fRamework for safE, opEn, collaboratiVe And incLUsive digitisAtion and managemenT of cultural heritagE

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Abbreviations

Abbreviations	Full name
AI	Artificial Intelligence
API	Application Programming Interface
CH	Cultural Heritage
CHI	Cultural Heritage Institution
DB	Database
DLT	Distributed Ledger Technology
EAB	External Advisory Board
ECCCH	European Collaborative Cloud for Cultural Heritage
F2F	Face-to-Face
GA	General Assembly (GA)
GUI	Graphical User Interface
KAOS	Knowledge Acquisition in automated specification (Keep All Objectives Satisfied) goal modeling method
KPI	Key Performance Indicator
UI	User Interface
UML	Unified Modeling Language
WP	Work Packages
W3C	World Wide Web Consortium

1 Publishable summary

This document describes the plans for the REEVALUATE pilots.

REEVALUATE plans three pilots covering these areas:

- Fashion
- Olympic Games and Music
- Historic Site of Aquileia

The pilots themselves are not the primary purpose of the project.

The goal of conducting pilot is to test, evaluate and validate the enablers developed in the project in order to verify their usability under realistic conditions.

In order to achieve this, the document not only describes the pilots and specifies the pilot planning, preparation, production and execution. It also describes which enablers are utilized for each pilot and provided KPIs for determining the efficiency of the enablers and the measurements and methodology to obtain these key performance indicators.

To ensure successful execution of the pilots, the document also lists possible risks that might affect the successful execution of the pilots. Furthermore, key stakeholders for all pilots are identified and described.

2 Introduction

This document provides the first iteration of the pilot plans for the REEVALUATE project.

The planning of project pilots is the primary output of task 4.1.

The current deliverable will be submitted by M22 (October 2025) in order to serve as the blueprint for performing the first pilot phase from M23 to M25. The deliverable will be followed by an updated version in M29 (May 2026), which will provide refinements and additional plans for the second pilot phase in project months 30-33.

The pilots will be executed as part of the activities in WP4, specifically in Task 4.5, with the subsequent assessment and evaluation in Task 4.6.

Section 3 provides a short overview of the planned pilots (with in-depth descriptions of the pilots being given in sections 5, 6 and 7).

As the primary purpose of the pilots within the scope of the project is the validation of the enablers in a realistic user case, section 4 provides a short overview of the enablers and their use in the pilots.

Following that, a description of each individual pilot is provided, structured as this:

- Introduction: Describes the themes covering by the pilot and the core partners involved.
- Pilot description: Gives an in-depth description of the planned pilot activities, detailing:
    - Pilot Scenario: The description of the pilot elements and their presentation to the pilot users.

    - Pilot site: For physical presentations, the description of the pilot environment and how the pilots will be embedded in that environment. For online presentations, the content and context surrounding the pilot presentation.
    - Pilot personnel: An overview of the people involved with installing and presenting the pilot, as well as those collecting data for subsequent evaluation, covering people directly involved in REEVALUATE and those outside the project.
    - Pilot methodology: This section describes the methods and activities used for measuring the KPIs.
    - Ethical and legal requirements: List any such requirements that need to be observed during the execution of the pilot.
- Timeline: Describes the planned timeline for the pilot, consisting of:
    - Preparation: Timeline for setting up the pilot, including preparation of assets and installation of the pilots on site.
    - Execution: Describe the dates when the pilot will be actively running and measured.
    - Evaluation: Provides the timeline for evaluating the data collected during the pilot and evaluating the KPIs
- Assets used: Lists and describes the assets provided for the pilot.
- Enabler used: Describes which enablers are used by the pilot and in which way.
- Stakeholders: Provides a description of all stakeholders relevant for the pilot.
    - Forms and documents: If the pilots require a specific document to be accepted by any stakeholder involved, whether filled or signed as a physical document or click-accepted in case of an online document, the relevant document will be provided in this section.
- KPIs: Covers anything related to the KPIs for this pilot, detailing:
    - List of KPIs: Gives a description of all KPIs and the KPI values indication success.
    - Materials for determining KPIs: Describes how the data needed for validating the KPIs will be obtained.
- Risks: Outlines risks that might inhibit a pilot activity or the ability to extract meaningful data for KPI evaluation; the section also provides mitigation measures for those risks.

2.1 Deliverable Goals

The purpose of this deliverable is to provide and describe the plan for at least the first phase of pilots within the REEVALUATE project and also serve as the foundation for the follow-up document, which will provide the corresponding information for the second phase of pilots, adding updates and refinements where needed.

The pilots will be executed in Task T4.5, led by EFHA, and evaluated in Task 4.5, led by GVAM.

This deliverable is a crucial element of the success of WP4, as it contains the planning for the execution and subsequent evaluation of the pilots, which is the basis for the evaluation of the enablers developed within REEVALUATE.

While this deliverable primarily aims at providing the necessary basis for the first phase of the pilots, its purpose is to lay as much of the foundation for both pilot phases as possible. It is expected that the follow-up document will mostly contain minor updates and organizational details that were not known

at the time of writing of the current deliverable, but that the core information will be provided in the first iteration of the deliverable.

2.2 Relation with other deliverables

As the purpose of the pilots within the project is, ultimately, the validation of the REEVALUATE enablers, the planning activities for the pilots is based on all deliverables provided by the two WPs dedicated to enabler development, namely WP2 and WP3. It also utilizes information from D1.3 to ensure that the pilot activities align with the user needs and usage scenarios. While the current D4.1 deliverable has no formal dependencies with D4.3, as both have the same delivery date and D4.3 is not available as a document at the time of writing D4.1, the ongoing activities and intermediate internal documentation, which will result in D4.3, strongly inform the D4.1 deliverable.

The updated version of D4.1 will take any updated versions of WP2 and WP3 documents regarding enablers into account, as well as other documents available from WP4 at that time.

2.3 Notes on the Approach

As all pilots are done with specific partners from the cultural heritage domain. The pilots cover different manners of presentation, including an online activity, a traditional museum exhibit and a, mostly, self-guided tour through a historic location.

The first pilot is fashion related and involves, as content providers and CH partners, primarily MoMU and EFHA, working together with FibreMood. The pilot covers exclusively virtual assets in an online presentation. While activities within the pilot may involve and encourage the creation of physical fashion items by users, those items will not be provided as part of the project,

The second pilot, covering the music in conjunction with the Olympic Games, involves the Olympic Museum and SMB. This pilot is presented as a physical presentation in a museum context, namely the Olympic Museum in Thessaloniki.

The third pilot, involving the Fondazione Aquileia as the CH partner, will present digital artefacts in a physical environment, enhancing the experience of visitors to the historic location with supplemental information.

As all pilots are mostly disjunct in relation to scope and CH partners, this document presents each pilot individually, but follows an identical structure for their descriptions in order to provide consistency of the pilot plans.

3 Pilots Overview

The piloting phase covers three pilots from different domains, utilizing different way of presenting digital and physical content to the general public. The purpose of this wide-spread approach is to cover a comprehensive range of different activities in order to validate the enablers in multiple, non-overlapping realistic use-cases.

3.1 Pilot 1 Overview - Fashion

The first pilot activity involves a collaboration between EFHA, the MoMu - Fashion Museum Antwerp, and the Belgian company FibreMood.

The pilot will begin with the digitization of various fashion heritage artifacts from the MoMu, including garments, accessories, and sketches. These digitized artifacts will undergo a collaborative contextualization process involving the general public, stakeholders, and experts from the fashion and creative industries.

The pilot itself consists of two different showcases.

The first showcase is a mobile game titled "Fashion Time Machine." In this game, players can design and customize virtual outfits using elements from the digitized artifacts. The game will feature different levels based on various fashion eras and allow players to share their designs on social media and compete with others. The AI-driven Creative Reuse Enabler will assist players in creating new designs. Educational elements, such as information about the historical significance of each artifact, will also be included in the game.

The second showcase will allow users to create their own physical garments, based on sewing patterns derived from items from the museum's collection. This allows users to create their own personalized version of that garment. The showcase will be piloted in cooperation with FibreMood and is extends on an earlier collaboration with that company in the domain of fashion making as a social media based and supported activity.

3.2 Pilot 2 Overview - Olympic Games and Music

The second pilot will create an immersive exhibition titled "The Olympic Experience" at the Olympic Museum in Thessaloniki. This exhibition will present various aspects of the Olympic Games in relation to music from antiquity to the present day. The exhibition will feature five distinct themes, presented across five rooms. It will utilize artifacts from both the Olympic Museum and the ethnomusicology collection of the Ethnologisches Museum.

The showcase will be presented using through innovative projected media installations developed collaboratively by the pilot partners. It will be part of the public exhibitions presented at the Olympic Museum.

Furthermore, FFP plans to produce an advertising film that incorporates materials from this partnership, highlighting the potential of digitized heritage material in contemporary advertising practices, focusing on leveraging digitized cultural heritage (CH) artifacts for creative and sustainable advertising within the Creative Industries and Advertising sectors.

3.3 Pilot 3 Overview – Historic Site of Aquileia

The third pilot focusses on artefacts and sites from the ancient city of Aquileia.

This city has a rich history, continuously inhabited since 180 BC. Following digitization of sites and artefacts, information will contribute to creating a virtual tour centered around Titus Macer's Domus, an archaeological site, designed to enhance awareness among locals and tourists about this significant site in northern Italy.

This tour will include immersive experiences through tablets or VR viewers, provide on-site QR codes for accessing additional online content, as well as interactive touch screens, top primarily support self-guided tours through Aquileia. The tour will also be available as a purely virtual online tour for users outside of Aquileia.

4 Overview of Enablers

This first section of this chapter provides the value propositions of the involved enablers and a short description for each enabler. In the second section a mapping between enablers and pilots is provided, as well as the testing plan.

4.1 Value Propositions

4.1.1 Collaboration Enabler

The Collaboration Enabler consists of two core systems: a multimodal information retrieval system and a multimodal matchmaking system. The information retrieval system ensures that users can discover relevant artefacts through active queries, while the matchmaking system connects the user with interested artefacts automatically. Together, they empower CHIs and third-party users to discover, relate, and reuse digitized CH artefacts in a collaborative environment. The marketplace interface provides two separate entry points: Search and Recommend.

4.1.1.1 Collaboration Enabler (Information Retrieval System)

The multimodal information retrieval system enables users to efficiently discover digitized artefacts across multiple institutions. Built on top of the KG that includes the artefacts metadata from each pilot, the system offers unified access to artefacts across pilots. It serves as an intuitive entry point for both CHIs and creators to explore and retrieve digital artefacts relevant to their needs.

Input. When a user selects Search, the information retrieval system is triggered, allowing the user to enter three input modes: (1) **Text queries**, where users can describe what they are looking for in natural language (e.g., "a 19th-century silk gown with floral embroidery"); (2) **Image queries**, where users can upload an image to find visually similar artefacts (e.g., uploading a photo of a vase to retrieve comparable ceramic works); (3) **Text and Image queries**, where users can refine an image-based query with additional textual description (e.g., "similar to this dress but with red colour").

Output. The system then returns a **set of artefacts** that best match the query, presenting them with descriptive metadata, provenance, and reuse information.

4.1.1.2 Collaboration Enabler (Matchmaking System)

The matchmaking system automatically generates personalized recommendations for artefacts without requiring additional input from the user. Built on top of the KG that includes the artefacts metadata from each pilot and the profile of each user, the system further facilitates collaboration between users and institutions.

Input and output. When a user selects Recommend, the matchmaking system is activated automatically; no additional input is required once the user has completed their registration. Based on user profiles and historical interactions, and outputs personalised recommendations of relevant artefacts. For example, a registered fashion designer who has explored MoMu's garment collection may receive recommendations for new textile artefacts or other designers working with similar materials.

4.1.2 Contextualization Enabler (Text-based AI-driven)

The Text-based AI-driven Contextualisation Enabler automatically transforms textual descriptions and metadata of CH artefacts into statements in the KG annotated using the CACAO ontology. Its main

purpose is to enrich artefacts with contextual knowledge to integrate them into the REEVALUATE Knowledge Base.

