



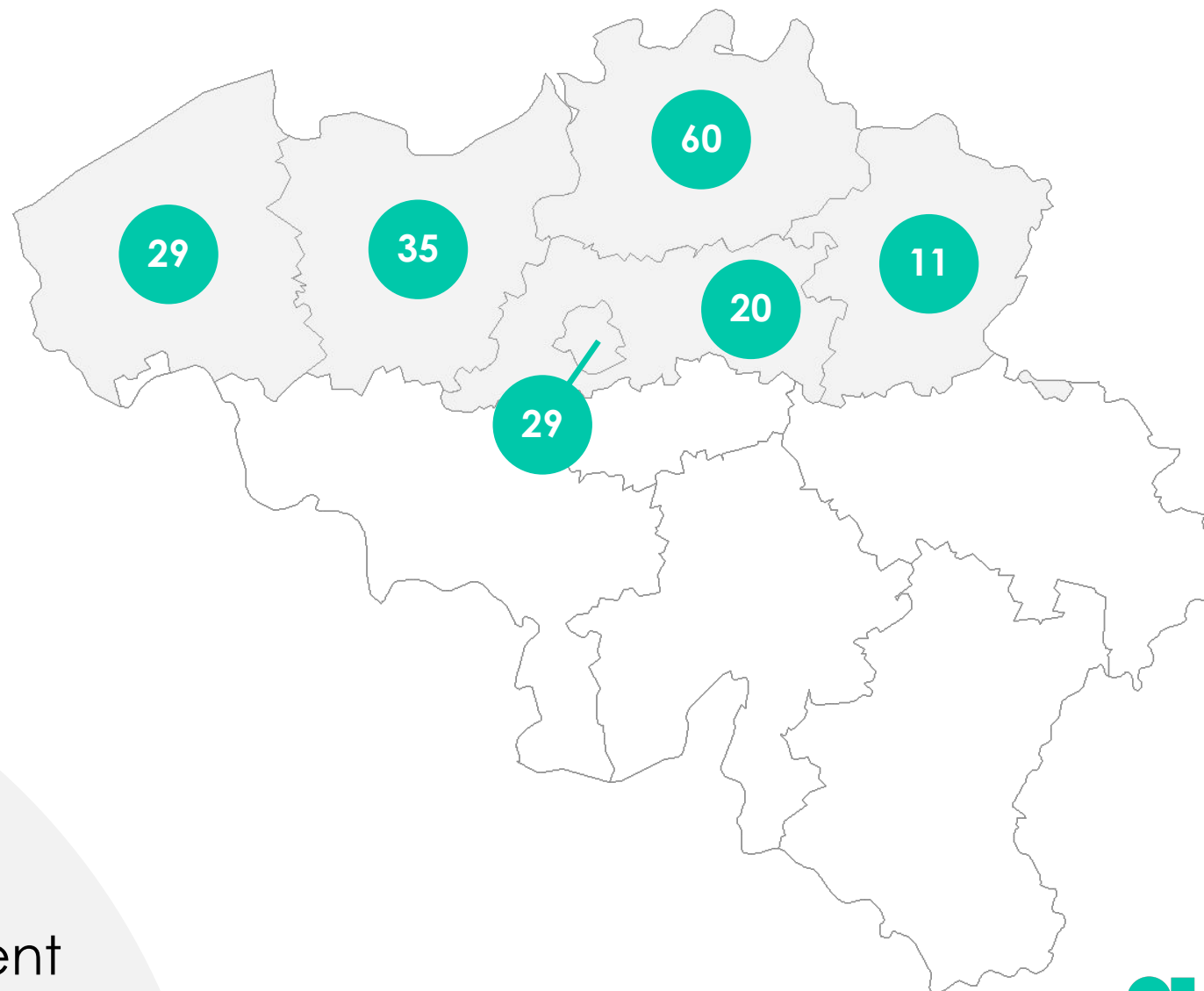
# An update from meemoo

Digitisation, facial recognition and knowledge sharing

# Service provision

- **Digitisation, digital archiving and management** of archival materials
- Make content **accessible and usable**
- Actively **gather and share expertise** on digital archive operations
- **Advise** on digital heritage processes

