



OF COMMUNITIES
AND PRACTICES

#DP Innovation & Research

FIAT/IFTA Conference, October 22, 2014

Erwin Verbruggen

Netherlands Institute for Sound and Vision



The Presto4U project is supported by the European Commission
under the 7th Framework Programme (FP7) — Grant Agreement 600845





KNOWLEDGE FINDING & COMMUNITY BUILDING

- Surveys to establish knowledge base
- Regular blog & newsletters
- Webinars, Workshops & Edit-a-thon





EUscreen Foundation

International Federation of
Television Archives (FIAT/IFTA)

European Broadcasting Union (EBU)

Private
Sector

Public
Sector

Federation of
Commercial Audiovisual
Libraries (FOCAL)

Footage

Broadcast

Federation of
Screenwriters
in Europe

Video &
Post

Film &
Makers

European Coordination of
Independent TV
Producers (CEPI)

International Federation of
Film Archives (FIAF)

International Video
Federation (IVF)

NISI MASA European Network
of Young Cinema

Society of Audiovisual Authors (SAA)

STAKEHOLDERS

- **Media houses and broadcasters**
 - i.e. private companies or public institutions working with a broad range of media services
 - for example electronic publishing, advertising and communication, entertainment etc.
- **Private post-production houses**
 - companies and production working with post-production and video material aimed at publications for education or infotainment / entertainment (all sizes – freelancers, permanent staff, consultants)
- **Advertisers and marketing bureaus**
 - i.e. commercial and public communication and advertising companies.

IDENTIFIED ISSUES

- **Big diversity between stakeholders (livelihood, raison d'être).**

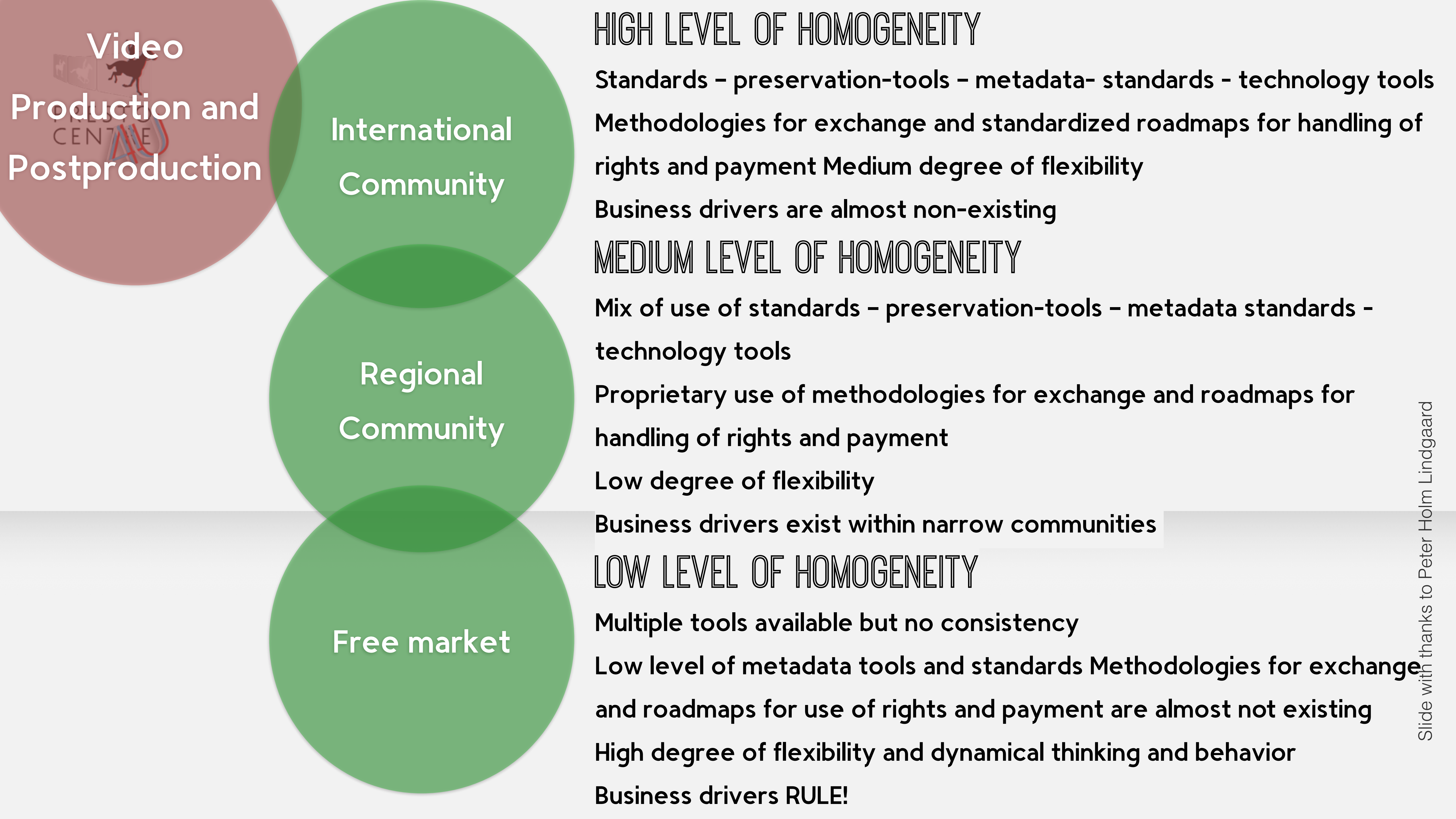
Many objectives at stake which confuses ends and means.

- **Large diversity between the size and professional background of employers:**

- Private companies (freelancers, professionals, ROE, B2B and bottom lines are the main drivers)
- Public institutions (academics, policy makers, public service and publishing are main drivers)

- **Many different business and work models at stake**

- long term / short term goals
- rights management
- exchange of assets
- in-house post-production
- external post-production.



ISSUES – WHAT IS MISSING?

- **Lack of access-facilities.**
 - Making it easy to access archive material for a wide variety of uses, including the monetisation of content, faster access for clip search and a better ability to see what was there and the rights associated with content.
- **Lack of standardisation.**
 - A desire for consistent management of metadata + for as few codecs as possible, but more generally a demand for common standards for audio, video and graphics.
- **Lack of Automation.**
 - Solution based on de-humanising the workflow around archive, i.e. automated metadata generation and intelligent search – the prospect of intelligent software tools searching on content with metadata generated by intelligent software tools.
- **Lack of strong B2B models which contains multiple sorts of end-users**
- **Lack of knowledge about solutions and opportunities**
- **Lack of confidence – CLOUD technologies**

NEEDS FOR TOOLS AND INDUSTRIALISED ACTIONS

- **Sharing of preservation systems with defined content processing methods.**
 - Need for making the tedious stuff automatic, and remove the need to input elementary / common preservation data.
- **Strong demand for tools or methods that would make it easy, simple and flexible to create versions for different destinations.**
 - Intelligent management of versions, compiling, wrappers etc.
- **De-humanising the workflow around archive.**
 - The prospect of intelligent software tools searching on content with metadata generated by intelligent software tools
- **Generic search, tracking and management-tools.**
 - Tracking of content. More visibility of content as it moves through the workflow – e.g. by using QR-codes (like a DHL-order)
- **Outsourcing of distribution and delivery methods**
 - external as well as internal / in-house
- **Sharing of storage solutions in flexible frameworks (SaaS).**
 - Ability to manage workflows through centralised tooling, such as Cloud-based ones, for preservation, storage, and processing.
- **Flexible shopping and distribution facilities**

WHAT FOOTAGE SALES ARCHIVES DO

- They exploit commercially their AV holdings by selling clips and footage for use in media productions.
- Today they generate revenues for more than \$400 million per year
- They sell footage, but at the same time they act as an archive, being obliged to practice some kind of preservation activities.

THE COMMUNITY

- **Memory Institutions (e.g. Istituto Luce, INA, B&G, Imperial War Museum, British Pathé):**
 - usually public co-funded
 - footage sales are not their core business
 - they have at least a “moral” duty of dealing with long term preservation
- **Private entities (e.g. Getty Images, ITN Source, Reuters, AP, Huntley Archive):**
 - no public function
 - footage sales are their core business
 - market driven with a very pragmatic approach to digital preservation

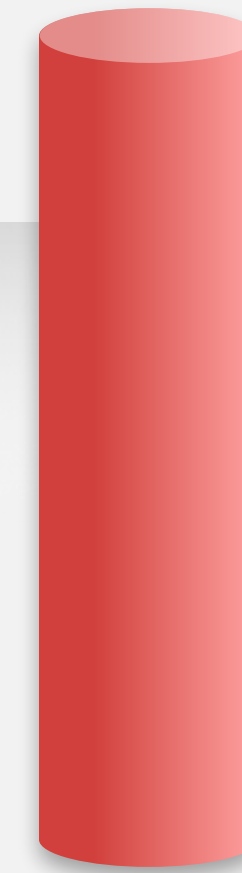
Two main archives for digitised films:

- **2k digitised film material**
 - DPX files only
 - Priority given to unique prints, in danger reels
 - Any digitisation request that involves reels should pass first from here
- **HD digitised material**
 - ProRes 422
 - It's mainly the delivery archives for our clients
 - It's generated from the 2k content ...or from telecine

Despite this digitisation policy:



10% of our subjects
digitised in 2k



25% of our subjects
digitised in HD

PRESERVATION CHALLENGES

- Most of the technical challenges in digital preservation are similar to the ones of Film archives and Broadcasters
- Special attention is given to descriptive metadata and rights metadata

...but the big challenge is:

- the tension between customer-driven activities/policies and digital preservation plans

BROADCAST COMMUNITY OF PRACTICE EXPERT GROUP



BEELD EN GELUID





TV, RADIO AND NEW MEDIA BROADCASTING ARCHIVES

Broadcast archives have massive amounts of materials. Some say: of low quality. Others say: it's the main source for 20th Century history.

