

### **OVERVIEW**

The LinBi project focuses upon Europe's biodiversity content. This content reflects the enormous variety of life on earth, as depicted in books, illustrations, specimen scans, photographs, sound recordings and video. Biodiversity content is usually described using scientific terms - such terms are understood clearly by experts but are a barrier for non-experts. This leads to low discoverability and reduced use of content.

To lower this barrier, LinBi will enable users to find biodiversity objects without needing to understand, or even be aware of, the relevant scientific terminology. With this action, LinBi will enable users (students, nature enthusiasts, journalists/media, politicians, industry, SMEs, education providers and the general public) to access biodiversity content more easily.

### **TECHNICAL OVERVIEW**

LinBi will create a data enrichment platform to link existing items of data with new items, creating 'enriched' information objects. These enriched objects will be processed by the OpenUp! Natural History content aggregator and delivered to Europeana.



Linking is the process of establishing that various objects have something in common, whether through high-level definitions ('tree', 'flower', 'frog', 'dog' etc.) or by using more specific details such as plant classification, scientific name, creator's name/s, geolocation and more. The platform will support the creation of new classifications using simple vocabularies. Based on common terms, these simple wordlists will enable the use of everyday language in the discovery of natural history content described on a scientific level.

In this way, content linking will connect selected objects with related objects in various formats including film snippets, illustrations, images and audio. In addition, the LinBi enrichment platform will create new information objects containing all information relating to a specific Moment of Interest (MoI, for a film/audio snippet) or Region of Interest (RoI, for an image/text section). As a proof of concept, LinBi will provide 15,000 objects to Europeana via the enrichment platform.

# NETWORKS

LinBi will prepare the way for a standardised process of ingesting enriched objects to Europeana. LinBi will approach existing Europeana aggregators to propose collaborations on interlinking existing Europeana objects. LinBi will also investigate means of including the enrichment platform into Europeana Core services for all aggregators.

# IMPACT

Thousands of paintings, pictures, audio, video and other multimedia data in Europeana depict aspects of biodiversity. Linking these objects to existing natural heritage data will create an enhanced user experience and support increased discovery and use of the content.

LinBi will introduce about 1.3 million new data items from the biodiversity and natural history domains into Europeana. This new content includes scanned herbarium sheets, illustrations, nature sounds and video/film recordings, all relating to various biodiversity topics.

# ARCHITECTURE

LinBi will add a new enrichment component to the existing OpenUp! Natural History content aggregator for Europeana. With this component, biodiversity data can be linked to other cultural heritage information, putting the data in context and enhancing visibility and re-use for a variety of user groups.

### CONSORTIUM

LinBi participants span the entire biodiversity curation process, from content-providing museums and a biodiversity heritage content aggregator to a media organisation end user, and so depict an archetypal non-scientific use case.

### **Museum partners:**



Real Jardin Botanico (RJB/CSIC, Spain)

http://www.rjb.csic.es/jardinbotanico/jardin/?len=en

The Real Jardín Botánico is part of the Spanish National Research Council (CSIC), the third largest public research institution in Europe. Founded 250 years ago, RJB is a unique institution bringing together plant diversity, ecology/evolution research, teaching and collection. With over 100 staff members including postgraduate students, postdocs, senior scientists and support staff, RJB assists governmental agencies in the implementation of conservation policies, such as the EC Habitat Directive, provides scientific services to the private sector and participates in postgraduate university programmes with five partner universities.



Naturhistorisches Museum Wien (NHM, Austria)

# https://www.nhm-wien.ac.at/en

Founded over 250 years ago, the Natural History Museum in Vienna includes departments of anthropology, botany, geology, mineralogy, karst and caves, palaeontology and zoology. Most departments are organised in collections of special taxonomic units. With over 30 million specimens, the collections are a fundamental basis for general aspects of biodiversity and ecological issues as well as taxonomic work.



Agentschap Plantentuin Meise (APM, Belgium)

# https://www.plantentuinmeise.be/en

APM is an internationally renowned research institution focussing on plant diversity research and conservation. The institution covers 92 hectares and houses 4 million preserved specimens and 18,000 accessions of living specimens. One of the world's largest botanic gardens, the APM herbarium houses important historical collections from Latin America, India and Australia, and the library houses one of the most important collections of botanical literature in Europe.

# Broadcaster partner:



Rundfunk Berlin-Brandenburg (RBB, Germany)

# https://www.rbb-online.de/unternehmen/

RBB is the public service broadcaster for the region of Berlin and Brandenburg, broadcasting to RBB produces and broadcasts one television channel and six radio stations, in addition to providing a range of interactive multimedia services including websites, mobile apps, teletext, Smart TV applications and social media feeds. With coverage of over 30,000 km<sup>2</sup>, RBB provides services to almost 6 million inhabitants from its main broadcast centres in Berlin, Potsdam-Babelsberg and regional studios.

# **Technical direction:**



Angewandte Informationstechnik Forschungsgesellschaft (AIT, Austria)

# http://www.ait.co.at/index\_engl.html

AIT is an Austrian software and research company and was founded in Graz in 1979. The company specialises in information engineering and development of information systems tailored to complex environments in very different markets including public administration, social/youth welfare and health care. Research work is done primarily in the field of cultural heritage and health information management (e.g. distributed databases, collection management and knowledge engineering using artificial intelligence). AIT has been a technical partner in cooperation projects with the European digital library Europeana since 2008 and is currently processing and delivering more than 8.8 million digital objects for Europeana.

### **MILESTONES**





Milestone 1	April 2019 / LinBi Website and dissemination material
Milestone 2	May 2019 / Content selection and IPR Guide
Milestone 3	September 2019/Content clusters design
Milestone 4	October 2019 / First LinBi data ingest
Milestone 5	January 2020 / Tools integration analysis
Milestone 6	January 2020 / LinBi content clusters
Milestone 7	June 2020 / LinBi enrichment platform – production version
Milestone 8	July 2020 / Validation milestone and final public project report



LINKS

LinBi: <u>LinBi.eu</u>

LinBi on Twitter: @AndLinBi

Europeana: Europeana.eu

OpenUp: open-up.eu/en

DiSSCo: dissco.eu

DOE!: botanicalcollections.be

DOEDAT: <u>doedat.be</u>

ICEDIG : <u>icedig.eu</u>

SYNTHESYS +: <a href="synthesys.info">synthesys.info</a>

COST Mobilise : <u>cost.eu/actions/CA17106</u>



### **KEYWORDS**

biodiversity, cultural heritage, species diversity, habitat diversity, Nagoya Protocol, cultural services, Europeana, data enrichment, natural history, botanical drawings, vocabularies, digital library, herbarium collections, botanical illustration, natural history, digital libraries, natural sciences, outreach, digital heritage, metadata enrichment

### CONTACT

Email: info@linbi.eu