Input and output. Given plain text descriptions or metadata of CH artefacts, the enabler automatically extracts structured information from them and converts them into statements in the KG. The statements are then integrated into the REEVALUATE Knowledge Base.

By converting plain text into KG, the enabler improves the semantic completeness and interoperability of the digitized artefacts. This enables more accurate linking, retrieval, and reuse of artefacts across the REEVALUATE framework and supports other enablers that rely on contextualised information.

A curator may contribute contextual information in free-text form. The enabler converts them into statements and stores them as part of the REEVALUATE Knowledge Base, enriching the corresponding artefacts with semantic context.

4.1.3 Human Driven Contextualization Enabler

The Human Driven Contextualization enabler is a tool for curators to collect context (images, texts, URLs, etc) about a CH artifact from the collection so its context info can be completed, enhanced or disrupted using the general public or other experts' contributions

Curators or Public Services responsible usually look for public participation in the curating process as an engagement strategy. Sometimes the goal is just to get a different view or an expert look about the CH artifacts and a specific topic. For example, how Gioconda can be contextualized in the fashion field or gender aspects. Through the Human Driven Contextualization enabler, curators can design and launch campaigns to a group (experts, working team, other curators, social group or general public) to ask them to contribute in a fully online (anonymous or not) process, uploading images, texts, URL references, etc. to be attached to the CH Artifact so its context information is enriched in general or regarding a specific topic.

4.1.4 Contextualization Enabler (Image-based AI-driven)

The Image-based AI-driven Contextualisation Enabler automatically analyses visual representations of Cultural Heritage (CH) artefacts to extract semantic information and enrich their contextual description within the REEVALUATE Knowledge Base. Its main purpose is to leverage visual similarity to identify related artworks and transfer contextual properties such as material, artistic genre, and art movement.

Input and output. Given a digital image of a CH artefact, the enabler processes it through a computer vision model that extracts a vector representation (embedding) capturing its visual and stylistic characteristics. This representation is then used to perform a similarity search within the REEVALUATE Knowledge Base, identifying artworks that share comparable visual or stylistic traits. Once the most similar artefacts are retrieved, the enabler automatically transfers relevant and transferable properties—such as material, genre, and artistic movement—to the input artefact, enriching its metadata and contextual information.

By grounding visual similarity in a structured knowledge framework, the enabler bridges the gap between visual perception and semantic understanding. The resulting enriched representation enhances

the discoverability, linking, and reuse of cultural artefacts across the REEVALUATE platform, supporting other enablers and services that depend on contextualised and semantically annotated information.

In addition, the Image-based Enabler enables curators to contribute by validating or refining the suggested contextual properties.

4.1.5 AI-Driven Creative Reuse Enabler

The AI-driven Creative Reuse Enabler allows users to generate new images, inspired by existing cultural heritage artefacts. Using advanced image generation models, it helps artists, educators, as well as wider public explore new ways of reinterpreting digitised heritage artefacts.

The enabler accepts as input either a short text prompt written in natural language (e.g., “create a yellow coat inspired by 19th-century dresses”) or a combination of a prompt and a selected artefact image. Using a customised diffusion model trained on cultural heritage data, it produces high-quality synthetic images that reflect the user’s creative intent. The system can insert artefacts into new visual contexts or generate stylistic variations of them, enabling users to experiment with different concepts and aesthetics.

Delivered as a service through an API, the enabler can be seamlessly accessed by the REEVALUATE Marketplace and other platform components, supporting the responsible and innovative reuse of cultural heritage content.

4.1.6 Context Validation Enabler

The Context Validation enabler is a set of tools that allows CHIs to ensure that their property is not misused by producers of new digital content. The newly created media is uploaded through a simple UI by either the owner of the original artefact or the producer of the derivative and depending on the available modalities multiple checks are performed to detect wanted or unwanted contexts. The digital artefacts that can be checked are media files and can be images, videos or audio files. There are a number of fixed context detectors for specific cases like nudity, violence and crimes but at the same time the user can request the validation of arbitrary contexts through a text description. The response of the system is a true/false value for each context representing if the context is present in the media file and is presented with checkmarks.

4.1.7 Marketplace

Marketplace provides a digital environment where cultural heritage institutions can showcase their digitised artefacts and connect with creators, educators, and organisations interested in reusing them. It promotes collaboration and creative engagement by making heritage collections easily discoverable and reusable within a trusted environment.

The enabler allows institutions to upload artefacts, describe their context, and define reuse conditions such as licensing terms or availability. Users can explore the marketplace through intelligent search and recommendation features powered by the Collaboration Enabler, discovering artefacts that match their interests.

It also includes built-in tools for messaging, negotiation, and licence management, ensuring that communication between CH institutions and users is transparent and legally compliant. Integrated with

other enablers like Context Validation, and IPR Management Enabler, Marketplace serves as the main gateway for the responsible and sustainable reuse of cultural heritage across the platform.

4.2 Pilots and Enablers

4.2.1 Mapping of Pilots and Enablers

Table 1: Pilots x Enablers (what the enablers can do for the pilots)

Enabler	Pilot 1 – Fashion & Gaming	Pilot 2 – Olympic Games & Music	Pilot 3 – Aquileia Historic Site
Public Sensing Prioritization	n/a	Interactive social media campaigns for artefact selection. For pilot 2 Olympic and SPK will test the enabler.	School & community engagement for asset selection
Contextualisation Enabler (**TEXT,** AI-driven)	Enriches MoMu fashion artefacts with contextual descriptions extracted from curatorial notes and external text sources, and (optionally) merges this information into the REEVALUATE knowledge base.	Adds contextual information to Olympic and music-related artefacts based on provided text, and optionally merges this information into the REEVALUATE knowledge base. For pilot 2 Olympic and SPK will primarily test the enabler.	Extracts structured contextual knowledge from text provided by curators or members of the public, and (optionally) merges this information into the REEVALUATE knowledge base
AI Contextualisation Enabler (**Image** based)	Uses visual similarity to identify related garments across the MoMu collection, enriching fashion artefacts with information such as material, contextual properties.	Pilot 2 could use this one too: Adds contextual information to Olympic and music-related artefacts based on provided images and optionally merges this information into the REEVALUATE knowledge base. For pilot 2 Olympic and SPK will primarily test the enabler.	Analyses visual features of archaeological artefacts and monuments to find similar items within the Knowledge Base, enriching them with contextual properties such as typology, material, and historical period.
Collaboration Enabler (Information Retrieval System)	Supports text-, image-, and text-image search to discover and explore digitised fashion artefacts across the MoMu collection.	Supports text-, image-, and text-image search to discover and explore Olympic and music-related artefacts. [Olympic, SPK, others]	Supports text-, image-, and text-image search to discover and explore digitised archaeological artefacts and contexts within the Aquileia virtual tour.
Collaboration Enabler (Matchmaking System)	Recommends fashion garments from the MoMu collection to users based	Recommend s Olympic and music-related artefacts to users. [Olympic, SPK, others]	Recommends archaeologically related artefacts to users.

	on their profile interests and previous interactions.		
Human Driven contextualization enabler	Organize campaigns to request more info (including references) about an artefact; to add extra context for the curators, when using the marketplace enabler	Organize campaigns to request more information (including references) about an artefact to create more contextual information for the knowledge base/marketplace enabler (curators, other users of marketplace) [Olympic, SPK]	Organize campaigns to request more info or references about an artifact to be triggered and shown at the 3D virtual visit.
AI-Driven Creative Reuse Enabler	In the context of the game, the enabler allows players to combine and further develop existing digitised clothing items and accessories to create new, unique outfits, and clothing designs using generative AI.	The enabler is used and tested by FFP in the making of the films created in Pilot 2 and afterwards for others to reuse the assets.	n/a
Marketplace	The Marketplace allows cultural heritage institutions to upload and share digitised artefacts with their audiences, making them available for discovery and ethical creative reuse. It relies on the Collaboration Enabler to power intelligent search and matchmaking, helping end-users easily find and download artefacts that match their interests and needs.	The Marketplace allows cultural heritage institutions to upload and share digitised artefacts with their audiences, making them available for discovery and ethical creative reuse. It relies on the Collaboration Enabler to power intelligent search and matchmaking, helping end-users easily find and download artefacts that match their interests and needs.	n/a

4.2.2 Integrated Testing Plan

Table 2: Testing plan Collaboration Enabler (Information Retrieval System)

Pilot	Users (type & expected)	Artefacts (type & number)	Expected Outcomes	KPIs
Pilot 1 – Fashion & Gaming	3 people from MoMu	5 digitised garments + integrated Wikidata CH artefacts	Through the structured questionnaire, users will confirm (i) the system's use for multimodal search (usability), (ii) relevance of retrieved fashion artefacts to text and image queries (relevance), (iii) efficiency in finding design-relevant items (efficiency) +++	Feedback and satisfaction surveys from participants and stakeholders involved in the pilot.
Pilot 2 – Olympic Games & Music	3 people from Olympic; 2 people from SPK	Olympic:5 digitised artefacts + integrated Wikidata CH artefacts; SPK: 20 music artefacts	Through the structured questionnaire, users will confirm (i) the system's use for multimodal search (usability), (ii) relevance of retrieved Olympic and music artefacts to text and image queries (relevance), (iii) efficiency in finding items (efficiency)	Feedback and satisfaction surveys from participants and stakeholders involved in the pilot
Pilot 3 – Aquileia Historic Site	3 people from Aquileia	5 digitised artefacts	Through the structured questionnaire, users will confirm (i) the system's ease of use for multimodal search (usability), (ii) relevance and contextual accuracy of retrieved archaeological items (relevance), (iii) efficiency in finding items (efficiency) +++	Feedback and satisfaction surveys from participants and stakeholders involved in the pilot

Table 3: Testing plan Collaboration Enabler (Matchmaking System)

Pilot	Users (type & expected)	Artefacts (type & number)	Expected Outcomes	KPIs
Pilot 1 – Fashion & Gaming	3 people from MoMu	5 digitised garments + integrated Wikidata CH artefacts	Through the structured questionnaire +++	Feedback and satisfaction surveys from participants and

				stakeholders involved in the pilot
Pilot 2 – Olympic Games & Music	2 people from Olympic; 2 people from SPK	5 digitised artefacts + integrated Wikidata CH artefacts; 20 musical artefacts	Identify items that do indeed constitute a match	Feedback and satisfaction surveys from participants and stakeholders involved in the pilot ? How many collaborations have been established
Pilot 3 – Aquileia Historic Site	3 people from Aquileia	5 digitised artefacts + integrated Wikidata CH artefacts	Through the structured questionnaire +++	Feedback and satisfaction surveys from participants and stakeholders involved in the pilot ? How many collaborations have been established

Table 4: Testing plan Contextualisation Enabler (Text, AI-driven)

Pilot	**Users (type & expected)**	**Artefacts (type & number)**	**Expected Outcomes**	**KPIs**
Pilot 1 – Fashion & Gaming	Curators/experts and/or members of the public (i.e., makers of the pattern pilot)	All digital artefacts included in the pilot	**What should the pilot provide:** Contextual information in plain-text format, provided by a curator or members of the public, for each digital artefact. **What will the enabler provide:** Transforming and integrating this information in the knowledge base	Number of "contextualised" digital artefacts. Number of "contextualised" digital artefacts with properly stored context in the knowledge base.
Pilot 2 – Olympic Games & Music	Curators and/or members of the public.	All five digital artefacts included in the pilot	**What should the pilot provide:** Contextual information in plain-text format, provided by a curator or members of the public, for each	25 contextualised" digital artefacts. 25 contextualised" digital artefacts with

			digital artefact. **What will the enabler provide:** Transforming and integrating this information in the knowledge base	properly stored context in the knowledge base.
Pilot 3 – Aquileia Historic Site	Curators and/or members of the public.	All digital artefacts included in the pilot	**What should the pilot provide:** Contextual information in plain-text format, provided by a curator or members of the public, for each digital artefact. **What will the enabler provide:** Transforming and integrating this information in the knowledge base public, for each digital artefact	Number of "contextualised" digital artefacts. Number of "contextualised" digital artefacts with properly stored context in the knowledge base.