WIDE RANGE OF MEDIA FORMATS

- Spectrum of formats starts expanding from 1920s onwards
- Latest technologies include ever-changing code bases
- At the vanguard of / overlapping with other media industries



DOMAIN IS HIGHLY DIVERSE

- Many thousands of broadcast organisations (6379 broadcast companies in 40 European countries alone!)
- Deposit laws are different in each and every country
 - National AV Institutions take up tasks of public broadcasters' archives in some countries
 - Commercial broadcasters are left alone
- Digitisation progress of legacy formats varies widely
- Key moment going on: move from tape to data recording
- Meanwhile access formats are on the move



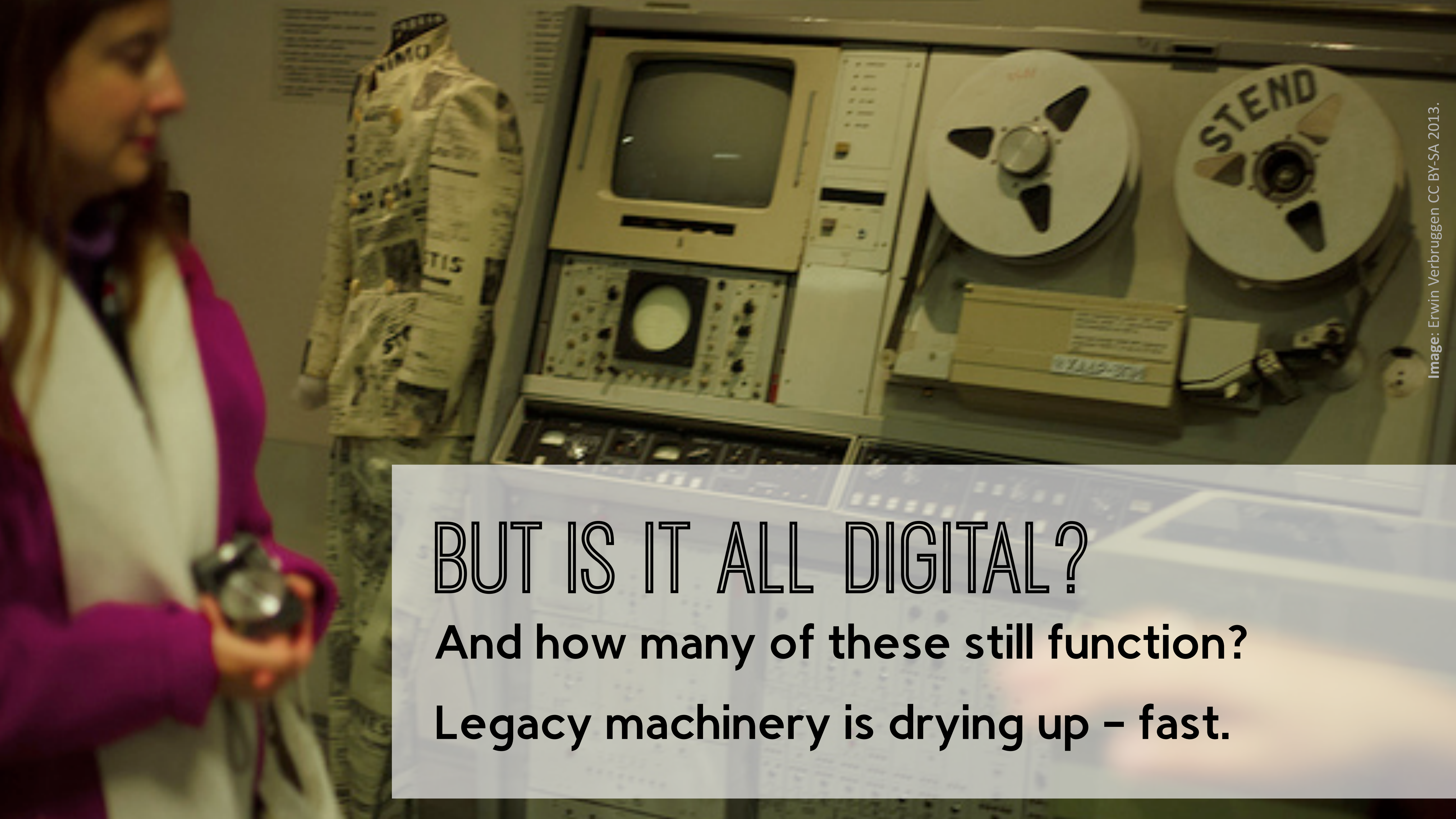
TAPE ARCHIVES

This image is two years old. It is how many broadcasters still work.



IMPACT ON PRODUCTION WORKFLOWS

- The archive has never had such an impact on production before
- Archives are rebuilding workflows for metadata gathering, from the first steps of the production chain
- Producers need to be ‘taught’ how to work with an all-digital archive workflow



BUT IS IT ALL DIGITAL?

And how many of these still function?

Legacy machinery is drying up – fast.



AND THEN, IT'S DIGITAL

- How do you keep track of the preservation process?
- Reading bits & pieces
- Maintaining quality throughout years of cataloguing

BORN-DIGITAL: NEW PARADIGMS?

- On the fringes of the creation world: the web as storytelling platform
- Web has been text-based, becoming increasingly audiovisual
- Technological push supported by radio organisations, arte.
- What chances, what futures for broadcast organisations?