# Collaboration



**Content partners** in  
culture, media and government



# 1. Digitisation, digital archiving and management of archival materials

# Glass plate digitisation

## Preliminary phase - photo digitisation in Flanders

- **2019-2020**: research into the photo collections, state of digitisation, needs, ..
- **2021**: 10 [proposals](#) for photo digitisation, including **one for glass plates**

## The GIVE-glass plates project (06/2021 - 12/2023)

**180.260 glass plates** - glass neg and pos, stereoneg/pos, lantern slides

**From 33 content partners** - heritage libraries, museums, archives, government organisations





# Want to discover what **treasures** you're hiding **in the attic?**

Identify your audiovisual and  
photographic carriers at  
**[knowyourcarrier.com](https://knowyourcarrier.com)**





# 3D digitisation

**2021-2023:** 3D digitisation of 19 'Flemish Masterpieces', 134 sculptures (as part of [the GIVE-project](#))

AGENTSCHAP  
INNOVEREN &  
ONDERNEMEN



EFRO  
EUROPEES FONDS  
VOOR REGIONALE  
ONTWIKKELING



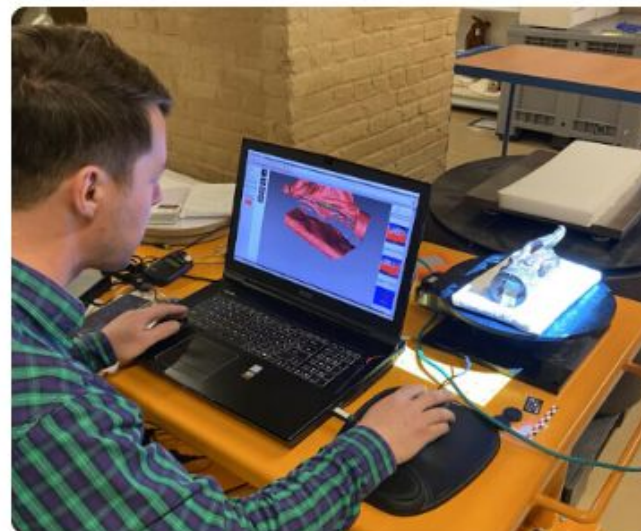
Europese Unie

**2024-2025:** 3D digitisation of minimum 150 collection items from Flemish museums (as part of the regular service provision)

## Digitising with structured light scanning

Curious about the approach for a 3D capture? There are two methods, depending on the size and weight of the object. Large sculptures are captured from different viewpoints using a handheld scanner. Smaller pieces are placed on a turntable and processed with a fixed scanning device.

During scanning, striped patterns from structured light are projected onto the object. The scanner records how the patterns deform when they hit the object, and can therefore calculate the dimensions of each object. Even the smallest details don't escape attention. Once everything has been scanned, all the data is merged on-site into a single file. Built-in cameras add colour and texture, ultimately resulting in a true-to-life digital 3D copy.



3D scanning by De Logi & Hoorne – Erfgo3D, KMSKA,  
photo by meemoo, licence: CC BY-SA



Handheld scanner, collection:  
KMSKA, photo by meemoo, licence:  
CC BY-SA 4.0

# In figures



**184**

content partners



**8,2 million**

objects in our  
archive system



**> 550,000**

audiovisual  
carriers transferred  
to our archive  
system



**> 3,000**

requests on  
hetarchief.be in 2024



**> 200,000**

user accounts at The  
Archive for Education at  
end of 2023-2024  
academic year



**> 18,000**

free downloads  
from artinflanders.be  
in 2024



**260**

helpdesk queries  
answered  
in 2024



**30**

trainings and other  
events for cultural,  
media and  
government  
organisations in 2024





