructure catalogue in a distributed/integrated system
Interoperable	Standardized: the infrastructure provides metadata in a homogenous way Operational: the underlying technology provides cross-datasets processing functionalities
Re-usable	Functional: services tailored to archaeological research questions are available Trustworthy: data suitability to research questions, data quality and provenance information are guaranteed by rich metadata



Enlarged partnership

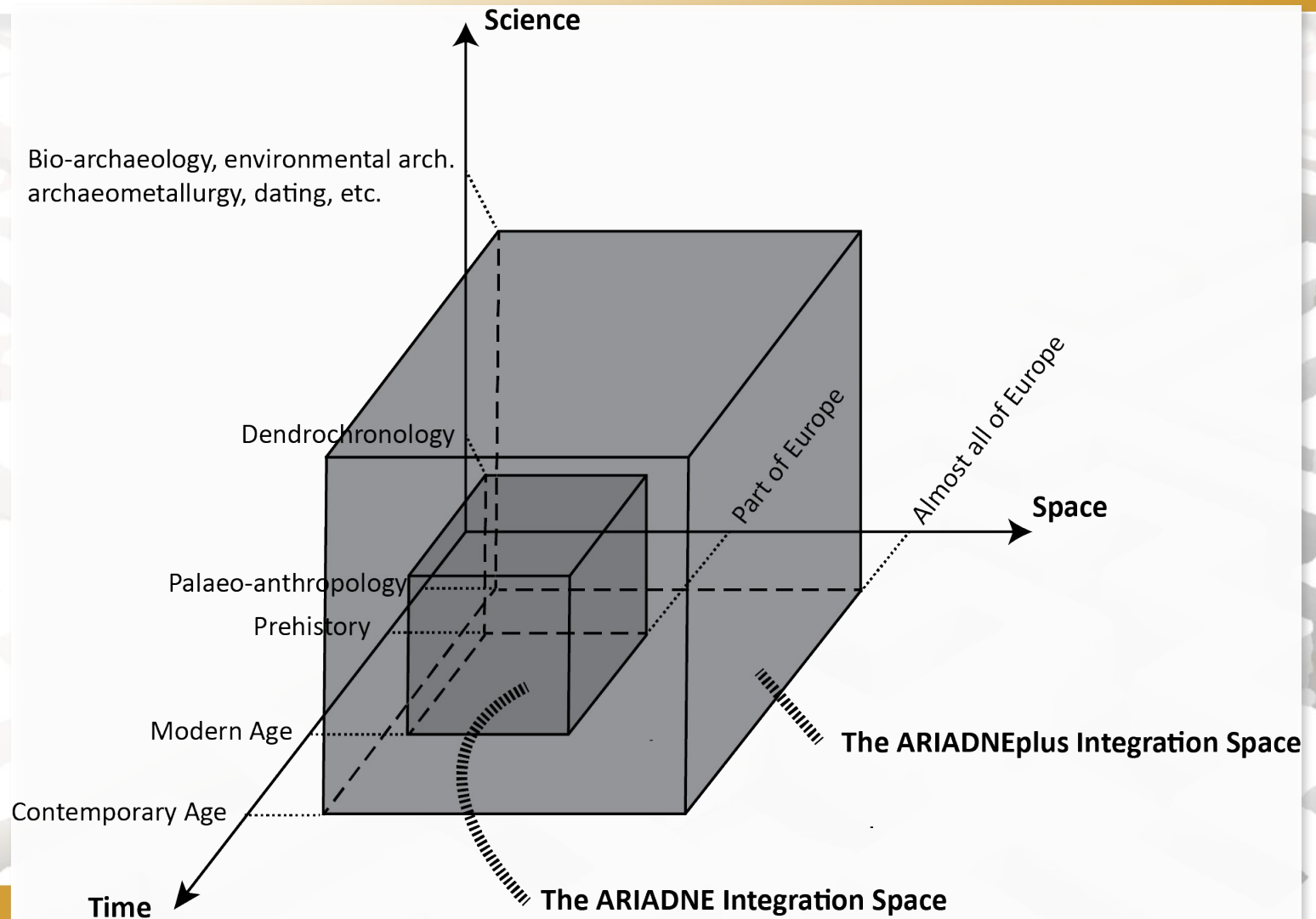
ARIADNE



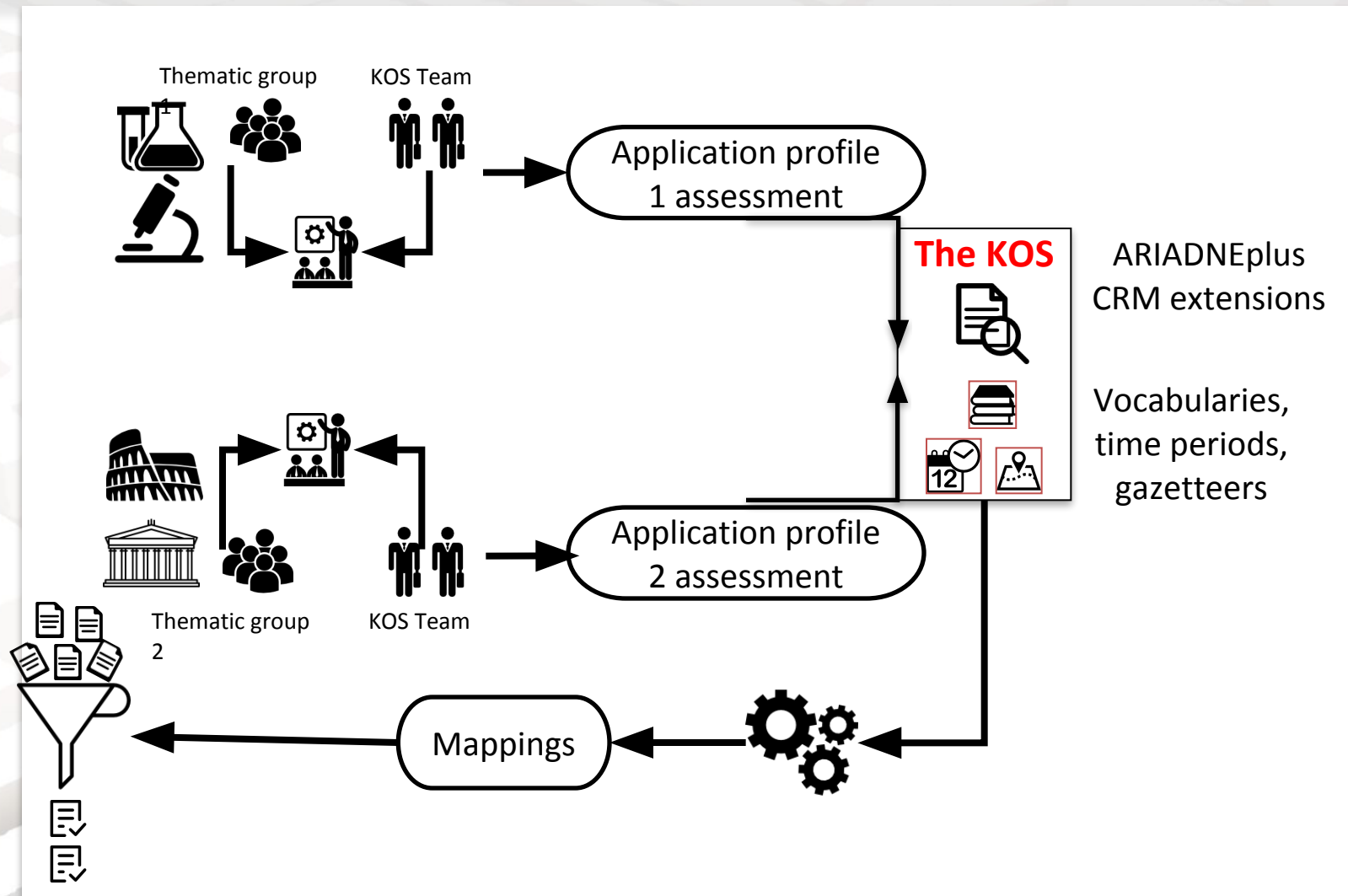
ARIADNEplus



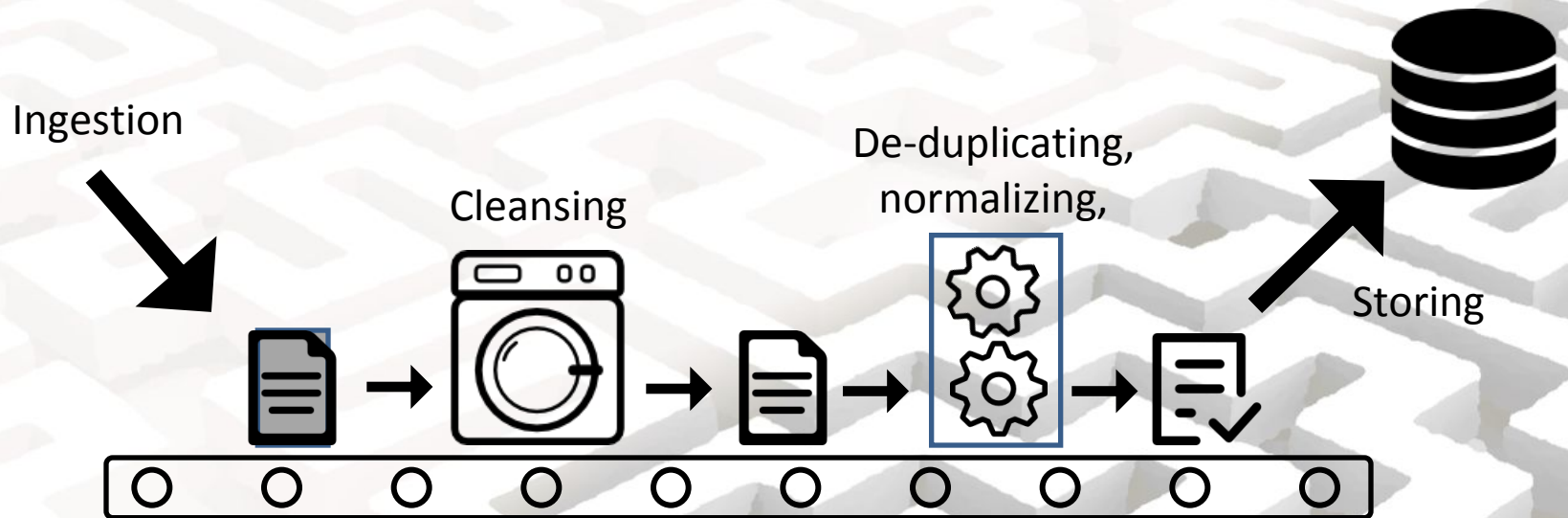
Improved scope



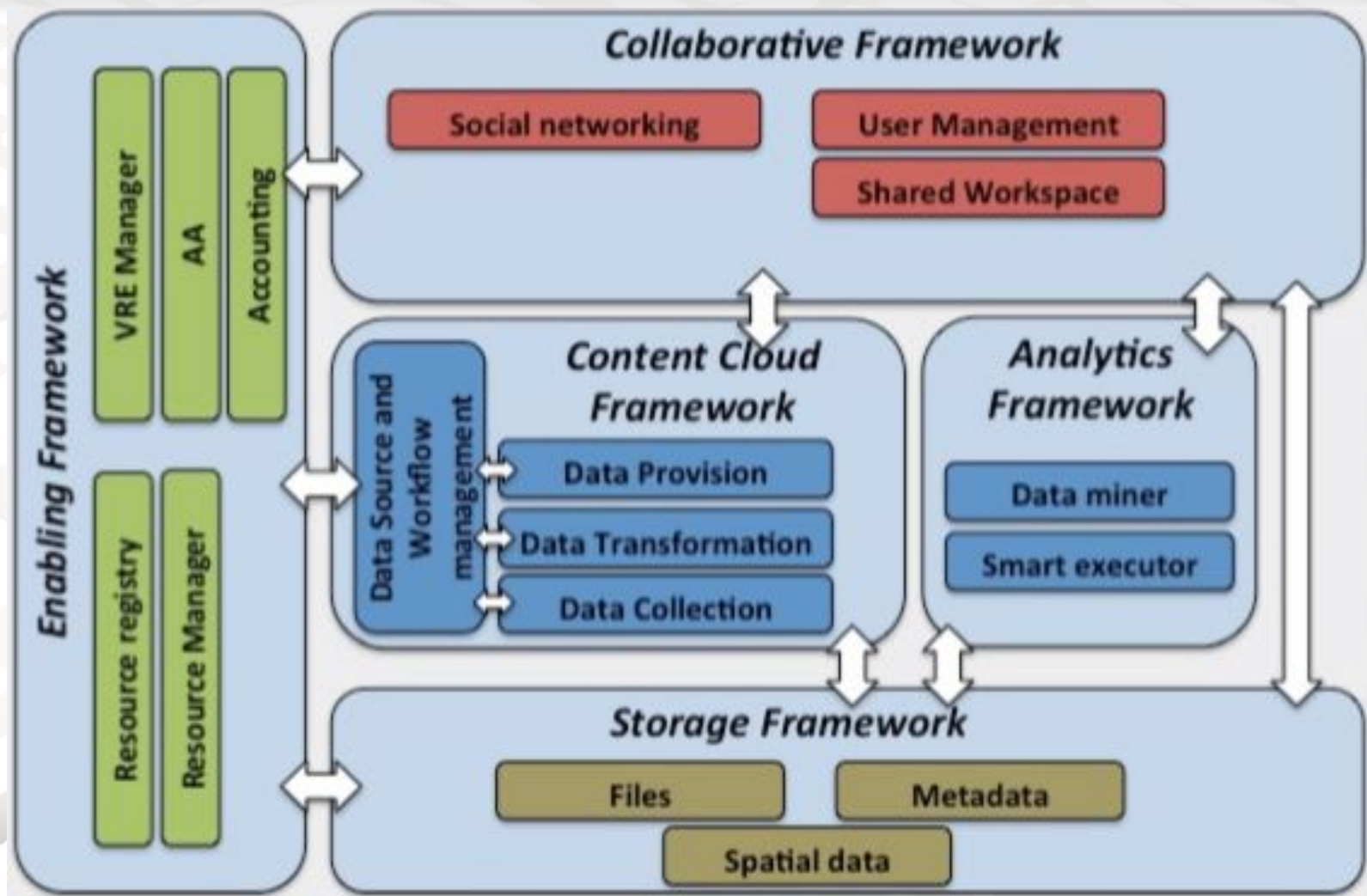
