

# Challenges of Digital Transformation in CH

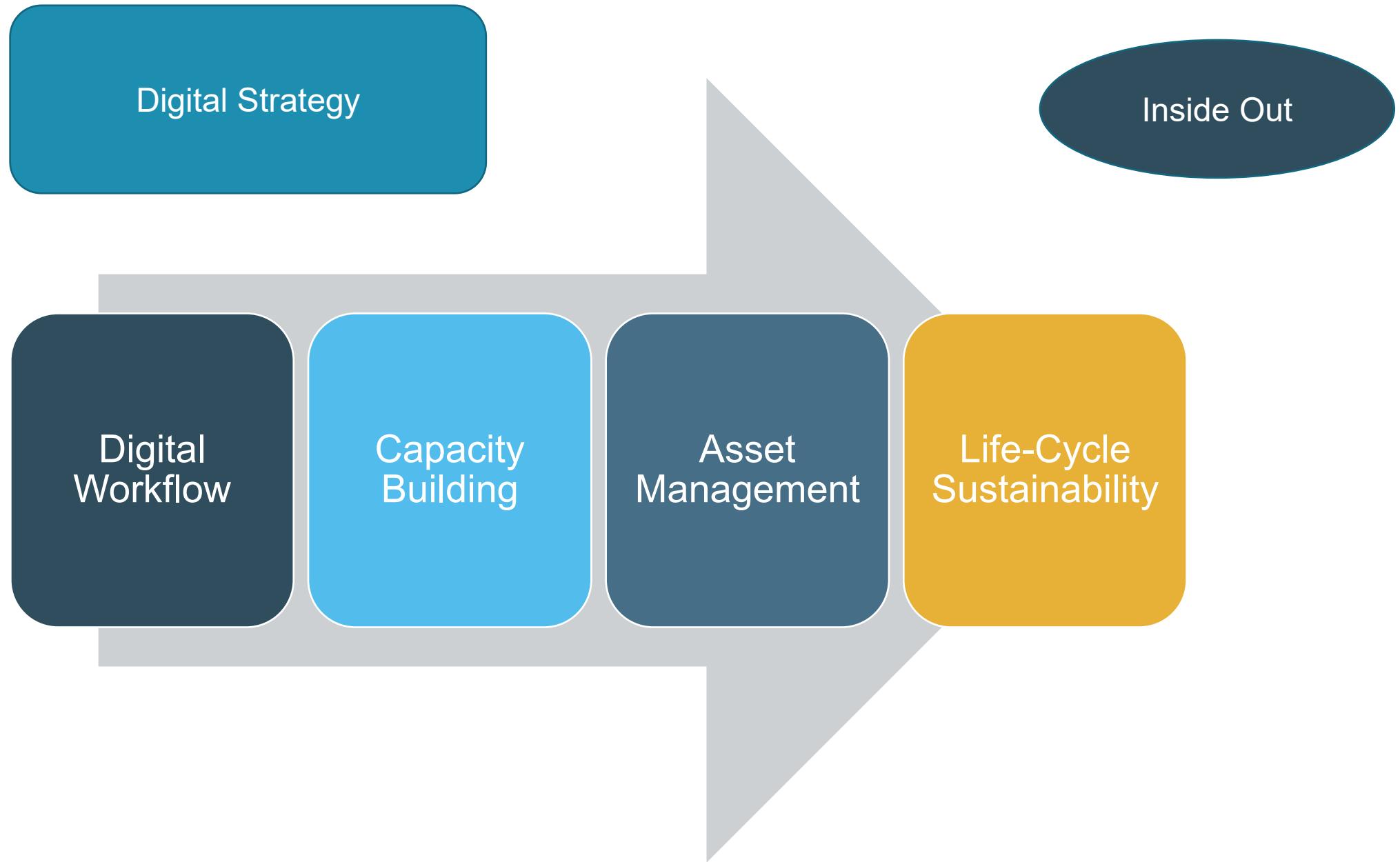
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DigitGLAM

November 2025



The birth of Adonis and the transformation of Myrrha. Oil painting by Luigi Garzi. Wellcome collection



