Distributed System of Scientific Collections

Digital Object Cloud for linking natural science collections information;
The case of DiSSCo

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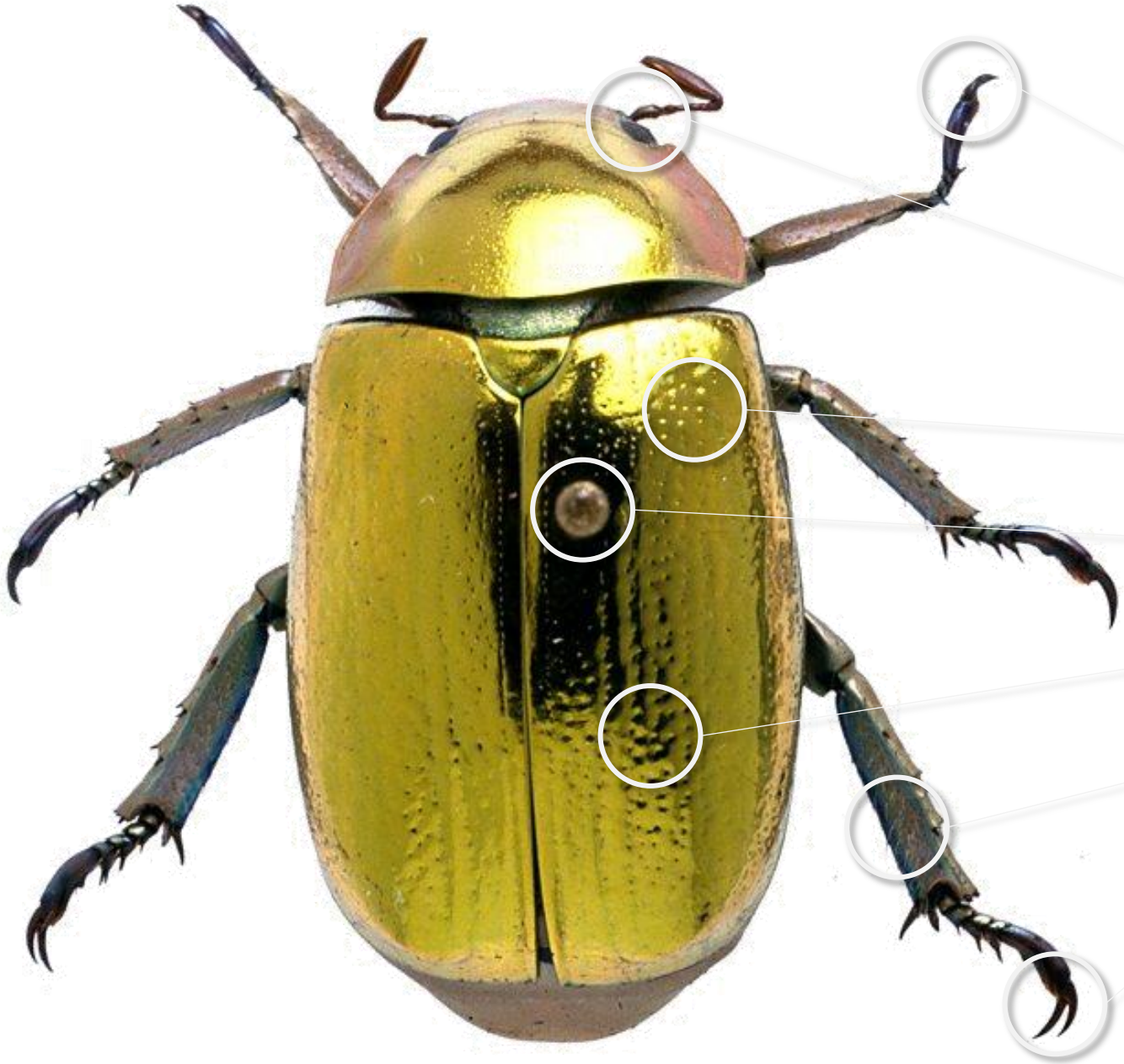
What’s in a Museum specimen?



