

IT IS **NOT** ONLY 3D...

IT IS THE

#MEMORYTWIN



We capture the **HISTORY** behind the object, not only its geometric structure.

We preserve
MEMORY,
VALUE and
IDENTITY!



EUreka3D European Union's reconstructed content in 3D

EU project co-funded by the Digital Europe Programme

Start date: 1/1/2023

Duration: 2 years

Coordinator: Photoconsortium International Association

Partners: CRDI, Bibracte, Museo della Carta, Cyprus University of Technology, EGI, Cyfronet, imec, Europeana Foundation

Objectives:

- To support Cultural Heritage Institutions implementing high quality 3D digitization
- To deliver the EUreka3D Data Hub made of cloud services
- To integrate the results in the Data Space for Cultural Heritage

Short summary of work performed

EUreka3D has worked to provide support, capacity building and technical solutions to these challenges, by:

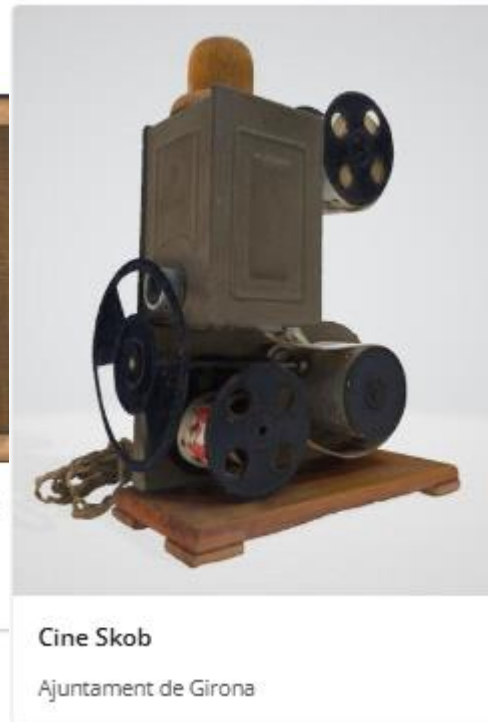
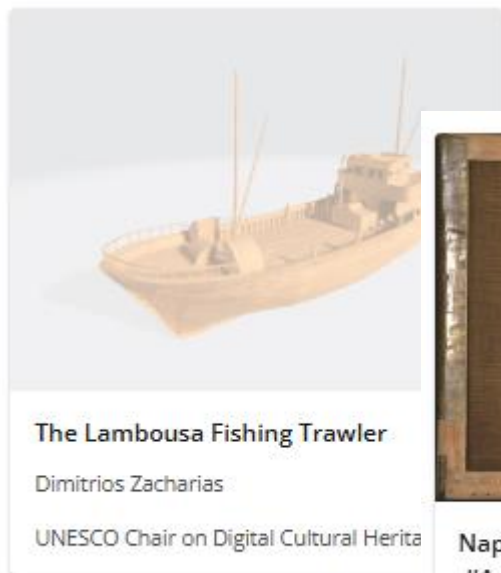
- Developing and testing a **pilot e-infrastructure for 3D cultural collections** that provides useful features that institutions can use in managing their 3D assets and related information
- Producing **training resources and a capacity building programme** of onsite and online events
- **Digitising** cultural objects and sites from Girona Museum of Cinema, Bibracte archaeological site and Cyprus historical boat and churches
- **Publishing** new contents in Europeana



Publications in Europeana

The **EUreka3D collections published in Europeana** (nearly 6.000 records) enrich the availability of open access cultural content for use and reuse by all stakeholders

The collections are showcased in a **variety of editorials, galleries and dissemination materials**



