



08.10.2020 | Jahresworkshop "FAIR & CO" der AG eHumanities der Union der Deutschen Akademien der Wissenschaften

# FAIR & NFDI

Rahmenbedingungen und Perspektiven am Beispiel des Konsortiums NFDI4Culture

**Torsten Schrade**

Akademie der Wissenschaften und der Literatur | Mainz

# NFDI

Rahmenbedingungen für FAIR

“  
**Die an verschiedenen Stellen auf unterschiedliche Weise gesammelten Daten müssen so verfügbar gemacht werden, dass sie auch für Dritte leicht und geordnet auffindbar sind und über die Grenzen einzelner Datenbanken, Fachdisziplinen und Länder hinweg analysiert und verknüpft werden können. Dazu muss das Datenmanagement standardisiert sein:** Nach den sogenannten FAIR-Prinzipien sollen Forschungsdaten auffindbar, zugänglich, interoperabel und nachnutzbar sein.”

<https://www.gwk-bonn.de/fileadmin/Redaktion/Dokumente/Papers/NFDI.pdf>

“

## 3 Research Data Management Strategy

Strategy for data use, access, findability and reusability in accordance with the FAIR principles as well as for data quality assurance. This includes the **quality of services provided to the community of interest** and a structured evaluation of the implementation of the four FAIR principles and the quality assurance of research data.

”

[http://www.dfg.de/formulare/nfdi120/nfdi120\\_en.pdf](http://www.dfg.de/formulare/nfdi120/nfdi120_en.pdf)

“

**4.3 Implementation of the FAIR principles and data quality assurance**

**This might include technical, organisational and/or legal measures as well as data quality assurance procedures.**

”

[http://www.dfg.de/formulare/nfdi110/nfdi110\\_en.pdf](http://www.dfg.de/formulare/nfdi110/nfdi110_en.pdf)



# NFDI

F



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R



“ In the spirit of our common interest to build what could become an international beacon for sharing the benefits of high-quality research data and research data management, the signing NFDI consortia strongly support the idea that NFDI must build on a coordinated and inclusive effort fostering the FAIR data principles. [...]”

The NFDI as a whole will work to ensure a cultural change so that open and FAIR data contributions are recognized at a similar level than peer-reviewed publications and conference contributions.

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# Memorandum of Understanding by NFDI Initiatives in the Humanities and Cultural Studies | 28.09.2020



“ The initiatives have identified (a) metadata, authority data and terminologies, (b) provenance, (c) rights and ethics, and (d) data literacy as joint fields of action in which they can provide substantial, long-standing expertise and develop common services that will create added value for digital research in their communities and benefit the NFDI as a whole. ”

