A Conceptual Model for Inscriptions

Harmonizing Digital Epigraphy Data Sources

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Outline

- Introduction to the EAGLE project
- The EAGLE data model
  - EAGLE entities
- EAGLE implementation
  - DNET framework
  - Metadata Record Inspector
- Conclusions

The EAGLE Project

- Throwing some figures
  - 14 archives have joined by now
  - About 1.5 millions items (by its 3rd year of life)
  - Scattered across 25 EU countries
  - 80% of the total amount of epigraphic related material in Europe

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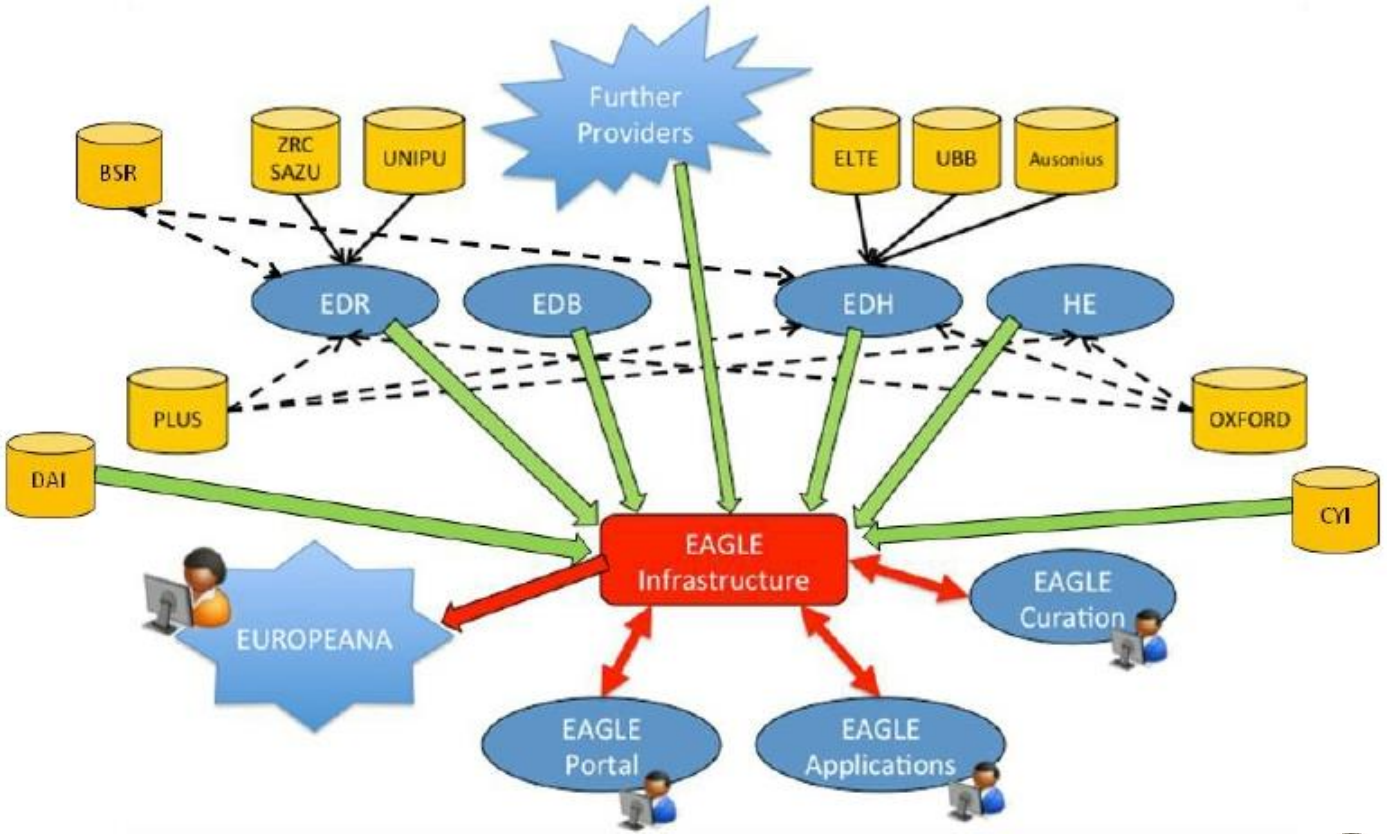
The EAGLE Project