Table 5: Testing plan Human Driven Contextualisation Enabler

Pilot	**Users (type & expected)**	**Artefacts (type & number)**	**Expected Outcomes**	**KPIs**
Pilot 1 – Fashion & Gaming	Curators/experts and/or members of the public (i.e., makers of the pattern pilot)	All digital artefacts included in the pilot	The context enabler will provide context via contributions from curators & CHI experts and the general public (maker community). Contributions will be collected about CH artefacts with the aim of getting different looks and aspects.	Number of "contextualised" digital artefacts. Number of "contextualised" digital artefacts with properly stored context in the knowledge base.

Pilot 2 – Olympic Games & Music	Curators and members of the public.	5 digital artefacts ´+ 20 music artefacts	The enabler will provide: Context contribution via general public and experts will be collected about CH artefacts with the aim of getting different look and aspects.	25 digitised artefacts stored in the repository and made accessible to the wider public
Pilot 3 – Aquileia Historic Site				Number of digitised artefacts stored in the repository and made accessible to the wider public

5 Pilot 1 - Fashion

5.1 Introduction

The REEVALUATE-Grant Agreement (GA) describes Pilot 1 as: Fashion Time Machine: Reusing Digitized CH Artefacts to Create a Fashion-Themed Mobile Game and Personalized Garment.

Based on the detail provided in the GA, the core tasks of the pilot are:

- ***Digitizing*** *several fashion heritage artefacts from the MoMu - Fashion Museum Antwerp, including garments, accessories, and sketches.*
- ***Contextualizing*** *these artefacts by collaborative process, using the REEVALUATE* ***Contextualization Enabler****.*
- *Initially the artefacts were supposed to be made* ***available to NURO****, to develop a fashion-themed game, interfacing* ***with the AI-driven Creative Reuse Enabler.*** *Due to the bankruptcy of Nuro, this activity will be taken over by another partner, with pilot planning described in the second version of this deliverable.*
- *MoMu will also make the digitized artefacts available to* ***FibreMood*** *to* ***personalize a pattern*** *so that unique garments can be created for private collections, which also can be* ***shared with its users with the metadata*** *recorded for each item.*
- *In both cases, the collaboration between the MoMu – Fashion Museum and NURO (or, more specifically, the partner replacing NURO) and FibreMood will be mediated through the* ***Collaboration Enabler.*** *This not only will enable the registration of the digitized CH objects their efficient search and retrieval, but also the establishment of the* ***copyright agreements*** *utilizing the smart contract capabilities of the* ***DLT based asset tokenization & IPR management enabler****.*
- *Following up on the earlier activities,* ***the Context Validation Enabler*** *will be used to check and validate that the digitized artefacts have not been misused or used out of context.*

The objective of the Fashion and Game Demonstrator is to thoroughly validate the comprehensive REEVALUATE-framework in the management of CH artefacts relating to the Fashion and Game industries. Both sectors will use the same digitised artefacts from MoMu, developing a separate pragmatic, real-world use case for each, namely a game and a personalised pattern. To ensure clarity, these two use cases will be referred to as: 'Game Pilot' and 'Pattern Pilot'. When referencing to the overarching demonstrator, these will be referred to the 'Fashion Time Machine' or 'Pilot 1' or 'Fashion and Game Demonstrator'.

As mentioned in the GA, four partners will be involved in Pilot 1:

- MoMu (Pilot lead, content provider);
- NURO games (project partner, developer Game pilot[1]);
- Fibre Mood (subcontracted partner (private company), Pattern pilot);
- EFHA (task leader 'pilot execution', network partner).

5.2 Pilot description

5.2.1 Scenario Pilot 1: Fashion Time Machine

Although the Grant Agreement provides a detailed description of Pilot 1, covering its development, implementation, and the testing of various enablers, there remains considerable room for interpretation. Further clarification is needed regarding the practical implementation of Pilot 1, the methods for assessing the effectiveness and relevance of the REEVALUATE framework, and the organisation of stakeholder feedback across a broad spectrum.

The execution of Pilot 1 and the implementation of the REEVALUATE framework are structured in two phases (iterations). The first iteration, which is the focus of this deliverable, will take place between Month 23 and Month 26 (November 2025 – February 2026). During this phase, two prototypes will be developed:

- A functional prototype of the **Fashion Game** (Game Pilot);
- A published, personalised **sewing pattern** (Pattern Pilot).

Both prototypes will be based on digital assets provided by MoMu, the pilot lead. These initial versions will enable first interactions with stakeholders identified in the Stakeholder Map (cf. infra) and will support planning and technical integration with the various enablers of the REEVALUATE framework. The primary objective of Iteration 1 is to define and test:

- Digitisation workflows;
- User engagement strategies;
- Technical integration with REEVALUATE enablers.

[1] As explained in section 4.2.3, the game developer NURO entered bankruptcy proceedings in the second quarter of 2025. At present, their activities have not yet been officially reassigned to another partner. This deliverable reflects the current status and will be updated in the second version of the pilot planning deliverable (M29), once NURO's tasks have been reassigned and activities related to the Gaming Pilot have (re)commenced.

These activities will lay the groundwork for a smooth and effective execution of the second iteration. The second iteration is scheduled between Month 30 and Month 34 (June 2026 – October 2026). This phase will build upon the outcomes of Iteration 1, scaling up the workflows and integrations for broader validation and impact.

The description of Pilot 1 will be organised into three distinct chapters, each outlining the complementary activities of the key partners involved in the creation of the **Fashion Time Machine**:

- Selection, Digitization and Content Provision (Led by MoMu);
- Game Pilot Description (Led by NURO Games);
- Pattern Pilot Description (Led by Fibre Mood).

5.2.2 Content Selection, Digitization and Content Provision (MoMu)

5.2.2.1 MoMu's Collection: Starting Point of Pilot 1

The starting point of Pilot 1 is the museum collection of MoMu, and its expertise as a heritage institution. MoMu contributes both the physical artefacts to be digitized, and the knowledge necessary to contextualize their cultural and historical significance. In addition, MoMu provides guidance on the appropriate use and interpretation of the artefacts.

The pilot will primarily use MoMu's **study collection**—a hands-on collection – separate from the museum collection - designed to support educational and research activities. MoMu recognizes that direct engagement with materials and techniques offers valuable learning opportunities. The study collection comprises over 2,000 items, including historical costumes, contemporary fashion pieces, accessories, textiles, samples, and fragments. It is intended to help visitors learn about fashion by allowing close examination of the objects.
The study collection is available for:

- Scientific research;
- Educational use;
- Creative inspiration.

It can be accessed physically in MoMu's reading room and is also available online via the open-source content management system **Omeka-S**:
https://heron.libis.be/momu/s/studiecollectie/page/welcome. The majority of items in the collection may be handled and reused and are shared under an open license (**CC BY**). Additionally, 2D garment patterns are currently available for approximately 100 objects[2]. MoMu has in-house capacity to produce new patterns, supported by a part-time pattern maker employed by the museum.

5.2.2.2 MoMu's Object Selection and Thematic Framing for Pilot 1

As part of Pilot 1, MoMu identifies artefacts that are most suitable for reuse and provides expert guidance on how these items can be effectively contextualised and presented. MoMu actively participates in the collaborative contextualisation process, working with citizens and stakeholders to explore

[2] Ca. 100 patterns are available and validated by MoMu's pattern maker, in October 2025, 56 of them were uploaded on the Study Collection website https://heron.libis.be/momu/s/studiecollectie/page/welcome.

meaningful ways in which the digitised artefacts can be used to support cultural innovation and progression.

A unifying theme has been selected to guide both the Game and Pattern use cases: **"The wardrobe of a woman in five different periods/settings"** This overarching concept supports coherent storytelling across both pilots. In the Game Pilot, it enables the creation of a consistent avatar dressed in five distinct historical or thematic contexts. For the Pattern Pilot, the theme aligns with Fibre Mood's editorial focus, as the majority of patterns featured in its publications are designed for women. The theme also allows for the exploration of diverse periods, settings, techniques, garment types, materials, and fabrics. Given the richness of MoMu's study collection, many objects could potentially fit within the concept of "a woman's wardrobe across different periods/settings."

To refine the selection, MoMu collaborated with NURO and FibreMood to apply a set of criteria, including:

- Availability of digital assets (e.g., photographs, detail shots, patterns, texture data);
- Physical condition and accessibility of the object;
- Quality and completeness of metadata;
- Complexity of the garment's pattern;
- Materials and techniques used;
- Year of creation;
- Licensing and intellectual property considerations;
- Storytelling potential;
- Relevance and appeal for both the Game and Pattern pilots;

The selection process is iterative and consists of two distinct phases:

- **Longlist Phase:** MoMu staff compiled a preliminary list of approximately 70–80 objects from the study collection, based on the criteria above. This dynamic subset is published online: https://heron.libis.be/momu/s/studiecollectie/page/REEVALUATE. The list is dynamic (work-in-progress) and was reviewed and discussed with the other pilot partners, who were also invited to suggest additions or removals.
- **Shortlist Phase:** A refined shortlist was created, consisting of objects with the highest potential for the pilot's selection. This shortlist was defined by MoMu in close collaboration with NURO and FibreMood, and with input from EFHA where relevant.

The selection process remains ongoing and is closely tied to the evolving requirements of the Fashion and Game Demonstrator. For the first iteration, MoMu selected a representative object from the "Roaring Twenties": a 1920s silk evening dress featuring a relatively simple cutting pattern and distinctive sequin embroidery[3].

Online record: http://data.momu.be/ark:34546/mn0318

Figure 1: Webpage from MoMu's study collection of ST2202

This object evokes the spirit of the Jazz Age and was worn during festive occasions, offering rich storytelling opportunities. It symbolises both the freedom of women in the 1920s, while also reflecting the decadence of the era, thus providing a narrative bridge to the Great Depression and its impact on fashion.
Given the age of the object (approximately 100 years old), and the absence of identifiable copyright holders, it is considered low-risk for open reuse. The object has been properly documented and digitally photographed and is now available for use as a prototype in Iteration 1.

During the second iteration, four additional objects will be selected and processed using the same digitisation workflow as the prototype ST2202.

5.2.2.3 MoMu's Digitization & content provision workflow

Once an object has been selected for inclusion in Pilot 1, MoMu undertakes a series of additional steps to generate supplementary digital resources and prepare the content for use by the pilot developers and partners. These actions are outlined in the following subsections, with further explanation provided where relevant.

5.2.2.3.1 Overall condition assessment of the artefact

This step involves evaluating the current physical condition of the selected artefact, identifying any damage, signs of deterioration, and the materials used. Such assessments are typically carried out by conservators or interdisciplinary teams. In this case, the condition assessment was performed by MoMu's in-house pattern maker, with support from the museum's conservator.

Figure 2: Assessing the condition of ST2202

5.2.2.3.2 Analysis of the constructive elements

This step involves analysing the artefact from a structural and constructional perspective, with the aim of facilitating the pattern drafting process. The analysis focuses on understanding how the garment was assembled, including its components, seams, and construction techniques. This task was carried out by MoMu's in-house pattern maker.