<https://doi.org/10.5281/zenodo.4045000>

# Perspektiven

Am Beispiel des Konsortiums NFDI4Culture

# BETEILIGTE



## COMMUNITIES

Architecture  
Art History  
Musicology  
Theatre, Film and Media Studies

## PARTICIPANTS

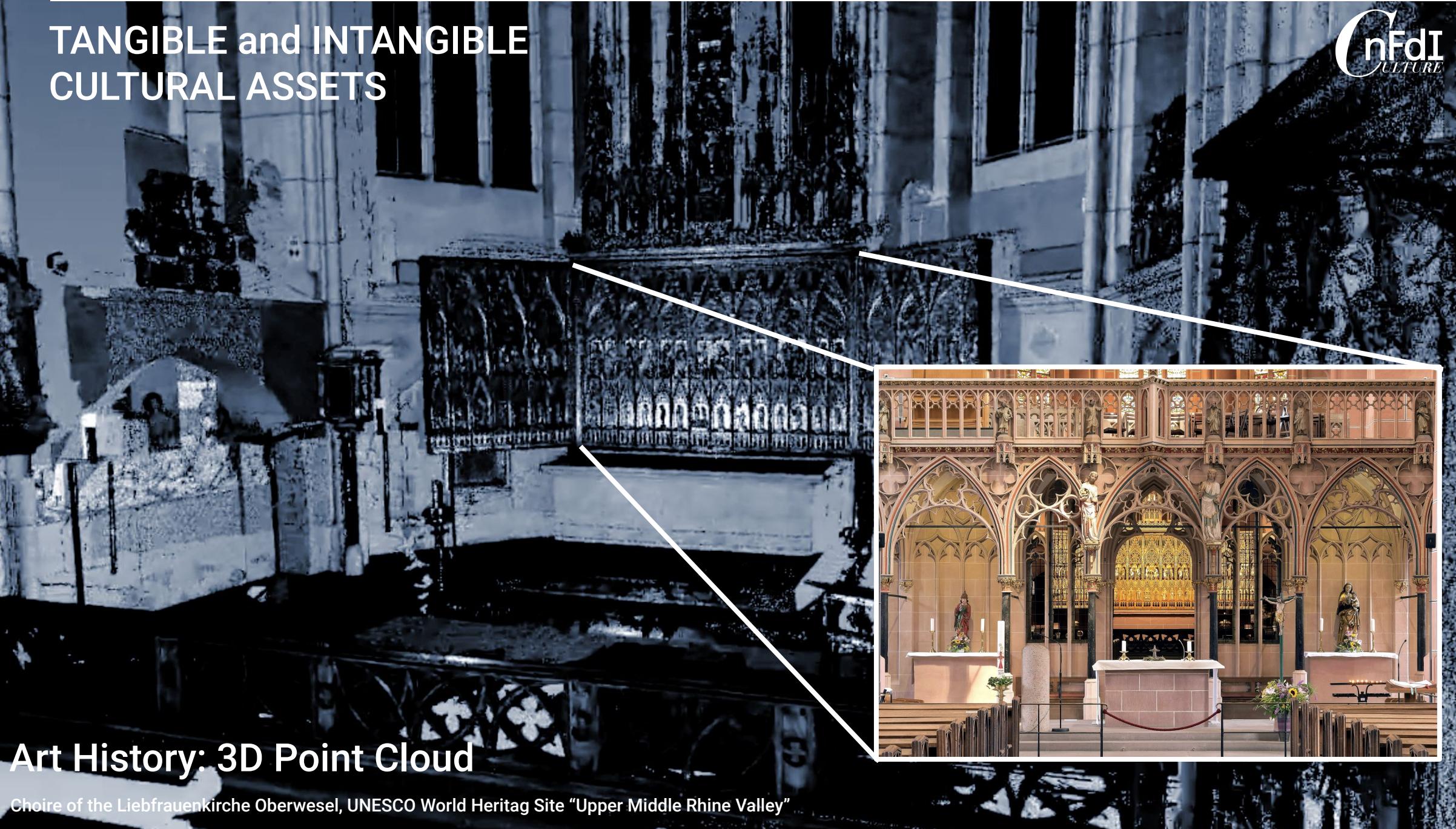
Academies  
Archives  
Art Colleges  
Cultural Heritage Institutions  
Individual Researchers  
Galleries  
Learned Societies  
Libraries  
Museums  
Universities



## CO-APPLICANTS

Academy of Sciences Mainz  
Cologne University  
FIZ Karlsruhe  
Heidelberg University  
Marburg University  
Paderborn University  
SLUB Dresden  
SPK Berlin  
TIB Hannover

# TANGIBLE and INTANGIBLE CULTURAL ASSETS



Art History: 3D Point Cloud

Choire of the Liebfrauenkirche Oberwesel, UNESCO World Heritage Site "Upper Middle Rhine Valley"

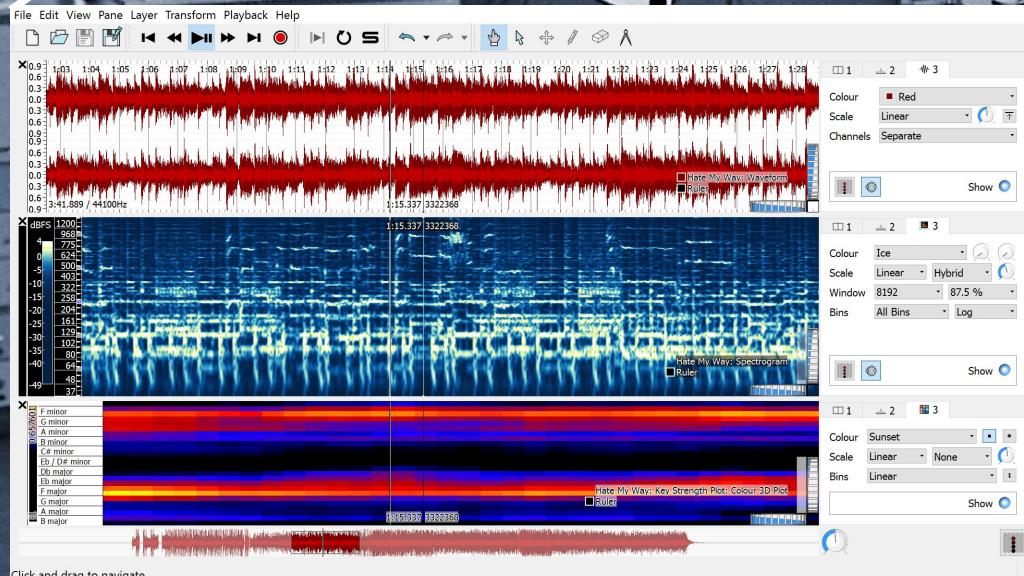
# TANGIBLE and INTANGIBLE CULTURAL ASSETS