From Stakeholders to Users

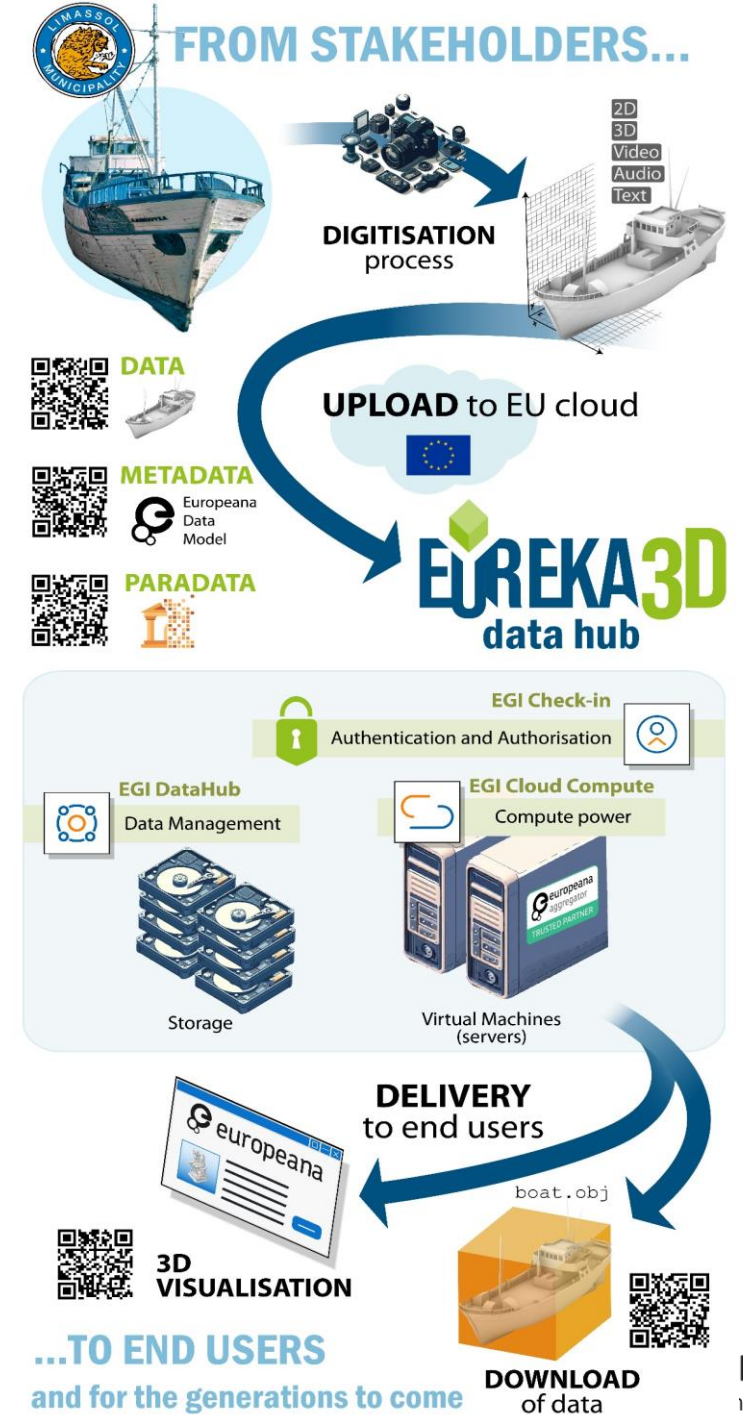
EUreka3D Data Hub: dedicated cloud-based services to store, preserve, manage, share data, metadata and paradata generated in 3D digitization projects, including:

- *European-based storage facilities*
- *AAI for safe access*
- *PIDs service to grant long term preservation of online objects*
- *Visualization tool (3D viewer)*
- *Fully integrated and compatible with Europeana*

Capacity building on high quality 3D digitization, based on milestone VIGIE 2020/654 Study

Aggregation of content for publication in the **Data Space for Cultural Heritage**

EUreka3D concludes on 31/12/2024 and is followed by the **EUreka3D-XR** to explore reuse of 3D assets in XR scenarios.



Dissemination and target audience

EUreka3D aimed at disseminating **recommendations** on high quality digitization in 3D, sharing knowledge about key themes such as formats, standards, authenticity and fake media.