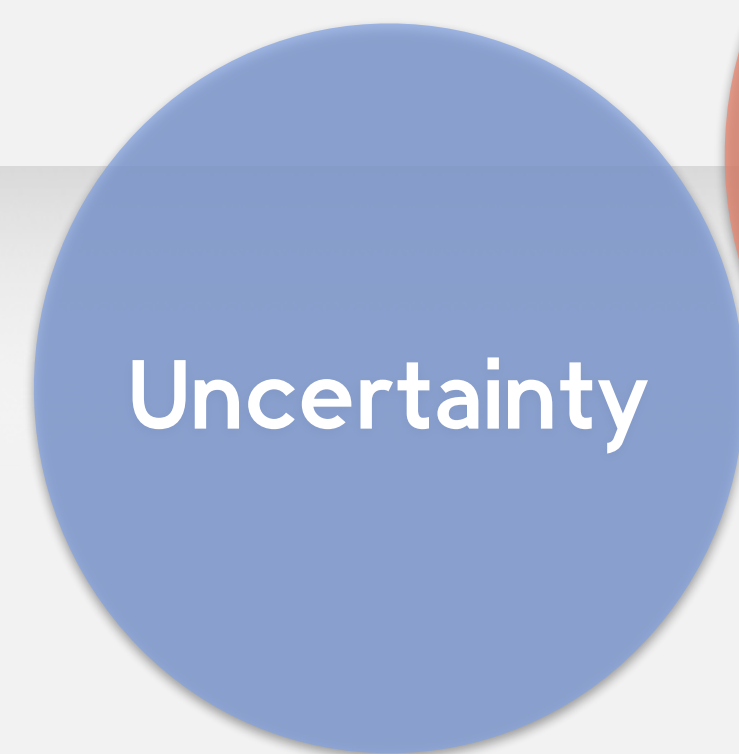


Long-Term Sustainability

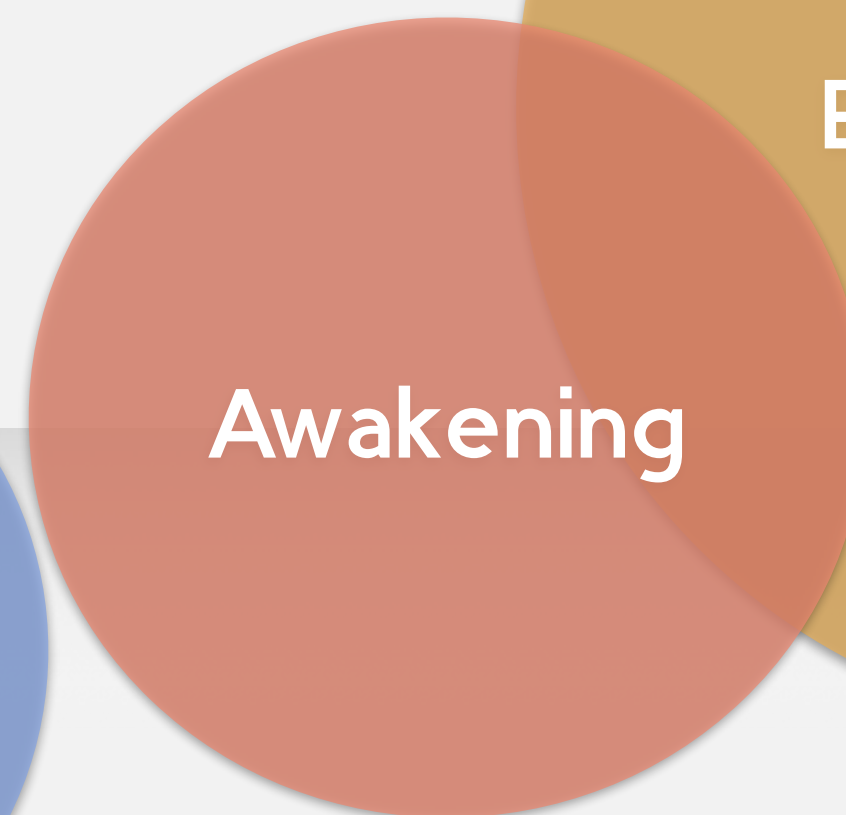
DIGITISATION

STORAGE

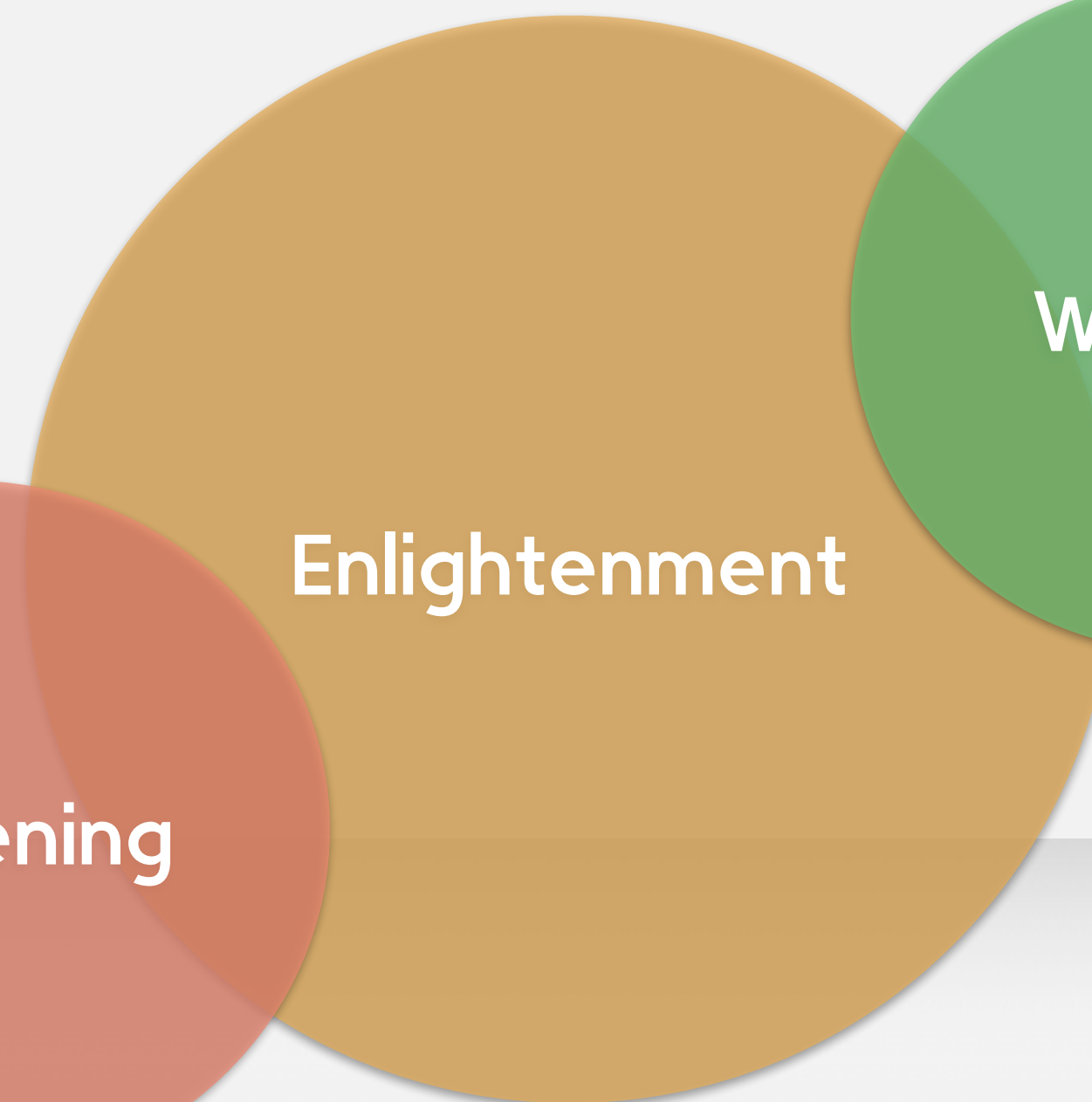
ACCESS



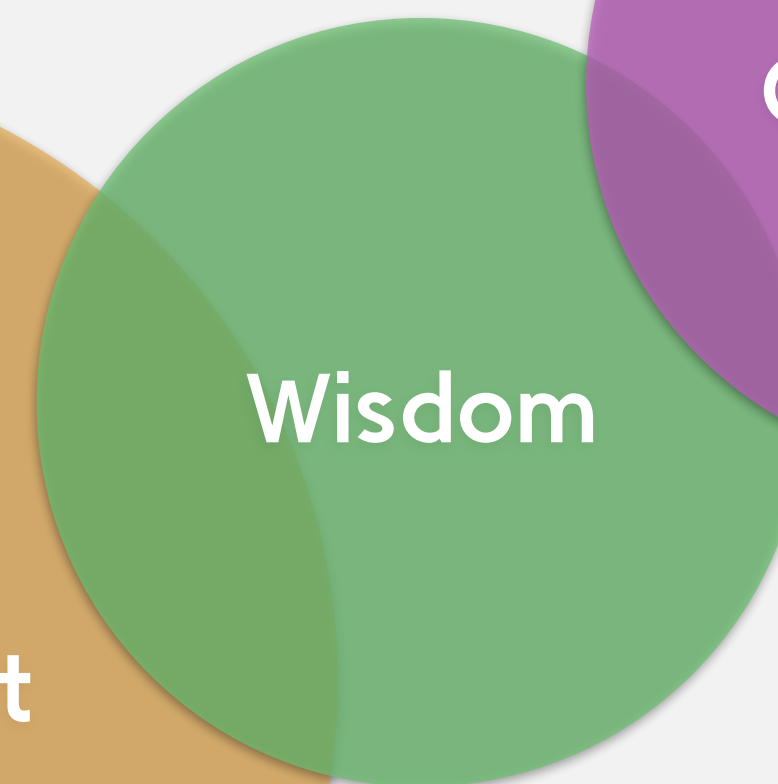
Uncertainty



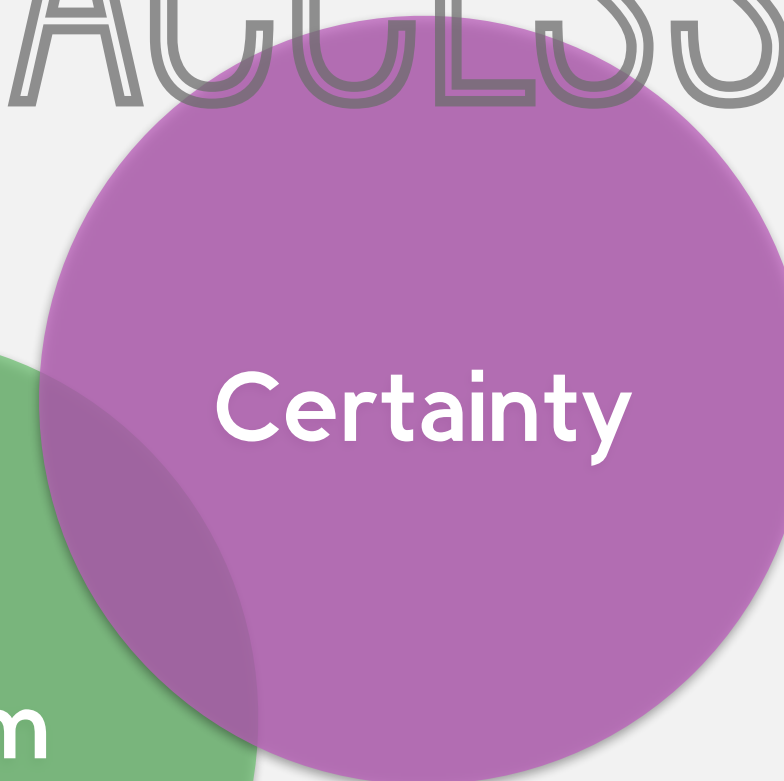
Awakening



Enlightenment



Wisdom

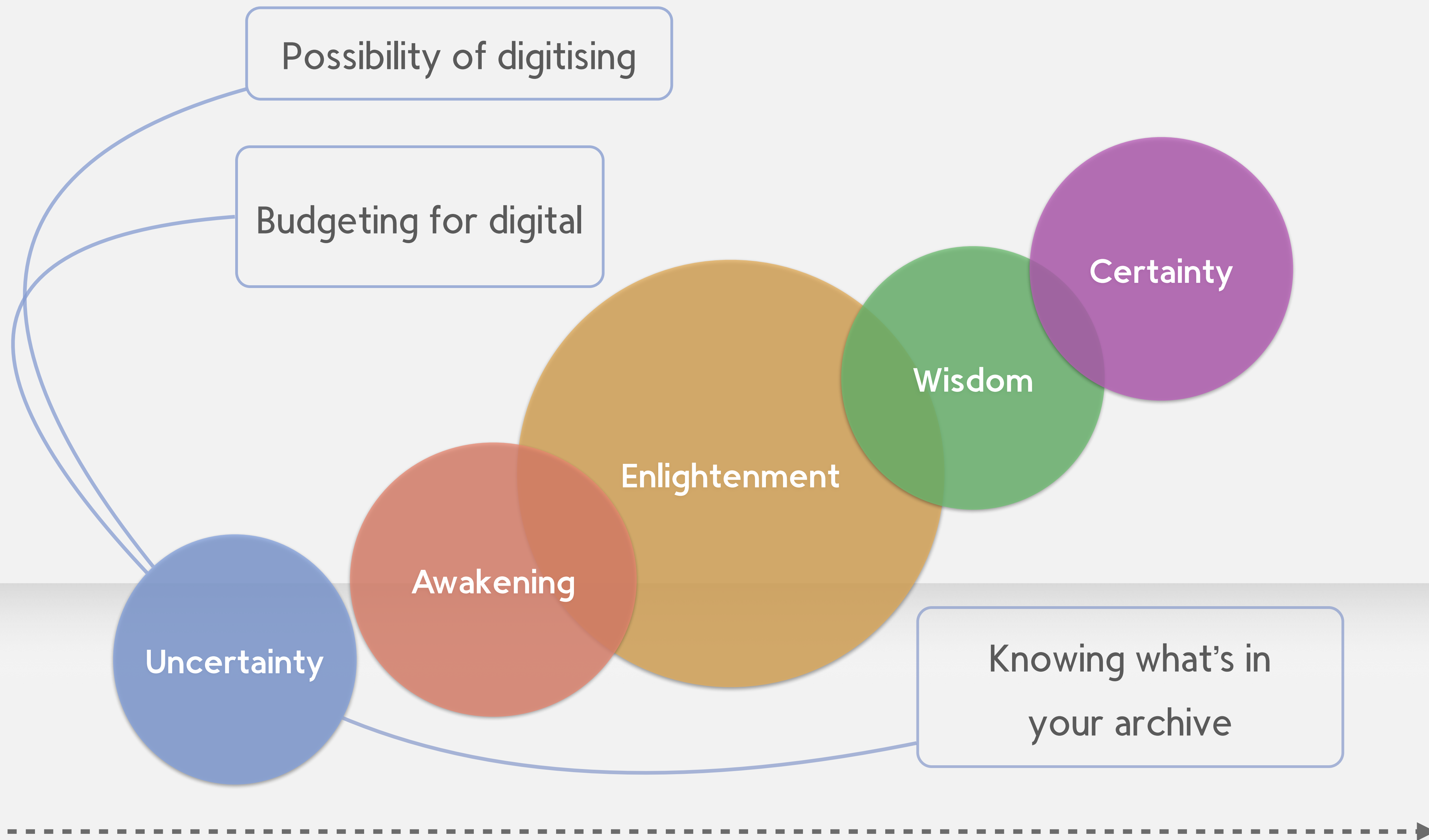


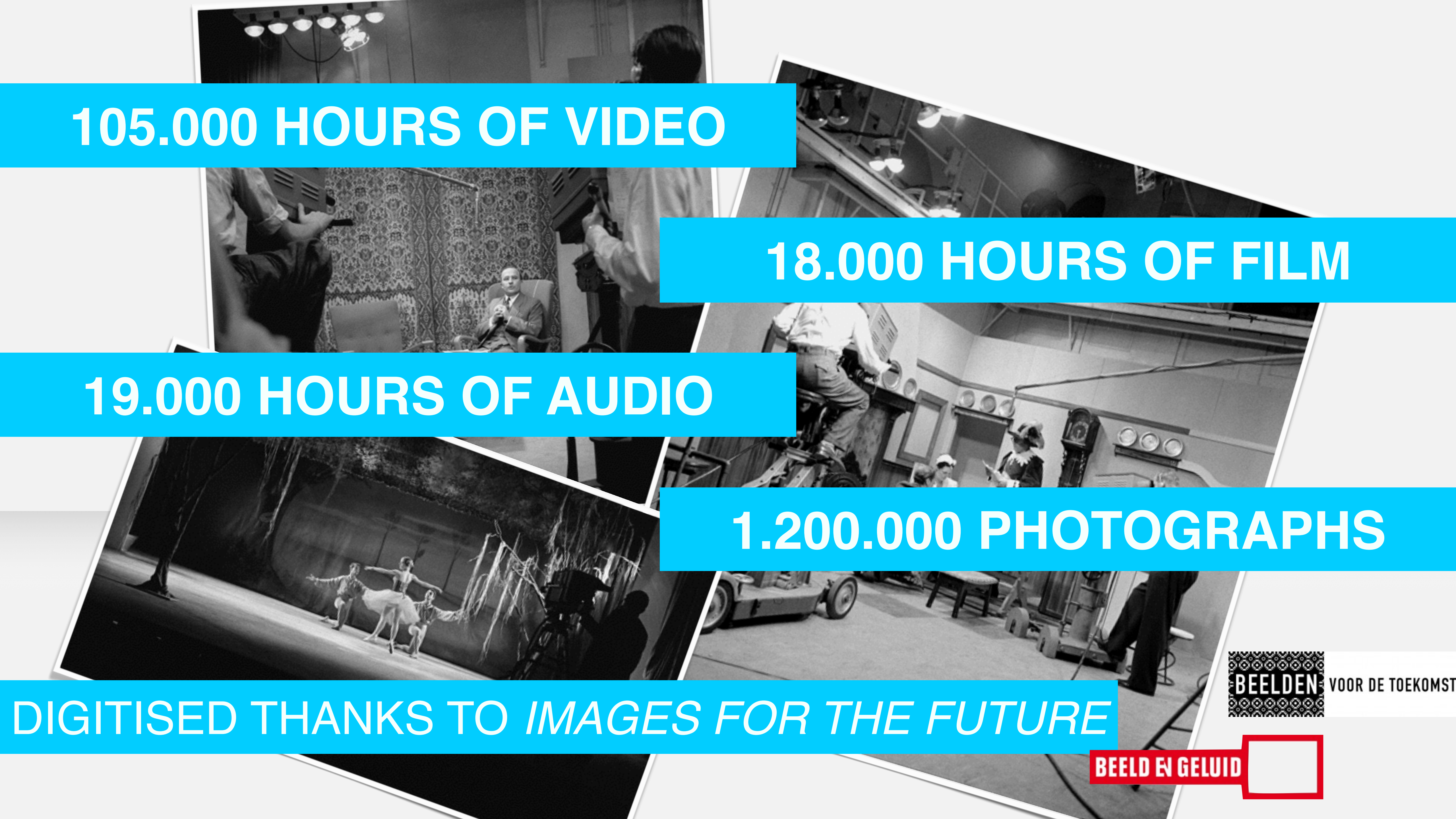
Certainty

Digital Maturity

Long-Term Sustainability

Digital Maturity