Dance Studies: Motion Bank

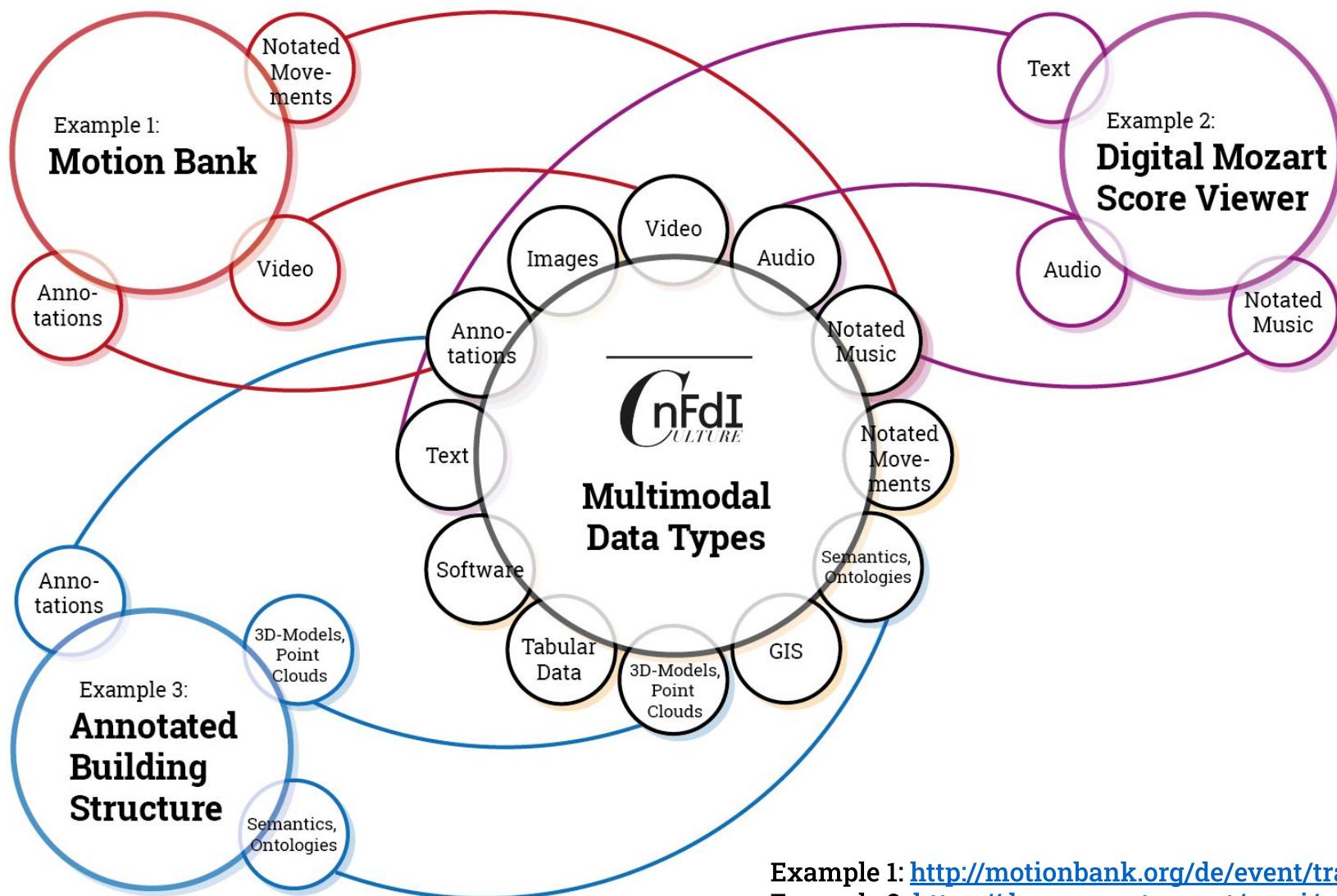
PROPRIOLOOP  
CAITLIN SIKORA, CHANWOOK, EOZIN CHE

# TANGIBLE and INTANGIBLE CULTURAL ASSETS



## Musicology: Bernd Alois Zimmermann "Requiem"

Studio für Elektronische Musik des WDR, Köln 1969, Bernd Alois Zimmermann und Mesías Maiguashca (r). Foto: Werner Scholz.