# 3 important actions for any digital strategy

## **Capacity building framework,**

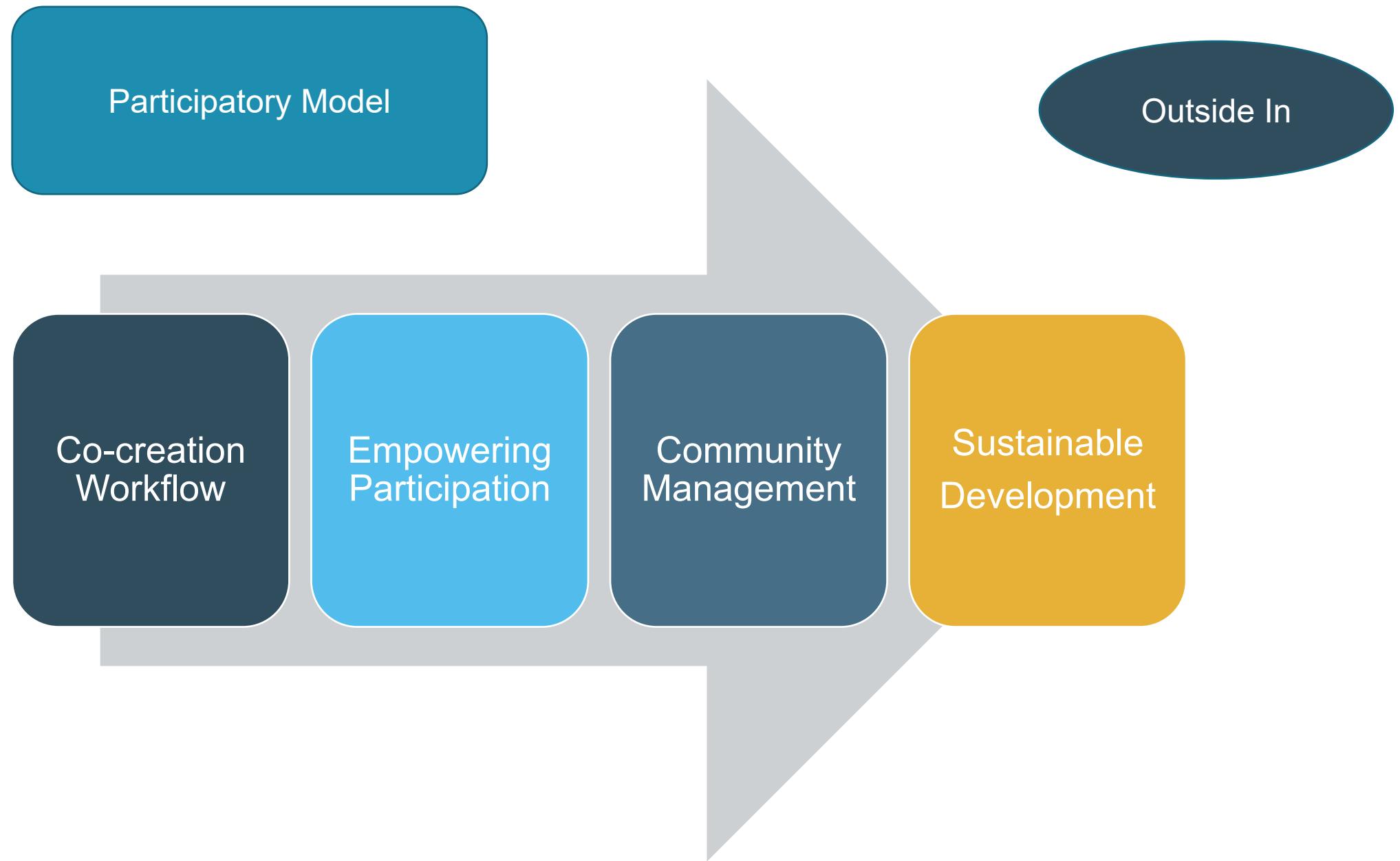
- in which the organisation reflects on what capabilities the individual employees should have - their skills and competencies - to be able to generate the required capacity - the ability to perform and deliver the desired outputs;

## **Digital Asset Management,**

- to make sure the digital copies resulting from digitisation efforts become reusable assets that can support a multitude of organisational activities, ranging from online catalogues over virtual exhibitions to printed publications, user engagement, high-end visualisations. A sound Digital Asset Management makes sure that the digitised collections can be part of a “Digital Proof” business model for the CH operations, allowing to explore new revenue streams that require a stronger online presence;

## **Integrated Digital Life-Cycle Management,**

- so that not only the digital copies remain up-to-date but also the supporting software and databases. This will guarantee the sustainability of the digitisation efforts.



# 3 important actions for any *participatory* digital strategy

## Capacity building framework,

- in which the organisation reflects on what capabilities **the stakeholder communities** should have - their skills and competencies - to be able to be empowered to take responsibility and co-ownership of their heritage;