- Genomic data
- Biochemical data
- Morphological data
- Geographical data
- Taxonomic Information
- Species Interactions data
- Ecological data

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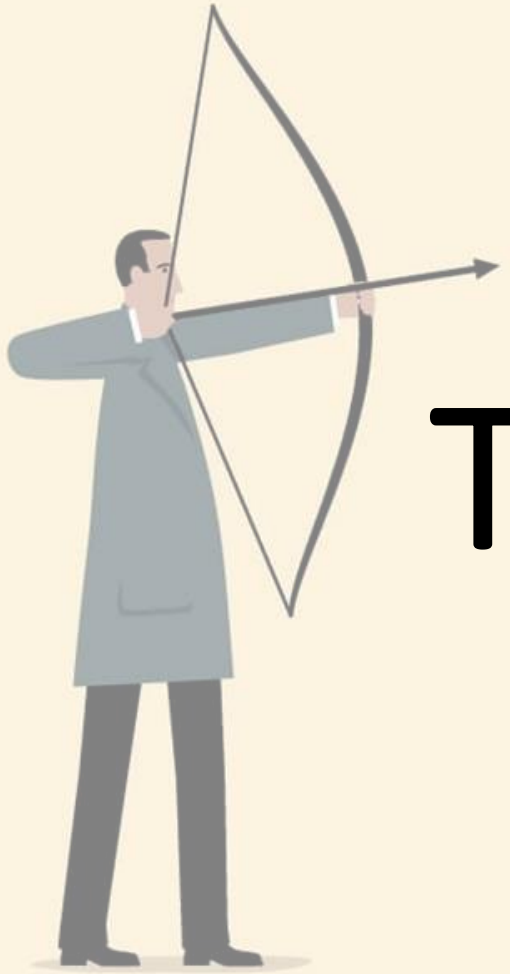
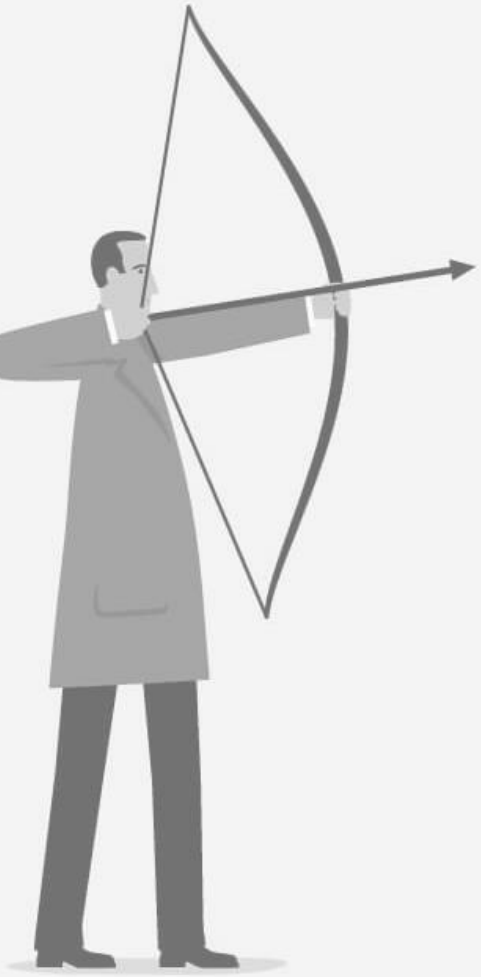


TRUST

Practices
People
Data



Trust lost when datasets disconnect from:

context in which they were created, or
communities who created them.

What builds

TRUST

in data?

Relevance

Provenance

Attribution

Completeness

Fitness-for-purpose

Agility

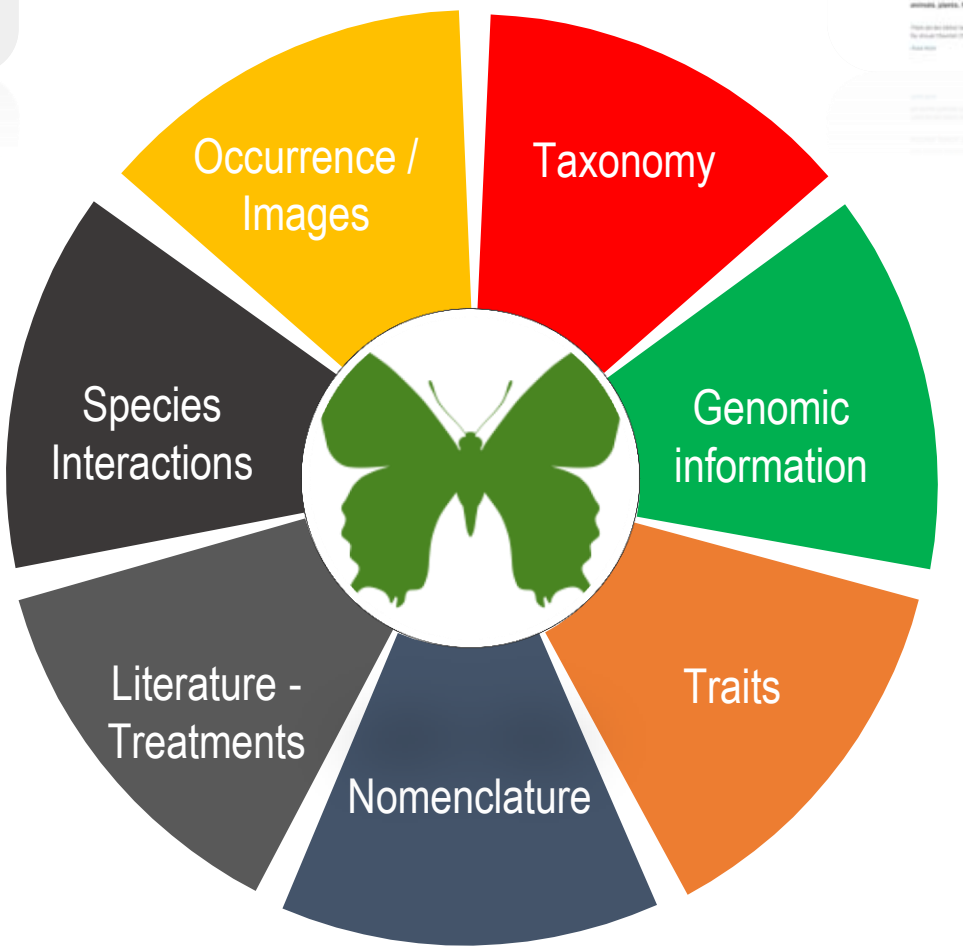
Branding (Datatyping)

