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Outline

- Project History
  - Inventories
  - Conservation Science: DISCO
- Arches Version 4 Demo
  - Arches Designer
  - Arches Reference Data Manager


The Getty Conservation Institute

The J. Paul Getty Trust

- The Getty **Conservation** Institute (GCI)
- The J. Paul Getty **Museum**
- The Getty **Research** Institute
- The Getty **Foundation**

GCI MISSION STATEMENT

The Getty Conservation Institute works to **advance conservation practice** in the visual arts, broadly interpreted to include **objects, collections, architecture, and sites**. It serves the conservation community through...

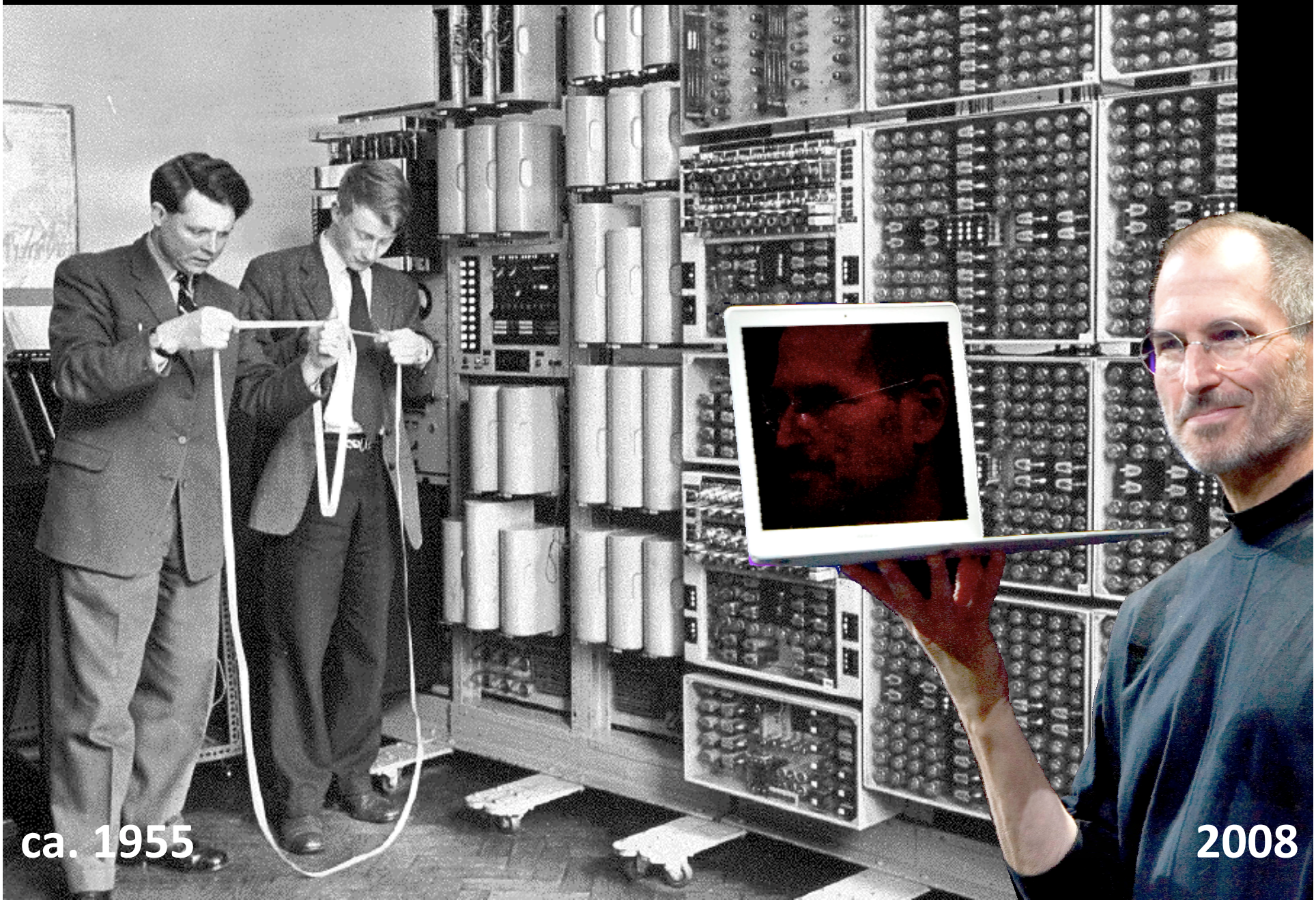
The Getty Conservation Institute

WORLD MONUMENTS FUND


Heritage Inventories


Dollars

Technology advances…




Data/knowledge
lost forever

arches
heritage inventory & management system

Key Requirements

- software available at **no cost** using **open-source** license
- **customizable**
- improvements to be **shared** by all
- data structured to **protect knowledge** for future