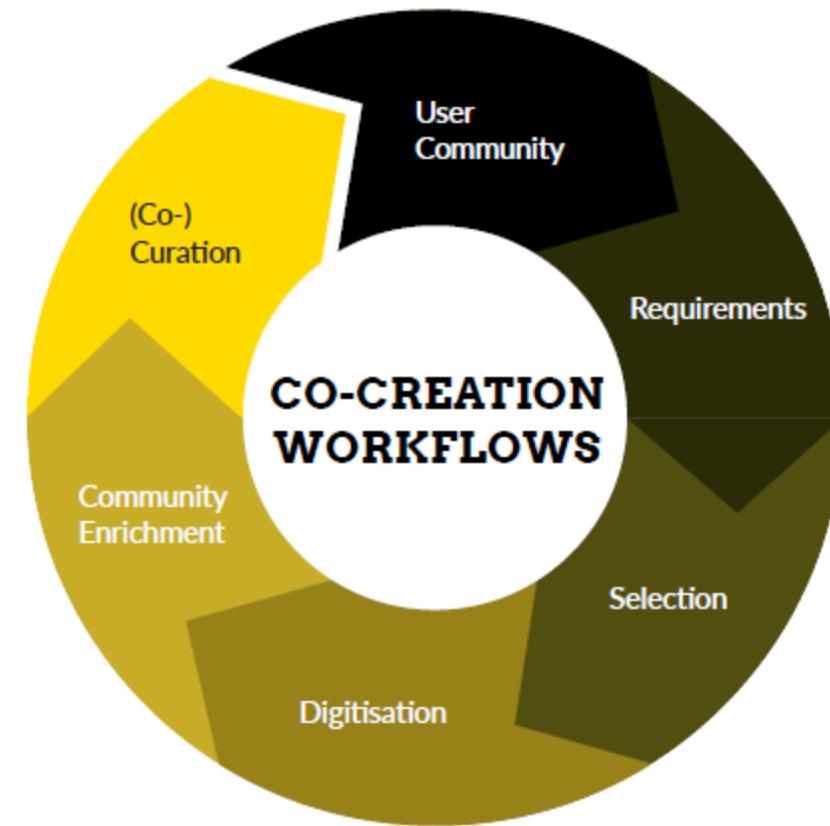
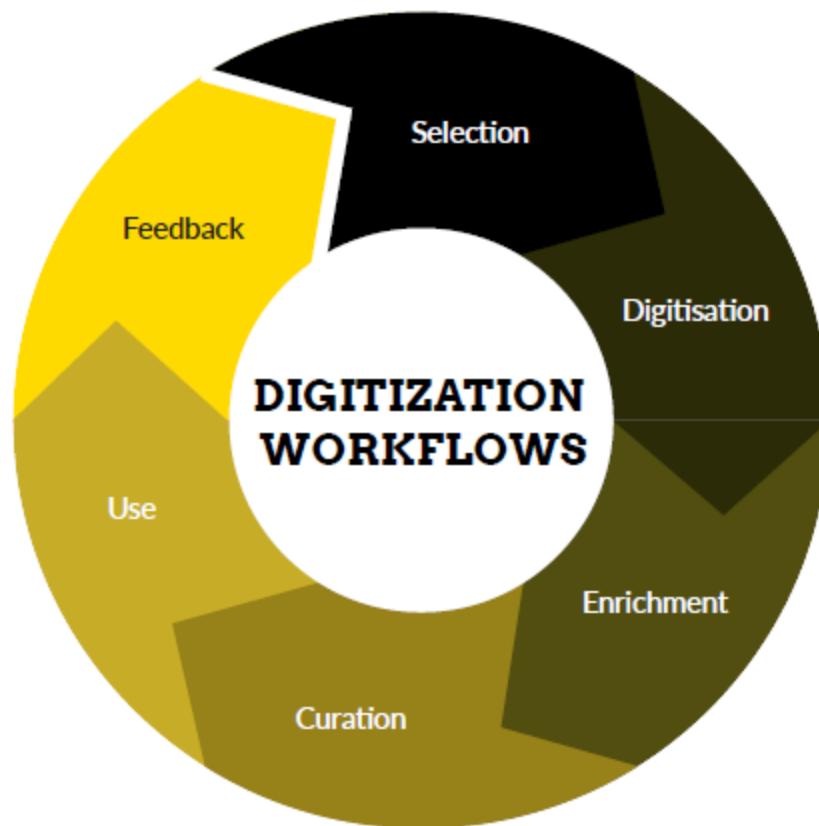
## Digital Asset Management,

- to make sure the digital copies resulting from digitisation efforts become **shared** assets that can support a multitude of heritage activities, ranging from reproduction, enhancement, recreation. A sound Digital Asset Management makes sure that the digitised collections can be part of a “**community supported**”, long-term business model for sustainable CH operations, allowing to safeguard sufficient and sustainable revenue streams;

