What strategy for managing and promoting images and visual media for a heritage site manager? BIBRACTE case study

Vincent GUICHARD, General Director, Bibracte
v.guichard@bibracte.fr
www.bibracte.fr

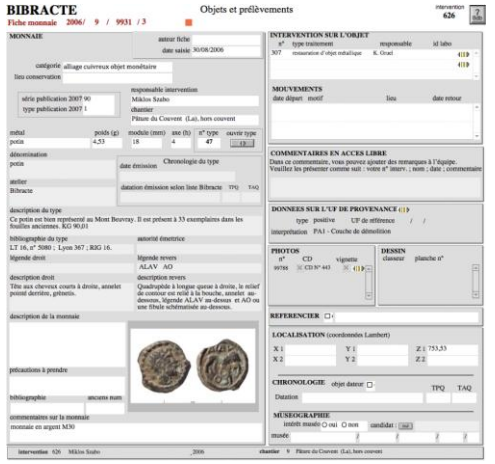
Photography and archives: discovery, technology and innovation conference
European University Institute, Florence, 29 May 2025

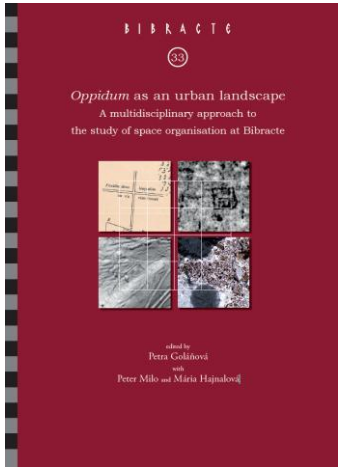
EUREKA 3D XR
Co-funded by the European Union
EUI HISTORICAL ARCHIVES OF THE EUROPEAN UNION
PHOTOCONSORTIUM

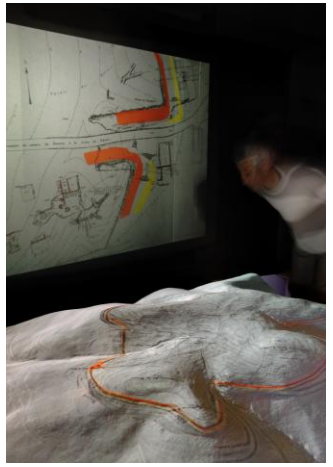
Bibracte

- ✓ a major archaeological site in modern Burgundy
- ✓ the site of a town of the 1st c. BC
- ✓ since 1984, an integrated site management system and a research project shared by different European universities
- ✓ a big and diverse set of data collected over 75 years of archaeological activity (e.g. 144,000 image recording cards)

BIBRACTE : the management of the complete operational archaelogical process, from the field to the public and the scientific community, today and tomorrow







The diversity of visual media/ 1 non-digital media

1 / 19th c. documentation

- Site plans
- Drawing of finds
- Hand-written site books
- Photographs (not so many)

2 / Recent (1980 till today) non-digital media

- Site plans
- Drawing of finds
- Hand-written site books
- Photographs (tens of thousands)

➢ **All this documention is being digitalized according to the needs**

The diversity of visual media/ 2 digitally native media

- **Photographs** (*order of magnitude*: 10^5)
- **2D Site plans** of excavations (10^3)
- **Photogrammetric plans and 3D views of excavations** (10^3)
- **Geophysical and LIDAR surveys** (10^2)
- **3D views of objects** (10^2)
- **Videos** (10^2)

➢ **Altogether :**
15 Tbytes of native-digital & digitalized data, increasing exponentially (by ca. 30% per year)

Present issues/ 1

long-term archiving of files and efficient access to them

- controlling the increase in the **volume of digital data**
- reliable (and reasonably expensive) public **backup servers**
- publication of the files in **an information system** that brings together all the archaeological data for the site
- make it possible to **aggregate data** on a large geographical scale (the European scale) to facilitate scientific investigations and enable the mobilisation of mass data processing technologies (AI in particular)