Creating the ARIADNEplus KOS



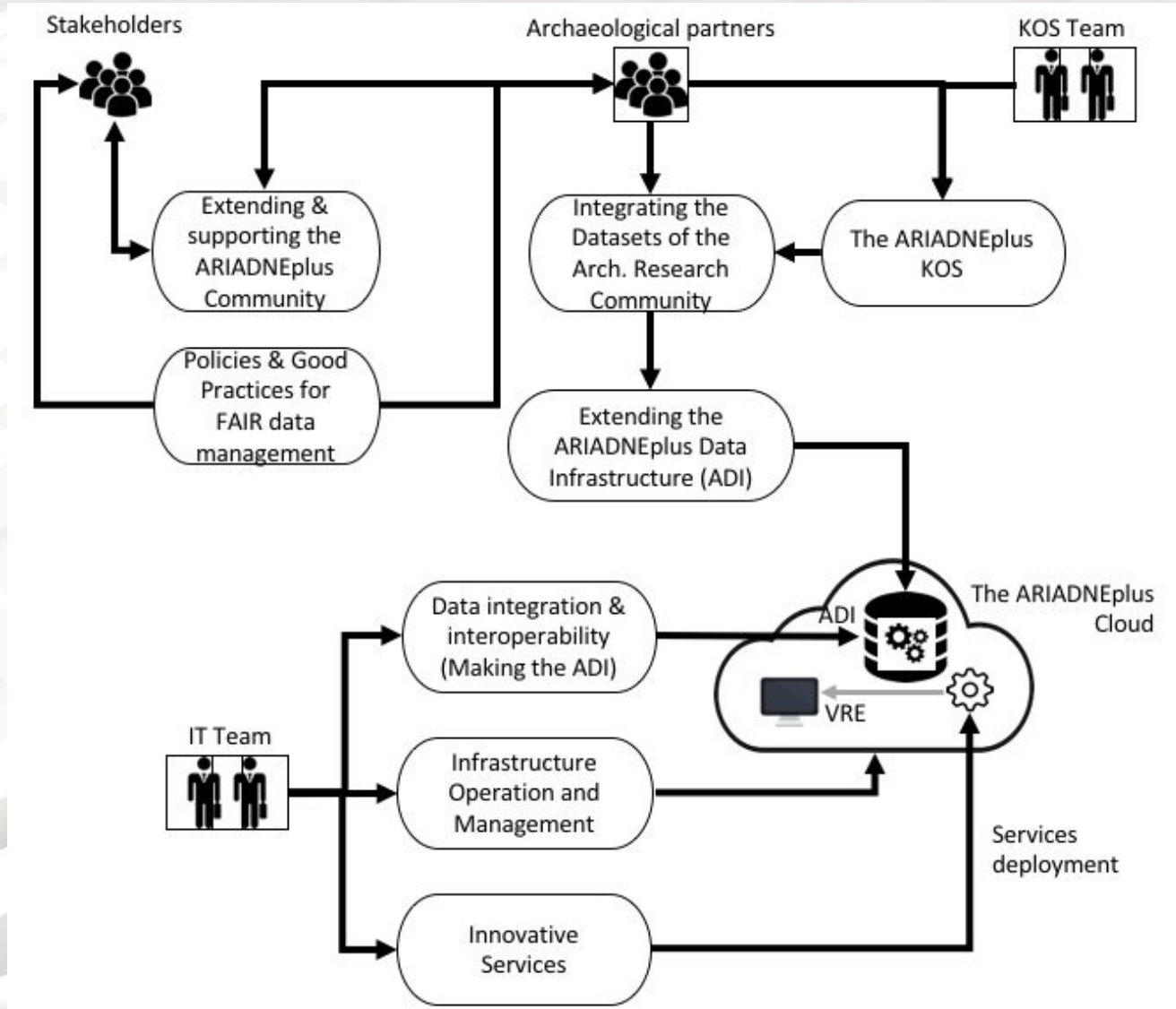
Preparing the data



Setting up the digital infrastructure



Creating a research ecosystem...



...and a Virtual Research Environment