arches
heritage inventory & management system

Features

- modern, semantically-enabled, web-based with easy-to-use interface
- robust geospatial mapping and processing
- data may be as open or closed as needed
- standards-based to promote data exchange and to ensure data longevity
  - CIDOC-CRM
- Reference Data Manager

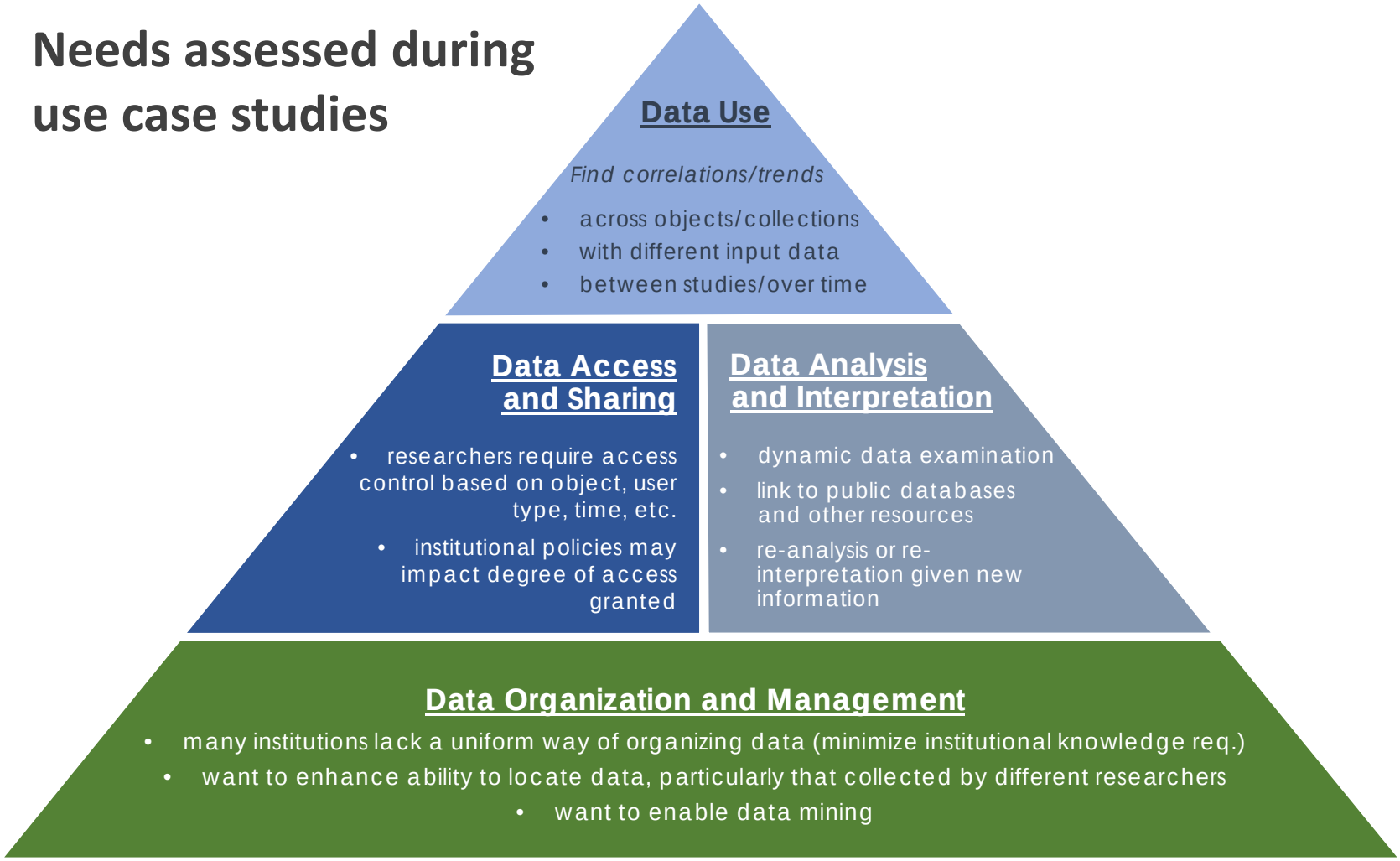