Good practices and real-life experiences of digitization of cultural collections and reuse were showcased

Target audience was the community of heritage professionals, irrespectively of the sector (i.e. all GLAMs included) and digital literacy level. Also, the outreach went beyond EU, with participants coming to our webinars from all over the world (!).

All outcomes are **openly accessible** on the EUreka3D website, on the blog hosted by digitalmeetsculture and in the editorials published on europeana.eu.

• 26 September, 24 October and 15 November 2024

Transforming heritage: formats, authenticity and preservation
Webinar Series 2024



ICAEUREKA3D

• 27 October, 10 November, 1 December 2023

Transforming heritage: from 2D to 3D digitisation
Webinar Series



ICAEUREKA3D

• 15 December 2023

EUreka3D Data Hub
Demo Event



EUREKA3D

• 8 April and 17 May 2024

Defining Paradata, Metadata & Data for Documenting 2D/3D Digital Cultural Heritage

Webinar Part 2: Case Studies & Implementations



EUREKA3D

• 29 May 2024

EUreka3D Public Demo Event

Preserving Values through #MemoryTales



unesco EUREKA3D

3D in Cultural Heritage
6th June 2023 - Rome



EUREKA3D



Ministry of Enterprises and Made in Italy

under the auspices of the Italian Ministry of Enterprises and Made in Italy

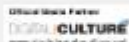
Eureka3D is a project funded by the Digital Europe Programme of the European Union, to support the digital transformation of the cultural heritage sector, by offering capacity building, training and new services to Cultural Heritage Institutions, facing the challenge of advancing in the digitization effort, especially in 3D digitization, access, storage and sharing.



EUreka3D website

<https://eureka3d.eu/>

News from Project's Blog



[Paper showcasing Eureka3D to be published on PQSC Journal](#)

Following the presentation at PRAM 2024, "Cultural Heritage 3D Object Management with Integrated Automation Workflows" [...]

[Concept Paper "GOSC Federation: Architecture and Federating Capabilities"](#)

The paper describes fundamental concepts to enable the Federation of GOSC Nodes that can deliver [...]

[UNESCO World Heritage Site Church of Timios Stavros successfully 2D digitized](#)

The Eureka3D project advances conservation and public access to Cypriot Timios Stavros Church through 3D [...]

[Eureka3D joined Training Activity in Malta and Cyprus](#)

The next Activity will take place in Cyprus from December 25th to 26th From the [...]

[Eureka3D and Eureka3D-DR projects showcased at Heritage Horizons, the European Project Week](#)

Online, November 25th - 29th, 2024 The Heritage Horizons Project Week: Shaping the common European data [...]

[Eureka3D presented in meeting of the IIF Working Group on 3D](#)

closer collaboration between initiatives working around 3D is extremely important to sustain and foster the [...]

[Paradata, Metadata, and Data in 3D Digital Documentation for Cultural Heritage](#)

#DigitalTwins or #MemoryTwins

Limassol (CY), 2nd December 2024 @ EuroMed2024 We are pleased to invite you to participate [...]

[Eureka3D at Image & Research Conference](#)

this annual event, especially dedicated to photographic and audiovisual heritage professionals, takes place in Girona [...]

[Eureka3D Final Conference: registrations are now open](#)

Girona and online, December 13, 2024. Registrations are now open for the Eureka3D Final Conference, [...]

News from the Project



[Final Conference](#)

13 December 2024

Hybrid Public Conference and Workshop

The Eureka3D Final Conference will take place in Girona on 13 December 2024. The event will consist of a hybrid public conference by project partners and invited contributors, and a public onsite workshop mainly focused on 3D digitization and cultural heritage for local cultural heritage and museum professionals.

[3D Objects from EUreka3D in Europeana](#)





European Union's REKconstructed content in 3D

BLOG HOME

CAPACITY BUILDING

PRESENTATION OF THE PROJECT



EUreka3D – European Union's REKconstructed content in 3D

The EUreka3D project addresses the growing need of enabling the digital transformation of the Cultural Heritage sector. It is a 24 months project funded in the Digital Europe Programme of the European Union.