Example 1: <http://motionbank.org/de/event/trailer-motion-bank.html>  
Example 2: <https://dme.mozarteum.at/movi/en>  
Example 3: <http://oberwesel.spatialhumanities.de/viewer>

# Task Areas und Maßnahmen

Be FAIR & CARE

# CARE Kriterien der Global Indigenous Data Alliance



[https://www.gida-global.org/s/CARE-Principles-for-Indigenous-Data-Governance\\_FINAL\\_Sept-06-2019.pdf](https://www.gida-global.org/s/CARE-Principles-for-Indigenous-Data-Governance_FINAL_Sept-06-2019.pdf)

## Collective Benefit

Data ecosystems shall be designed and function in ways that **enable Indigenous Peoples to derive benefit from the data.**

## Authority to Control

**Indigenous Peoples' rights and interests in Indigenous data must be recognised and their authority to control such data be empowered.** Indigenous data governance enables Indigenous Peoples and governing bodies to determine how Indigenous Peoples, as well as Indigenous lands, territories, resources, knowledges and geographical indicators, are represented and identified within data.

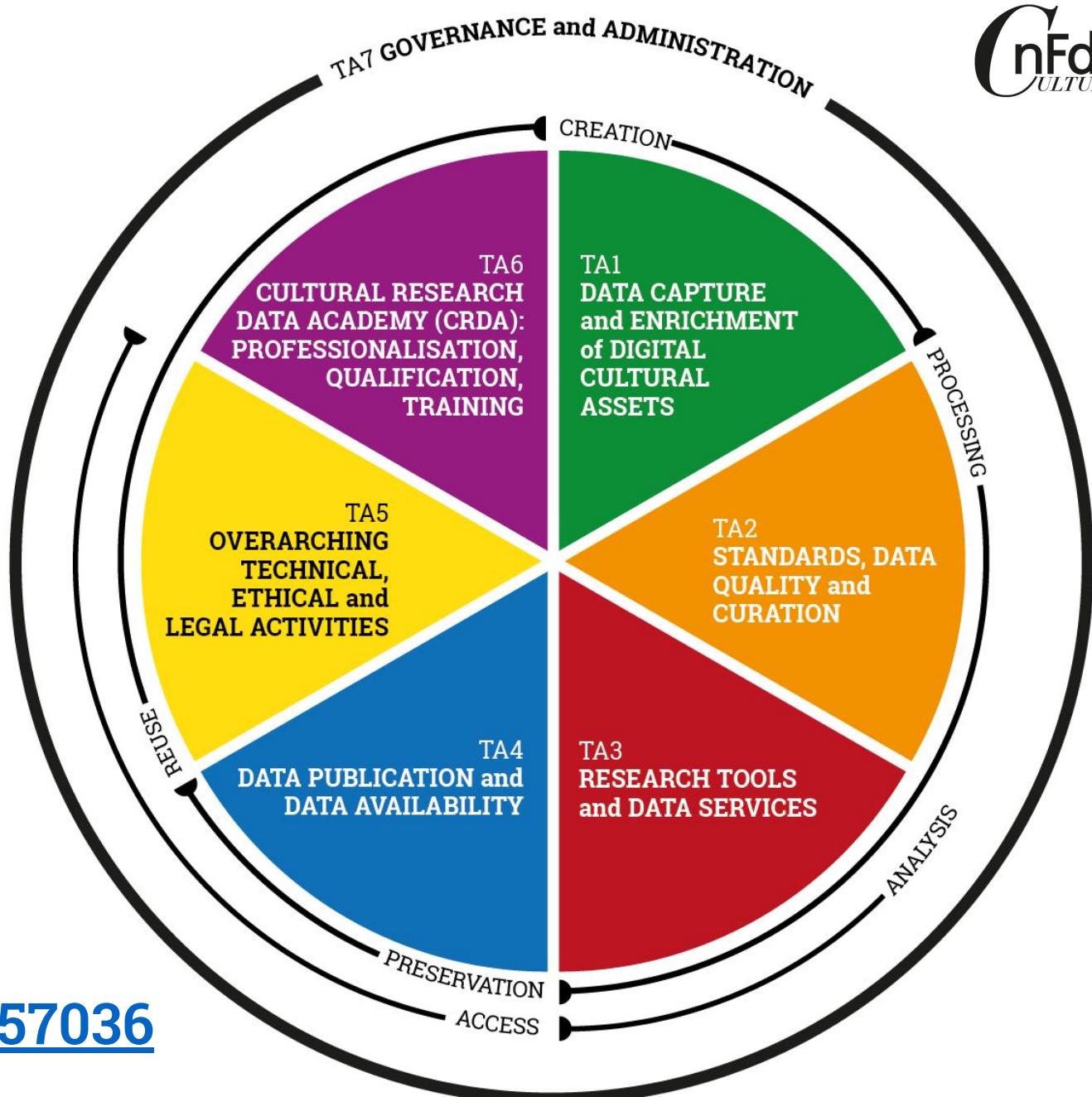
## Responsibility

Those working with Indigenous data have a responsibility to share how those data are used to **support Indigenous Peoples' self-determination and collective benefit.** Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.

## Ethics

**Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and across the data ecosystem.**

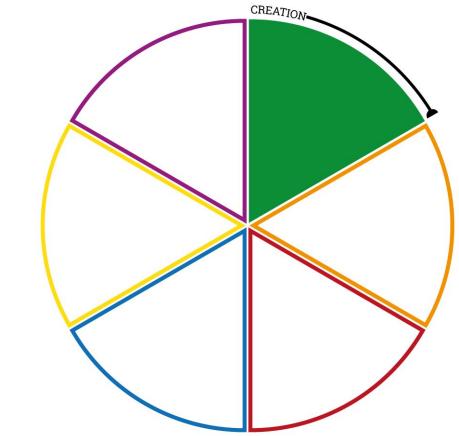