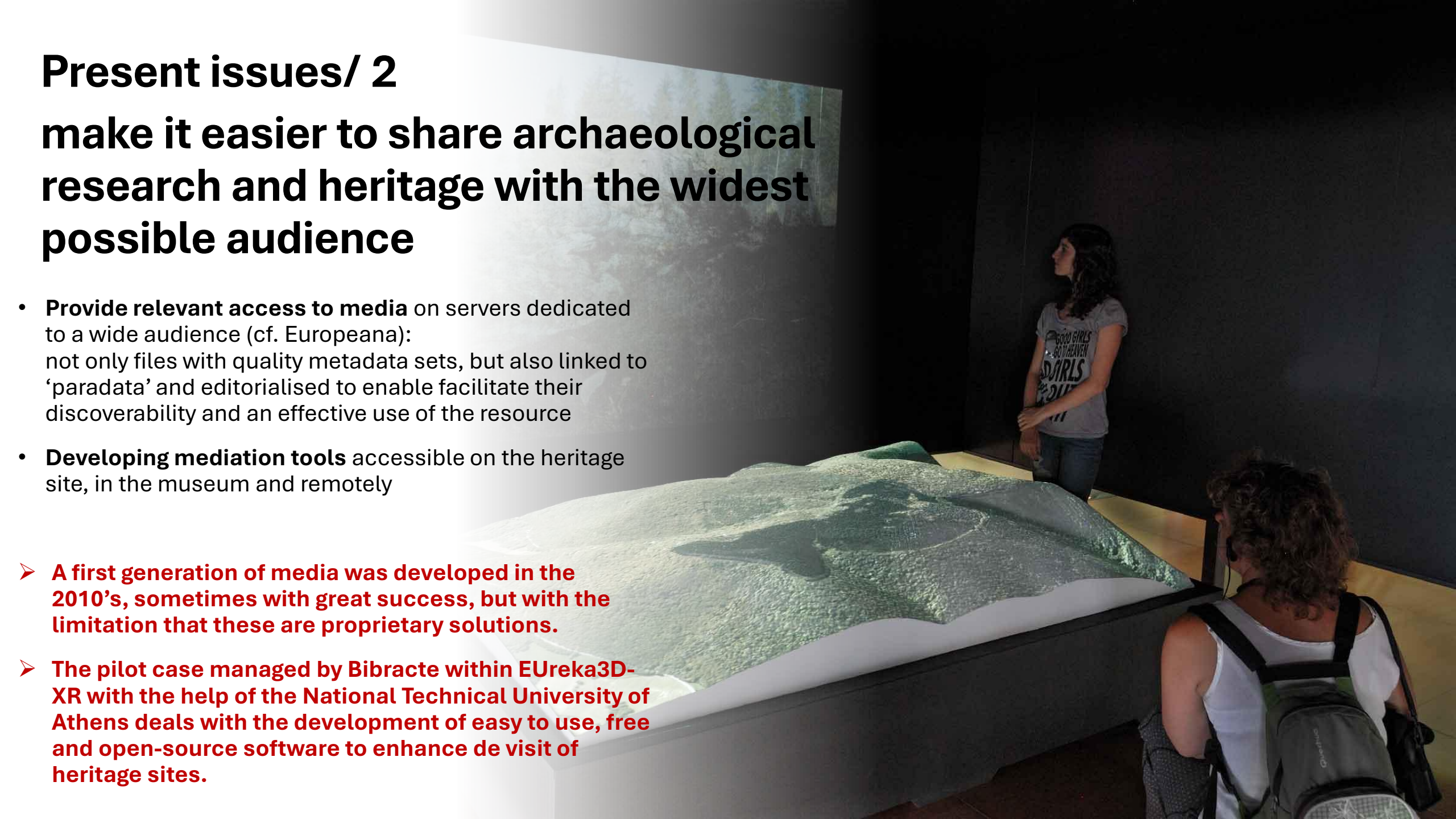
➢ All these objectives are consistent with the ambitions of the **European Collaborative Cloud for Cultural Heritage** (ECCCH).