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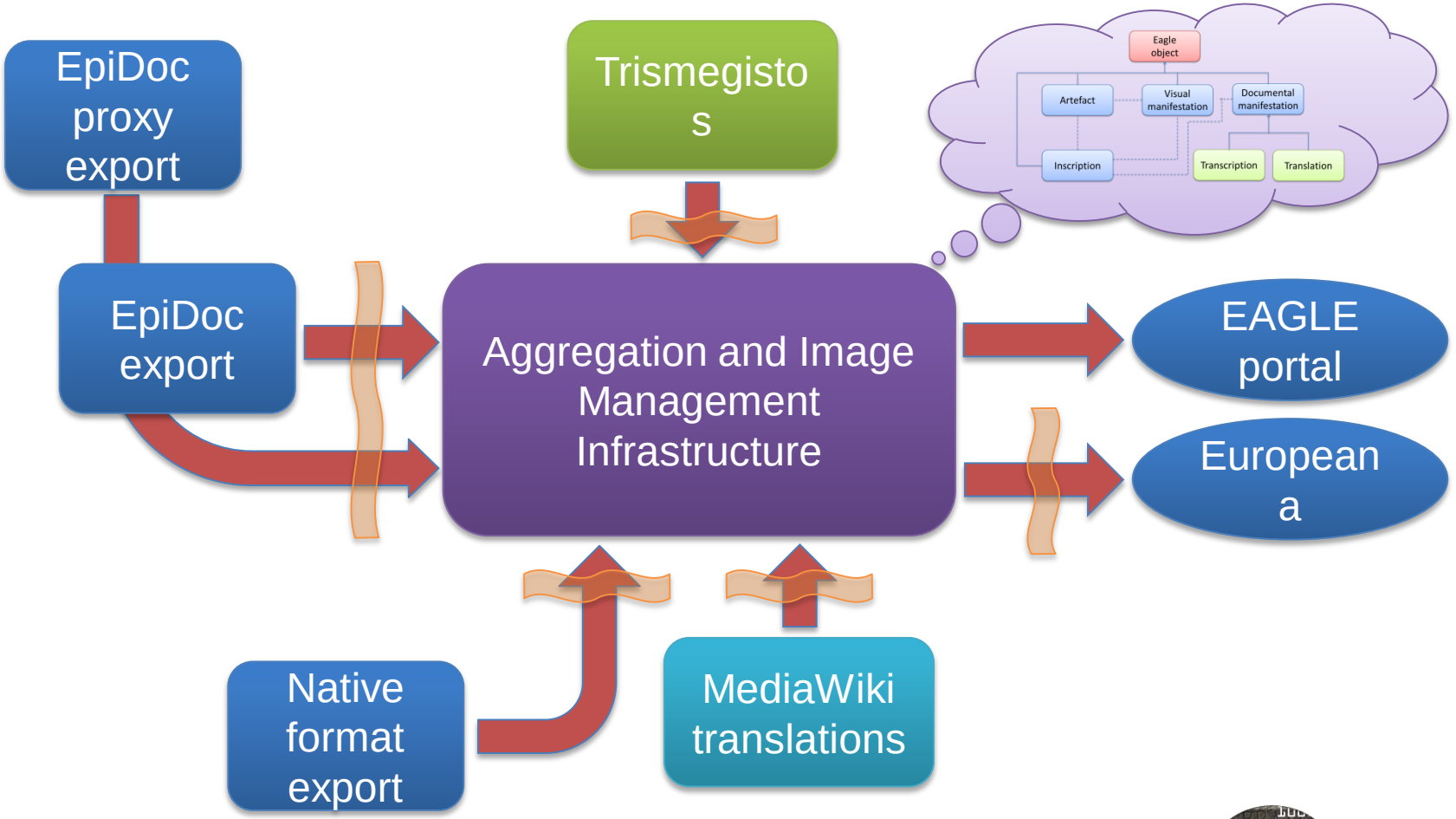
The EAGLE infrastructure