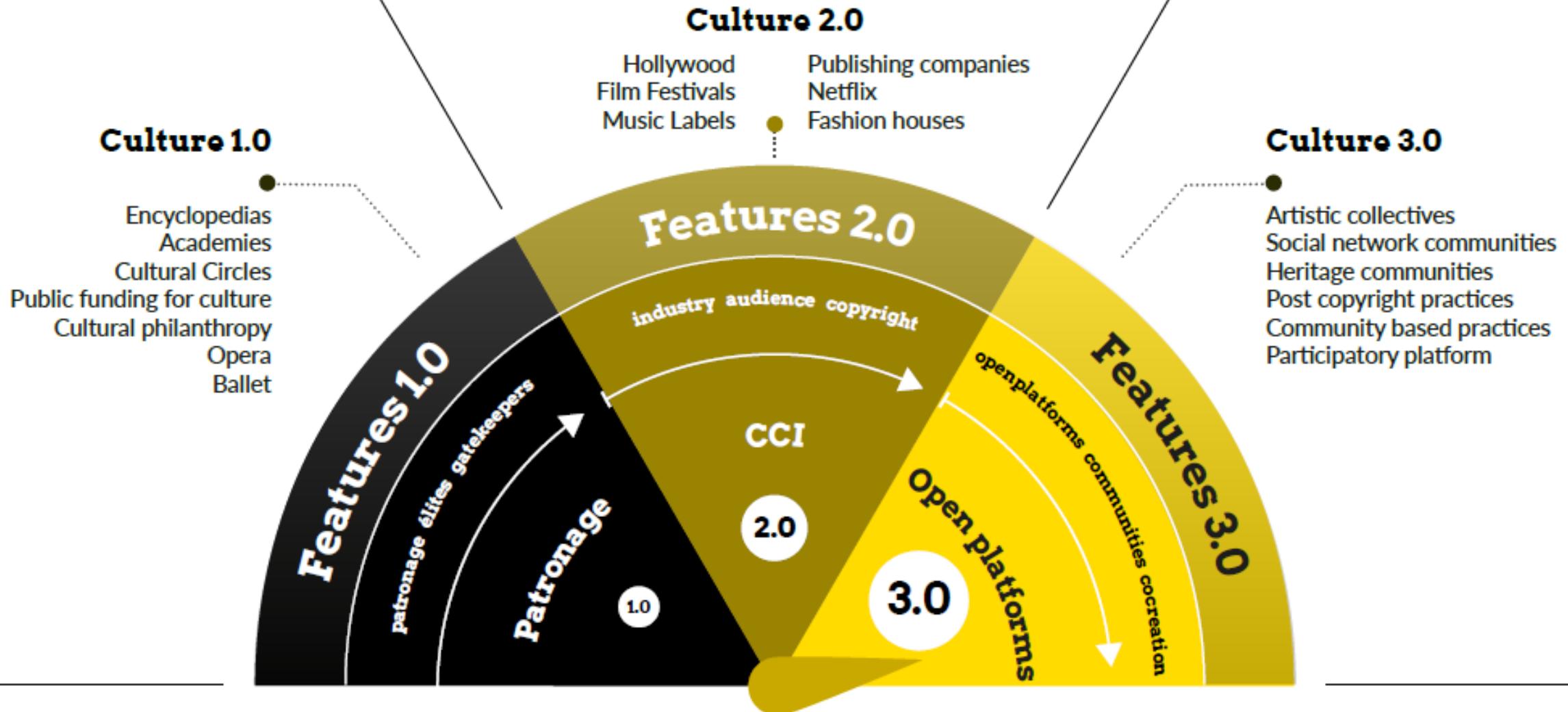
## Integrated Digital Life-Cycle Management,

- so that not only the digital copies remain up-to-date, but also **integrated in a context of living heritage experience**. This requires smart integration with social platforms and media. This will guarantee the sustainability of the digital preservation.

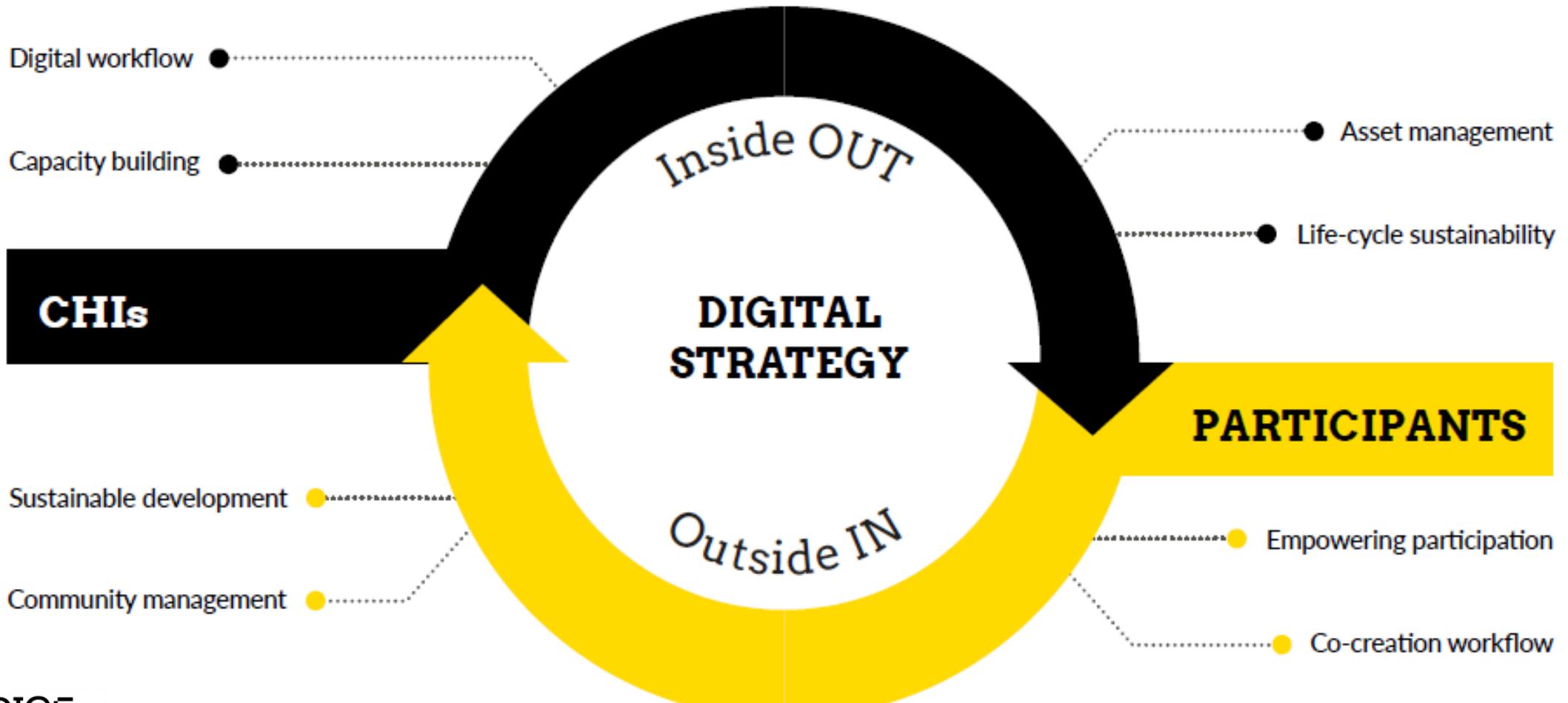
## Digitisation and Co-creation Workflows