DISCO

DISCO

- Data Integration for Conservation Science
- GCI received grant from the Seaver Institute
- Started in 2014
- Development of data integration tools to facilitate sharing of data and analyses from scientific research on cultural heritage

DISCO

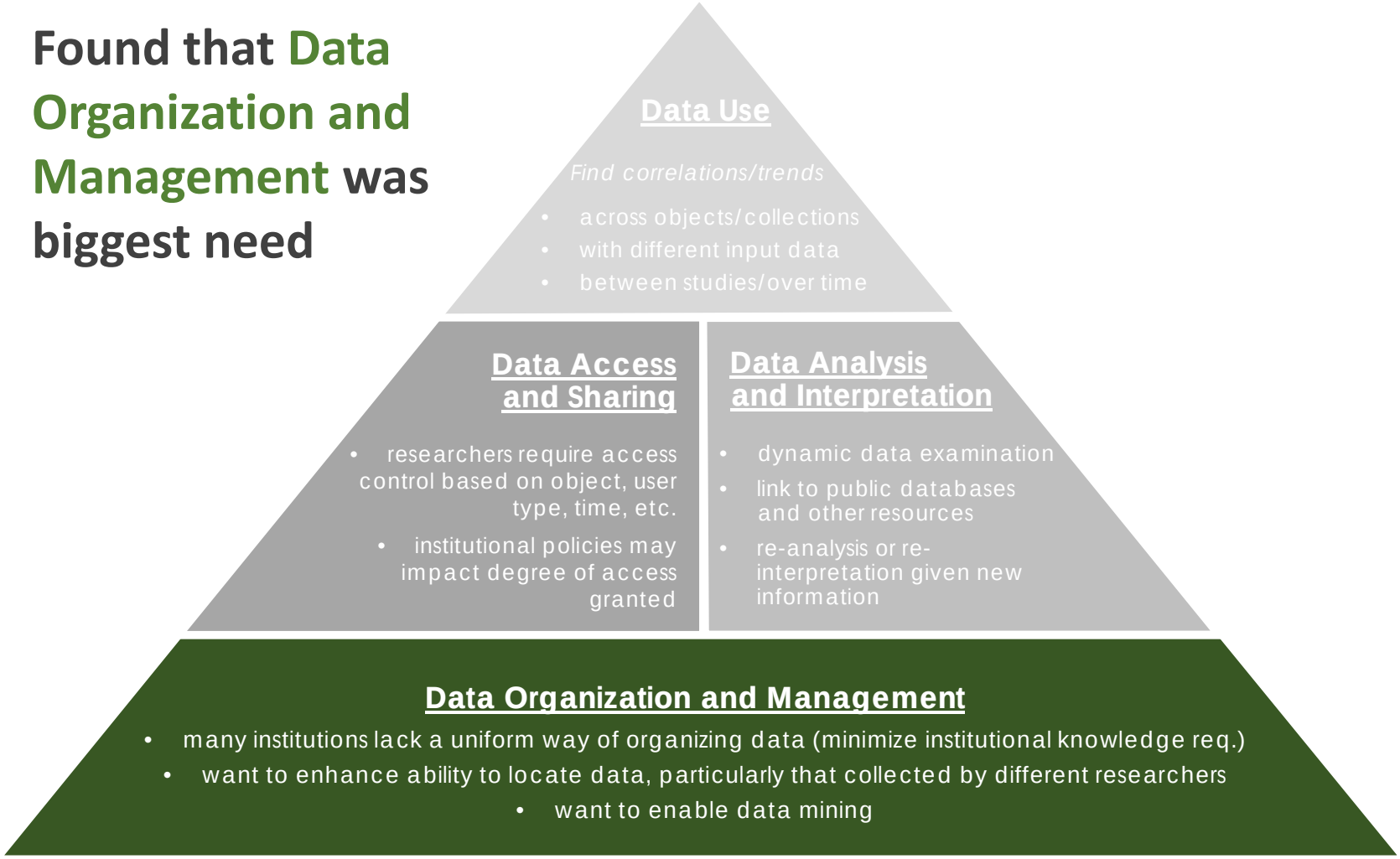
- Needs assessed during use case studies