Is a transformation step based on a mapping

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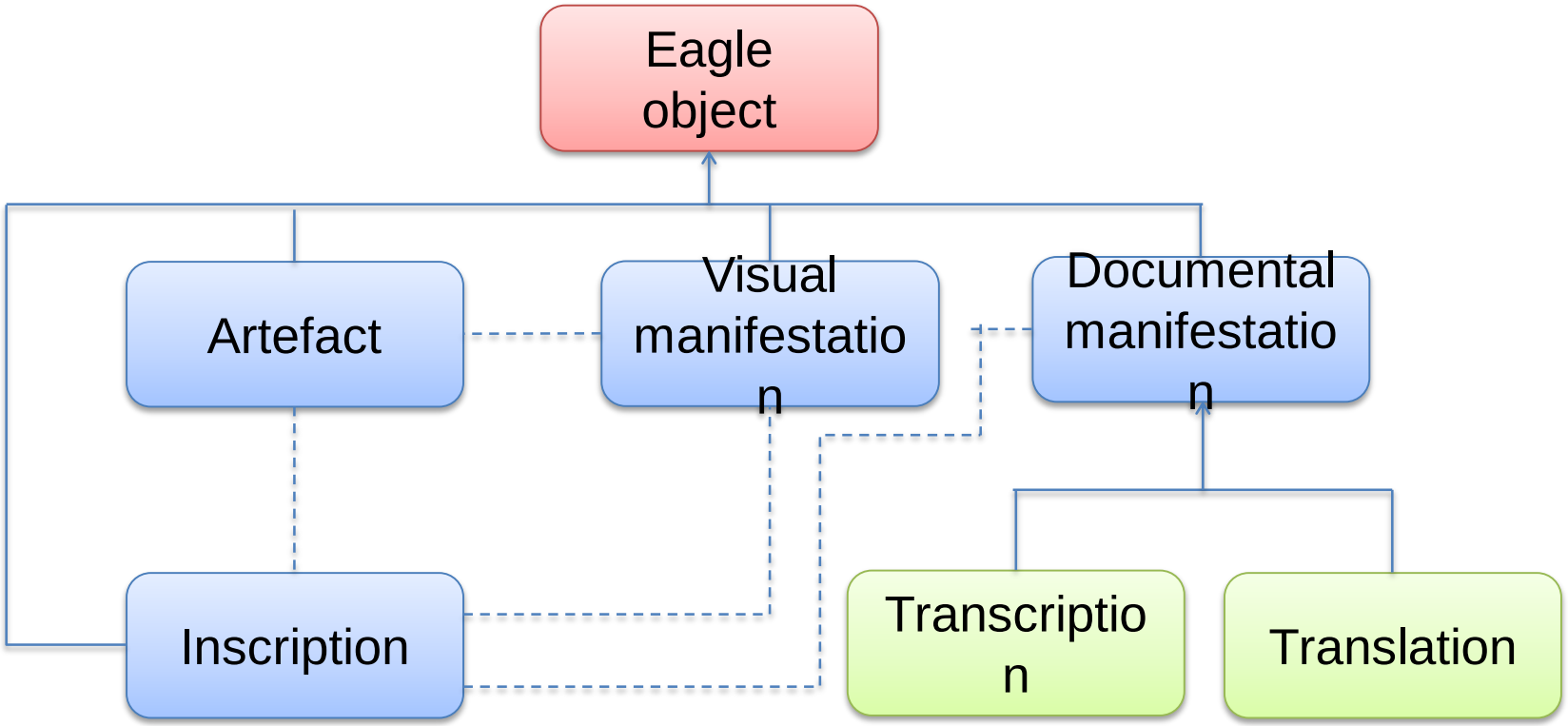
EAGLE Aggregative Conceptual Model (EACM)

- Developed in order to
  - Accommodate adequately the heterogeneous information flowing into the EAGLE aggregation infrastructure
  - Serve complex and flexible queries from users
- The EAGLE Aggregative Data Model (EACM) is
  - Derived from a preliminary study performed by the University of Alcala (UAH) which based the analysis on CIDOC Conceptual Reference Model (CRM)
    - a formal ontological model for describing the structure of Cultural Heritage objects, relations between them, and their lifecycle.
  - Capable of describing entirely the objects in Eagle use case.