The digital transformation comes from a decades-long... [Continue reading](#)



IN FOCUS

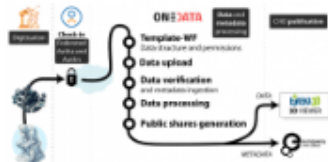


Fig. 3. Generic workflow processing of CHD processing.

Following the presentation at PPAM 2024, "Cultural Heritage 3D Object Management with Integrated Automation Workflows" will be published on FGCS journal

Paper showcasing EUreka3D to be published on FGCS journal

The Lambousa Fishing Boat case and the data managing within the scope of EUreka3D project was presented by Michal Orzechowski at the 15th International Conference on Parallel Processing & Applied Mathematics. Following the presentation, Future Generation Computer Systems journal invited ... [Continue reading](#)

The paper describes fundamental concepts to enable the Federation of EOSC Nodes that can deliver services and resources to European researchers collaboratively

Concept Paper "EOSC

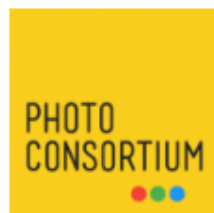


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CONSORTIUM



ABSTRACT

EUreka3D blog on digitalmeetsculture.net

<https://www.digitalmeetsculture.net/projects/eureka3d-blog/>

Media Partner

DIGITAL CULTURE
www.digitalmeetsculture.net

Eureka3D editorials in Europeana

Discover the EUreka3D collections, stories and galleries in the Europeana.eu

Blogs



STORIA
3D digitisation, history and future



STORIA
Optical views
a way to travel through Europe



STORIA
Bibracte
a 2000-year-old town under a forest



STORIA
The Pescia Paper Museum
Keeper of paper-making heritage in Italy since the 13th century



STORIA
The Lambousa Fishing Trawler
Cyprus' Mediterranean maritime legacy



STORIA
The magic lantern
A story of art and technology

Editorials and publications in Europeana include various multilingual blogs on Europeana website, publications on Pro, and galleries.

EUreka3D blogs in Europeana Pro

Pro Blogs



[EUreka3D](#)

European Union's REKconstructed content in 3D



[VIGIE study](#)

EU-funded study sheds light on 3D digitisation of tangible cultural heritage



[Supporting the data space](#)

Discover how the EUreka3D project supports 3D in the data space for cultural heritage



[Fikardou Village](#)

3D scanning preserves a Cypriot village for the future



[Bibracte](#)

Bibracte exploits the potential of 3D digitisation

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www.digitalmeetsculture.net

EUreka3D galleries in Europeana

Galleries



GALLERY

3D archaeological treasures



GALLERY

3D wonders



GALLERY

Famous monuments in 3D



GALLERY

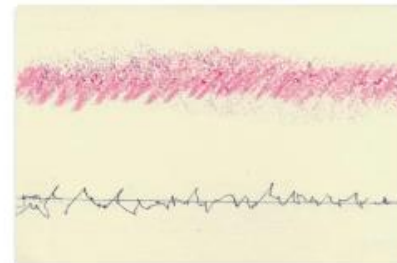
Bibracte



GALLERY

Paper Moulds from Museo Della Carta

Digital representations of wired moulds used to handcraft paper in the historical paper mill in Pescia



GALLERY

Modern art from Museo Della Carta

A collection showing contemporary artworks using paper by artists in residence at the Paper Museum of Pescia.



GALLERY

Flavors of Cyprus

Explore a selection of the best items from Cypriot heritage in Europeana!



GALLERY

Girona cinema museum magic lanterns

Explore a selection of magic lanterns digitized in 3D from the collections preserved at the Cinema Museum in Girona



GALLERY

Heritage cameras and photographers

Enjoy a gallery of heritage cameras and heritage photographers at work!

EUreka3D on Historiana

Source collections are also published in
Historiana, as open access digital resources
available for teachers and students.