## 2. Make content accessible and usable

# How AI Became Our Metadata Wizard to Create and Enrich Metadata

5 years, 5 projects

FAME, GIVE, Shared AI, Visual Name Authority and Hermes

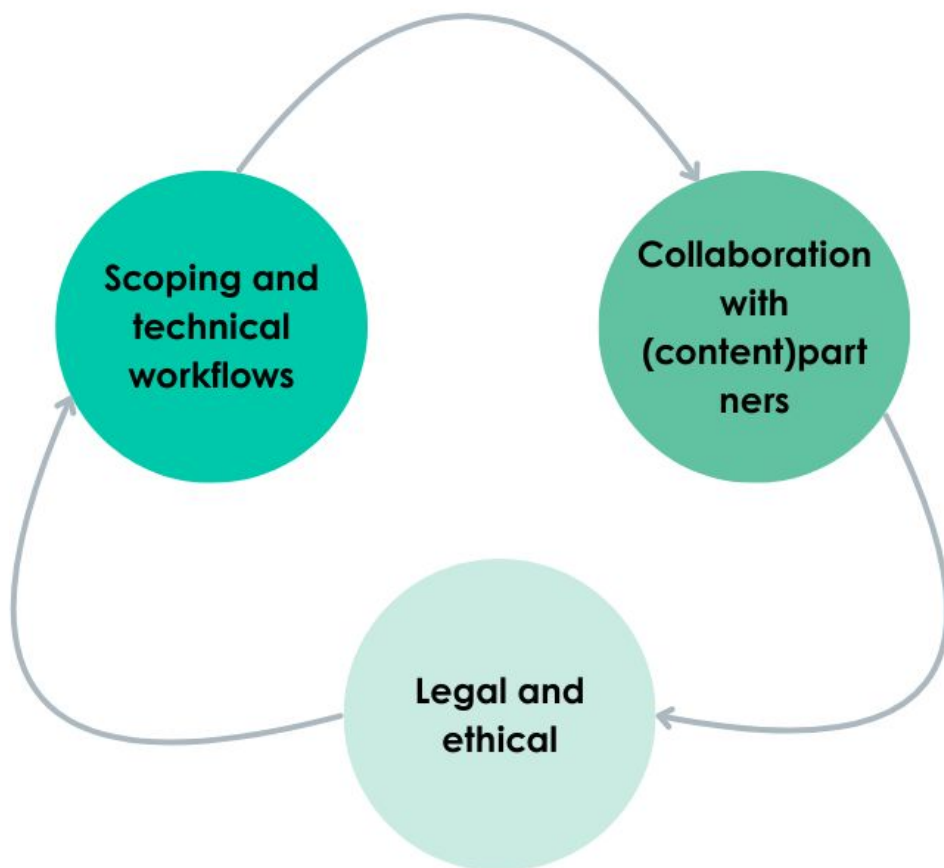


Face recognition applied to a photo of actor Josse De Pauw and dancer Fumiyo Ikeda (ca. 1979), Michiel Hendryckx, CC0

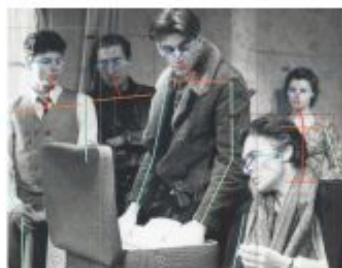
# FAME: Researching AI potential at meemoo

Workflow

2020 - 2022



## 1. Face detection



## 2. Face encoding



## 4. Prediction



Unknown  
Unknown  
Anne Teresa De Keersmaecker  
Anne Teresa De Keersmaecker  
Anne Teresa De Keersmaecker  
Unknown  
Anne Teresa De Keersmaecker  
Anne Teresa De Keersmaecker  
Anne Teresa De Keersmaecker  
Anne Teresa De Keersmaecker