# TASK AREAS aligned to the RESEARCH DATA LIFE-CYCLE



Antrag von NFDI4Culture  
im Open Access:

<https://doi.org/10.3897/rio.6.e57036>

# TA1 – DATA CAPTURE and ENRICHMENT of Digital Cultural Assets



## Ziele

Prof. Dr. Ina Blümel  
Architecture, Information  
Infrastructure  
TIB | Hannover

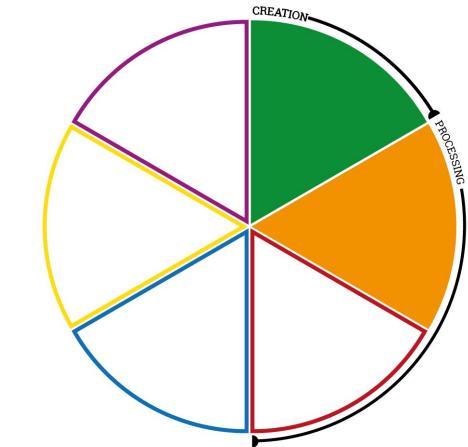
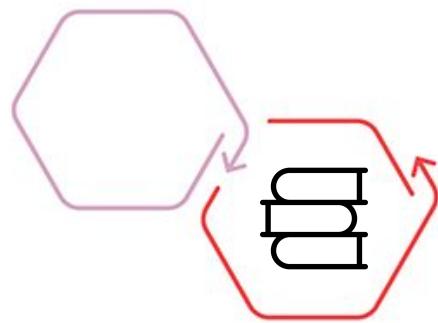
“TA1 aims at improving findability and reusability and enhance interoperability by identifying supportive structures and well-matched **FAIR-oriented digitization standards adjusted to the needs of the researchers**. In order to improve interoperability, it strives for a data discovery system that aims at rendering related information.”

Reinhard Altenhöner  
GLAM, Information  
Infrastructure  
SPK | Berlin

## Dienste

- FAIRe Digitalisierung – Anreicherung – Nutzung
- FAIRe Workflows für Prozessmonitoring / Digitalisierung

# TA2 – DATA STANDARDS, DATA QUALITY and CURATION



## Ziele

“Controlling and coordinating FAIR-related activities lies primarily with TA2 Standards, Data Quality and Curation: **Providers and researchers will collaborate to achieve an agreement on open data standards, persistent identifiers, version and provenance management, interfaces, software and its documentation**. This will improve the findability of the objects but also the accessibility, interoperability and reusability for research over the research data's entire life cycle.”