The screenshot displays the Historiana website interface. At the top, there is a navigation bar with the logo 'H' and 'RT FROM EUROPEANA', followed by several utility links: 'UPLOAD EXCEL BATCH', 'UPLOAD POWERPOINT', 'BATCH UPLOAD OF IMAGES', 'DOWNLOAD EXCEL TEMPLATE', and 'DELETE SELECTION'. Below the navigation bar is a search bar with the placeholder text 'Find your Collections'. The main content area features a grid of ten collection cards, each with a blue header labeled 'COLLECTION'. Each card contains a representative image, a title, a brief description, and a set of icons (a pink flower, an 'i', a pencil, and a square) at the bottom.

Collection Title	Description
Heritage cameras	photographic equipment across centuries - from EUreka3D project
Lambousa Fishing Trawler	Heritage vessel restored and digitized in Cyprus - from EUreka3D project
Ancient paper moulds	A peculiar type of heritage: paper manufacturing - from EUreka3D project
The Fuggers	Meet Jakob Fugger and his family, creators of kings, shapers of cities, and
Banská Bystrica	Glimpses of the mining history of Banská Bystrica region in Central Slovakia
Fighting for gender rights from self-portrait to metamorphosis	Women experimenting with the roles and transformations
Alexandre Dumas and his novels in art	Alexandre Dumas is one of the most prolific and widely known French
Hydraulic heritage in Portugal	Connections between agriculture, food production, communities
Islamic Heritage in Sicily	Traces of the Islamic occupation in Sicily

Actions for capacity building

- Production of **learning and training resources**, openly accessible in the project's website, YouTube and on the Zenodo channel
- **Online and onsite events**, including hands-on training
- **Cooperation and cross collaborations** with stakeholder organizations in cultural heritage and other sectors such as education and tourism
- Participation in **relevant conferences and seminars** to share knowledge and present workflows of reuse and use cases, including demonstrations of the EUreka3D Data Hub

3D Digitisation Guidelines: Steps to success

A guide based on the EU VIGIE Study on quality in 3D digitisation of tangible cultural heritage

DOWNLOAD IT



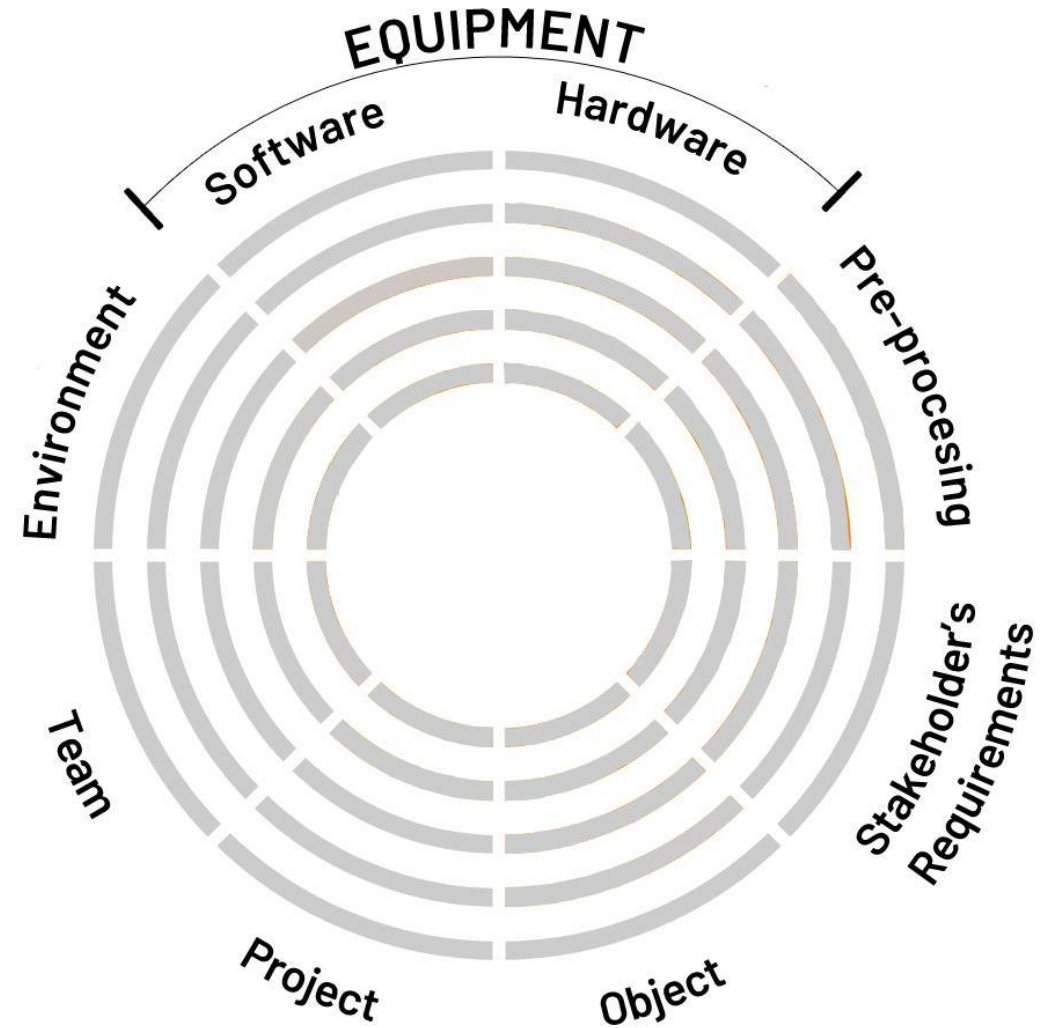
3D digitisation: a question of complexity