105.000 HOURS OF VIDEO

18.000 HOURS OF FILM

19.000 HOURS OF AUDIO

1.200.000 PHOTOGRAPHS

DIGITISED THANKS TO *IMAGES FOR THE FUTURE*



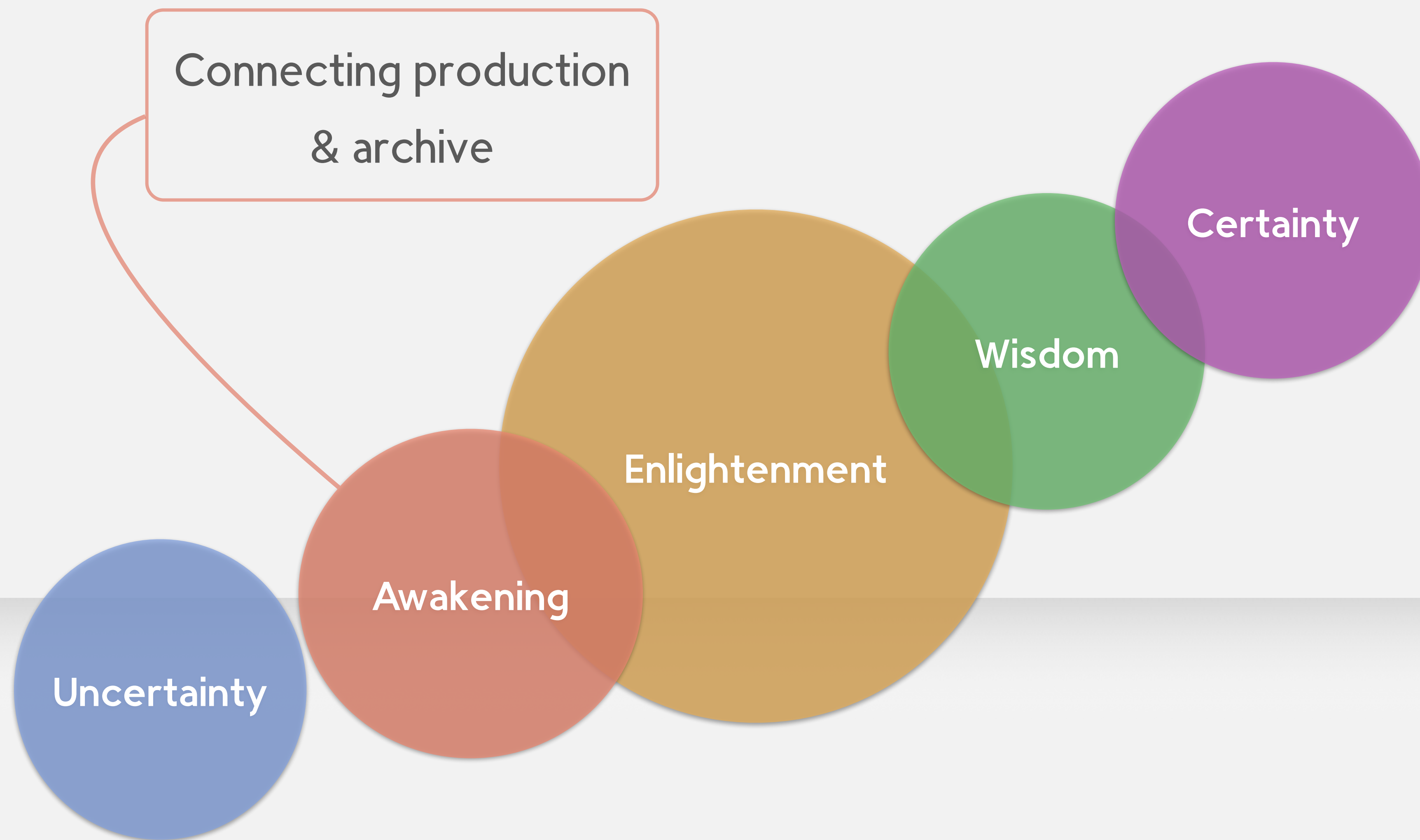
VOOR DE TOEKOMST

BEELD EN GELUID



Long-Term Sustainability

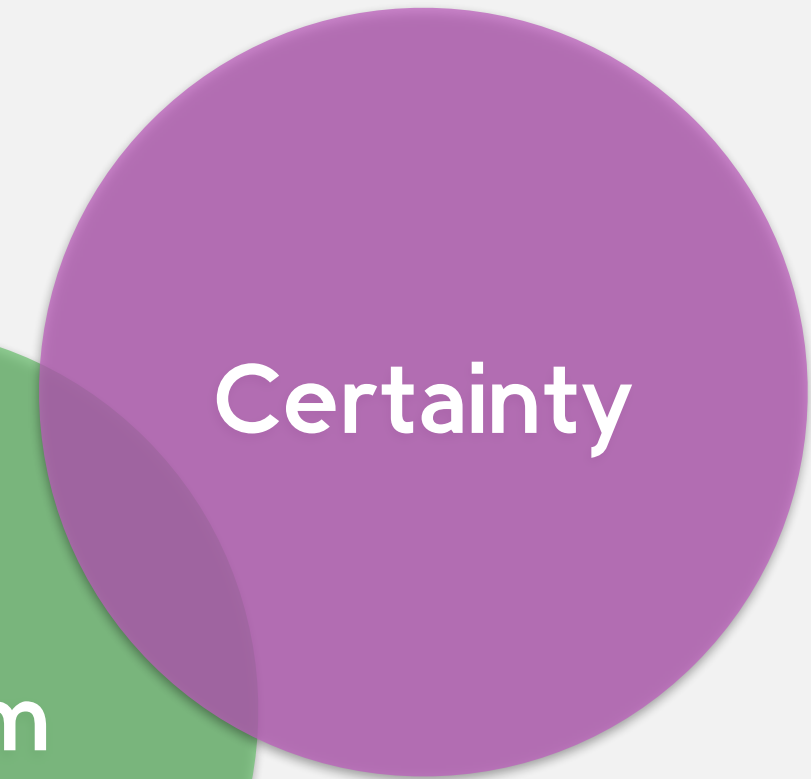
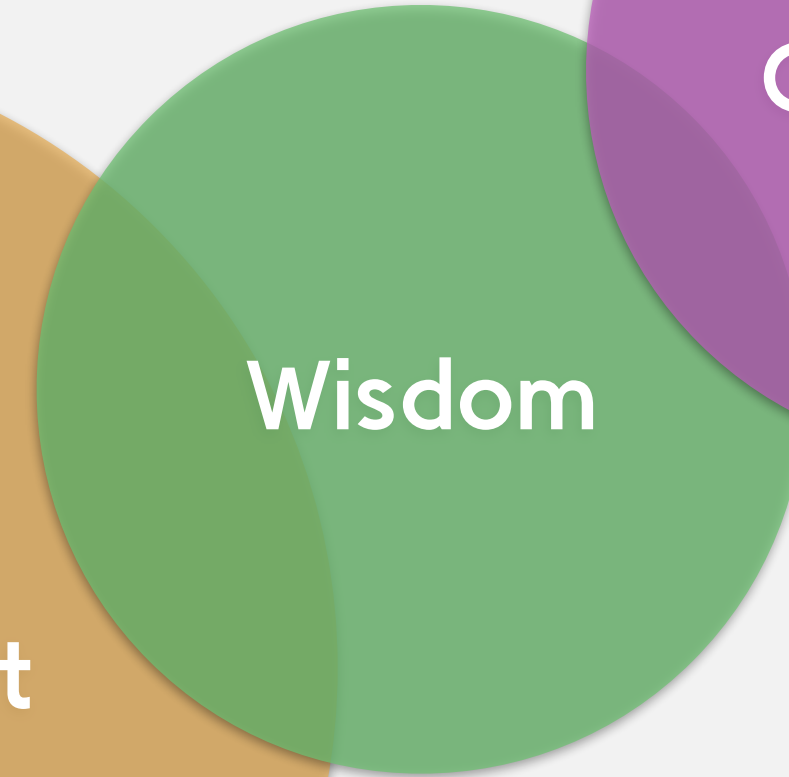
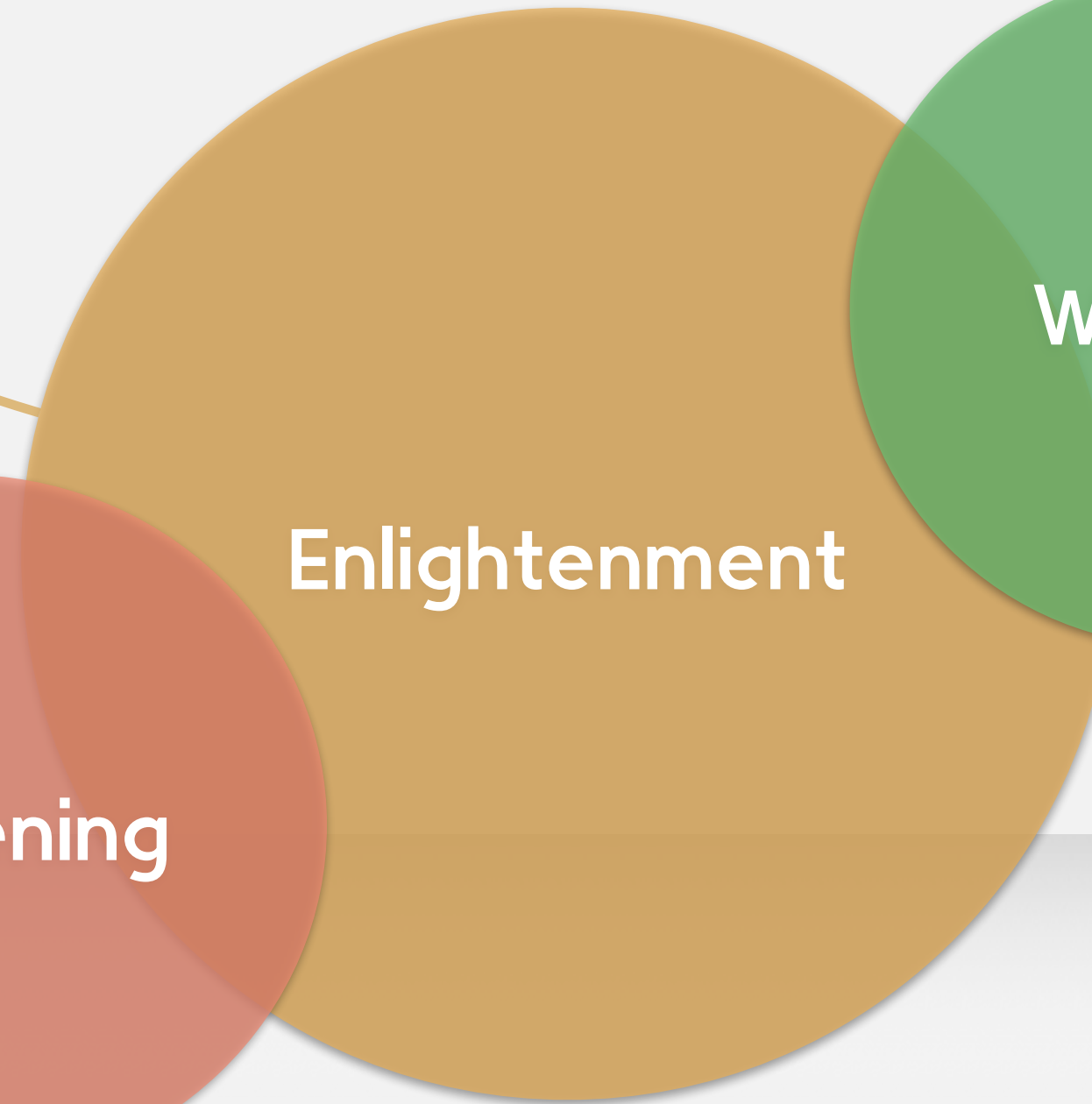
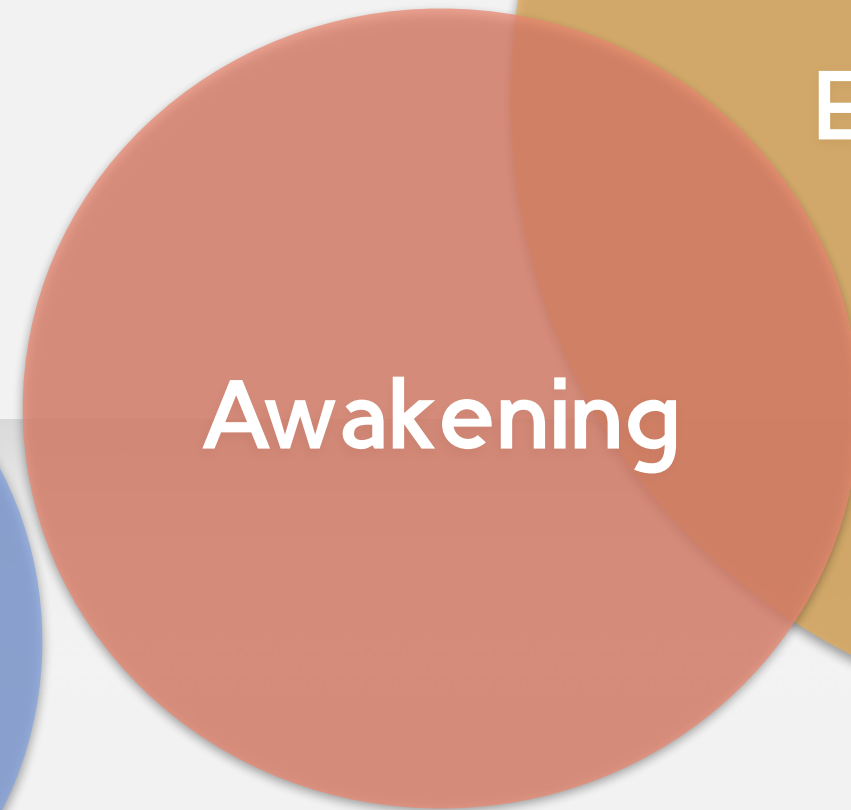
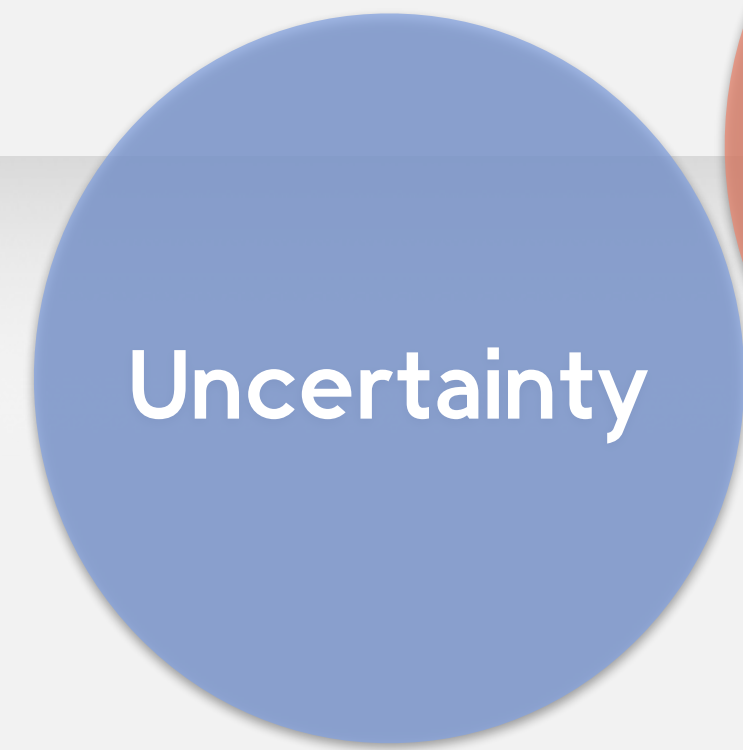
Digital Maturity