NEEDS OF THE FIELD

DISCO

- Found that **Data Organization and Management** was biggest need



NEEDS OF THE FIELD

DISCO prototype requirements

- Implements basic data storage, query, and retrieval
  - Implements a data management platform that supports CIDOC CRM ontology
  - Implements controlled vocabularies to enhance searching capabilities
- UI that supports workflows such as creating users and research projects, uploading data and project documents, and managing access rights
- Allows discovery of analytical results across research projects
- Prototype delivery: June 2017

Project Timeline

v1 **v2** **v3** **v4**

Built Cultural Heritage Inventory Data

DISCO - Conservation Science Data

AATA Online - Bibliographic Data

Project Timeline

v1 **v2** **v3** **v4**

Built Cultural Heritage Inventory Data

DISCO - Conservation Science Data

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Cultural Heritage Data

- **Built Heritage Inventories**
- **Conservation Science Projects**
- **Bibliographic Data**
- **Provenance**
- **Other types**


arches
heritage inventory & management system


v4


arches
cultural heritage data management platform

Arches is…

a modern open-source software platform

for cultural heritage organizations

to manage cultural heritage data

Version 4 features

- Arches Designer
- Configuration/customization tools
- Map/Imagery Tile Server

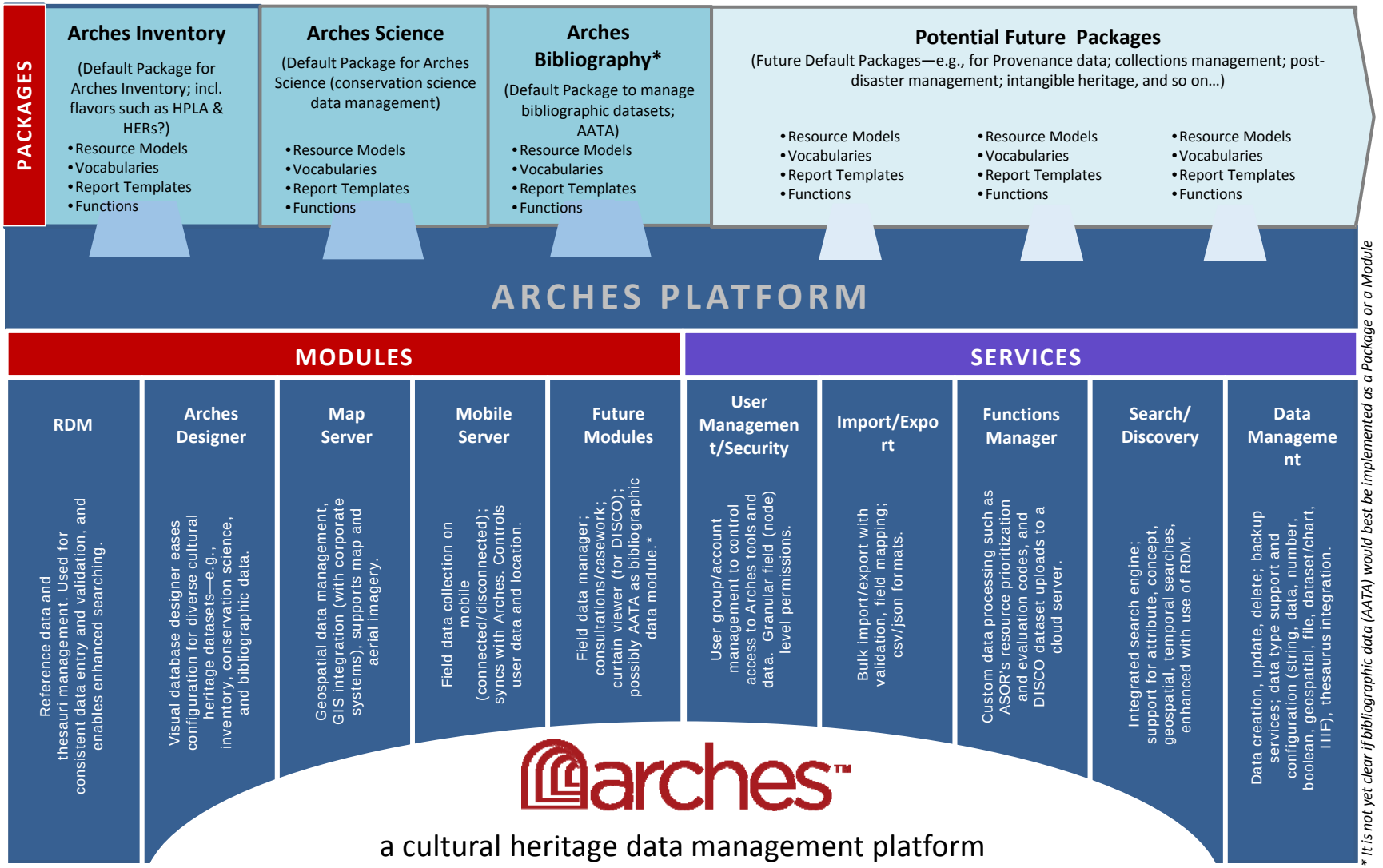
Version 4 features

- Arches Designer
  - Dynamic Schema Generation
  - Integration of Graphs, Data Entry Forms, Reports, and Reference Data Manager
- Configuration/customization tools
- Map/Imagery Tile Server