EACM Bird's-eye view



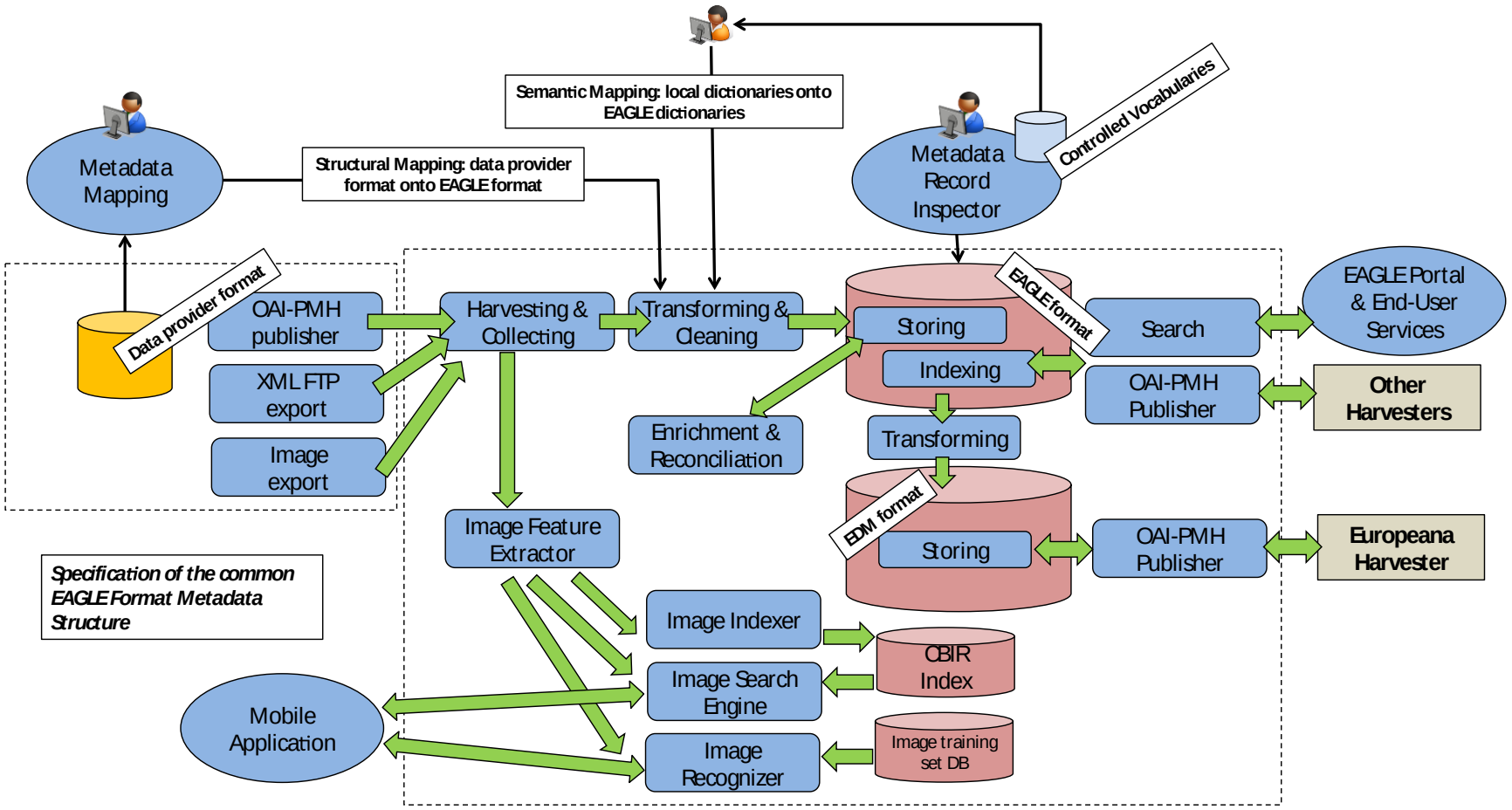
EACM detailed view

- **EAGLE Object**
  - Top entity in the conceptual model
  - Abstract entity
  - Used as base type for every sub-entity (of which is an extension)
  - Contains common properties such as
    - Unique objects identifiers
    - Provenance information
    - Metadata editing/authoring
    - IPR
    - Title & description