Long-Term Sustainability

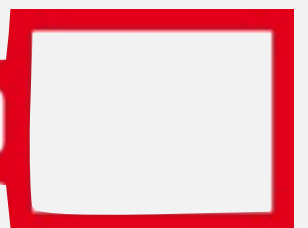
Digital Maturity



Standards & qualities
to choose

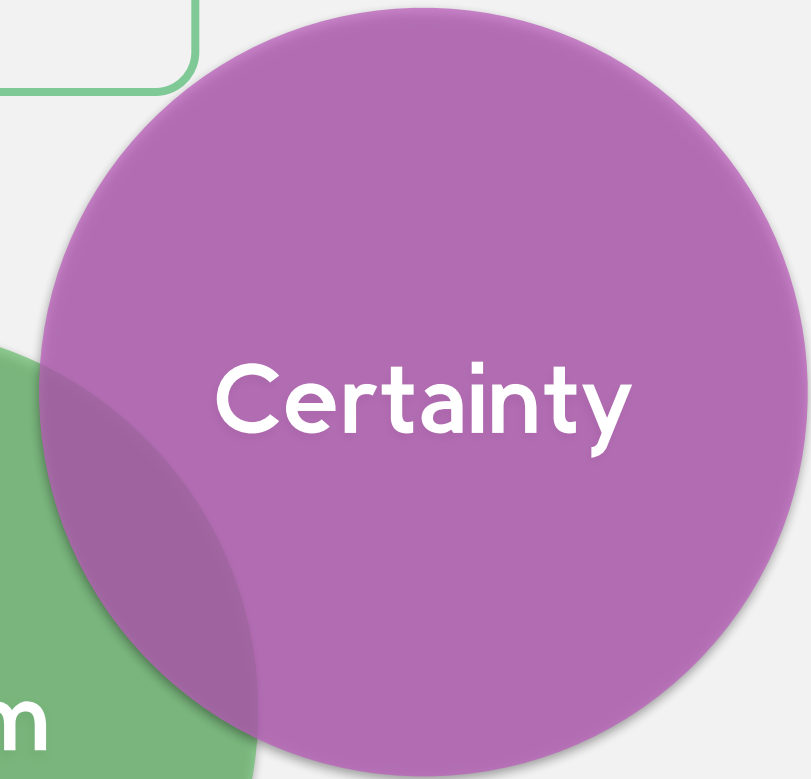
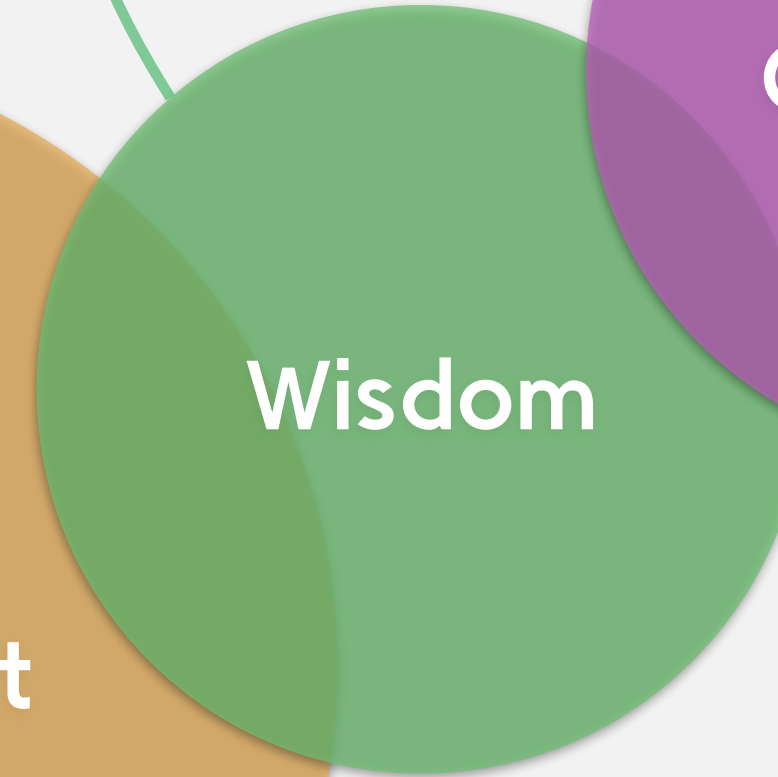
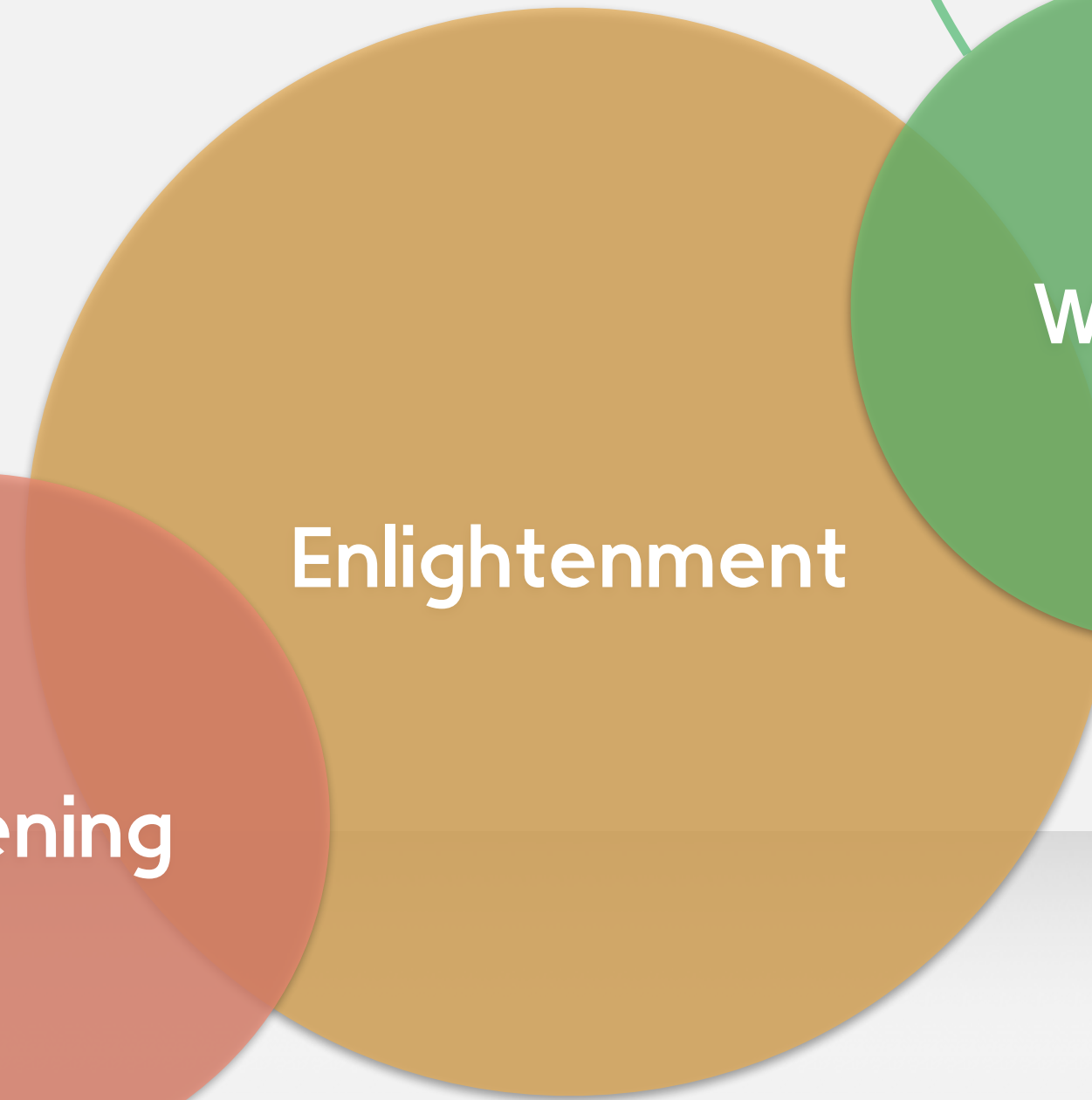
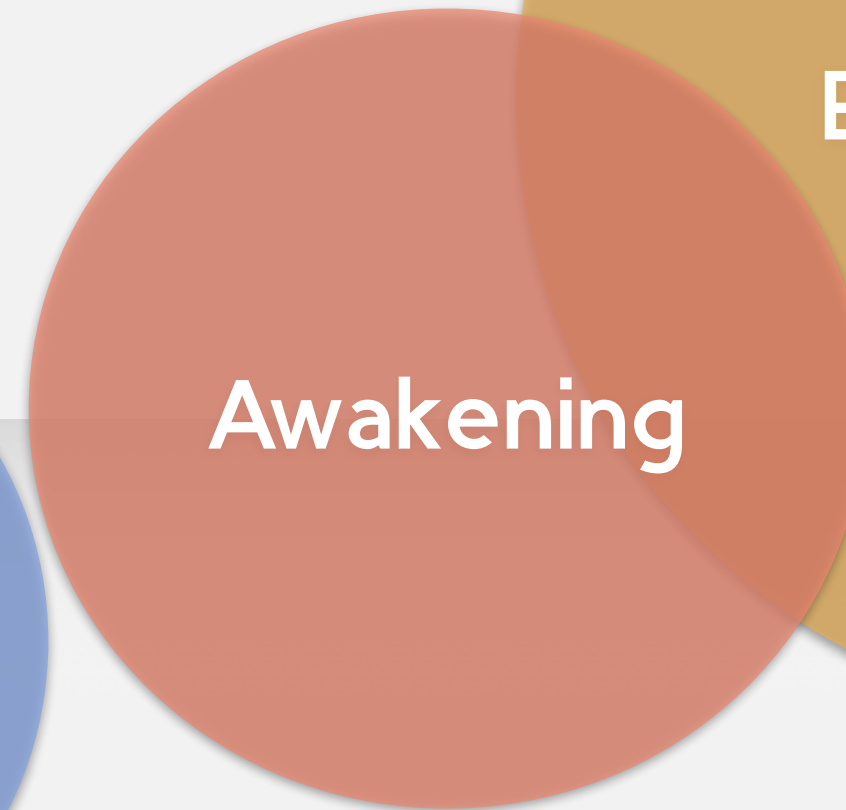
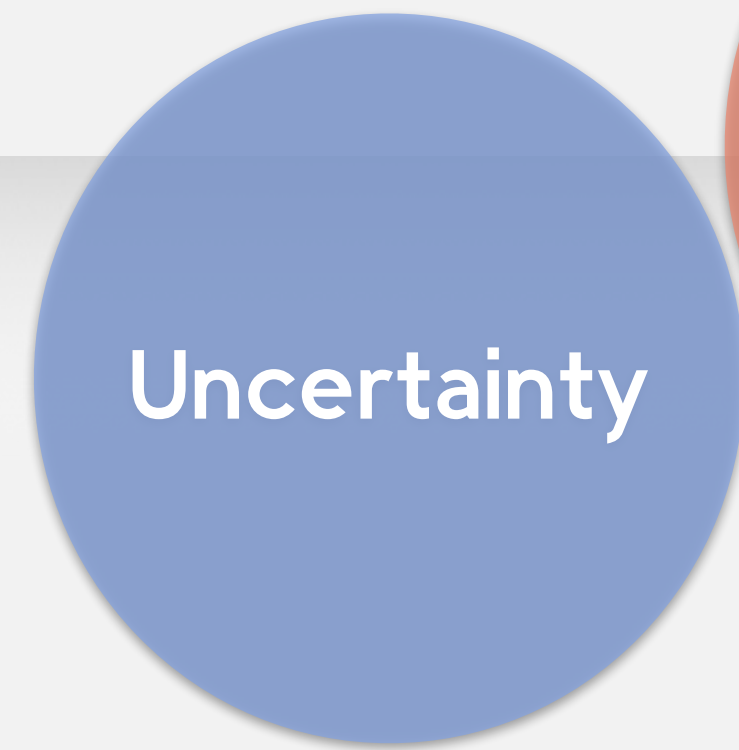
STORAGE PROVISION