Arches Designer & Reference Data Manager Demo

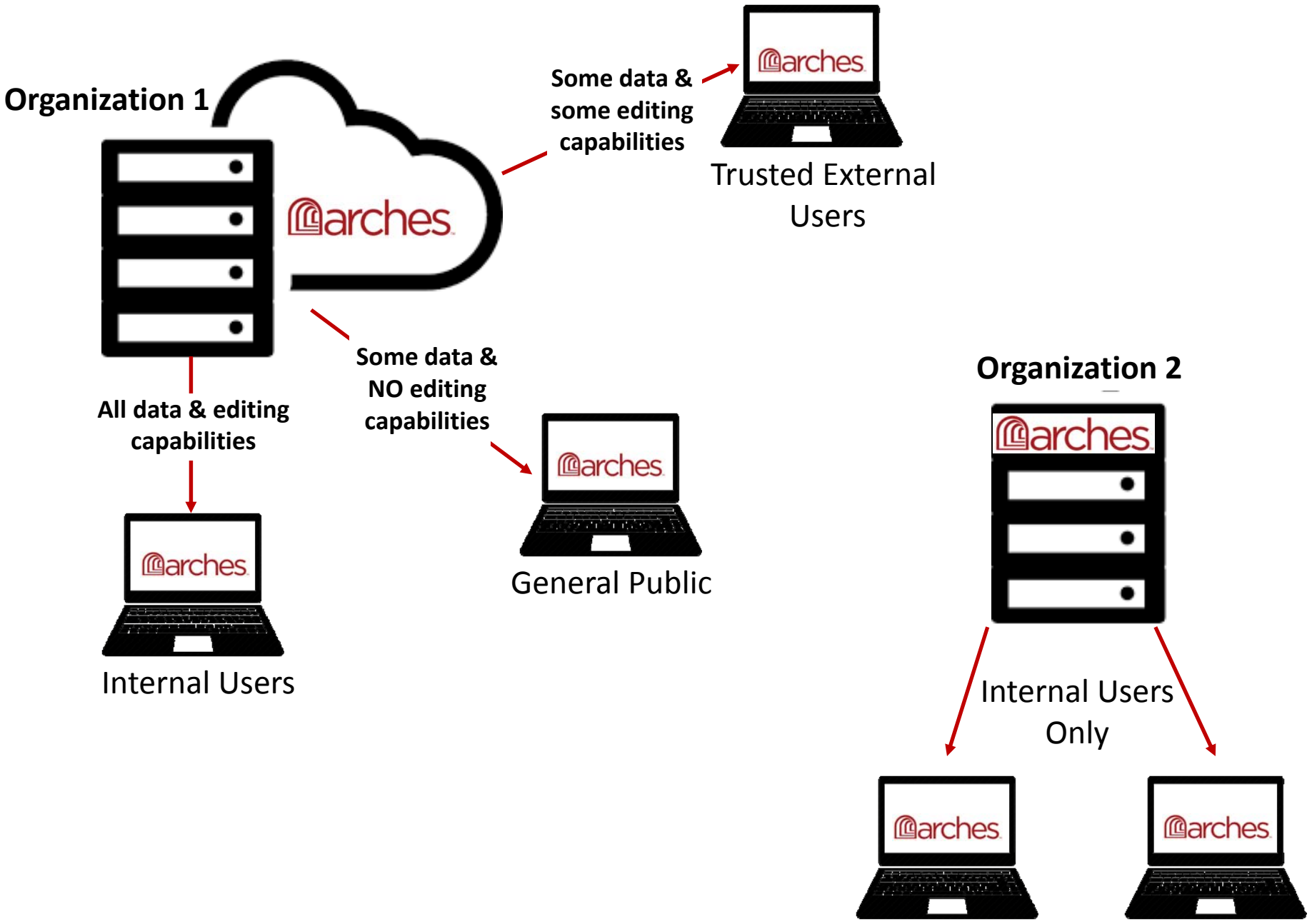
arches PLATFORM

- Core functionality
- Data-dependent:
  - Resource Models
  - Vocabularies
  - Report Templates
  - Functions


PACKAGES
Arches Inventory
(Default Package for Arches Inventory; incl. flavors such as HPLA & HERs?)
•Resource Models
•Vocabularies
•Report Templates
•Functions
Arches Science
(Default Package for Arches Science (conservation science data management)
•Resource Models
•Vocabularies
•Report Templates
•Functions
Arches Bibliography*
(Default Package to manage bibliographic datasets; AATA)
•Resource Models
•Vocabularies
•Report Templates
•Functions
Potential Future Packages
(Future Default Packages—e.g., for Provenance data; collections management; post-disaster management; intangible heritage, and so on…)
•Resource Models
•Vocabularies
•Report Templates
•Functions
•Resource Models
•Vocabularies
•Report Templates
•Functions
•Resource Models
•Vocabularies
•Report Templates
•Functions
ARCHES PLATFORM
MODULES
SERVICES
RDM
Reference data and thesauri management. Used for consistent data entry and validation, and enables enhanced searching.
Arches Designer
Visual database designer eases configuration for diverse cultural heritage datasets—e.g., inventory, conservation science, and bibliographic data.
Map Server
Geospatial data management, GIS integration (with corporate systems), supports map and aerial imagery.
Mobile Server
Field data collection on mobile (connected/disconnected); syncs with Arches. Controls user data and location.
Future Modules
Field data manager; consultations/casework; curtain viewer (for DISCO); possibly AATA as bibliographic data module.*
User Management/Security
User group/account management to control access to Arches tools and data. Granular field (node) level permissions.
Import/Export
Bulk import/export with validation, field mapping; csv/json formats.
Functions Manager
Custom data processing such as ASOR's resource prioritization and evaluation codes, and DISCO dataset uploads to a cloud server.
Search/ Discovery
Integrated search engine; support for attribute, concept, geospatial, temporal searches, enhanced with use of RDM.
Data Management
Data creation, update, delete; backup services; data type support and configuration (string, data, number, boolean, geospatial, file, dataset/chart, IIIF), thesaurus integration.
arches™
a cultural heritage data management platform
* It is not yet clear if bibliographic data (AATA) would best be implemented as a Package or a Module

What Arches is NOT:

- **NOT** controlled by any one entity
- **NOT** one system collecting data from around the world
- **NOT** a desktop application; it is an enterprise-level system


Organization 1
Some data & some editing capabilities
Trusted External Users
All data & editing capabilities
Some data & NO editing capabilities
Internal Users
General Public
Organization 2
Internal Users Only