Collections-related
Data classes

GBIF

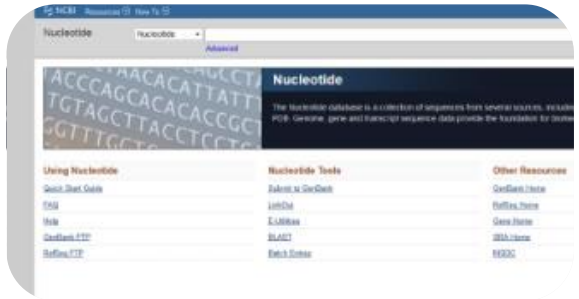
Catalogue of LIfe

Re-unite and Serve

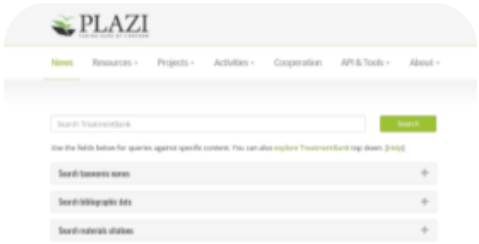


GloBI

Genbank



Plazi – TreatmentBank



EoL - TraitBank

IPNI / Zoobank

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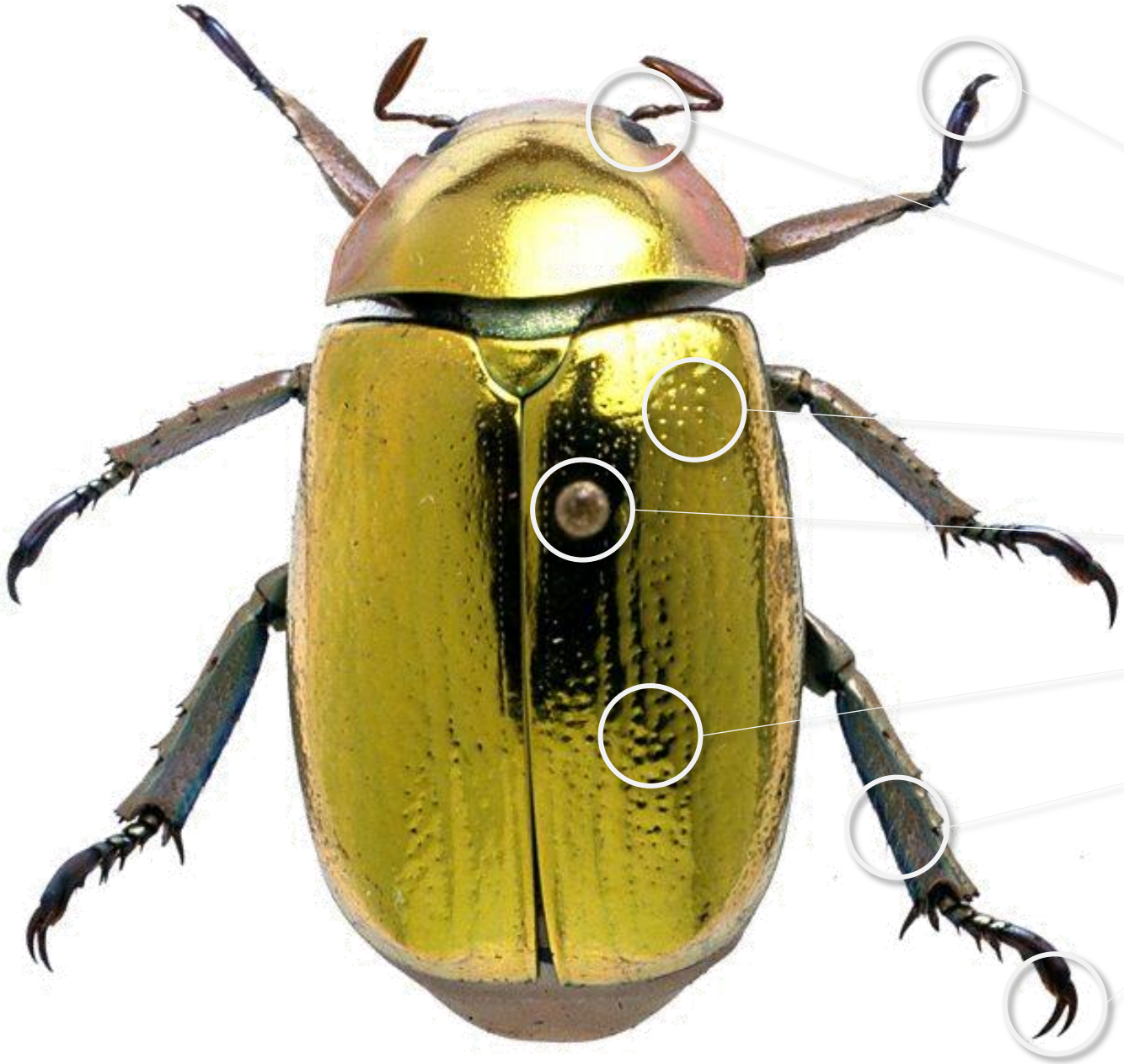

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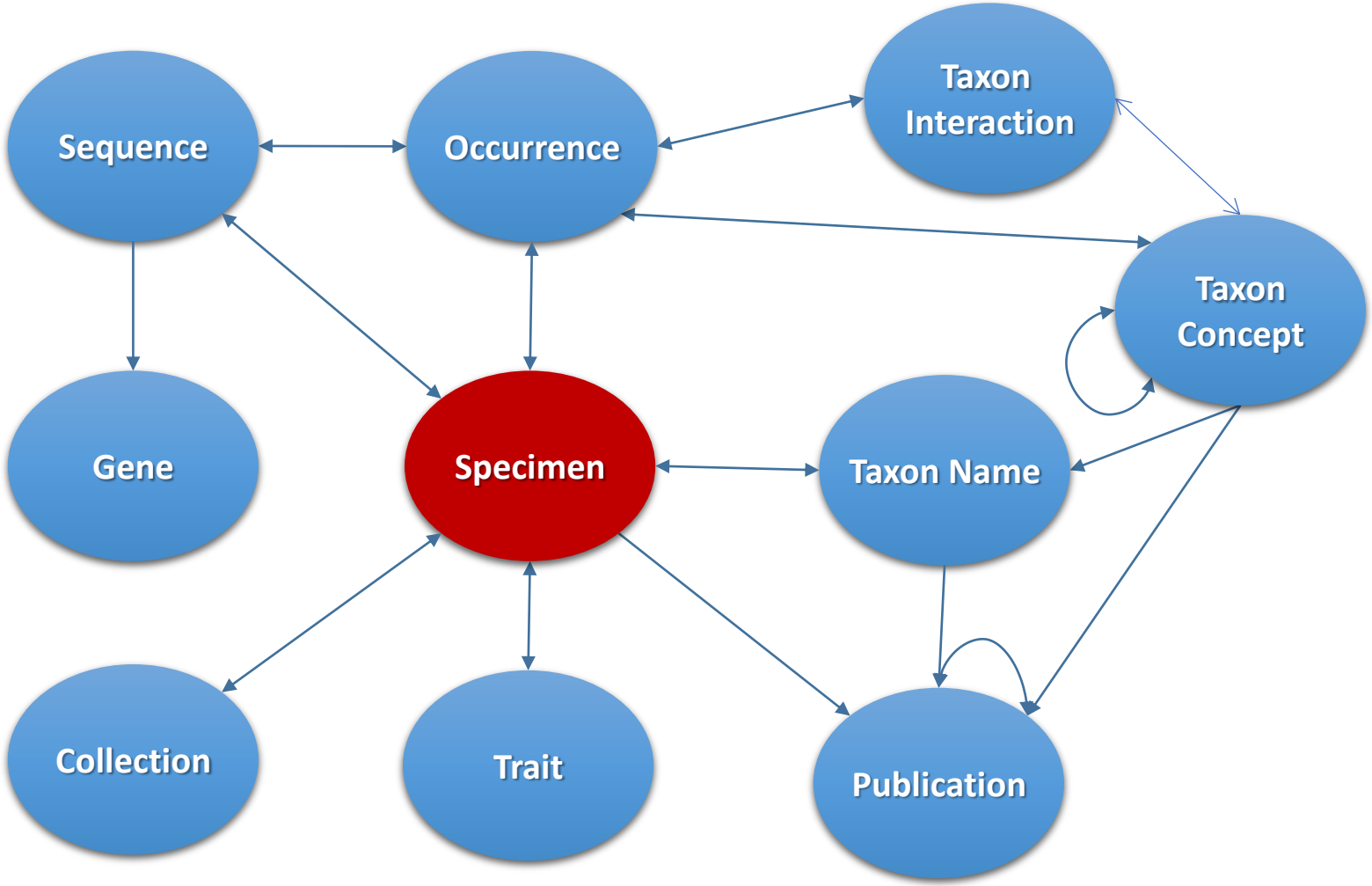
DiSSCo