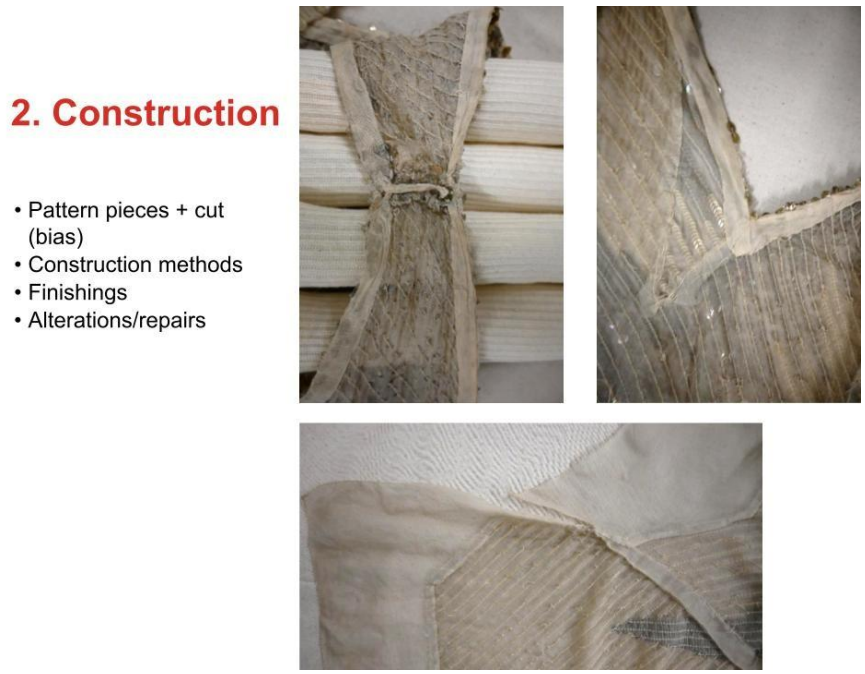

Figure 3: Analysing the construction of ST2202

5.2.2.3.3 Measuring, drafting and validating the 2D-pattern with a 3D model

This is a technically complex process, carried out by MoMu's in-house pattern maker. It involves an iterative workflow of measuring the physical garment, drafting the pattern, inserting it into a 3D design environment (in this case, **CLO3D**), and continuously refining and validating the output.
CLO3D (https://www.clo3d.com/en/) is a professional 3D fashion design software that enables users to create digital garments and accessories, visualise them in a realistic 3D environment on virtual avatars, and simulate fabric behaviour such as drape and fit. The software streamlines the design process, reduces reliance on physical samples, and helps save time, cost, and material waste. It supports pattern creation, texture generation, fabric simulation, and digital collaboration.

Although CLO3D is not open source and uses proprietary file formats, it supports export to various open and proprietary formats. MoMu holds a valid license for CLO3D, which is widely regarded as the industry standard. The museum's staff is experienced with the software, and its compatibility with open formats facilitates collaboration with NURO and FibreMood. CLO3D also offers plug-ins for integration with different gaming engines, making it suitable for the Game Pilot.
The slides below illustrate the process of drafting the pattern and inserting it into CLO3D for validation. As a by-product of this process, CLO3D generates a 3D model that serves as a reference for verifying the accuracy of the 2D pattern. This model is developed in stages:

- The first version is a generic 3D mock-up, or *toile*, representing an early prototype of the garment made from basic materials, used to test and refine the design.
- The second version incorporates richer texture information, simulating realistic fabric properties such as weight, stiffness, transparency, and reflectivity.

Users can select textures from CLO3D's built-in library or upload custom texture maps to enhance realism.

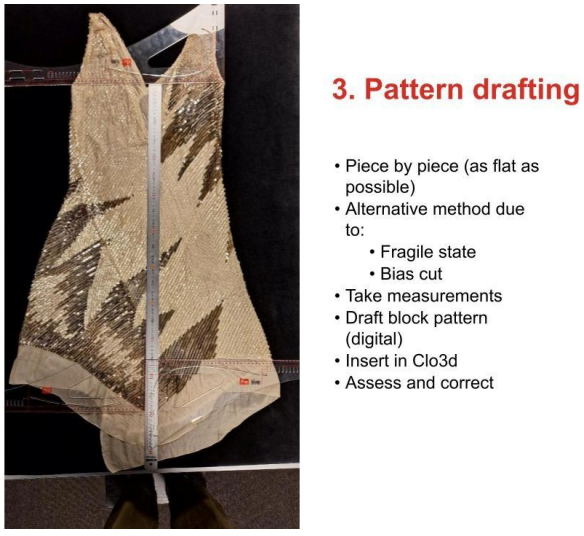

Figure 4: Measuring ST2202

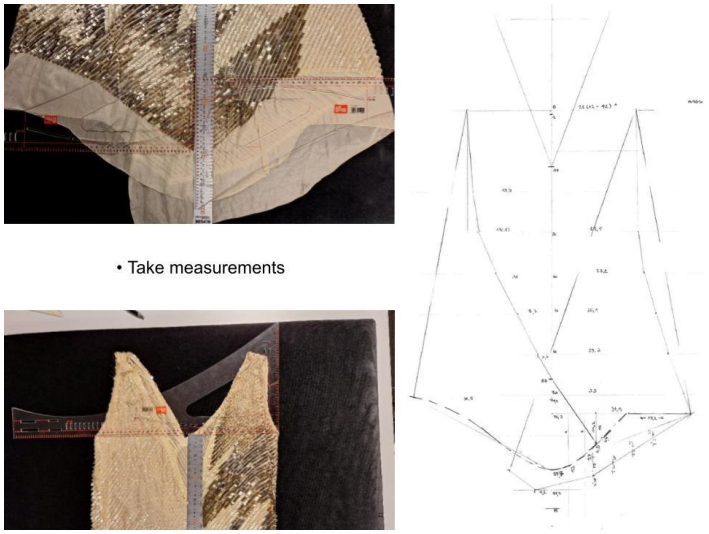

Figure 5: Drafting the Pattern of ST2202

Figure 6: Validating the 2D Pattern in CLO3D

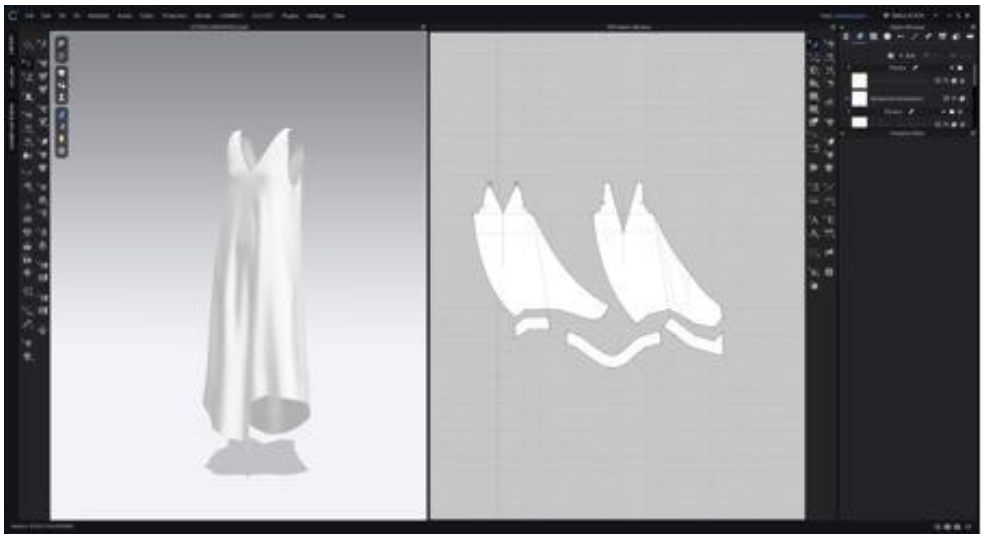

Figure 7: Creating a 3D model in CLO3D (toile)

Figure 8: A Textured 3D Model in CLO3D

5.2.2.3.4 Publishing the pattern as PDF/SVG

Once the 2D pattern has been validated using the 3D model and approved by MoMu's pattern maker, a publishable version of the pattern is generated in both **PDF** and **SVG** formats. For accessibility and usability, the **PDF format** is primarily used for publication and printing.

As illustrated below, the PDF includes:

- Metadata referencing the original object;
- A legend and measurement indicators;
- The complete pattern with relevant annotations.

Figure 9: Published 2D pattern as pdf for ST2241[4]

[4] Webpage on object ST2241 (http://data.momu.be/ark:34546/m3txft) – Pattern published on (not persistent URI) https://heron.libis.be/momu/s/studiecollectie/item/339510

The **SVG file** is not the main publication format and is preserved in MoMu's digital asset management system. It is not always published on the website and is retained for future use, such as further design development or technical processing. This dual-format approach ensures both broad accessibility and long-term flexibility for reuse and collaboration.

5.2.2.3.5 Reviewing the Metadata and Creating a Storyline

For this prototype, a museum curator / registrar reviewed all existing documentation and metadata associated with the selected museum object. The information was verified for accuracy and completeness.

In addition to this review, the curator enriched the object record by adding a **storytelling element**, designed to make the artefact more accessible and engaging for a wider audience. This narrative was incorporated into the 'context' [2] property of the museum's internal database.

The screenshots below illustrate the expanded record (in Dutch). At the time of writing, the updated record had not yet been published online, as it was still pending final review by MoMu's senior curator.

ST2202

Afdeling:	Studiecollectie
Objectnaam:	jurk
Rubriek:	kleding-bovenkleding kleding naar functie-avondkleding
Datum:	1925-1930
Materiaal en techniek:	zijde; mousseline; kunststof; pailletten; kralenborduurwerk
Beschrijving:	Avondjurk van beige zijden mousseline bezet met doorzichtig grijze en witte pailletten in diagonaal strepenmotief. Recht en wijd model tot op ongeveer kuithoogte, zonder mouwen. V-hals aan voor- en achterzijde. Aan de voor- en achterzijde loopt de jurk uit in een punt. De jurk is ongevoerd en zonder sluiting.
Afmetingenlabel:	hoogte: 125 cm tailleomvang: 84 cm schouderbreedte: 34 cm
Context:	Deze jurk wordt gemaakt in de late jaren '20 en verenigt alles wat dat decennium kenmerkt: beweeglijkheid, artisticiteit, vrijheid en 'lichtschitteringen'. In 1922 wordt Toetanchamon in Egypte in zijn graf gevonden. Op zijn koninklijk gewaad vindt men gouden pailletten. Het betekent het begin van een tijdperk waarin

Figure 10: Updated Museum record for ST2202, including storyline (context)

deze mini-ornamenten groot zullen worden, ook omdat luxematerialen schaars zijn, in de naloop van de Eerste Wereldoorlog.

Met die pailletten creëert men allerlei patronen op de japonnen, die vanaf het begin van deze periode als een canvas recht omlaag vallen vanaf de schouders en niet meer worden ondersteund door coupe of baleinen. De mode heeft zich aangepast, want vrouwen hebben na de oorlog een totaal ander leven dan ervoor. Jarenlang vervulden ze *en masse* de functies die door hun mannen - noodgedwongen - waren achtergelaten. De vrouw is het gewend om buiten te komen, een job te hebben en simpelweg meer te bewegen. En hoewel dit een avondkleed is, dat toebehoort aan iemand uit de hogere klassen, met middelen en vrije tijd, belichaamt het die nieuwe visie op vrouwenkleding, met meer focus op draagcomfort en beweegruimte.

De pailletten voegen ook een schittering toe, die in nachtclubs de dansende draagster laten oplichten, als gevolg van de reflectie van de platte kralen op haar lichaam. Ze wedijveren bijna met de 250.000 elektrische lampen die de Eiffeltoren dan sieren.

Deze paillettenjurk kenmerkt zich verder door de grote zig-zag dwars over het voor- en achterpand; een patroon dat voorkomt in – wederom – de Egyptische beeldtaal en staat voor het terugkerende karakter van de natuur. In de Art Deco, een breed uitwaaierende Europese decoratieve stijl uit de jaren '20, vindt het motief ook zijn weg. Hiervan is deze avondjurk dan ook een treffend voorbeeld.

Het oorspronkelijke naaipatroon geeft een alternatieve inkijk in de genoemde beweeglijkheid. Er is geen sprake meer, zoals vijftien jaar eerder, van een voetlange 'strompeljurk': de rok met zijn asymmetrische zoom eindigt voor een deel precies onder de knie. De jurk bestaat uit een *en biais* geknipt voor- en achterpand: schuin op de stof, wat het geweven materiaal een lichte rek geeft én de stof glooiend om het lichaam doet vallen. Je ziet dit bijvoorbeeld rechtsonder, waar een deel van het achterpand gemonteerd aan het voorpand omlaag afhangt. Ondertussen bevinden de coupenaden zich niet symmetrisch rechts en links van het lichaam, maar diagonaal en naar voor en achter verschoven. Deze jurk is gemaakt om in beweging te zijn.