Step	Concerns
1 - INTAKE	• Intake form • Metadata template
2 - PLANNING	• "Flat storage" • Available through iMMix
3 - CHECKING MD	• 4 Required fields
4 - CHECKING FILES	• DIVArchive: For MXF/WAV files • DIVAdirector: FTP for other files • Transcode
5 - IMPORT	• Budget, Contract, SLA



Long-Term Sustainability

Digital Maturity



Control over
QC process

Wisdom

Enlightenment

Awakening

Uncertainty

Certainty

Friday, 14 March 2014

WEBSITE PROJECT PARTNERS TENDER ACTIVITIES OPEN SOURCE PORTAL COMMUNITY DOWNLOAD CONTACTS

 PREFORMA

BLOG HOME RESERVED AREA

Logged in as: preforma
Logout

MEDIA PARTNER

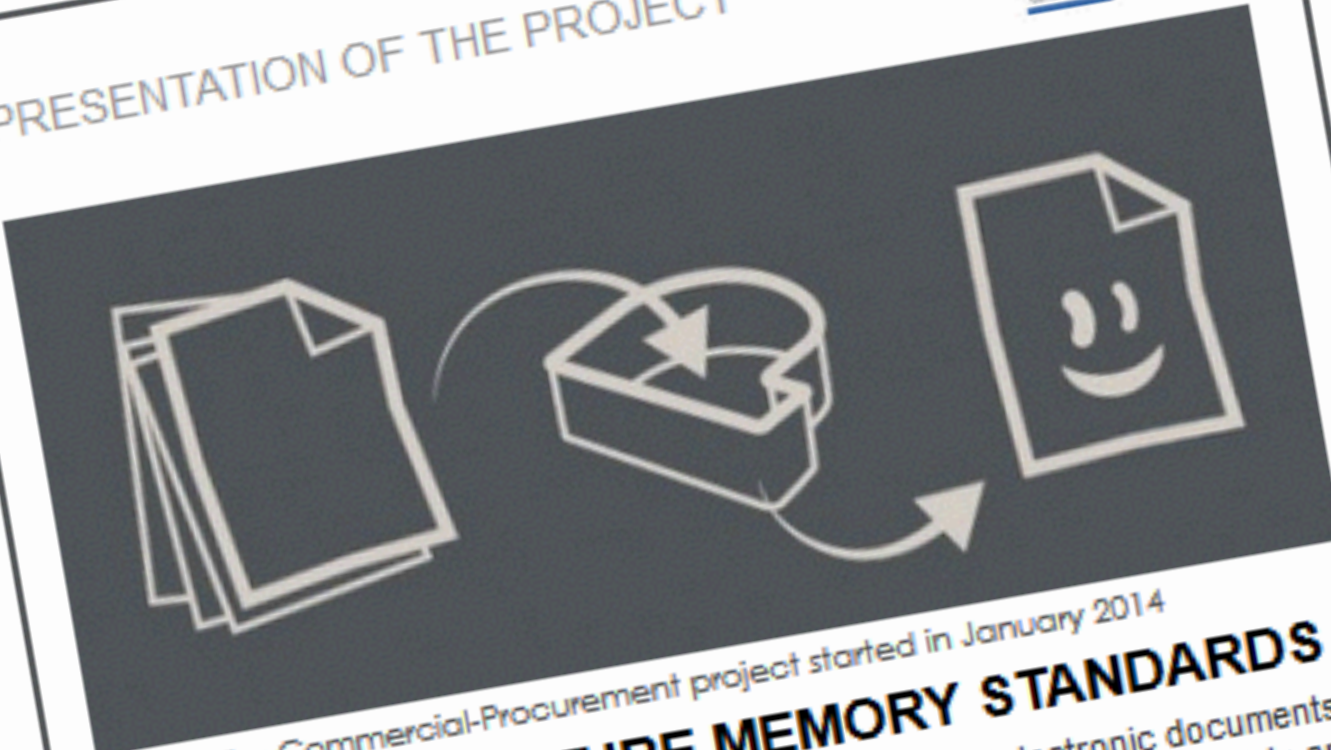


CONTACTS

Project Coordinator: [Borje Justrell](#)
Technical Coordinator: [Antonella Fresca](#)
Communication Coordinator: [Claudio Prandoni](#)
Scientific Coordinator: [Nicola Ferro](#)
Project website: www.preforma-project.eu

LATEST NEWS

PRESENTATION OF THE PROJECT



A new Pre-Commercial-Procurement project started in January 2014

PREFORMA, FUTURE MEMORY STANDARDS

Memory institutions are facing increasing transfers of electronic documents and other media content for long term preservation. Preservation models are often inspired by ISO 14721:2003, known as "the OAIS model", where transfers and preservation are built on information packages containing both data and metadata. [Continue reading](#)

IN FOCUS

Brussels, 4 April 2014

PREFORMA Call for Tender, Information Day

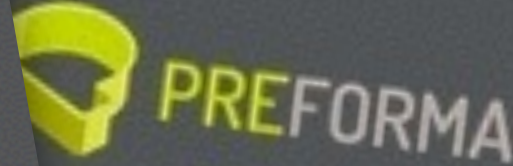
On April 4th 2014 PREFORMA project will organise an Information Day to present the call for tender that will be launched as part of the Pre-Commercial Procurement.

PARTNERS







This project has received funding from the European Union's Seventh Framework Programme under grant agreement no 612503

PROJECT PARTNERS TENDER ACTIVITIES OPEN SOURCE PORTAL COMMUNITY DOWNLOAD CONTACTS

UPCOMING EVENTS [VIEW ALL](#)

BRUSSELS, 4 APRIL 2014

PREFORMA CALL FOR TENDER, INFORMATION DAY

4 April 2014

MEMORY STANDARDS

On April 4th 2014 PREFORMA project will organise an Information Day to present the call for tender that will be launched as part of the Pre-Commercial Procurement. Participation is open to everybody who is interested to participate to the call and to become a PREFORMA supplier but will be subject to registration.

On April 4th 2014 PREFORMA project will organise an Information Day to present the call for tender that will be launched as part of the Pre-Commercial Procurement. Participation is open to everybody who is interested to participate to the call and to become a PREFORMA supplier but will be subject to registration.

On April 4th 2014 PREFORMA project will organise an Information Day to present the call for tender that will be launched as part of the Pre-Commercial Procurement. Participation is open to everybody who is interested to participate to the call and to become a PREFORMA supplier but will be subject to registration.