Distributed System of Scientific Collections

All data classes **unambiguously linked** to the **physical objects** they derive from

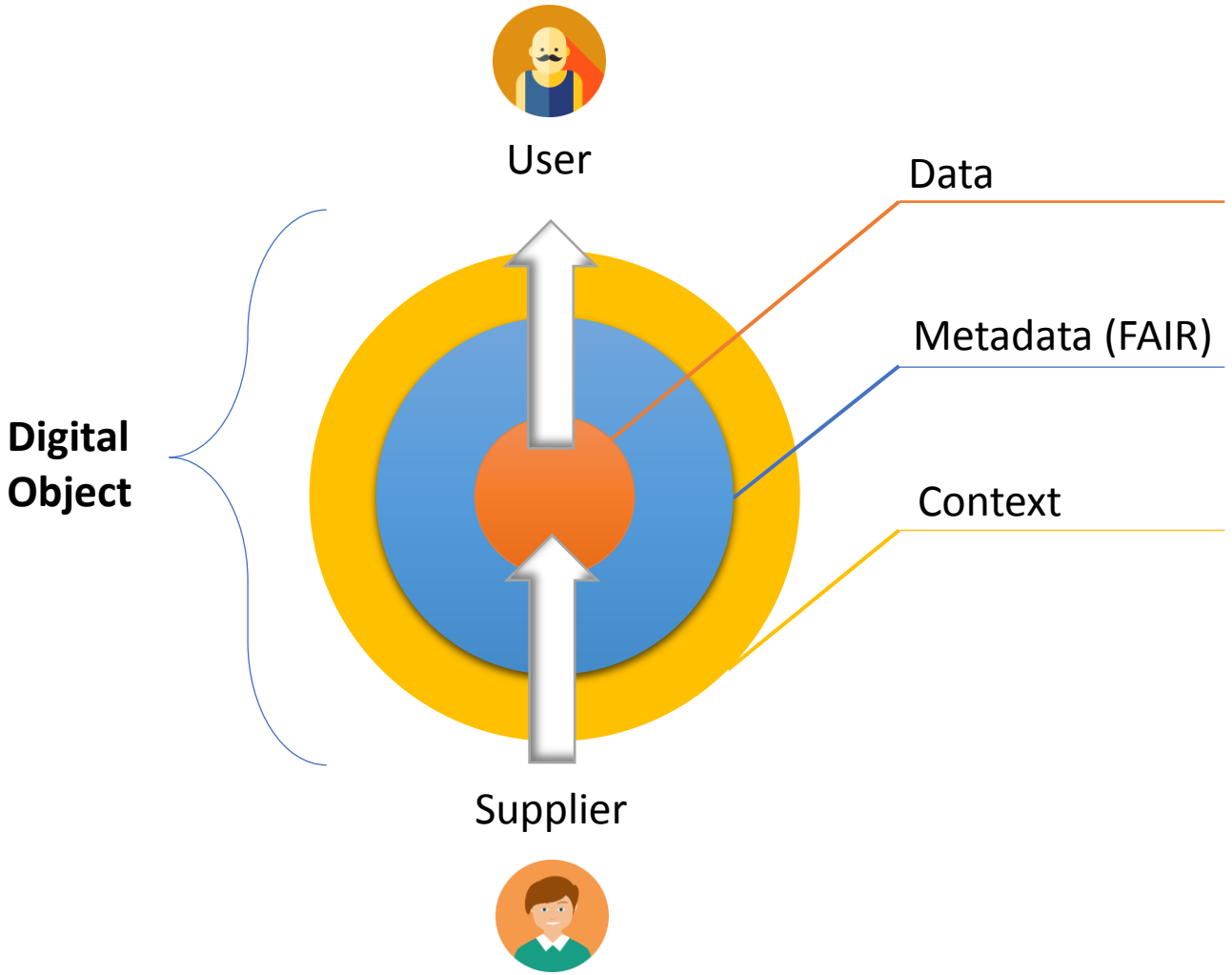


Specimens representations become the centrepiece of the DiSSCo knowledge base – They are used as anchoring points for disperse data classes

Transforming digital entities to meaningful entities

Need for robust mechanisms, which

- **Link** persistently **data** with its **metadata** (Data in context)
- Enable for data objects to become **self-interpretable**, **actionable** and **trusted** entities
- Enable **curation and annotation** of objects to be performed across repositories and permanently attached to the object



Digital Specimen: A dynamic “box” collecting links to all core information about a thing in one place

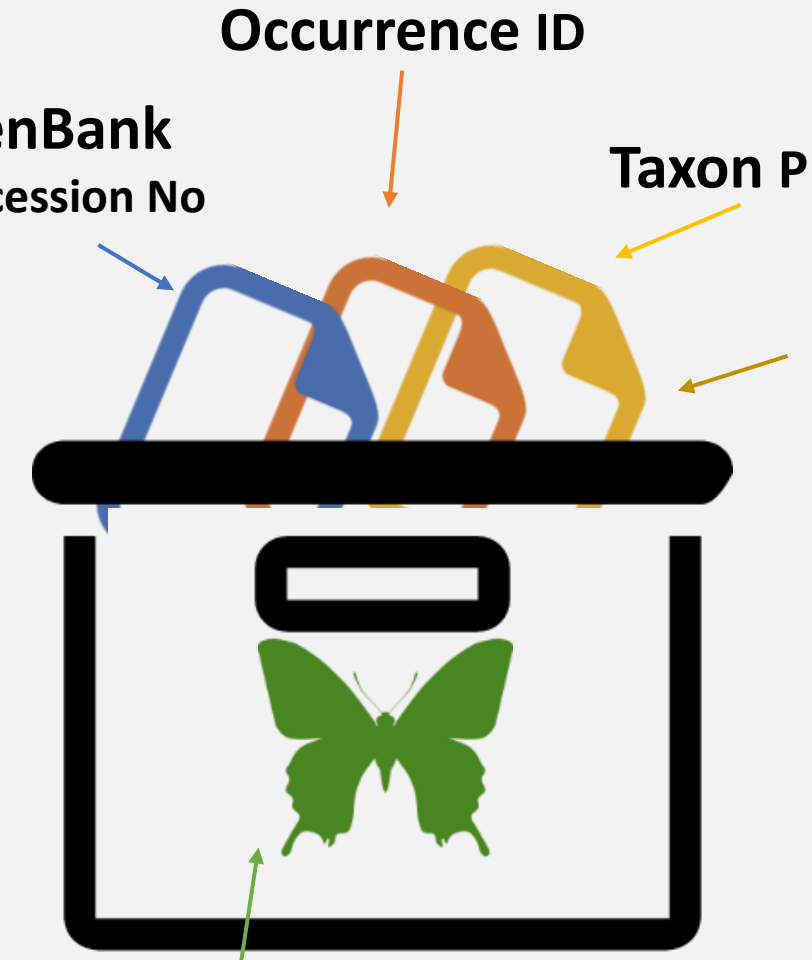
Images (2D, 3D)