- The experience of high-quality 3D digitisation during EUreka3D confirmed the importance of a rigorous quality assessment as an essential step for creating **memory twins**
- The concept of *memory twin* goes beyond the notion of digital twin, looking at the process that includes the critical integration of paradata, metadata and data

- **Data**: the geometrical information of the 3D model
- **Paradata**: the processes and tools used for creating the data
- **Metadata**: the information that explains the digital content

Quality matters

- Digitization is a static capture of a dynamic object at a certain moment in time
- A still image of a painting, the picture of a monument or a cultural site, they are all 2D projection of a 3D object
- Equipment, practices, actual setting, software processing all impact the final result



VIGIE Study 2020/654

XR for cultural heritage

- Technology is crucial when we explore the possibilities of using primary archival sources for creating new **narratives** around our shared heritage, to the benefit of a **variety of users** and **stakeholders**.
- The current push towards 3D digitization is only a first step in a long journey that will enable better and more advanced **interactions** with heritage resources.
- We are currently witnessing the dawn of the future for museums and archives within a context of **digital transformation**.
- The virtual 3D reconstruction of lost heritage from archival materials is a totally new field where **primary sources** are exploited to create new narrative contents adopting a scientific approach.

EUreka3D-XR scenarios

The XR narrative of excavations in process in the Bibracte archaeological site

The XR life of Saint Neophytos Englystra in Cyprus, in the virtual space



XR reconstruction of the middle-ages walls of the city of Girona



Concluding remarks

3D digitisation: a scientific process

- It requires careful preparatory tasks, complexity analysis, preliminary study of working conditions, understanding of the requirements of the cultural heritage institution that enters into this challenge
- Collaboration with sound technological partners is crucial

Reuse: a big potential that requires new approaches and understanding

- To establish solid and accessible infrastructures
- To develop trustable methodologies
- To adopt standards

Digital transformation: a need for new capacities

- Improvements in the IT and networking services of Cultural Heritage Institutions
- Awareness of the new opportunities offered by the technical evolution
- Solid understanding of the needs of the users

Thank you



EUreka3D website <https://eureka3d.eu/>

EUreka3D blog <https://www.digitalmeetsculture.net/projects/eureka3d-blog/>

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