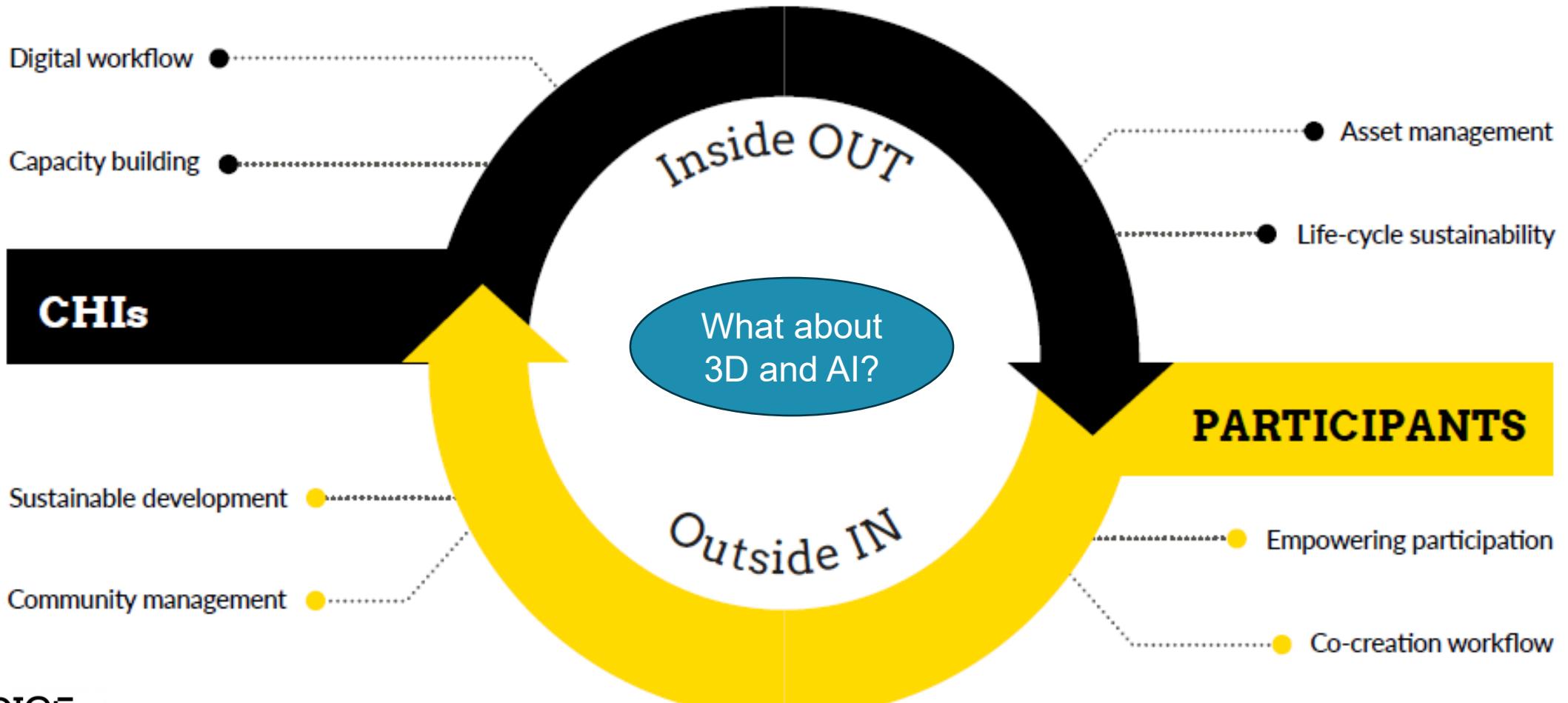
# Digital Trends and Participatory Content