GET Image PIDs

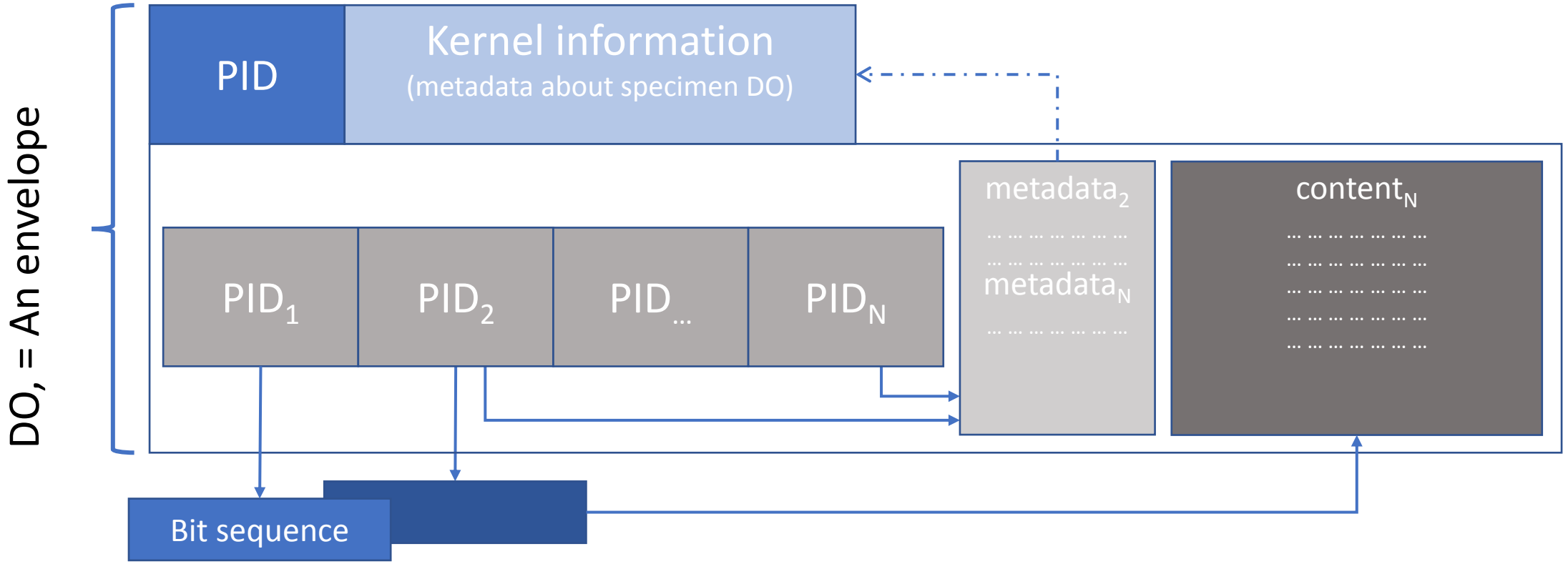
GET Image metadata

GET Physical Object (PO) PID

GET PO PID metadata



Structure of a Digital Specimen Object (DSO)