De moderniteit van dit kleed bevindt zich dus zeker niet alleen in de grote lichtflits die de pailletten aftekenen. Het verkrijgt zijn vorm pas met de aanwezigheid van een lichaam, zoals gangbaar wordt later in de 20e eeuw.

Figure 11: Updated Museum record for ST2202, storyline (context)

5.2.2.3.6 Uploading in the REEVALUATE-Repository

During this initial pilot stage (1st iteration), the integration process is manual and expert-driven. The project team will use API calls to upload artefacts directly to the REEVALUATE repository. Concurrently, the associated metadata is transferred separately to a Knowledge Graph (KG) expert, who manually transforms it into the CACAO ontology format. This CACAO-compliant metadata is then ingested into the REEVALUATE knowledge base. This two-part process requires technical specialists with expertise in both the repository API and the CACAO ontology.

In contrast, the final stage fully automates and unifies this workflow for privileged users, e.g., curators, via the marketplace. A dedicated interface will connect the storage API and a metadata template, allowing users to submit artefacts and their descriptions in a single action. To accomplish this, a translation layer will map user input from the simplified template directly into the formal CACAO structure required by the knowledge base. This automated pipeline removes the need for manual intervention from the technical experts' side and allows closer control over the artefacts from the curators' side.

5.2.3 Gaming Pilot by NURO

As mentioned earlier in this document, the developer of the Game Pilot, NURO, entered into bankruptcy proceedings in the 2nd quarter of 2025. At present, NURO's responsibilities have not been officially reassigned to another project partner. However, preliminary discussions among partners have started, ideas are being exchanged and access to the digital assets of MoMu has been granted). Chapter 4.2.3 outlines the current status of concept development for the Game Pilot, drafted by NURO. Once formal official approval is granted and the tasks are officially transferred to the new partner(s), these sections will be updated. The next version of this deliverable (scheduled for M29, part of the 2nd iteration of the pilots), will have a revised chapter 4.2.3. Gaming Pilot.

5.2.3.1 REEVALUATE - VR/XR Avatar Editor Demonstrator – Concept

Vision

A reusable, immersive tool for avatar customization in VR/XR environments. Users can create, modify, and interact with digital representations of themselves or fictional characters, pushing the boundaries of personalization.

Figure 12:Male Fashion Avatars

Figure 13: Female Fashion Avatars

Key Features

Avatar Customization

- Fully customizable avatars (body, hair, clothing, accessories).
- High-quality fashion assets from museums & digital providers.

Fashion Integration

- Virtual clothing & accessory trials in XR (AR/VR) spaces.
- Historical & contemporary fashion from partner brands.

Educational Features

- Metadata on clothing pieces detailing historical and cultural significance.

Immersive Interaction

- Mirror View: See and adjust avatars in real-time.
- Runway Mode: Virtual catwalk to showcase outfits.
- Room Scanning (XR): Turn real-world spaces into fashion show environments.

Potential Future Features

- Photo Mode: Capture and export avatars.
- Motion Capture: Record animations (e.g., Fortnite-style dances).
- Multi-Platform Support: Android & PC compatibility.
- E-Commerce Integration: Virtual fashion stores & brand showrooms.
- Premium Customization: Exclusive outfits, designer collabs.
- Avatar Rating & Sharing: Community-driven engagement.
- Fashion Competitions: Submit & compete for best designs.

Monetization

- Virtual premium fashion purchases in an app store.
- Paid fashion competitions, runways & other events.

Dependencies

- External tools (e.g., Enabler) for asset imports.
- Compatibility with Meta Avatars, Rec Room, VRChat.

References

- Rec Room: Social VR & customization.
- Meta Avatars: Digital identity across platforms.
- VRChat: User-generated content & avatar flexibility.

Figure 14:Runway Mode

Since this is a research project and due to the complexity of the task, we have to start with simple tasks and scale up the complexity of selection options for the physical characteristics of the characters like weight, height, age - and the resulting fit accuracy of clothing and artifacts slowly.
Stylized characters are preferable, as users are more likely to be satisfied with predefined selection options for their avatar's body. Stylized avatars essentially prevent or reduce the use of the generated 3D assets for real AR dressing.

This already available feature from market leaders—face transfer via smartphone selfies/photos—will be crucial for staying competitive in the market:

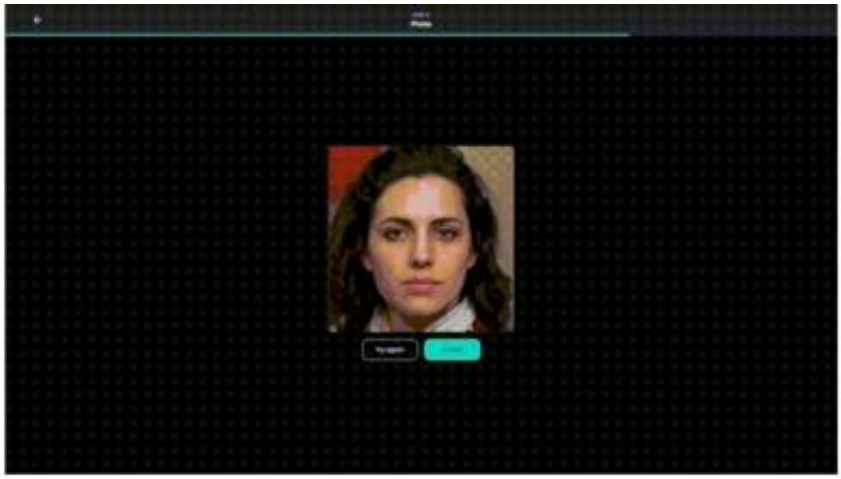

Figure 15: ReadyPlayerME (based in EU) Face Takeover with head photo

Figure 16:Avatar Creator Appearance | Ready Player Me

Figure 17: Avaturn. (United States) Face Takeover with head photos

Figure 18: Avaturn | Realistic 3D avatar creator

5.2.3.2 FUTURE EXTENSIONS

Recommendations on any required optimizations or conversions for seamless use in Unity:
This will be the next step. GLB, Alembic and FBX have all their own potentials in different use cases. Therefore, it is important to define our product/research goal more precisely. Only by specifying the exact application scenarios can we prioritize one of the formats. The same applies to the data we receive and the quality levels of textures, shaders, meshes for avatars and artifacts, as well as animations.

5.2.4 Pattern Pilot by Fibre Mood

Fibre Mood is a Belgian-based company specialising in contemporary sewing patterns and DIY fashion. As a subcontracted partner in Pilot 1, Fibre Mood contributes its expertise in pattern development and user engagement within the sewing community. The company supports users in creating unique, personalised garments. For the Pattern Pilot, Fibre Mood integrates digitised heritage artefacts from MoMu into its platform, offering users access to historical designs enriched with contextual metadata. This approach not only promotes creative reuse but also fosters cultural awareness by linking modern sewing practices with fashion heritage.

5.2.4.1 PATTERN PILOT: MoMu – Fibre Mood Collaboration

As part of the Pattern Pilot, five women's garments from MoMu's collection will be transformed into sewing patterns, enabling makers to create personalised versions of each piece. This process involves a series of specialised tasks, including selecting suitable garments, adapting historical patterns to contemporary sizes and user needs, developing instructions and work descriptions, recommending modern materials, producing replicas, organizing photo shoots, publishing the patterns, and engaging with relevant user communities. These activities require expertise and a professional network beyond the museum's internal capacity. To address this, MoMu established a formal collaboration with **Fibre Mood**, a subcontracted partner with proven experience in pattern development and community engagement.

The following section is an extract from the MoMu-Fibre Mood collaboration agreement[5]. It outlines Fibre Mood's responsibilities within the scope of the REEVALUATE project, ensuring the successful execution of the Pattern Pilot through a structured and expert-led approach.

> *(…) a project will be developed for five museum objects. Specifically, FIBRE MOOD will use this selection to develop five DIY kits for a community of creators, whereby a personalised version of a museum object will be created. The previous collaboration between MoMu and FIBRE MOOD[6]serves as a model for the output that FIBRE MOOD will generate[7]. These five packages will include at least the following components:*
>
> - *a paper/digital pattern (graded from XS to XXXL or sizes 32 to 60) with stitching and cutting lines, based on the museum object (in a "print-friendly" format, for printing in A0 and A4 format);*
> - *size charts;*
> - *work descriptions in English, French, German and Dutch;*
> - *(suggested) list of materials/accessories/tools needed to complete the pattern (possibly with specifications for lining, finishing, etc.);*
> - *instructional videos;*
> - *photo shoot with a model wearing the completed "project", possibly also including illustrative images of the project.*
> - *social media channels for sharing the pattern + results by the FIBRE MOOD community*
> - *these kits also contain references to the metadata/digital content created for each item by MoMu, so that users interested in adopting the pattern or design can also understand the history or story and context of the original artefact.*
>
> *These five DIY packages will be published on the FIBRE MOOD website and/or in the FIBRE MOOD magazine. FIBRE MOOD is also supporting the project by helping to communicate these five projects, and is inviting its community of makers to get started with the content developed for the REEVALUATE project.*

Following sections illustrate the actions taken by Fibre Mood to implement the Pattern pilot.

5.2.4.2 Pattern Pilot; Object Selection

As outlined above, the Pattern Pilot builds upon a previous collaboration between MoMu and FibreMood. Since the Pattern Pilot based on object ST2202 was not yet finalised at the time of submitting this deliverable, the earlier collaboration is used to illustrate the intended process.

For this initial joint project, a different museum object was selected: **object ST2144**, a silk jacket from the 1930s, part of MoMu's study collection[8]. This object served as a prototype for testing the workflow

[5] MoMu and Fibre Mood made a collaboration agreement for the REEVALUATE project: Approved by the Comity of Directors of AG Culturele Instellingen / Erfgoed on 8th of May 2025 (2025_DCERFGOED_00089).
[6] *Based on museum object ST2144: http://data.momu.be/ark:34546/m3bk83*
[7] *cf. https://www.fibremood.com/nl/product/1102-24501-lucy-jacket-pod#/*
[8] http://data.momu.be/ark:34546/m3bk83

of selecting, digitising, adapting, and publishing a historical garment as a contemporary sewing pattern. The experience gained through this collaboration informed the structure and planning of the Pattern Pilot within the REEVALUATE project.

> *This loose jacket in beige charmeuse silk was created in the 1930's, most likely in France. The front panels are decorated with four pale pink diamond shapes, whose geometric form is echoed in the spiralling rows of topstitching covering the entire jacket. A predilection for seemingly simple, geometric forms is also found in the V-shaped neckline and the slight kink in the cuffs, cut in one piece with the raglan sleeves. Originally, the jacket closed with an off-white button with gold accents, in the shape of a traditional Vietnamese hat or nón lá, but unfortunately this button has not been preserved. Both the cut of the jacket and the Vietnamese-inspired button point towards the prevalence of Asian influences on Western-European fashion during the early twentieth century – something one also encounters in similar jackets from the 1930's. It is possible that this jacket would have been worn as part of an evening ensemble, over a floor-length gown. The fashionable silhouette of the 1930's was characterised by skirts that clung to the hips, often cut on the bias. This clinging, vertical silhouette was further set off by short jackets and capes that emphasised the shoulders. Alternatively, it is possible that this was a negligee, meant to be worn in the privacy of the home. Indeed, 1930's undress was influenced by eveningwear and often consisted of bias-cut clinging gowns, worn with a jacket or cape.*

Figure 19: Webpage MoMu's study collection, featuring ST2144

5.2.4.3 Pattern Pilot: Analysis

As part of the Pattern Pilot, Fibre Mood undertakes a detailed visual and structural analysis of the selected museum object. This process involves examining the garment's construction, identifying significant design features, and recognising distinctive tailoring techniques. The analysis is carried out by Fibre Mood's Creative Director, who documents the process through extensive notes and photographs. She is also responsible for drafting the adapted pattern and producing a contemporary replica of the garment with her team (cf. Pilot Team Chapter for more background). This adaptation must be suitable for Fibre Mood's community of makers, who work with accessible materials and techniques.