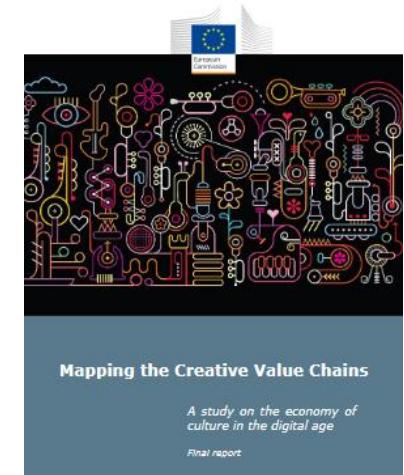
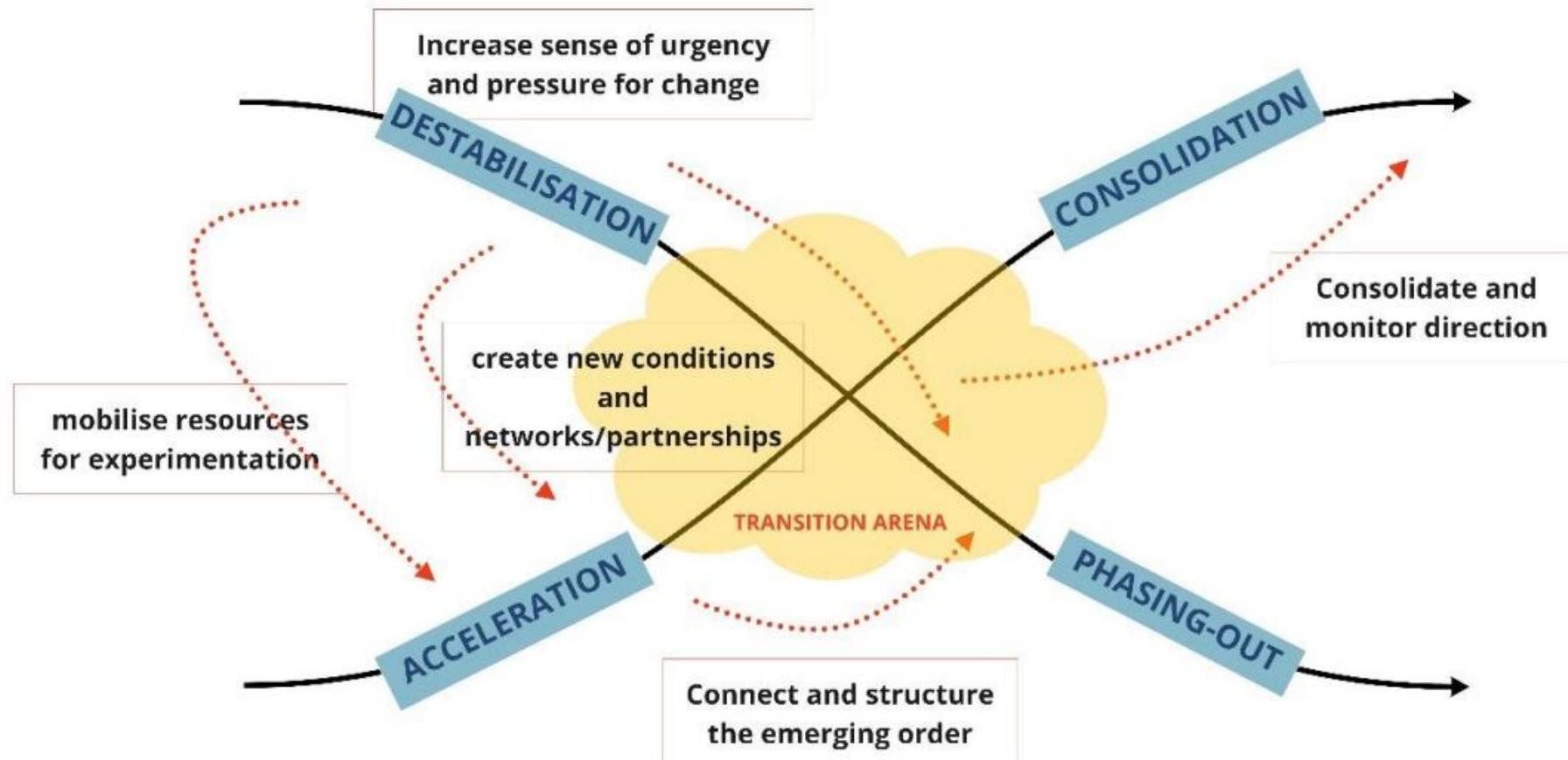
# Approaching Innovation and Digital Strategy



# Approaching Innovation and Digital Strategy



# X-model for innovation



# Example



Digital Europe Program



Co-funded by  
the European Union

- Outside in:
  - Debias example <https://pro.europeana.eu/project/de-bias>
    - Collective management of metadata
    - Vocabulary co-creation
    - Iterative cycle between Institutions – Aggregators - Stakeholders





DE-BIAS introduces a **methodology and a digital tool to detect**, make visible and contextualise **stereotypes and derogatory** language in the descriptions of digital cultural heritage objects

- co-creation of a vocabulary with communities
- Integration into Europeana
- Available as stand-alone tool



# Unwanted performativity of harmful descriptions in public collections

- ◆ While the **integrity of the source needs to be preserved**,
- ◆ publishing these contents and metadata today:
  - magnifies their problematic voice
  - is not a neutral statement by the publisher / publishing institution
  - entails responsibility
- ◆ Large digitised open access collections with **dubious metadata are feeding AI training algorithms with unwanted bias**
- ◆ Stereotypical and low-quality metadata **diminish the reuse, impact and connectivity of the online collections**
- ◆ This problem is **exacerbated by the push for digitisation and open online access**