Physical Object

Digital Surrogate

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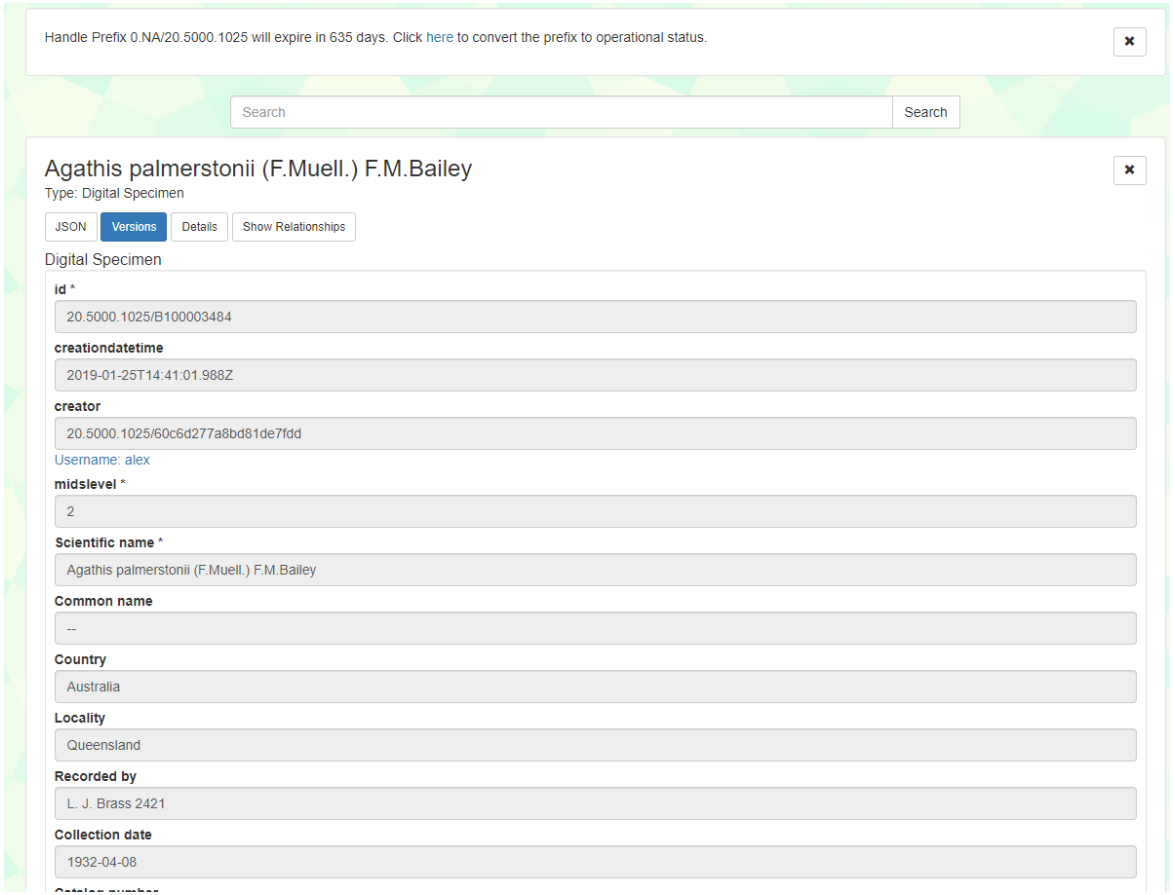