PROJECT PARTNERS

Project Coordinator + Memory Institution

Riksarkivet Sweden

Technical + Communication Coordinator

Promoter Srl Italy

Technical Partner

Packed Expertisecentrum Digitaal Erfgoed Vzw Belgium

Technical Partner

Fraunhofer
Gesellschaft Zur Foerderung Der Angewandten Germany

Technical Partner

Hogskolan I Skovde
University Of Skovde Sweden

Technical Partner

Universita Degli Studi di Padova Italy

Memory Institution

Stichting Nederlands Instituut voor Beeld En Geluid Netherlands

Memory Institution

Koninklijk Instituut Voor Het Kunstpatrimonium Belgium

Memory Institution

Greek Film Centre Ae Greece

Memory Institution

Local Government Management Agency
An Ghniomhaireacht Bainistiochta Rialtais Aitiuil Ireland

Memory Institution

Stiftung Preussischer Kulturbesitz Germany

Memory Institution

Ayuntamiento De Girona Spain

Memory Institution

Eesti Vabariigi Kultuuriministeerium Estonia

Memory Institution

Kunqliqa Biblioteket Sweden

CHALLENGE R&D

**Empower memory institutions to
gain full control over
the technical properties of
digital content intended for
long-term preservation**

PRE-COMMERCIAL PROCUREMENT

- **Competition-like procurement method**
- **Enables public sector bodies to engage with Innovative businesses in development projects**
- **Innovative solutions that address specific public sector challenges and needs.**
- **Created through a phased procurement of development contracts (to reduce risk)**
- **More and more common within the public sectors of the European Union**

PROJECT AIM AND OBJECTIVES

- ❑ **The aim:** to address the challenge of implementing various good quality standardised file formats for preserving data content in the long term.
- ❑ **The main objective:** to give memory institutions full control of the process of conformity tests of files to be ingested into archives.
- ❑ **The main objective of the PCP launched by PREFORMA:** to develop and deploy an open source software licensed reference implementation for various file format standards, aimed for any memory institution (or other organisation with a preservation task) that wish to check conformance with a specific standard.

CHALLENGE BRIEF

- ❑ Develop an **open source conformance checker** that:
 - checks if a file complies with standard specifications
 - checks if a file complies with the acceptance criteria of the memory institution
 - reports back to human and software agents
 - perform simple fixes
- ❑ Establish an ecosystem around an **open source reference implementation** that:
 - generates useful feedback for those who control software
 - advances improvement of the standard specification
 - advances development of new business cases for managing preservation files

STRATEGY

- **Develop an open source conformance checker that:**
 - checks if a file complies with standard specifications
 - checks if a file complies with the acceptance criteria of the memory institution
 - reports back to human and software agents
 - perform simple fixes
- **Establish an ecosystem around an open source reference implementation that:**
 - generates useful feedback for those who control software
 - advances improvement of the standard specification
 - advances development of new business cases for managing preservation files

Content type	Standard specifications
TEXT	ISO 32000-1:2008 (PDF 1.7) ISO 19005-1:2005 (PDF/A-1) ISO 19005-2:2011 (PDF/A-2) ISO 19005-3:2012 (PDF/A-3)
IMAGE	ISO 12234-2:2001 (TIFF/EP) ISO 12369:2004 (TIFF/IT)
MOVING IMAGE	Open standard: • maintained by a not-for-profit organization, • available either freely or at a nominal charge. • IPR made irrevocably available on a royalty-free basis. • no constraints on re-use Capture AV-files that comply with the set of minimum technical parameters

SUSTAINABILITY ANALYSIS

- Has the format been adopted by digital preservationists?
- Has the format been adopted by PREFORMA stakeholders?
- Has the format been adopted by service providers?
- Does the license of the format allow for developing open source software?
- Is the standard specification document available either freely or at a nominal charge?

Open standard?	AUDIOVISUAL			TEXT	IMAGE
	<i>broadcast</i>	<i>film</i>	<i>Consumer</i>		
PREFORMA stakeholders	<i>MPEG-IMX (MXF/MPEG2) XDCAM HD422 (MXF/MPEG4)</i>	<i>DPX DCP (MXF/JPEG2000)</i>	<i>MOV/MPEG2 AVI/MPEG2 MPEG/ MPEG2 MPEG/ MPEG4-AVC</i>	<i>PDF 1.4 PDF/A1</i>	<i>TIFF 6.0 JPEG JPEG2000 RAW</i>
Industry standards	<i>ASI07 (MXF/MPEG2) (MXF/JPEG2000) FIMS (MXF/MPEG2)</i>	<i>DCDM (TIFF 6.0) DCP (MXF/ JPEG2000) IMF (MXF/MPEG4)</i>	<i>MPEG-AF</i>	<i>PDF</i>	<i>JPEG2000 TIFF</i>
Open standards	<i>MKV/FFV1 OGG/Dirac</i>	<i>PNG</i>	<i>WebM/VP8 OGG/Theora</i>	<i>PDF/A1 PDF/A3 PDF/A3</i>	<i>PNG</i>
PREFORMA	<i>MKV (?) OGG JPEG2000 (?) FFV1 Dirac LPCM (?)</i>			<i>PDF/A</i>	<i>TIFF 6.0 (?)</i>

MAIN PUBLIC EVENTS

1. A **Training event for Open Source companies**

Stockholm, December 2015

Includes first Prototype Demonstration

2. An **Experience Workshop**

Berlin, December 2016

Includes second Prototype Demonstration

PREFORMA partners will share with memory institutions their experiences of working with suppliers under R&D service agreements.

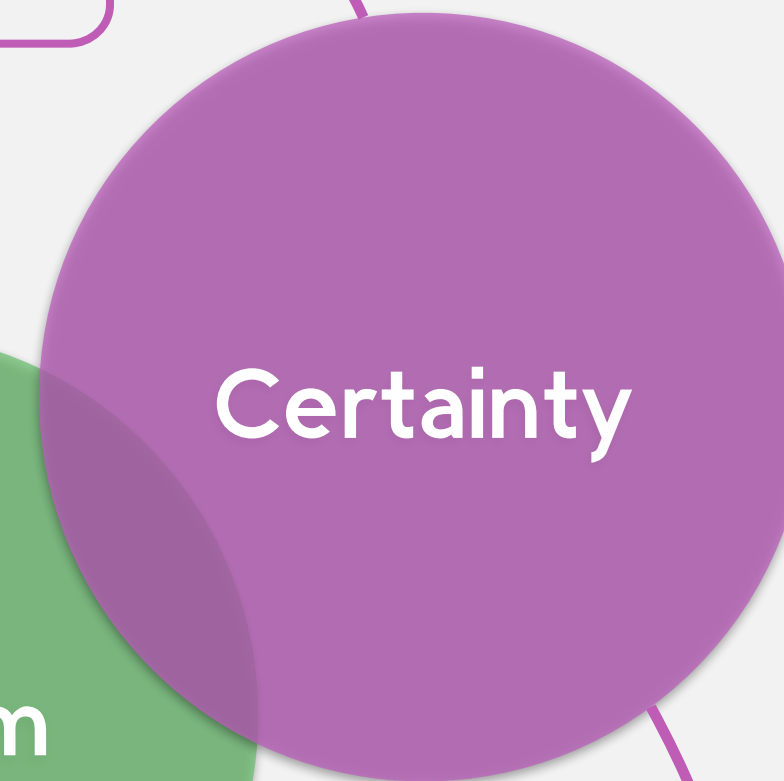
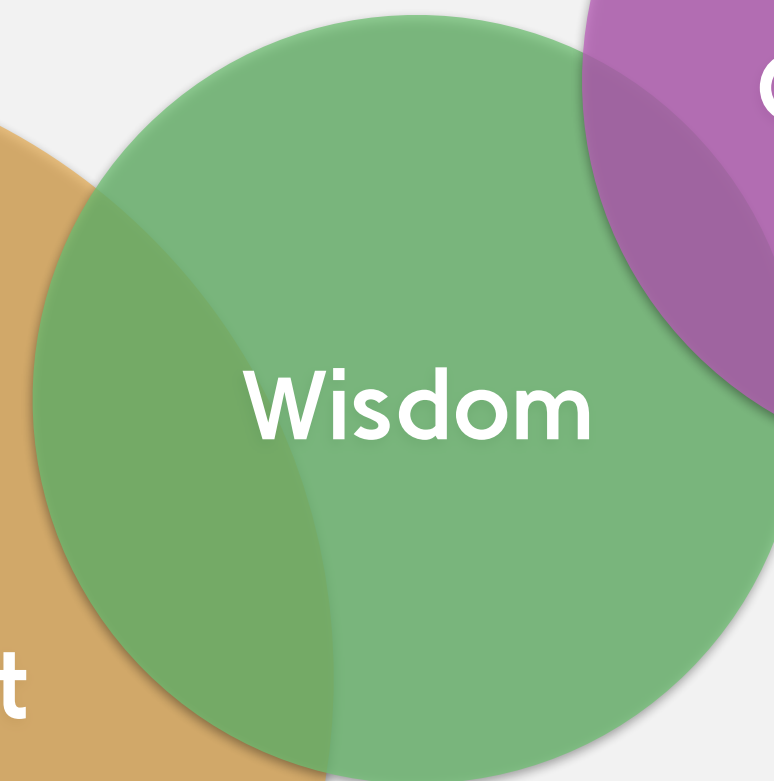
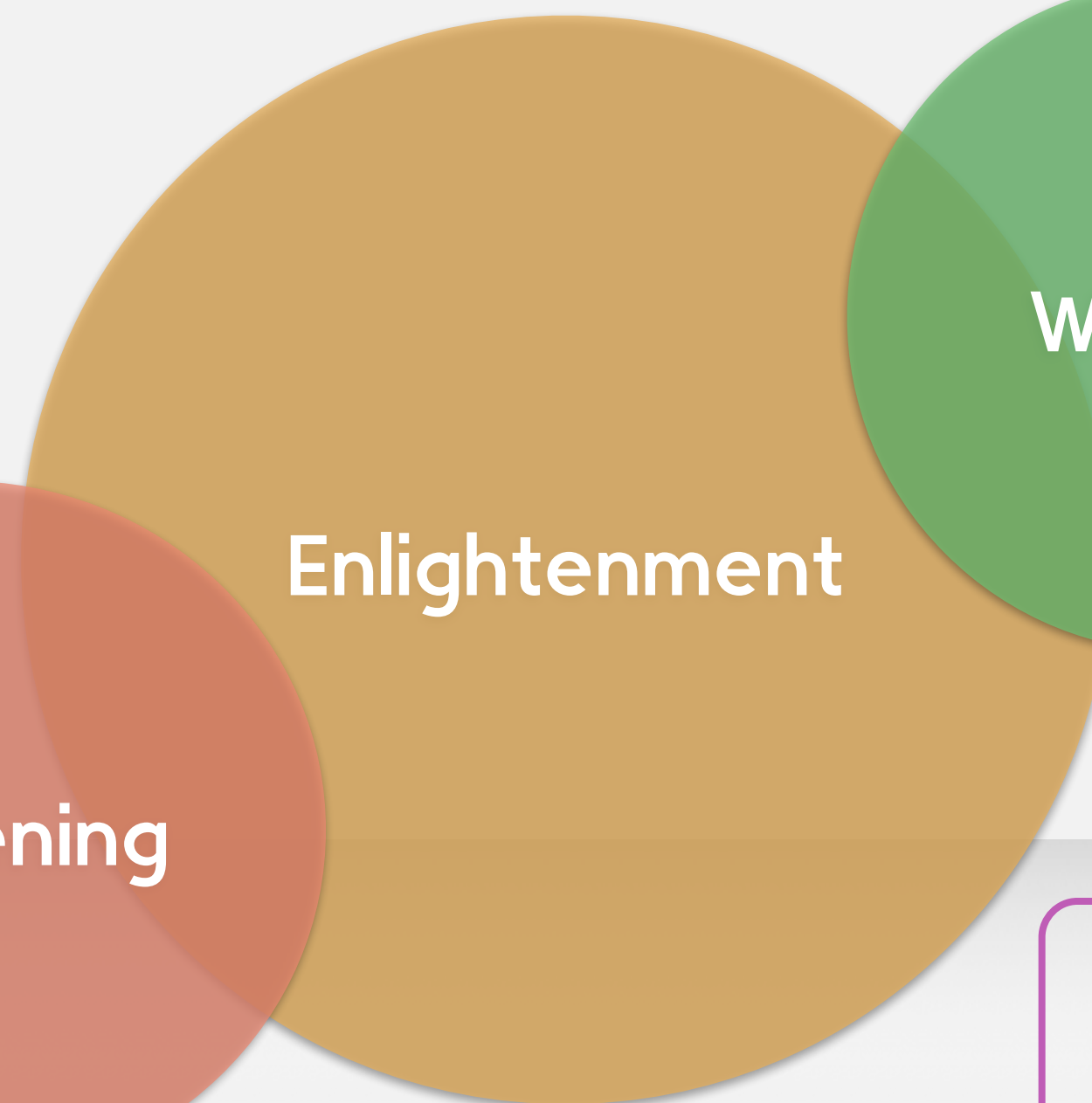
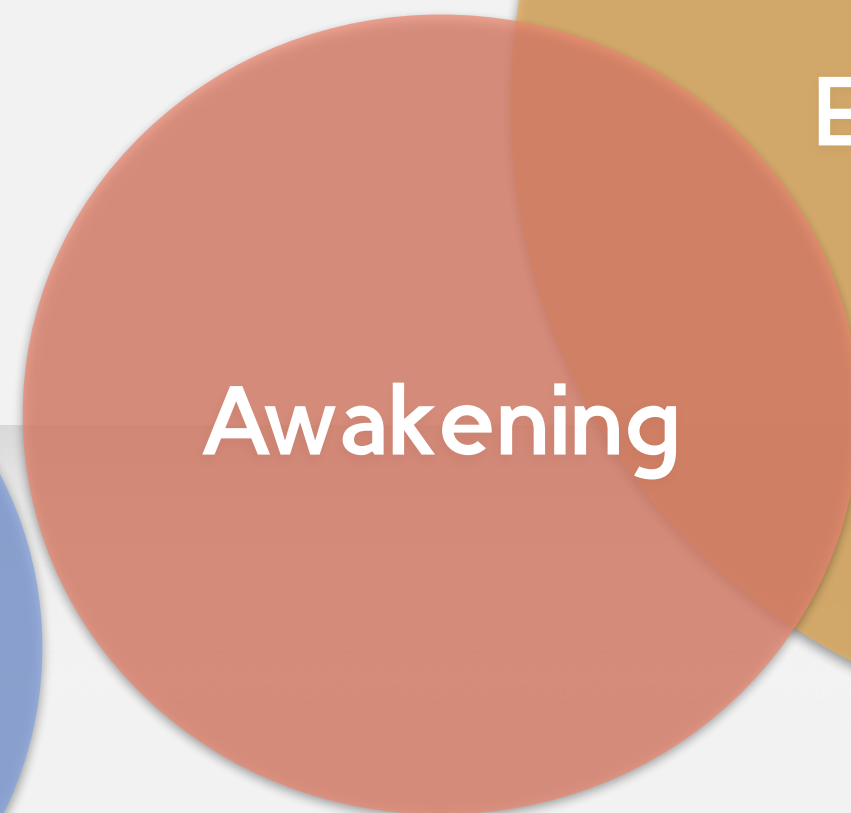
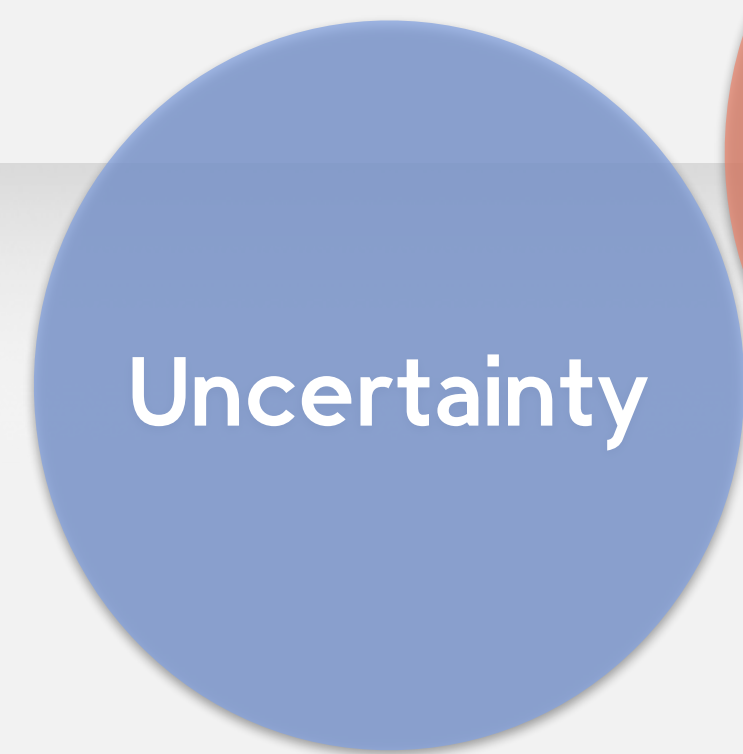
3. A **final conference**