Given that the original object is a couture piece from the 1930s—likely requiring hundreds of hours of skilled labour and expensive materials—a direct replica is not feasible.

While the outcome is an adaptation of the original, it is essential that the most defining characteristics, techniques, and stylistic elements of the original artefact are preserved and thoughtfully integrated into a contemporary design.

To support this process, the MoMu team provides enhanced metadata, contextual narratives, high-quality photographs, condition assessments, construction analyses, and a validated 2D pattern and 3D model. MoMu also assists with the physical handling of the artefact and supports the documentation of its distinctive features.

5.2.4.4 Pattern Pilot: Drafting a Pattern and Creating a Replica

The next action taken by Fibre Mood is the creation of the new 'inspired by' pattern. Under the lead of the Creative Director, a team of three people will further develop the pattern and validate it through and actualised prototype/replica. Once completed, the pattern will receive a name; for example, the pattern of ST2144 was named 'Lucy'. As is customary for Fibre Mood magazine patterns, women's names are used for womenswear designs, and men's names for menswear.

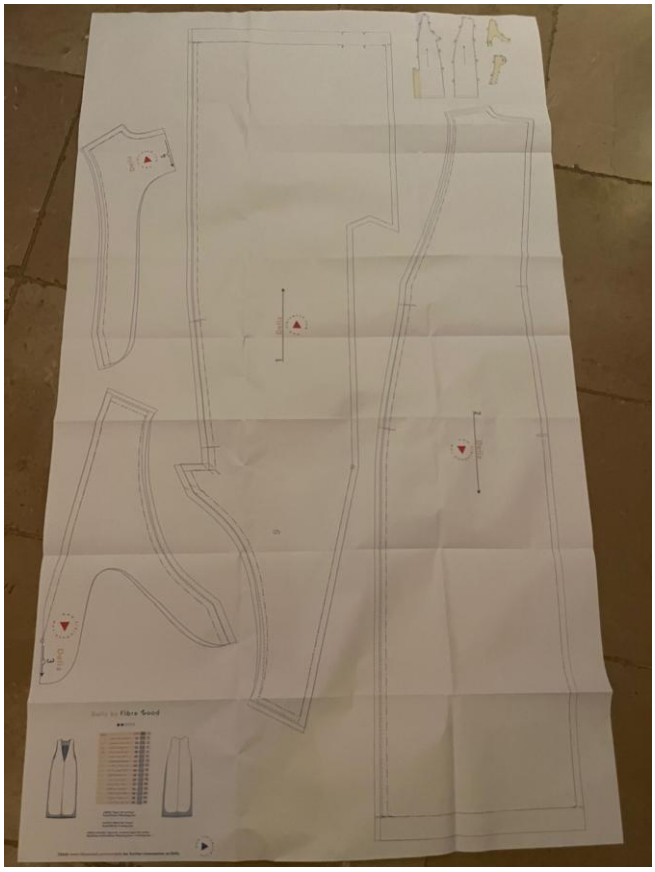

Figure 20: Pattern created by the Creative Director of Fibre Mood

The following images depicts the replica of the Lucy jacket. Although not an exact replica, the prototype preserves the original garment's main physical features (the jacket's 'cut', sleeve construction,

finishing, ...). The replica thus retains the overall look and feel of the 1930s original, evocating the comfort and warmth of the historical garment.

Figure 21: Replica inspired by ST2144, created by the Fibre Mood (photo by Stany Dederen)

5.2.4.5 Publication(s) of the Pattern Pilot

As foreseen in the collaboration agreement between MoMu and Fibre Mood, the Pattern Pilot is published in the magazine and/or the website of Fibre Mood. The publication consists of the following elements:

- a paper/digital pattern (graded from XS to XXXL or size 32 to 60) with stitching and cutting lines, based on the museum object (in a "print-friendly" format, for printing in A0 and A4 format);
- size charts;
- work descriptions in English, French, German and Dutch;
- a (suggested) list of materials, accessories and tools needed to complete the pattern (possibly with specifications for lining, finishing, etc.);
- instructional videos;
- photo shoot with a model wearing the completed "project", possibly also including illustrative images of the project.

The sections below illustrate the publication process. Successive screenshots were taken of the Lucy jacket's publication, on a dedicated Fibre Mood-webpage. As pictured, the webpage can be browsed in four languages and features a replica of the Lucy jacket, worn by a fashion model. The pattern can be bought in different sizes and can be downloaded with different features. The webpage also has a number of tabs that include additional resources and information:

- description of the historical object with an adapted version of the metadata and storytelling of the historical object;
- work instructions;
- suggestion for materials;
- size charts;
- video instructions.

A number of icons and tabs on the webpage invite makers and magazine to comment and review the pattern and share their creations. This will be further elaborated below. The pattern's degree of complexity is also shown on the webpage.

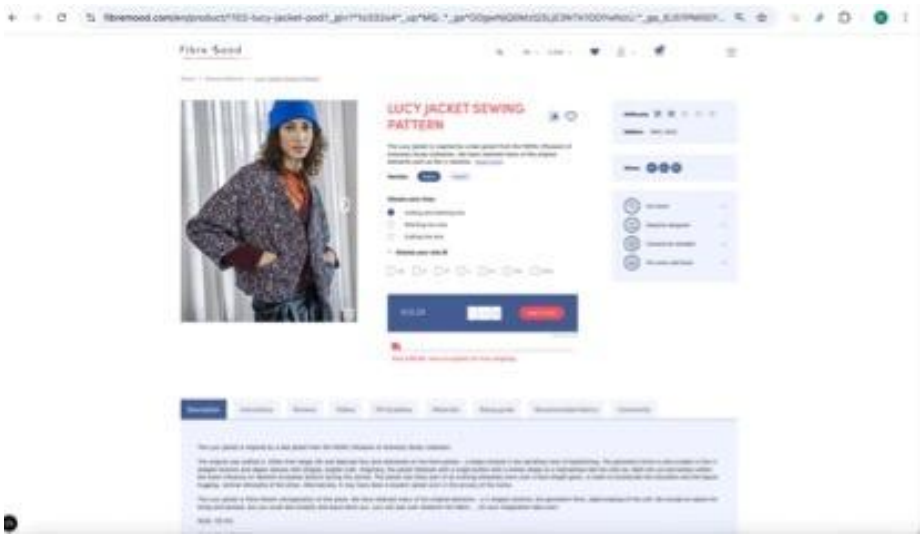

Figure 22: „Lucy Jacket", published on Fibre Mood website

The Lucy jacket was also published in the physical magazine, as can be seen in the following image:

Figure 23: Photo with referral page to Lucy-Jacket and pattern in Fibre Mood magazine

In addition to its online and magazine publication, the **Lucy jacket pattern** was made available through the **MoMu museum shop**. Visitors could purchase a printed leaflet featuring the pattern, which included a **QR code** granting direct access to the Fibre Mood webpage where the pattern could be downloaded. This approach provided museumgoers with a tangible entry point into the Pattern Pilot, allowing them to engage with the project by starting their own sewing process based on the historical garment.

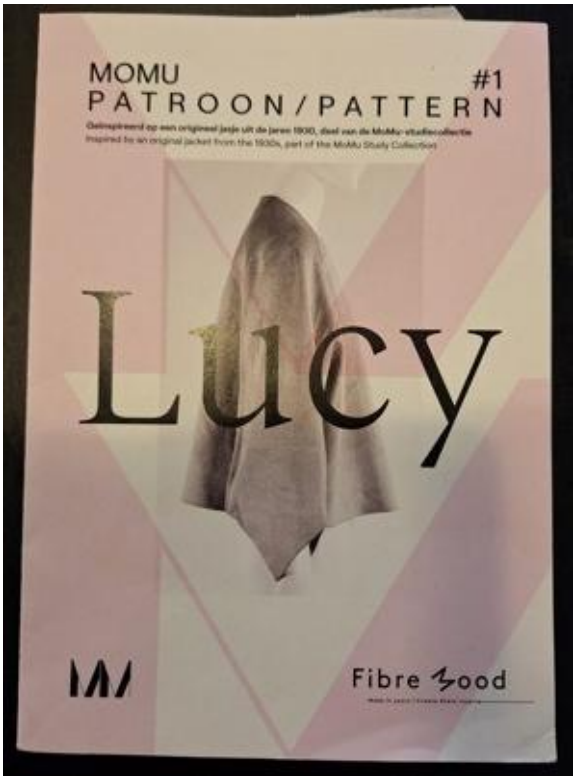

Figure 24: Leaflet Lucy Jacket, as sold by MoMu shop

5.2.4.6 Sewing the 'Lucy—Jacket and Keeping Track of the Use of the Pattern Pilot

Fibre Mood's active online community and publication channels offer an ideal environment for testing the REEVALUATE framework in real-world, user-driven design scenarios. This final section focuses on the actual creation of the Lucy jacket by end users. Most makers complete their sewing projects at home, making it difficult to track usage beyond the number of pattern downloads.

However, Fibre Mood's integrated social media ecosystem provides valuable indicators of engagement and impact. Metrics such as the number of views on instructional YouTube videos, the volume of Instagram shares within the Fibre Mood community, and user comments or reviews on the pattern webpage offer qualitative and quantitative insights into the success and reach of the Pattern Pilot. These community-driven interactions serve as informal validation of the pilot's effectiveness and help assess how well the digitised heritage artefact has been reinterpreted and reused in a contemporary context.

Figure 25: Instructional video (on YouTube) how to create the Lucy Jacket

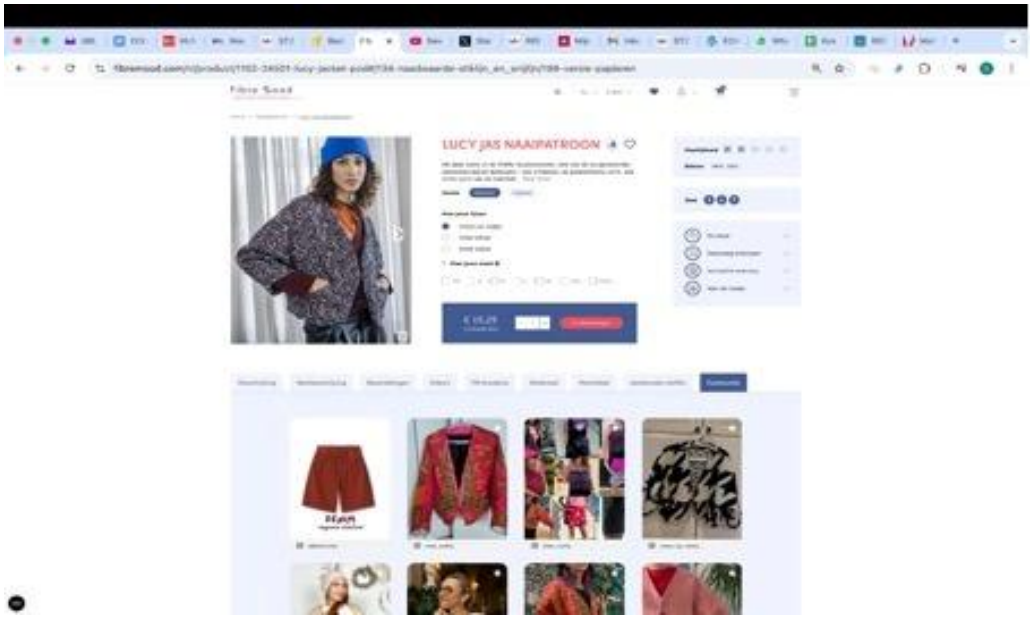

Figure 26: Lucy Jacket on FIbre Mood webpage - Community Tab[9]

As an extension of the Pattern Pilot, MoMu will organise up to three workshops in which the selected museum pattern is once again transformed into a physical garment, effectively closing the loop from physical to digital and back to physical. Under the guidance of an experienced tailor, each workshop will host 6 to 8 participants who will create a personalised version of the selected museum object. The workshops will span one to two days, depending on the complexity of the design and pattern.