## 5. Validation

## 6. Results

# GIVE: implementation of AI at scale

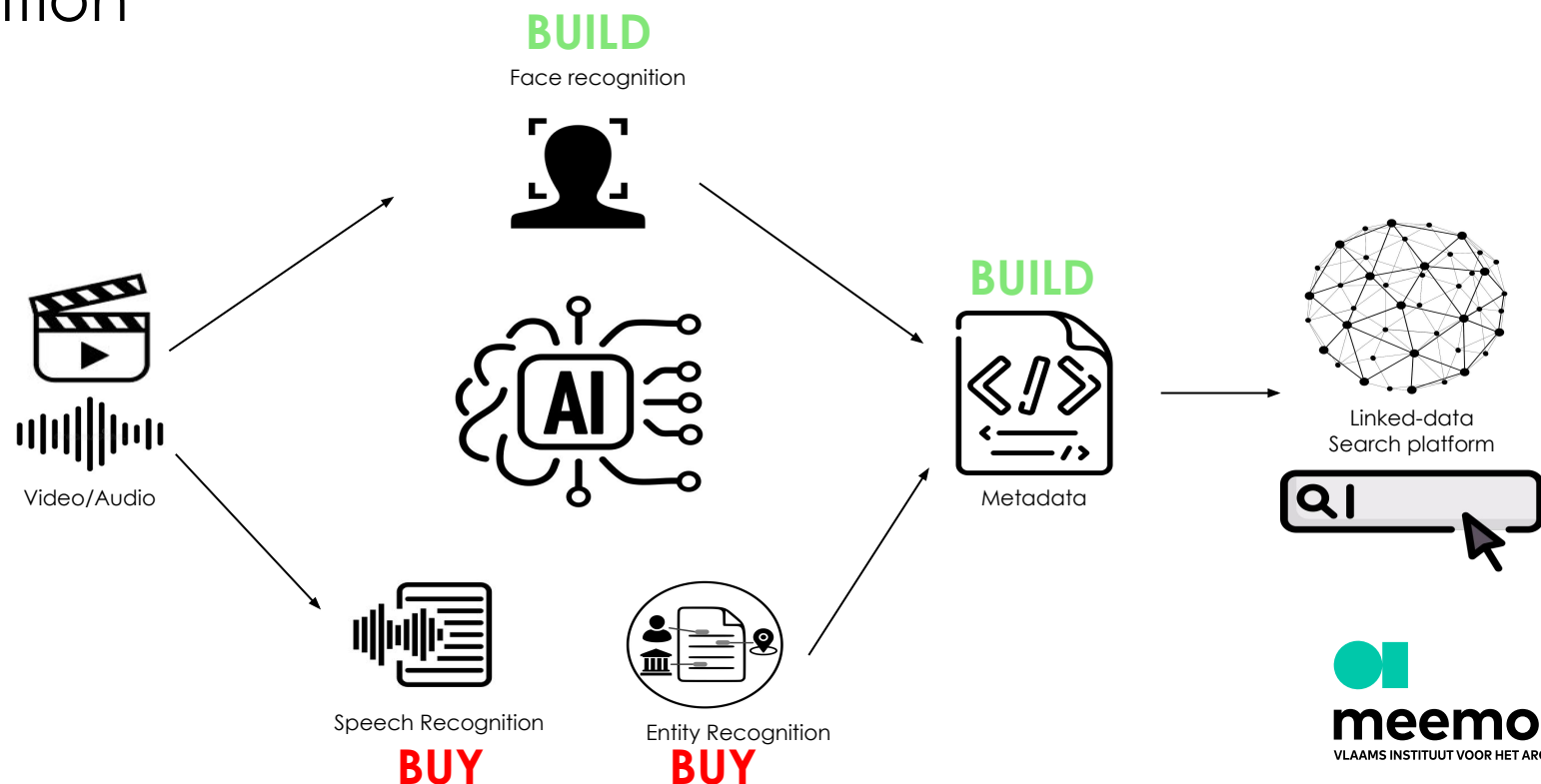
06/2021 - 12/2023

- Facial recognition (FAME!)
- Speech recognition
- Named entity recognition

## Build or buy?

### Evaluation based on

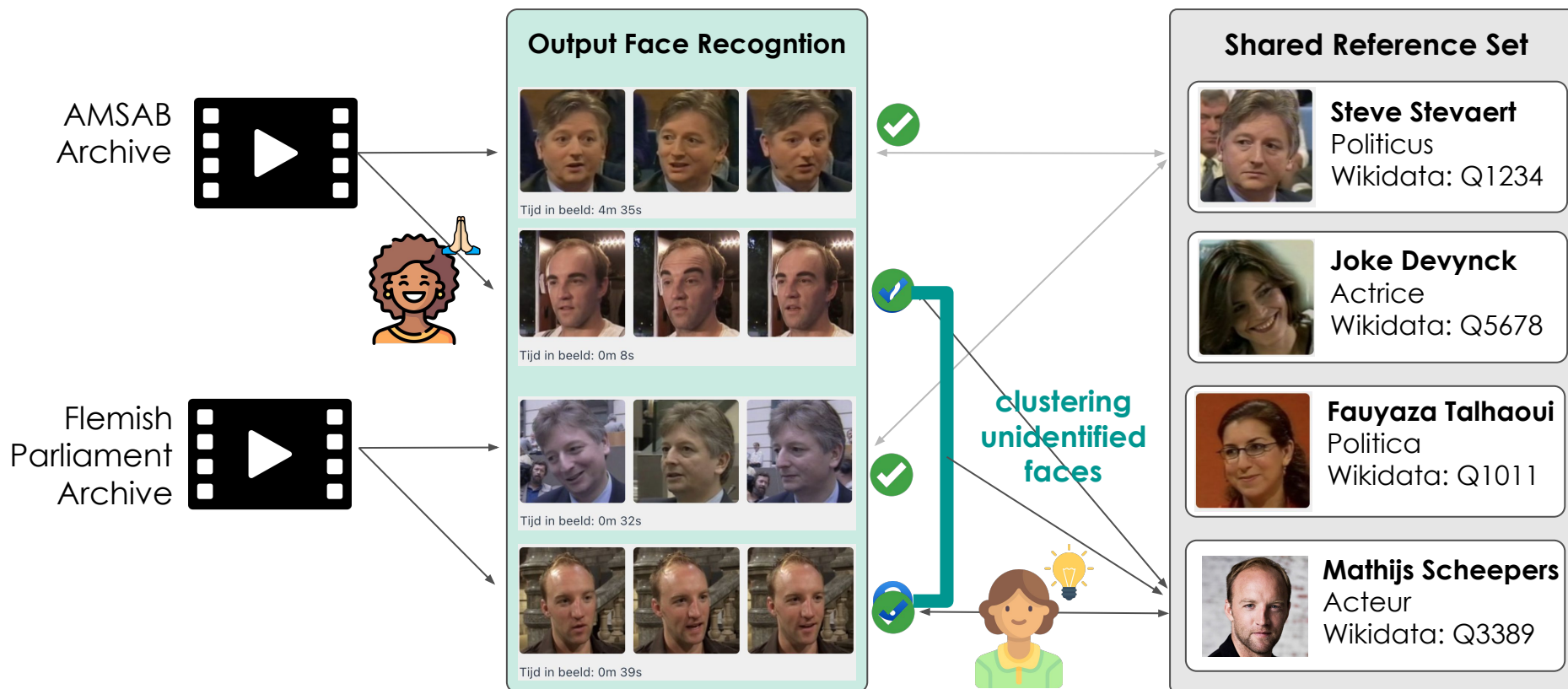
- Requirements
  - Functional
  - Practical
  - Legal / Ethical
- Market evaluation
  - Quality
  - Cost





# Unknown faces? Archivist to the rescue

*Human-in-the-loop*




# GIVE: reference set management

**GIVE** Referentieset Herkende personen Onbekende personen Walter Schreppers (INT) (Amsab-ISG) ▾



**Jef Sleenckx** **AKTIEF**  
politicus uit België

Info Bewerk Foto's Historiek



Publieke bronnen:  
• <https://www.wikidata.org/wiki/Q2303550>

**Eigen materiaal**  
Aantal video's: 52  
Tijd in beeld: 1h 47m 17s

Frame foto's	Titel	Duurtijd	Tijd in beeld	MAM
	<a href="#">Vzw De Statie - 52e Stationsaperitief</a> <a href="#">19/02/1995 - Gast Jef Sleenckx -</a> <a href="#">Interview Mil Kooyman</a>	2h 5m 49s	38m 30s	<a href="#">2v2c836r3z</a> 

A **shared reference** set was created to manage all detected and identified people.

Our **contentpartners** can **consult AI-generated metadata** in their material in the same platform.