➢ **These issues are presently explored** within SIAMOIS (*Système d'Information Archéologique Mutualisé et Ouvert reposant sur l'Intelligence Sémantique*), a project funded by the French State

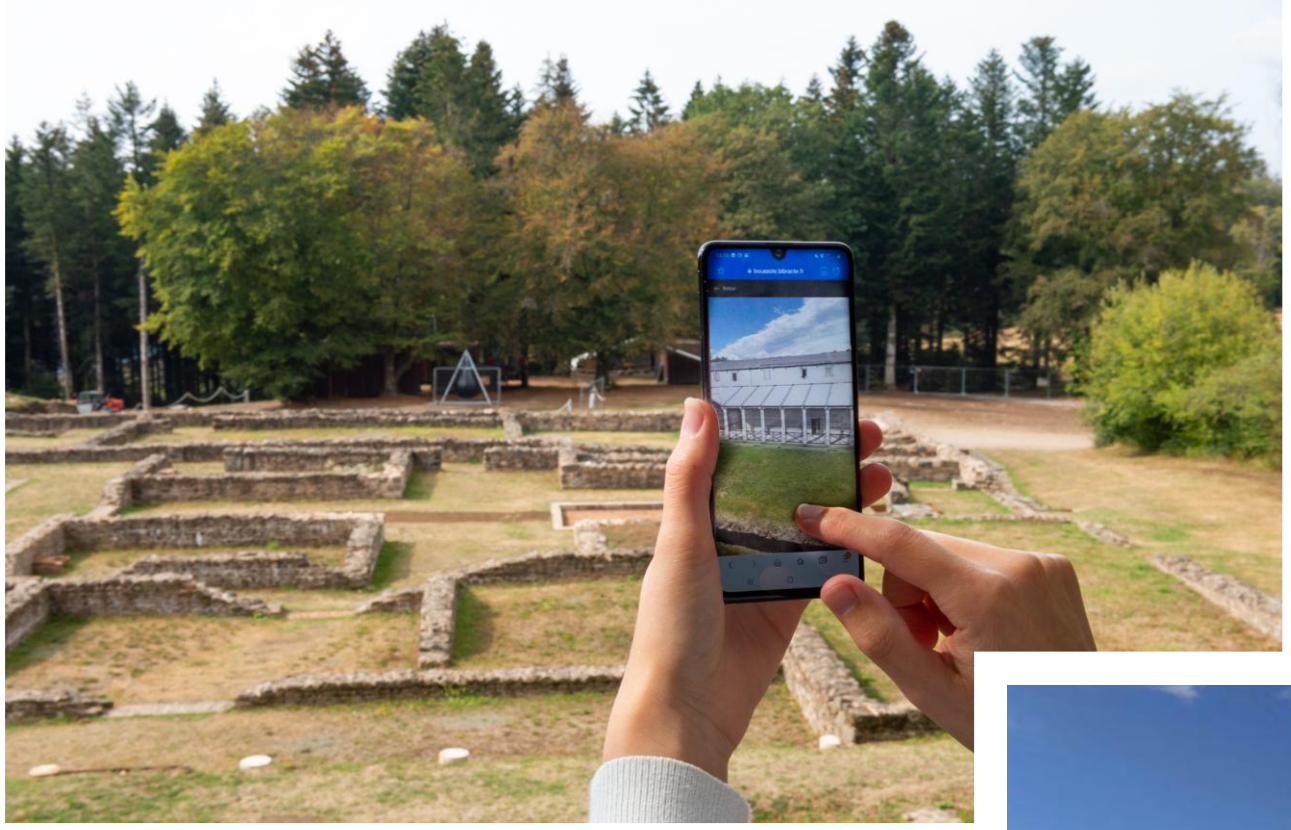
Present issues/ 2

make it easier to share archaeological research and heritage with the widest possible audience

- **Provide relevant access to media** on servers dedicated to a wide audience (cf. Europeana):
  not only files with quality metadata sets, but also linked to 'paradata' and editorialised to enable facilitate their discoverability and an effective use of the resource
- **Developing mediation tools** accessible on the heritage site, in the museum and remotely



- **A first generation of media was developed in the 2010's, sometimes with great success, but with the limitation that these are proprietary solutions.**
- **The pilot case managed by Bibracte within EUreka3D-XR with the help of the National Technical University of Athens deals with the development of easy to use, free and open-source software to enhance de visit of heritage sites.**