[9] Screenshot webpage Lucy Jacket; *https://www.fibremood.com/nl/product/1102-24501-lucy-jacket-pod#/*

This format was previously tested with the Lucy jacket, and participant feedback was overwhelmingly positive. These workshops not only foster hands-on engagement with fashion heritage but also serve as valuable opportunities for stakeholder testing and feedback collection.

Figure 27: Images from a MoMu Workshop dedicated to creating the Lucy Jacket (photo by Jeroen Broeckx)

5.2.5 Pilot site

Pilot 1 will be primarily hosted at the premises of **MoMu – Fashion Museum Antwerp**, located in the city centre of Antwerp, Belgium. The museum offers over 2,000 m² of exhibition infrastructure, and includes an auditorium, offices, ateliers, workshop rooms, a café, and a museum shop.

For the purposes of the pilot, the **reading room** of MoMu's library will serve as the central hub. This space houses the museum's study collection and is where most digitisation and content provision activities take place. It is also the workplace of MoMu's in-house pattern maker and a key location for stakeholder engagement, particularly with those targeted by the REEVALUATE framework.

Figure 28: MoMu's Reading Room (photo by Matthias De Boeck)

Additional museum spaces involved in Pilot 1 include:

- The **museum shop**, which will serve as a distribution channel for the Pattern Pilot;
- The **educational workshop**, which may be used to host hands-on pattern reuse workshops.

These physical locations support the full lifecycle of the pilot—from heritage object selection and digitisation to public engagement and creative reuse.

5.2.6 Pilot personnel

The execution of Pilot 1 involves staff from multiple partner organisations. In line with privacy and generalisation principles, individuals are referred to by their functional roles rather than by name.

From MoMu – Fashion Museum Antwerp:

- **Project Coordinator – Dries Van Noten Study Center**: responsible for project management and contributing to deliverables.
- **Pattern Maker**: role detailed in section 5.2.2.
- **Researcher/Registrar**: involved in metadata review and contextualization (see section 4.2.2.3.5).
- **Conservation Specialist**: primarily engaged in condition assessment (see section 5.2.2.3.1).
- **Education Staff**: supporting workshop facilitation and stakeholder engagement (see section 5.2.4.6).
- **Shop & Merchandise Manager**: responsible for pattern distribution through the museum shop (see section 5.2.4.5).

From Fibre Mood:

- **Creative Director**: lead for pattern development and design adaptation (see section 5.2.4).

- **Pattern Development Team** (3 members, including the Creative Director): responsible for pattern drafting, replica creation, editorial content (Dutch), and redaction.
- **Freelance Translation Bureau**: translating content into English, German, and French.
- **Graphic Team** (2 members): responsible for illustrations, technical drawings, and layout.
- **Art Director**: overseeing visual and editorial coherence.
- **Freelance Grading Bureau**: handling pattern grading across sizes.
- **Freelance Photographer, Stylist, Make-up Artist, and Model**: involved in the photoshoot for the final garment presentation.

From EFHA:

- **Pilot manager:** responsible for coordinating EFHA activities in the pilot and contributing to deliverables and monitoring progress.
- **Senior curator:** involved in metadata review and contextualization
- **Communication officer**: responsible of communication and stakeholders' engagement in collaboration with MoMu.

From NURO: n/a.

5.2.7 Pilot Methodology

This section describes the methods and activities used for measuring the KPIs. The measurement of KPIs in Pilot 1 is closely tied to the structured involvement of three core stakeholder groups: SMEs from the Creative and Cultural Industries, Cultural Heritage (CH) professionals, and Makers/Creatives/Citizens[10]. Each group contributes to the pilot through targeted activities designed to generate measurable outcomes aligned with the project's objectives.

SMEs will engage with the Marketplace and its enablers in real-life scenarios, reusing REEVALUATE content. Their participation will be tracked through attendance records, digital feedback forms, and usage analytics of the platform. CH professionals and curators, primarily from public museums, will use the contextualisation enabler to enrich digitised heritage objects with expert knowledge. Their contributions will be documented via feedback forms and platform logs, and feedback will be gathered through structured (online) surveys. Makers and creatives will similarly interact with both the contextualisation enabler and the Marketplace, with their engagement measured through workshop attendance, digital content reuse, feedback forms (online surveys) and social media activity.

All stakeholders will use the MoMu dataset, and formal agreements (including consent forms and project information sheets and data sharing agreements) are being drafted to ensure ethical data collection. Workshops, both planned and adaptive, serve as key activities for engagement and data generation, particularly for the Makers group. Feedback and satisfaction surveys, social media metrics, and repository uploads are among the tools used to quantify stakeholder interaction. This multimethod approach ensures comprehensive and reliable KPI measurement across diverse stakeholder contributions.

[10] For reasons mentioned in 5.2.3, stakeholders related to the 'Game Pilot', are not taken into consideration in this version of D4.1.

During the 2nd iteration of the pilot, a focus group will be planned to evaluate the Copyright manager enabler, composed from relevant stakeholders' groups (CH professionals, Small and Medium-sized Enterprises (SMEs), and makers). The focus group's objective is to test the enabler's capacity to manage various rights statements for both open and in-copyright content, from the perspectives of both content owners and re-users.

5.2.8 Ethical and legal requirements

Pilot 1 adopts a critical and reflective approach to the digitisation of cultural heritage, ensuring that cultural sensitivity, as well as ethical and legal considerations, are thoroughly addressed. Within the broader REEVALUATE framework, strong emphasis is placed on ethical oversight (particularly regarding the use of AI technologies), responsible research practices, open science, and regulatory compliance.

Pilot 1 integrates ethical and legal concerns into its implementation through the following (non-exhaustive) measures:

- **Data Management Plan**: Pilot 1 contributes to a quarterly updated Data Management Plan, which outlines how research data will be collected, processed, stored, and preserved during and after the project. This plan adheres to the FAIR principles (Findable, Accessible, Interoperable, Reusable) and Good Governance guidelines for the use of data.
- **Visual and Data Consent**: All data collected and visuals created or used within Pilot 1 will either be anonymized (with no identifiable individuals) or will be used only with signed consent forms.
- **GDPR Compliance**: Pilot 1 follows GDPR guidelines and will conduct a compliance check prior to engaging REEVALUATE stakeholders.
- **Ethical Review of Instruments**: Consent forms, questionnaires/surveys, data sharing agreement, project information sheets, and other research instruments are currently being drafted and will be reviewed by ARTHUR to ensure alignment with ethical and legal standards.
- **Internal Audits**: The project coordinator will conduct internal audits focused on ethics and data protection to ensure ongoing compliance with project requirements.
- **Intellectual Property Rights**: Potential legal issues related to digitisation, such as third-party intellectual property rights, are considered during the selection of materials.
- **Gender Bias Awareness**: Pilot 1 acknowledges the presence of gender bias in digitised content and is prepared to explain the rationale behind this bias (see section 4.2.2.2).
- **Body Positivity and Inclusivity**: Pilot 1 promotes body positivity by making the cutting patterns of the Pattern Pilot available in a range of clothing sizes (from XS to XXL).

5.3 Timeline

This section outlines the planning and execution of Pilot 1, focusing exclusively on the first iteration. The timeline is based on the workflow of selecting, digitising, and developing the Pattern Pilot. Due to reasons previously mentioned, a timeline for the Gaming Pilot could not yet be completed. The same cycle will be repeated during the second pilot round and will be documented in the updated version of this deliverable (D4.1), due in Month 29.

5.3.1 Preparation

Preparation activities are linked to two key project tasks:

- **T2.1 Cultural Items Identification & Digitisation (M6–M28)**
  For the first iteration, the focus was on developing a realistic test case to validate the REEVALUATE framework and its enablers. From Month 6 (June 2024) until the submission of this deliverable (October 2025, M22), MoMu's project coordinator and pattern maker worked continuously on selecting the object and establishing digitisation workflows to generate the necessary digital assets for successful pilot execution.
- **T4.1 Pilot Planning and Validation Methodology Definition (M13–M29)**
  As detailed in this deliverable, Pilot 1 partners collaboratively developed a comprehensive plan for managing and executing the pilot cases. This includes a detailed description of each pilot case, along with a list of actions to be undertaken before and during execution, specifying the required assets, enablers, and service.

Preparation of Pilot 1 is reported in this deliverable D4.1.

5.3.2 Execution

Pilot execution is part of **T4.5 Pilot Execution – Implementation of the REEVALUATE Framework in CHIs (M21–M34)**. The goal of this task is to implement the REEVALUATE framework within the participating cultural heritage institutions and to coordinate the execution of the pilot cases. It encompasses three main activities:

- Continuous engagement of pilot users and stakeholders;
- Ongoing technical and domain-specific (cultural heritage) support;
- Continuous monitoring of progress toward pilot-specific objectives

The Pilot 1 lead organisation will be responsible for collecting data and KPIs in accordance with the planning defined in Task 4.1. The first iteration of Pilot 1 will span four months, from M23 to M26. A dedicated deliverable, **D4.5 Execution and Monitoring of REEVALUATE**, due in M27, will report on the execution of Pilot 1 during this iteration.

5.3.3 Evaluation

Evaluation of Pilot 1 is part of **T4.6 Pilot Results Assessment and Evaluation (M23–M36)**. Following the first iteration, assessment and analysis activities will be conducted to evaluate the impact of the REEVALUATE framework on digitisation practices and the creative reuse of cultural heritage artefacts. This task involves analysing results from the pilot activities and the validation of REEVALUATE enablers to assess the overall framework, technologies, and functionalities implemented.

The outcomes of this evaluation will be documented in **D4.6 Evaluation and Results of the 1st Pilot Round**, a deliverable due in M30.

5.4 Assets used

During the first iteration of the pilot execution (developing the Pilot 1 prototype), the Fashion and Gaming Pilot will work with the following assets from MoMu:

Table 6: Assets for Pilot 1

#1	Information
Object name	Dress (EN) – Jurk (NL)

	(keywords, linked to MoMu's multilingual thesaurus)
PID	http://data.momu.be/ark:34546/mn0318
Inventory number	ST2202
Provenance	Collection ModeMuseum Antwerpen – Study Collection
Date	Ca. 1925
Description	Evening dress in beige silk muslin covered with transparent grey and white sequins in a diagonal stripe pattern. Straight, loose fit, reaching approximately calf height, sleeveless. V-neckline at the front and back. The dress flares out at the front and back. The dress is unlined and has no closure. (EN) Avondjurk van beige zijden mousseline bezet met doorzichtig grijze en witte pailletten in diagonaal strepenmotief. Recht en wijd model tot op ongeveer kuithoogte, zonder mouwen. V-hals aan voor- en achterzijde. Aan de voor- en achterzijde loopt de jurk uit in een punt. De jurk is ongevoerd en zonder sluiting. (NL)
Material/technique	silk (EN) – zijde (NL) muslin (EN) – mousseline (NL) manmade material (EN) – kunststof (NL) sequin (EN) – pailletten (NL) bead (EN) – kraal (NL) embroidering (EN) – borduren (NL) (keywords, linked to MoMu's multilingual thesaurus)
Metadata Schema (artefact)	Metadata (in-house schema, based on Cidoc-CRM & Dublin Core)
Condition information	Fragile condition, not to be moved outside of box (translated from Dutch)
Measurements	height: 125 cm waist: 84 cm shoulder width: 34 cm (translated from Dutch)
Images	https://museumstichting.resourcespace.com/?r=92673&k=09a907abe0 (link for external users, generated by MoMu Digital Asset Management System: Resourcespace). More info: see also following section 'already digitised'
License	CC.BY (MoMu Collection - Photographer: Stany Dederen)
Location Data	ST2202 › Studiecollectie – container pnvxp › LZ.UNIT.40 › 2 - Leeszaal Bibliotheek › MoMu

After completion of the first pilot iteration and validating the REEVALAUTE-framework, four additional objects from MoMu's collection will be selected to be included during the second pilot iteration.