**Prof. Dr. Barbara Wiermann**  
Musicology, Library and  
Information Science  
**SLUB | Dresden**

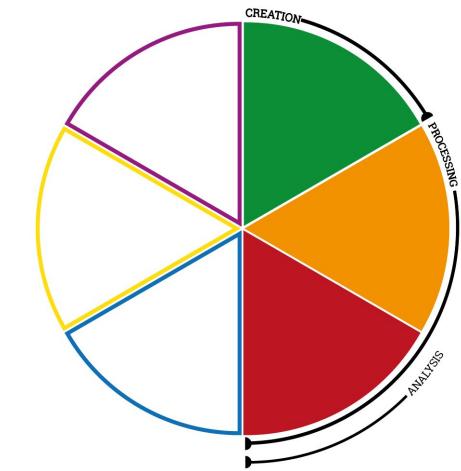
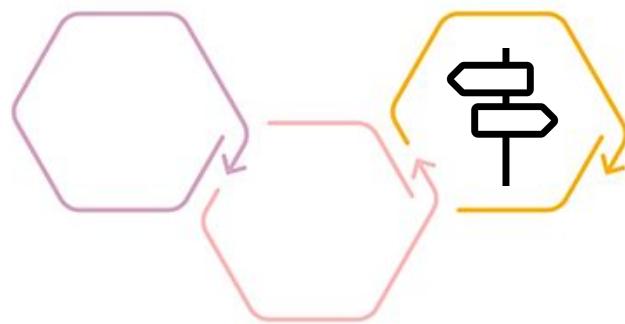


**Dr. Christian Bracht**  
Art History, Information  
Infrastructure  
**UMR | Marburg**

## Dienste

- FAIR Clearing-Stelle
- Data Rescue, Data Quality, Data Certification

# TA3 – RESEARCH TOOLS and DATA SERVICES



## Ziele

Dr. Lisa Dieckmann  
Art History,  
Computer Science  
UZK | Cologne

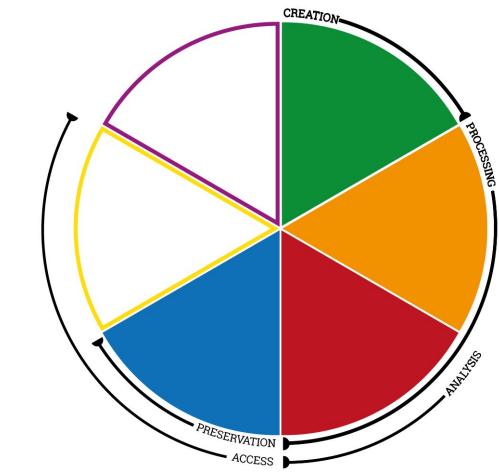
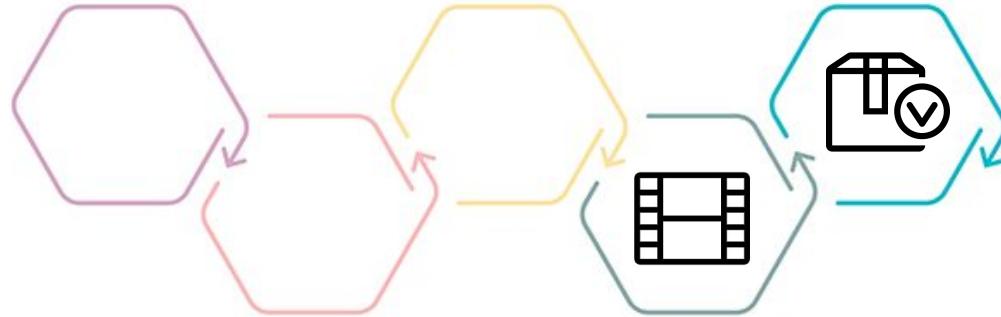
**"In TA3, the code of research software will be rendered findable and accessible as well as interoperable, as it turns into research data itself. The development of the IIIF annotation server will enlarge access to high quality image data. All workflows and guidelines for using tools will be oriented towards FAIR principles. It is considered e.g. that versions and derivatives of software are made available permanently by PIDs."**

Dipl. Wirt.-Inf.  
Daniel Röwenstrunk  
Business Computer Science,  
Musicology  
UPB | Paderborn

## Dienste

- Beratungsagentur für nachhaltige Forschungssoftware
- Fachspezifische Tool- und Dienste-Registry
- Richtlinien zur kollaborativen Softwareentwicklung