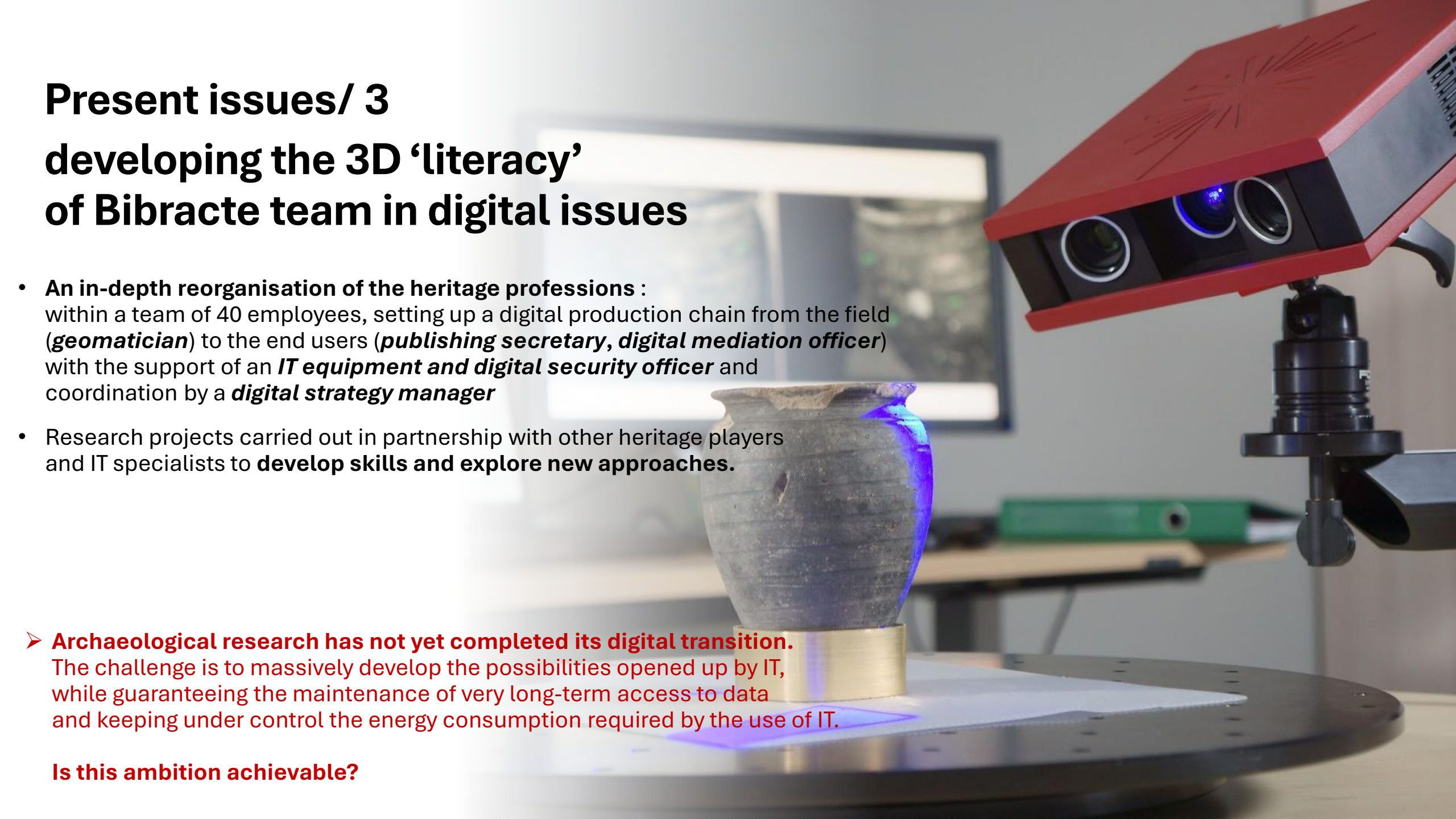
EUreka3D-XR showcase scenario:
the XR narrative of excavations in progress

Showing the invisible:
backfilled digs and ancient buildings

Present issues/ 3

developing the 3D ‘literacy’ of Bibracte team in digital issues

- **An in-depth reorganisation of the heritage professions** :
  within a team of 40 employees, setting up a digital production chain from the field (***geomatician***) to the end users (***publishing secretary***, ***digital mediation officer***) with the support of an ***IT equipment and digital security officer*** and coordination by a ***digital strategy manager***
- Research projects carried out in partnership with other heritage players and IT specialists to **develop skills and explore new approaches.**



➢ **Archaeological research has not yet completed its digital transition.**
The challenge is to massively develop the possibilities opened up by IT, while guaranteeing the maintenance of very long-term access to data and keeping under control the energy consumption required by the use of IT.

Is this ambition achievable?