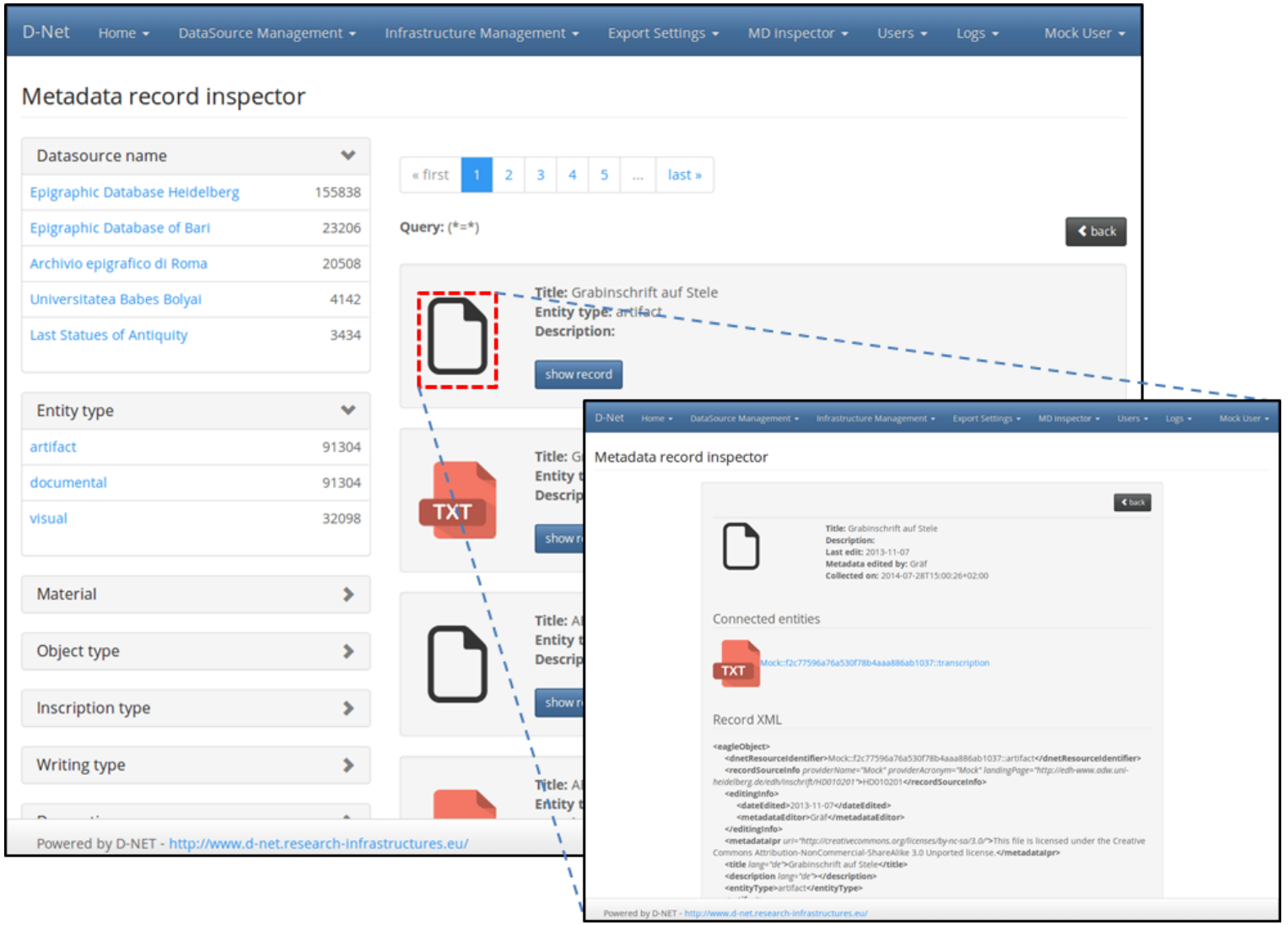
EACM detailed view

- **Artefact**
  - Captures the **physical nature** e.g. monument type, material, dimensions, preservation, toponyms, dating, etc…) of an object of study in the Epigraphic domain (stone, monument, statue or other contextualizing objects)
- **Inscription**
  - Describes the nature of a text area possibly present on an artefact (e.g. inscription type, metric, field and letter size, paleographic characteristics, etc)
- **Visual representation**
  - Collects all the information related to the “visual nature” of a generic artefact (e.g. image location online, image properties, and authoring information)
  - It can born-digital (e.g. digital camera, computer graphics) or digitized printed material (e.g. drawing, old pictures, literature)
- **Documental manifestation (two sub-entities)**
  - **Transcription:** the ancient text, its critical apparatus, any eventual side commentary and referenced bibliography.
  - **Translation:** the content of the transcription translated in a model language, authoring information and IPR

Implementation with D-Net



Metadata Record Inspector



Conclusions

- We presented a **conceptual model** for inscriptions which can **adequately accommodate** all different records flowing into EAGLE infrastructure.
- Each record is **transformed** and generates different instances of different types depending on the case
  - It is possible to **query items on per-entity-type basis** as separate collections. (e.g. search in all images only or all artifacts only)
- Different instances of EAGLE entities are **interconnected** and form a **network of objects**
  - This **enables browsing** from one entity to other related entities and discover details gradually.
- Of course, **traditional filtering** can still be applied to narrow down queries
  - Per content provider filtering
  - **Faceted search** on specific fields (e.g. material, decoration and many others)

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