# TA4 – DATA PUBLICATION and DATA AVAILABILITY



## Ziele

  
**Dr. Maria Effinger**  
Art History, Open Access,  
Information Infrastructure  
UHD | Heidelberg

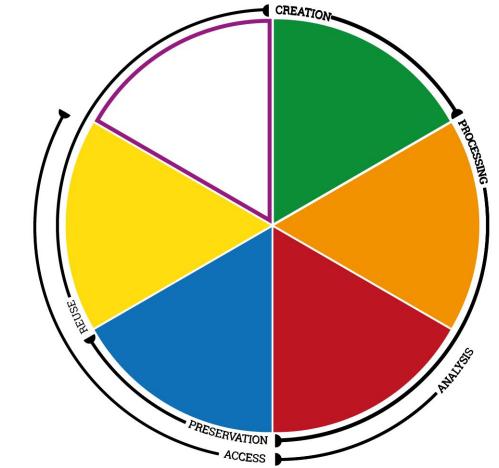
"In TA4, existing offerings for professionally supported, sustainable and uncomplicated research data publications and long-term archiving will be significantly expanded, thus fostering findability, accessibility and reusability of cultural research data. In close cooperation with TA2, the Consulting Agency (TA4|M2) will **support researchers in the publication of complex data types in accordance with the FAIR principles**, e.g. via handouts and guidelines. The Core Trust Seal certification for repositories in TA4|M4 warrants, among other things, the accessibility and reusability of the published data. All data publication and archiving services will support the metadata schemas developed in TA2 and will uniquely register all objects via persistent identifiers."

  
**Dr. Jens Bove**  
Art History, Information  
Infrastructure  
SLUB | Dresden

## Dienste

- Beratungsagentur für Cultural Heritage Datenpublikationen
- LZA Dienste für komplexe Datentypen
- Entwicklung FAIRer Betriebsmodelle

# TA5 – OVERARCHING TECHNICAL, LEGAL and ETHICAL ACTIVITIES



Prof. Dr. Franziska Boehm  
Jurisprudence  
FIZ | Karlsruhe

## Ziele

TA5 will foster FAIR by setting up a uniform interface interoperable with various data formats, e.g. by implementing a CERIF-compatible HTTP interface. The **implementation of the knowledge graph enables integrative access to distributed and heterogeneous research data** in the consortium's domain, enhancing all four FAIR principles, e.g. by describing it as LOD.



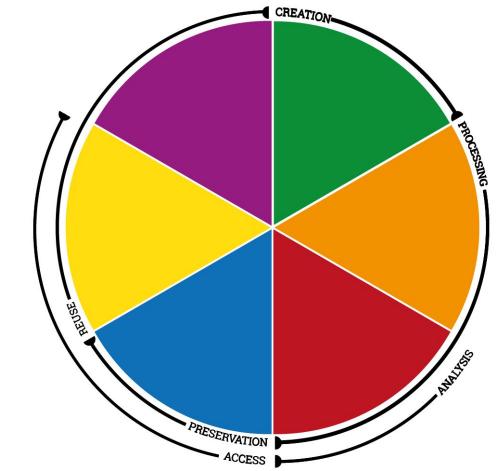
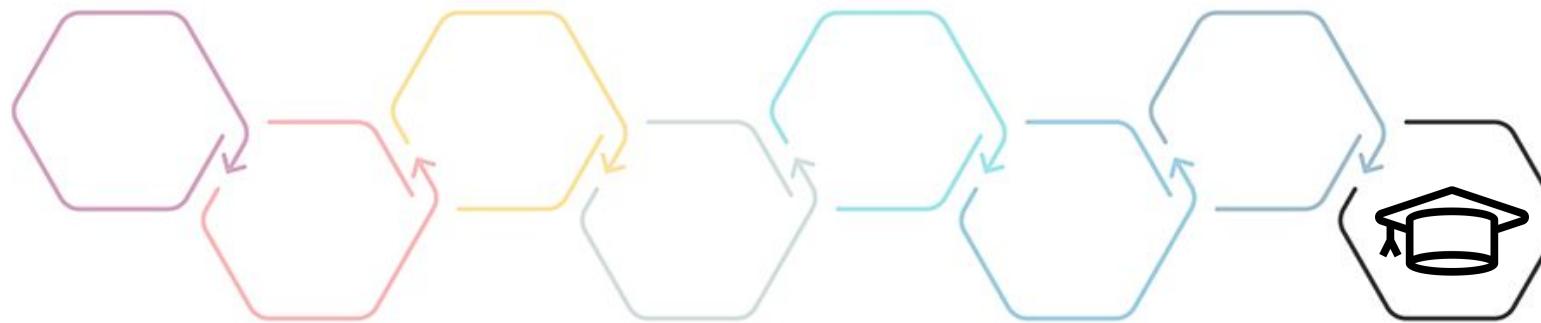
Prof. Dr. Harald Sack  
Information Service Engineering  
FIZ | Karlsruhe