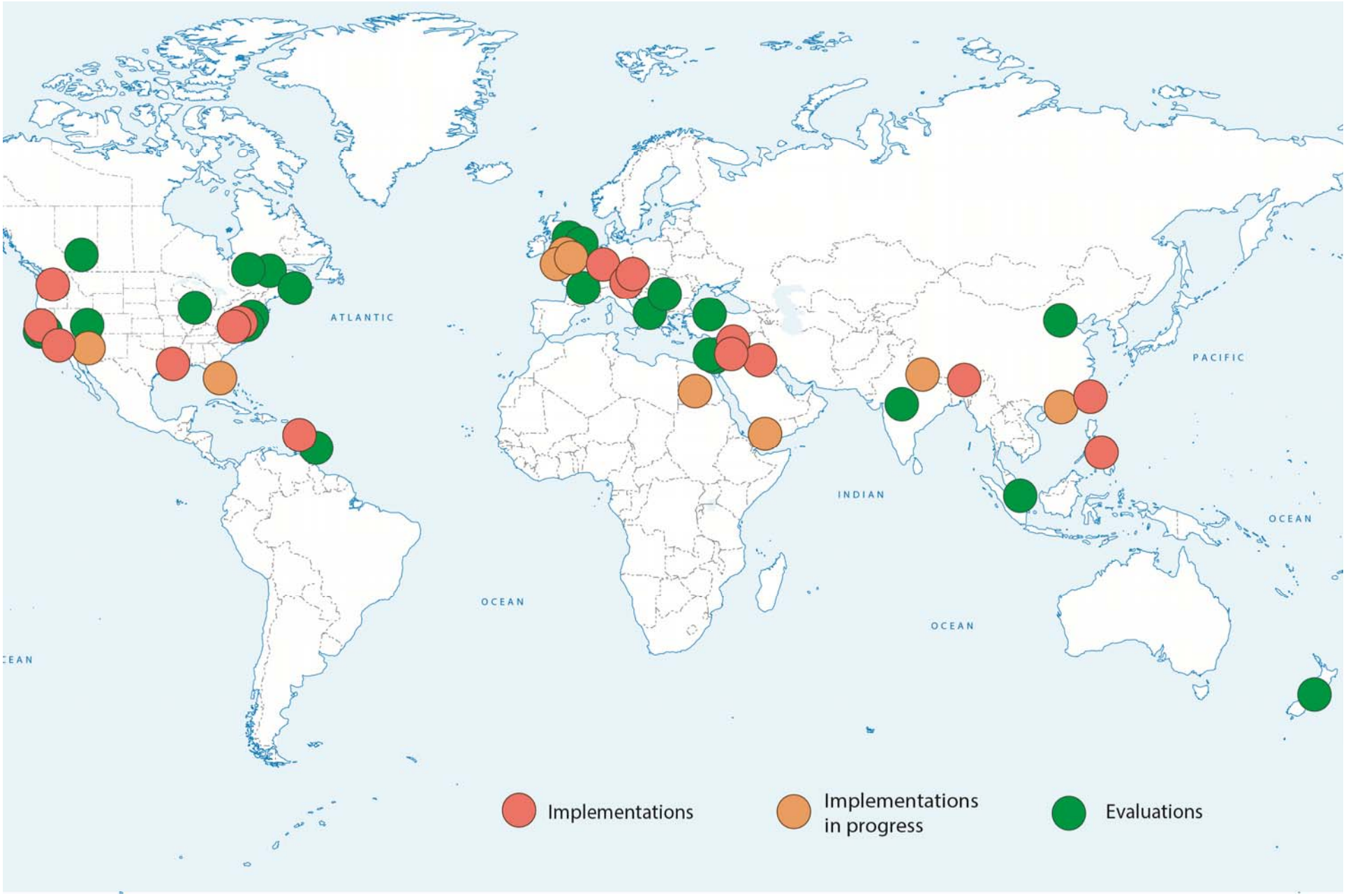
Coming soon

- API
- Data-collection app
- Data-collection *project manager*
- User profile manager

Our Work

- Arches Inventory
  - Inventory systems in England
- Arches Science (DISCO)
  - GCI Science
- Arches Bibliographic Data – AATA Online
- Arches Resource Model Working Group

Known **arches inventory** activity (as of June 2017)



www.archesproject.org

https://github.com/archesproject/arches

@archesproject