# Phased, multidisciplinary methodology

- ◆ Definition of a **Typology of bias** based on Academic Literature (Cultural Studies)
  - ◆ Data analysis on Europeana (Digital Humanities)
- ◆ Participative development of **vocabularies**
  - ◆ Workshop methodology using "Wheel of Bias" (Anthropology)
  - ◆ Agreements with stakeholder representatives
  - ◆ Interviews in loco (Oral History)
- ◆ Development of a thesaurus **knowledge graph** (Digital Humanities)
- ◆ **Validation** of the vocabularies using **CrowdHeritage**
- ◆ Integration into **Europeana** and **VocBench** (Engineering)
- ◆ Recommendations for metadata improvement
- ◆ => **Added value** for digital collections (Asset management)

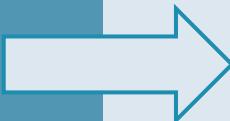
# Community engagement methodology

- this resource provides CHIs with a framework for conceptualising, planning and evaluating community engagement activities
- topics discussed include:
  - ◆ the role of heritage in shaping identities;
  - ◆ the process of value creation within the cultural field;
  - ◆ the role of Audience Development in fostering access and participation in cultural activities for broader societal groups;
  - ◆ examples of specific methodologies and tools to engage communities.



# Typology of bias

- **Linguistic level:** the words used to describe an object in a collection (both the title and the metadata).
- **Visual level:** the representation and imagery of an object or the object itself.
- **Intermedia:** The relationship between the linguistic and visual levels.



- **In the source**
  - Terminological
  - Nominative
- **In the metadata**
- **In the digital translation**
  - Incl. crowdsourcing



# Shades of linguistic misrepresentation

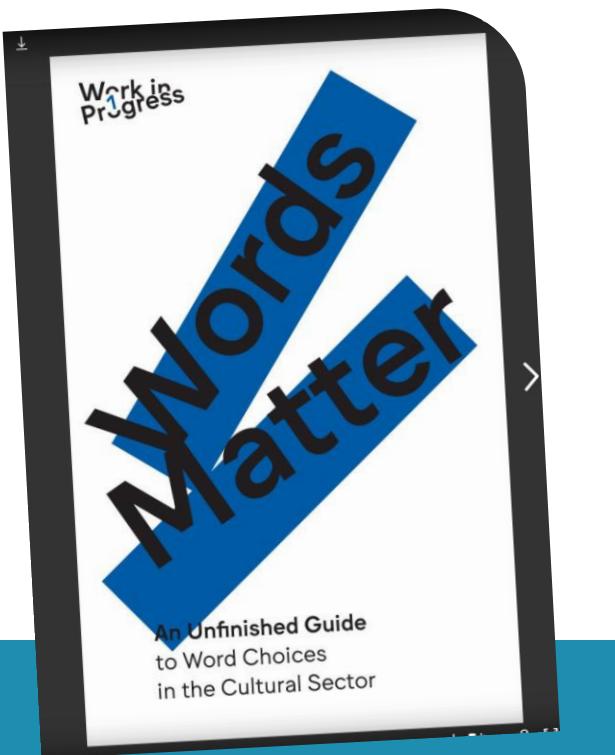
- Basis: Academic research and exploration of instances of bias in several collections from Europeana and broader project partners.
- Our analysis showed that various types of bias play a role.
- The different types represent varying degrees of misrepresentation.
- Based on the typology, we developed a classification.
- Misappropriation
- Stereotypes
- Outdated language
- Derogative language / dysphemisms
- Diminutive language
- Omission / forgetting / misrecognition
- Euphemisms
- Fragmentation





# A multilingual vocabulary

- ◆ Analyse & identify bias types and patterns on Europeana metadata and digital heritage collections at large
- ◆ Research literature, existing initiatives and thesauri (e.g. “Words matter” and “Homosaurus”)
- ◆ **Work closely with minoritised communities**



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# Vocabulary validation and metadata enrichment with stakeholder communities

 AN ERASMUS+ PROJECT, RUNNING ACROSS 2020-2023

# CitizenHeritage

**Citizen Science Practices in Cultural Heritage: towards a Sustainable Model in Higher Education**



Citizen Science  
Educational videos



Citizen Science  
Self-assessment checklist

Participate in the CitizenHeritage network

► Events

► About

Eureka3DXR workshop

"According to Maman J. M. this photo was taken in Kilwa. She believes it is the house of chief Papa Kaseba, who belonged to the royal court of Kinsali. He was the one who granted the missionaries permission to settle in the village of Mulenga (today's Kilwa), the chief town of the sector of Moëro. During the 1957 territorial reform, the chief of Kinsali saw his land become part of the 'Groupement Mulimba'. The drawings on the wall of the house could be interpreted as a representation of people queuing to visit the chief's house. "



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# 'Gypsy'

## Integration in Europeana

Published: May 2024

Last updated: May 2024

This term is generally used to refer to a member of a travelling or itinerant people, specifically Roma people. The Roma people are divided into different groups. Associated with itinerancy, due to their history of (forced) migration, negative stereotypes of Roma as thieves and vagabonds continue to exist today. For the Roma people the term 'gypsy' is derogatory. Consequently they collectively and officially adopted the term "Roma" in the 1970s.

### Source

Tropen Museum et al., eds., "Words Matter: An Unfinished Guide to Word Choices in the Cultural Sector," 2018, 109. [https://www.materialculture.nl/sites/default/files/2018-08/words\\_matter.pdf.pdf](https://www.materialculture.nl/sites/default/files/2018-08/words_matter.pdf.pdf).