**We enriched some 88,000 video files - or 124.000 hours of material**

# Shared AI: AI for media organisations

10/2023 - 12/2024

- Building on the results of GIVE for media organisations
- Continuation of the discussion on privacy and ethics

Archive materials of  
**10** mediapartners



**290.000**  
detected faces



**90.000 hours**  
of audio and video

**5.690.000**  
entities recognised  
and linked to  
Wikidata



833.900



3.7 million



1.1 million

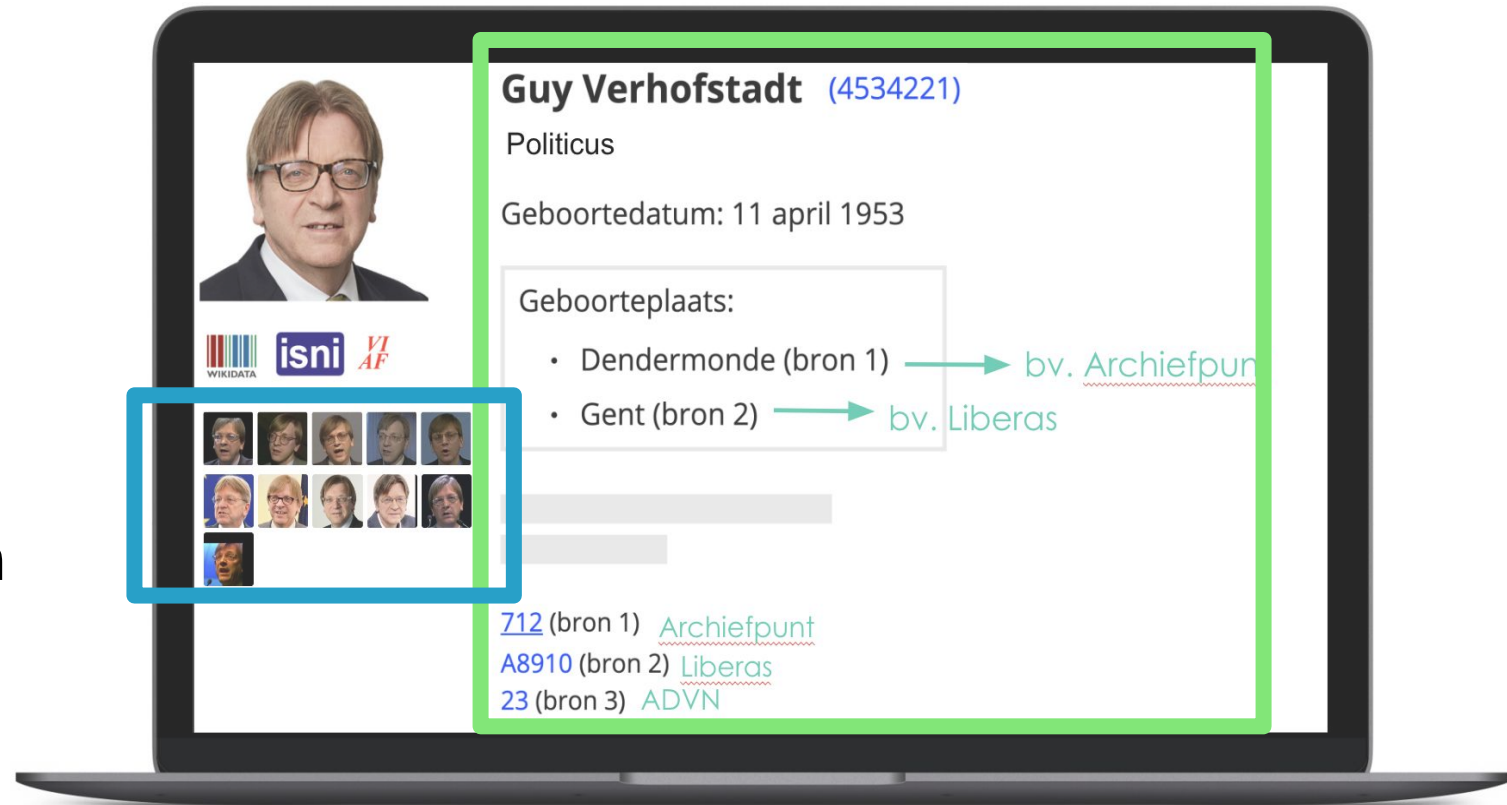
# Visual Name Authority - scaling up shared reference set management

09/2023 - 08/2026

Aggregation of existing  
person name authorities

## Expanding the existing reference set with ...

- more (authority) metadata and face crops
- for more organisations in Flanders and Belgium
- create more use case scenarios for our partners