## Dienste

- Culture Knowledge Graph based on Wikibase
- Culture Portal as Single Point of Entry
- Legal Helpdesk & Ethical Advisory Board

# TA6 – CULTURAL RESEARCH DATA ACADEMY

## Professionalisation, Qualification and Training



### Ziele



Prof. Dr. Malte Hagener  
Media Studies  
UMR | Marburg



Prof. Dr. Andreas Münzmay  
Musicology  
UPB | Paderborn

**TA6 implements FAIR through the FAIR4S-framework developed within the EOSC:** While developing criteria and culture-specific frameworks within the Culture Research Data Academy, the FAIR4S framework will serve as a guideline and reference. Within specific trainings (TA6|M3) for employees at GLAMs, the FAIR principles will be a leading part of the curriculum. Advice within the helpdesk, e.g. when conveying suitable trainings and workshops, is permanently oriented towards offers compatible to FAIR criteria.

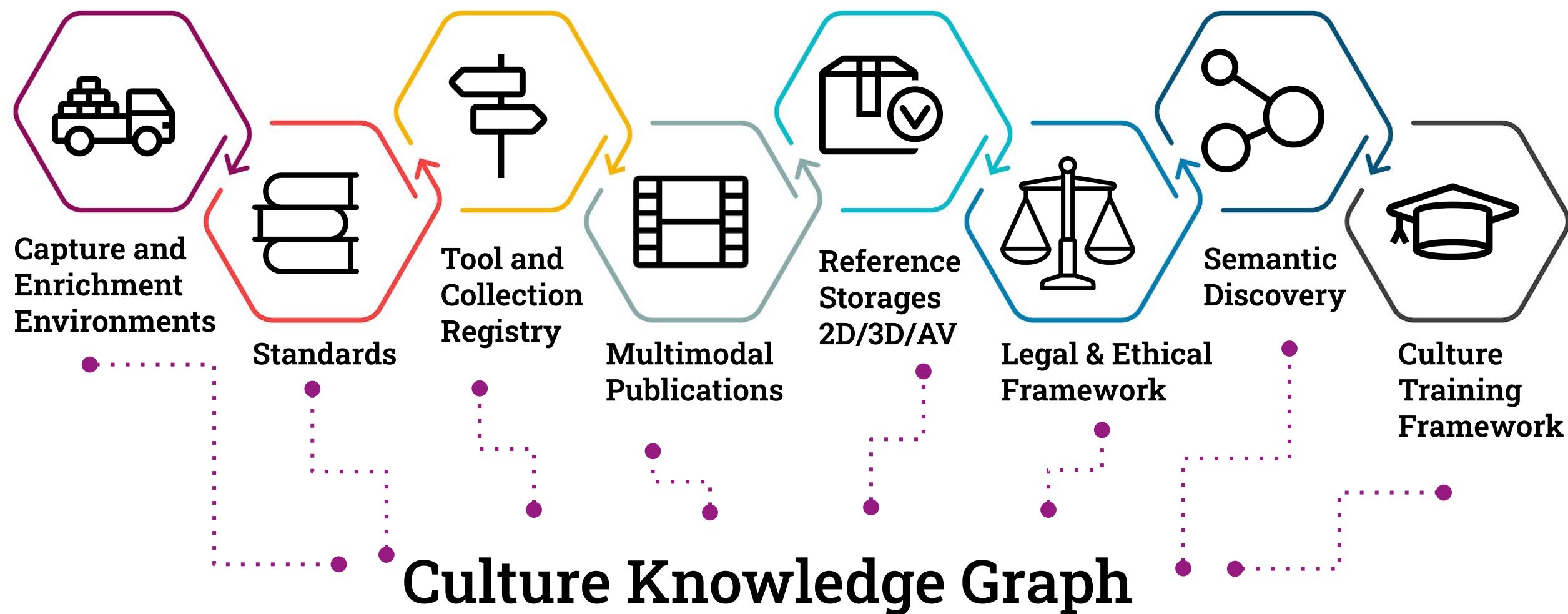
### Dienste

- Entwicklung von Qualitätskriterien für Trainings nach [FAIR4S](#)
- Portfolio zertifizierter Trainingsangebote
- Helpdesk für Qualifizierung & Training

# KEY COMPONENTS of the planned INFRASTRUCTURE



## FAIR & CARE





<https://nfdi4culture.de> – info@nfdi4culture.de



2009  
"OSS 117: Lost in Rio", dir. Michael Hazanavicius



2018  
"BlacKkKlansman", dir. Spike Lee