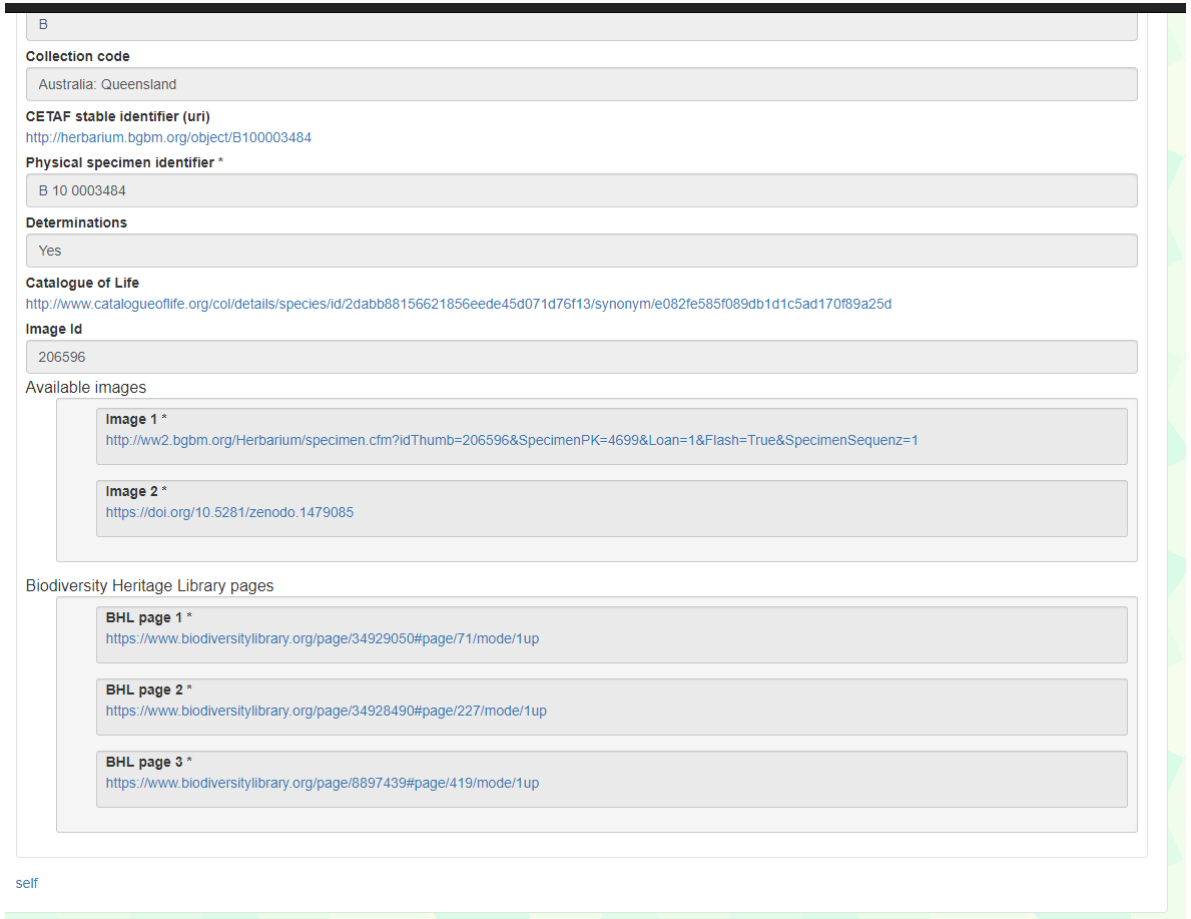
An actionable **knowledge unit**

Piloting with Cordra