Shared reference set  
with crops



# Hermes: encouraging media reuse

2024 - 2026

## Three tracks

1. Rights and public availability
2. An easy exchange of archival material
3. **A flexible framework for AI services and ...**
  - let users **edit** AI-generated metadata
  - reorganisation of **AI-infrastructure**: incorporate new technologies
  - facial recognition for **photographic content**
  - explore **voice recognition** and **audio classification**, generation of **summaries**

# Interested in more? Read our publication!

## Metadata creation and enrichment using artificial intelligence at meemoo

Bart Magnus, Matthias Priem, Nastasia Vanderperren, Peter Vanden Berghe, Ellen Van Keer and Rony Vissers

*Journal of Digital Media Management*, 13 (2), 110-123 (2025)

<https://doi.org/10.69554/NGFF5280>



### 3. Actively gather and share expertise on digital archive operations

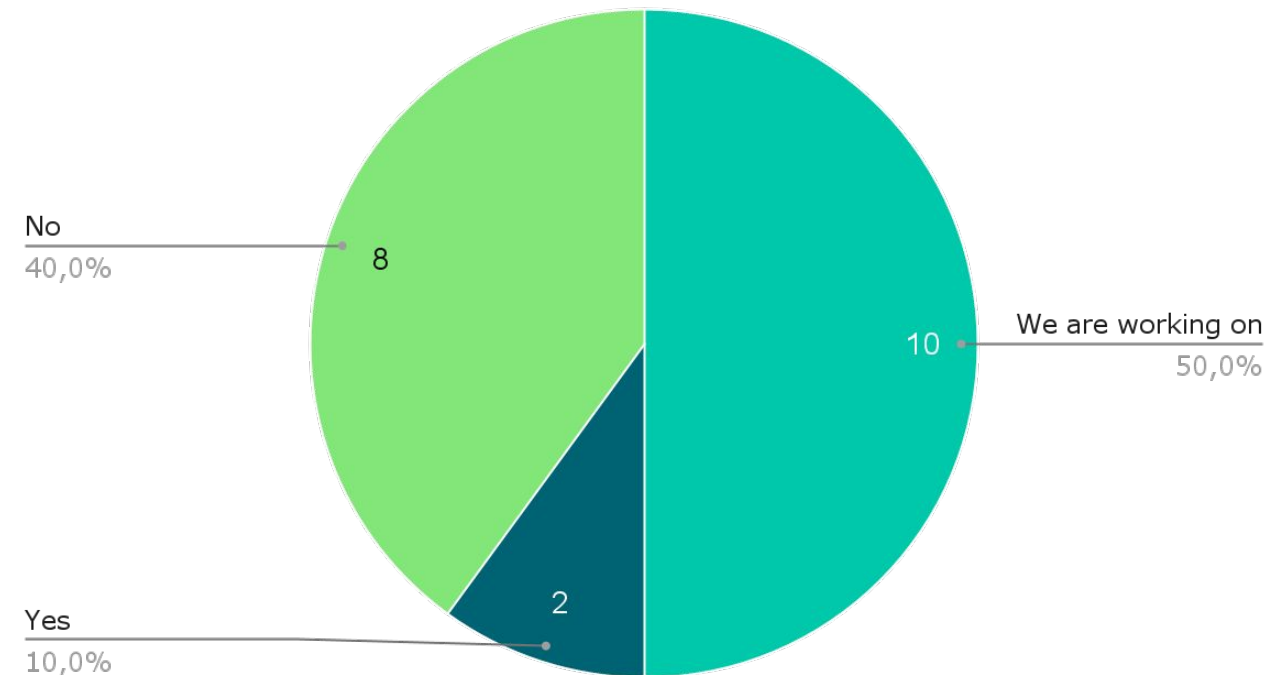
# Research project: guidelines for the preservation of 3D objects

**Context:** meemoo shared guidelines for 3D preservation, the last update was made in 2016 → in need for an serious update!

## Approach:

1. State of the art - international survey and literature review ([D1](#))
2. Deep dive into formats
3. **Consolidate the available solutions into clear guidelines for 3D preservation**

**Does your organisation have a preservation plan?**







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