### Recommendations for use

Adopt the terminology used and accepted as respectful by people from the community themselves.

### Suggested alternatives

Roma; Sinti; GRT community



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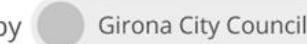
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## Gypsy caravans and tents on

Gypsy caravans and tents on Belvedere Marshes, Kent .x000D  
1936

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Read the full explanation provided by 

## Gypsy caravans and tents on

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# 'Recommendations'

**INTRO**

**DE-BIAS GUIDELINES TO REPRESENT DIVERSITY IN METADATA**

Consider these guidelines on mapping stories on the mindmap to a more inclusive cultural heritage landscape, born from cutting-edge research and community involvement in the scope of the DE-BIAS project. These recommendations are designed to empower individuals, whether they are shaping policy or managing institutions. Drive and discover how small changes in metadata can lead to big strides in representation, accessibility, and cultural understanding. Let's work together to ensure our shared heritage speaks to everyone.

**FOR POLICY MAKERS**

**DE-BIAS**

**FOR POLICY MAKERS**

**CHANGE THE PARADIGM**

Foster institutional change and collaboration  
Look at the big picture and consider perspectives

**REVISIT FUNDING SCHEMES**

Reprioritise  
Empower multidisciplinary growth  
Drive sustainable innovation

**COMMUNITY ENGAGEMENT**

Consider community collaboration mandates  
Support community engagement

**TECHNOLOGY**

Support AI and human-in-the-loop approaches

**CHANGE THE PARADIGM**

Foster institutional change and collaboration  
Look at the big picture and consider perspectives

**FOSTER INSTITUTIONAL CHANGE AND COLLABORATION**

Encourage cultural heritage institutions to revise policies, embrace collaboration with underrepresented groups, and adopt cross-departmental approaches that enhance inclusivity and community engagement.

**LOOK AT THE BIG PICTURE AND CONSIDER ALL PERSPECTIVES**

Keep on top of new technologies and how they affect different groups in society. The idea of intersectionality - how various aspects of identity combine and interact - could be useful to understand people's diverse experiences. This helps ensure cultural heritage practices represent and include a wide range of voices, especially those often overlooked.

**INTRO**

**DE-BIAS GUIDELINES TO REPRESENT DIVERSITY IN METADATA**

Consider these guidelines on mapping stories on the mindmap to a more inclusive cultural heritage landscape, born from cutting-edge research and community involvement in the scope of the DE-BIAS project. These recommendations are designed to empower individuals, whether they are shaping policy or managing institutions. Drive and discover how small changes in metadata can lead to big strides in representation, accessibility, and cultural understanding. Let's work together to ensure our shared heritage speaks to everyone.

**FOR CULTURAL HERITAGE INSTITUTIONS**

**DE-BIAS**

**FOR CULTURAL HERITAGE INSTITUTIONS**

**METADATA**

Examine your metadata for biased language  
Address terminological, normative and subtle bias

**TECHNOLOGY**

Use AI and human oversight for bias detection  
Consider a phased approach for implementation  
Adapt, update and expand tools  
Explore, test and deploy participatory environments  
Do not forget the user interface

**COMMUNITY ENGAGEMENT**

Centre communities in your approach  
Build trust and sustainable engagement  
Recognise contributions and promote diversity

**PROCESSES & WORKFLOWS**

Prioritise transparency  
Invest in capacity building and inclusive training

**METADATA**

Examine your metadata for biased language  
Address terminological, normative and subtle bias

**ADDRESS TERMINOLOGICAL, NOMINATIVE AND SUBTLE BIAS**

Consult inclusive thesauri, such as the DE-BIAS vocabulary during regular audits to ensure metadata aligns with current social values. Use controlled vocabularies and prioritise high-risk words such as free-text descriptions. Incorporate user feedback mechanisms and focus on consulting and replacing outdated terms, especially in collections of marginalised communities.



# From analysis to strategy

- **Shift the paradigm**
  - Encourage institutional change and collaboration.
  - Look at the big picture and consider all perspectives.
- **Revise funding plans.**
  - Reprioritize.
  - Enable multidisciplinary growth.
  - Stimulate sustainable innovation.
- **Community engagement**
  - Consider mandates for community collaboration.
  - Support community engagement.
- **Technology**
  - Support the ethical, inclusive, and equitable use of AI.
  - Use AI and human-in-the-loop approaches.

## Recommendations for policy makers



Maastricht. Victor de Stuersstraat 17. Soepverdeling door de vereniging Sint Vincentius a Paolo in de parochiezaal - Historic Center Limburg - CC BY-SA.



## Metadata

- Examine metadata for biased language.
- Address terminological, nominative, and subtle biases.
- Implement dynamic approaches for evolving communities.

## Technology

- Use AI and human oversight to detect biases.
- Consider a phased approach to implementation.
- Adapt, update, and expand tools.
- Explore, test, and implement participatory environments.
- Don't forget the user interface.

## Community Engagement

- Center communities in your approach.
- Build trust and sustained engagement.
- Recognize contributions and promote diversity.

## Processes and Workflows

- Prioritize transparency.
- Invest in capacity building and inclusive training.

## Recommendations for heritage institutions



Women in the community center, c. 1930. Estonian National Museum - CC BY.