Stockholm, December 2017

Results of the project.

Long-Term Sustainability

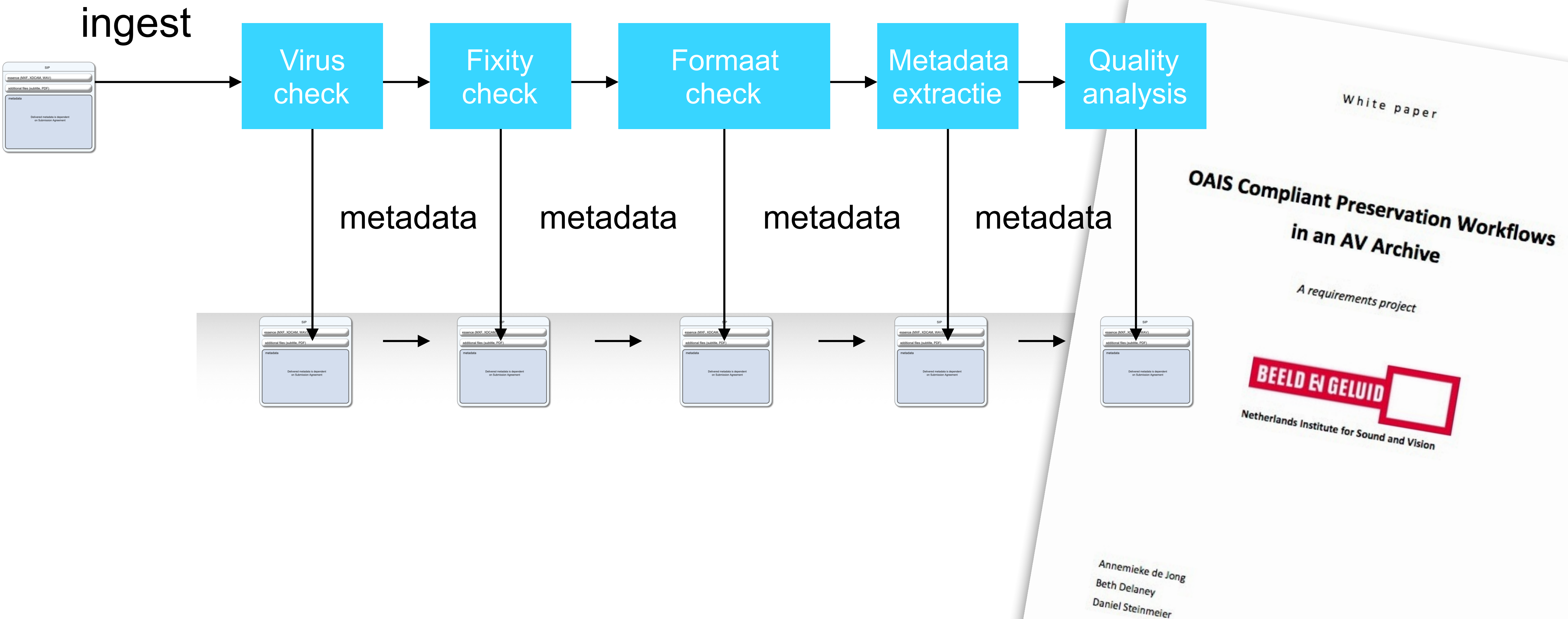
Digital Maturity



Preservation plans
in place

Data seal of Approval

TRUSTING OUR DIGITAL REPOSITORY





KNOWLEDGE FINDING & COMMUNITY BUILDING

- Surveys to establish knowledge base
- Regular blog & newsletters
- Webinars, Workshops & Edit-a-thon



Webinar: Choosing your File Format

[Home](#) » [Calendar](#) » Webinar: Choosing your File Format

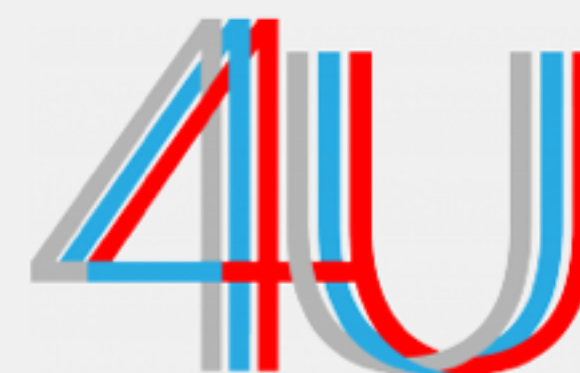
Search site...

Webinar, Oct 27

PrestoCentre

1 : 16 : 33 : 51
days hours min sec

PrestoCentre and Presto4U are organising a webinar series on diverse topics related to AV digitisation and digital preservation. Each webinar will be focussed on a specific topic and hosted by experts within the field. The webinars are a unique opportunity to interact with professionals and learn from their knowledge, expertise and experience. Get a discussion going with them and other participants during and after the webinar. For all upcoming webinars see the [PrestoCentre Events Calendar](#).



[Register now](#)

More Information

Date: 27 October, 2014

Time: 3:00pm – 4:00pm GMT/UTC (11:00am – 12:00am EST, 4:00pm – 5:00pm CET, 7:00am – 8:00am PST)

Limited places available, registrations are on first-come, first-served basis.

Summary

In celebration of [World Day for Audiovisual Heritage](#), Presto4U organises its 12th webinar. It focuses on standardisation efforts for broadcast file preservation formats and offers a real-life example of an audiovisual archive selecting its preservation format. In the webinar Choosing your File Format, broadcast archive specialists lead you into the topic of file selection. For many archives in the digital domain a recurring question is what file formats to approve of and what file formats to standardise to. Mr. Carl Fleischhauer from the Library of Congress and Mr. Jörg Houpert from Cube-Tec will give an introduction to the ongoing standardisation work in the field of the MXF AS-11 standard as an on-going archival standard for the MXF wrapper. Mr. Emanuel Joly from PACKED and Brecht Declercq from VIAA will share their experiences and decision process of selecting file formats for the



United Nations
Educational, Scientific and
Cultural Organization

In support of



World Day for
Audiovisual Heritage