The following section outlines the current digitisation status during the first iteration and includes two tables:

- **Pre-existing Digital Assets**: These are digital materials that were already available prior to the start of the REEVALUATE project, specifically digital photographs of object ST2202.

- **Newly Created or Planned Digital Assets**: These are additional digital materials that have been or will be created to support the documentation and reuse of MoMu object ST2202 within Pilot 1. These assets are intended for integration into both the Gaming Pilot and the Pattern Pilot.

Table 7: Already digitised assets for Pilot 1

ALREADY DIGITISED	
Types and number of existing digitised objects that will be included in the pilot use case	Image
File formats of the digitised objects	Tiff (for archival purposes) and Jpeg (in different renditions) for publication.
Is there a description of its corresponding physical item or additional content (either as an accompanying file or included within the object)?	Yes, metadata Object ST2202.
Types of metadata related to each digitised artifact that will be used in the pilot use case	Custom extended EXIF, XMP metadata. Managed in DAMS (ResourceSpace)
Estimate total size (in MB)	Tiff= 36MB; Best quality Jpeg= 3.6 MB
Intellectual property rights currently applied to the digitised objects, or intend to be applied in the future?	CC.BY (MoMu Collection - Photographer: Stany Dederen). Depicts ST2202, presumed out-of-copyright, no identifiable copyright holders.
Intended or planned sharing of digitised artefacts?	Photo can be publicly accessed via Study Collection website: http://data.momu.be/ark:34546/mn0318
Is data stored/processed on your own machines or externally (cloud, hoster)?	Stored in a DAMS (Resourcespace), Hosted by Montala (external partner)
Are your digitized artefacts and metadata externally accessible?	Yes
If digital objects are stored in external repositories, how does the pilot leader plan to provide access?	Both original and high-res Jpeg are accessible online: https://museumstichting.resourcespace.com/?r=92673&k=09a907abe0
Is the APIs publicity available?	Yes, via the IIIF manifest https://museumstichting.resourcespace.com/iiif/mmq52fp04/manifest
Are access rights handling specific to your institutions or can it be integrated into a wider Reevaluate "single sign on"? *(For example, by logging in with Google, Apple, Facebook or Microsoft credentials)*	No, Both Omeka-S and ResourceSpace require login credentials provided by MoMu. Publicly available assets don't require authentication.

Would you be (organisationally/legally) able to provide content access to the project (for the pilots) or should the information above be considered for conceptual use (i.e., architecture) only?	Yes

Table 8: To be digitised assets for Pilot 1

TO BE DIGITISED	
Number of new physical objects provided for the case study	In the context of Pilot 1, MoMu will take the following actions to create new digital assets to prepare its content to be included in the Fashion & Gaming Pilot. - 1. Create a contextual 'storyline' to enhance object information - 2. Create 2D (cutting) pattern - 3. Create 3D model
File formats for each type of digital object	1. Text file, added to customized class 'Context' (to be mapped in a later stage to a CIDOC-crm Class). 2. SVG (file to be further processed) / PDF (publication format of the pattern) 3. CLO3D => can be exported to many open formats for re-use on other platforms (OBJ, FBX, …). Export format to be defined with Pilot 1 developers.
Types of objects provided for the case study	text, image/document, 3D models.
Expected file type for the new digitised objects	See above (File Formats)
For each physical item intended for digitization in the pilot use case, is there a description (as an accompanying file)?	Yes, see #1 for (coupled) metadata.
Type of metadata needed to create for the new digital objects	Metadata for digitized assets is linked with metadata of #1 object. Digital assets will be stored in MoMu's DAMS for preservation. Possible additional metadata needs to be defined with Pilot developers. To be made available for consultation/download via Omeka-S.
Intellectual property rights intended to apply to the digitised artefacts	ST2202 is considered 'Out of copyright'. Since all assets are created in-house by own staff, digital assets can also be shared under an open license.

5.5 Enablers used

In its activities, Pilot 1 will test the following REEVALUATE enablers:

- **Contextualization Enabler**: Enhances metadata associated with digitized artefacts through a collaborative process involving the general public, stakeholders, and experts from the fashion and creative industries. This process is supported by EFHA's extensive networks.
- **AI-Driven Creative Reuse Enabler**: Assists participants in the Gaming Pilot in generating new designs using generative AI, by creatively reusing digitized assets from MoMu's collection.
- **Collaboration Enabler**: Facilitates cooperation between Cultural Heritage Institutions (CHIs) and third parties interested in discovering and reusing digital cultural heritage assets. It enables the registration of digitized cultural heritage and provides a search and retrieval interface. Additionally, a matchmaking algorithm will be implemented to connect users with each other and with relevant assets.
- **DLT-Based Asset Tokenization & IPR Management Enabler**: Offers a secure solution for storing cultural heritage artefacts using Distributed Ledger Technology (DLT), and includes a smart contract mechanism to manage copyright agreements effectively.
- **Context Validation Enabler**: Ensures that digitized artefacts are not misused or taken out of context within the Gaming Pilot, by validating their appropriate use.

5.6 Stakeholders

Three core stakeholder groups have been identified so for the pilots. These stakeholders are:

SME's (Creative & Cultural Industries)

- **Type:** Private Company / Self-employed
- **Expected Numbers:** 10
- **Detailed Involvement:** SME's will test & provide feedback regarding the Marketplace and its different enablers in a real-life scenario, re-using REEVALUATE content
- **Required Documents:** Stakeholder will use MoMu dataset. Agreements are not in place yet (information sheet, consent form and data sharing agreement to be drafted)
- **Potential Challenges:** Availability & Scheduling
- **Stakeholder status:** Proposed

CH professionals (e.g., curators, conservators, researchers)

- **Type:** Public Museum
- **Expected Numbers:** 20
- **Detailed Involvement:** Professionals will use the contextualization enabler to contribute their knowledge about digitized heritage objects and will provide feedback regarding this enabler.
- **Required Documents:** Stakeholder will use MoMu dataset. Agreements are not in place yet (information sheet, consent form and data sharing agreement to be drafted)
- **Potential Challenges:** No challenges foreseen. Both EFHA and MoMu have an active and large network of CHIs & Expert that can be engaged as stakeholder. Potentially a dedicated workshops by EFHA and/or MoMu can be organized during 2nd iteration, if needed.
- **Stakeholder status:** Proposed

Makers/Creatives/Citizens Type: Public Museum

- **Expected Numbers:** 20

- **Detailed Involvement:** Makers will test the contextualization enabler to contribute their knowledge about digitized heritage objects and use the marketplace in a real-life scenario, re-using REEVALUATE Content.
- **Required Documents:** Stakeholder will use MoMu dataset. Agreements are not in place yet (information sheet, consent form and data sharing agreement to be drafted)
- **Potential Challenges:** No challenges foreseen. We have different monthly workshops with these stakeholders in our museum program where this stakeholder group is present, they will be easy to engage to contribute knowledge and re-use of REEVALUATE content via the enablers. Potentially workshops, dedicated to re-using the patterns from the Pattern pilot, can be organized during the 2nd iteration, if needed.
- **Stakeholder status:** Proposed

A fourth potential stakeholder has been identified, the **game user**, but due to the delay on the game part of the pilot, the stakeholder will be described in the next version of this deliverable.

5.6.1 Forms and documents

No forms and documents in place yet for Pilot 1. These will be compiled during the 1st round of the Pilot execution phase, when stakeholders will effectively engage with the REEVALUATE-framework and its enablers. Pilot 1 stakeholders will use the MoMu dataset and formal agreements (including consent forms, project information sheet and data sharing agreements) will be drafted before the Pilot's implementation. Main tool for gathering qualitative feedback will be a (online) questionnaire. Workshops serve as key activities for engagement and data generation, particularly with the makers/creatives. Feedback and satisfaction surveys, social media metrics, and repository uploads are among the tools used to quantify interactions,

5.7 KPIs

5.7.1 List of KPIs

Table 9: KPI Table for Pilot 1

KPI	Verification/Measurement mechanism	Target results (numbers)	Priority (critical or not)	Can be automatized? How?	Other comments
Number of participants engaged in the collaborative contextualisation process	Participation will be measured via physical attendance or digital response.	50* = 10 SMEs (professionals); 20 CHIs (professionals); 20 Makers (sewers); ***Gamers TBD**	Critical	Yes, feedback will be collected through online questionnaire/ digital forms	Related to T4.6

Number of digitised artefacts stored in the repository and made accessible to the wider public	Repository will provide the quantitative measurement regarding the chosen and uploaded artefacts - files	5 museum objects from MoMu collection will be digitised in 3D and accurately documented (per object: digital photo, metadata, 2D pattern, (digital texture information, when available), 3D model)	Critical	Yes, via API CMS Study Collection website. During 1st iteration, upload to REEVALUATE repository will be done manually.	Related to T2.1
Number of collaborations established between CHIs and stakeholders related to creative reuse of artefacts	For the Pattern pilot: Participation will be measured via the number of users of the Creative Reuse Enabler (part of the Marketplace), interacting with this enabler in a real-life scenario and re-using MoMu's digital assets. In addition, the number of downloads of MoMu's digital artefacts offered through the Marketplace is also considered. **For the Gaming Pilot: TBD**	25 (Pattern pilot)	Critical	No. Participation is a simple, quantitative indicator that can be easily recorded. No need for automation.	Related to T4.6
Number of copyright violations prevented through the use of the copyright manager enable	The Copyright manager enabler will be evaluated in a focus group comprising relevant stakeholders from Cultural Heritage Institutions (CHIs), Small and Medium-sized Enterprises (SMEs), and makers. The focus group's objective is to test the enabler's capacity to manage various rights statements for both open and in-copyright content, from the perspectives of	1 Focus group with at least 8 SME's/Makers and CHIs	Critical	No	Related to T4.6

	both content owners and re-users.				
Number of users of the mobile game developed	n/a	n/a	n/a	n/a	Related to T4.6
Number of sewers adopting contextualized garment patterns	Will be measured using different indicators: -Number of sold patterns in museum shop; -Number of patterns sold on Fibre Mood website; -Number of images/videos of garments actually created shared by Fibre Mood social media network; - (Evt.) Participants to workshops dedicated to pattern re-use (in case of lagging numbers during 1st iteration).	50	Not critical	No, manually recorded per indicator. As it is a simple quantitative indicator, no need for automation.	Related to T4.6
Feedback and satisfaction surveys from participants and stakeholders involved in the pilot	Feedback and evaluation from participants and stakeholders will be quantitative measured via online questionnaires and digital forms	50 (25 for the pattern pilot; 25* for the game pilot)	Critical	Yes, automated via online questionnaire/ feedback forms	Related to T4.6
Social media engagements to the pilot	Number of likes and reactions on different social media posts / videos / blogs /… featuring the Pattern Pilot. Measured via different social media accounts of Pilot 1 partners: MoMu / Fibre Mood / EFHA / Game developer (e.g., via Instagram / Linkedin / Youtube / Facebook)	1.000	Not critical	No, manually recorded over different (social) media channels, on a dedicated spreadsheet and disseminated via report	Related to T5.1

5.7.2 Materials for determining KPIs

Like mentioned in 5.6.1, no forms and questionnaires are in place yet. These will be compiled during the 1st round of the Pilot execution's phase, when stakeholders will effectively engage with the REEVALUATE-framework and its enablers. Column 'Verification/Measurement Mechanism' gives an indication how KPI will be measured.

5.8 Risk Assessment and Management

Including worst case scenarios and corrective measures.

The categories used are:

- S = Severity
- O = Occurrence
- D = Detectability
- R = Recoverability

Scale 1- 10 (1 = least, 10 = most), aligned with D6.2.

Table 9: Risk Assessment Pilot 1

Risk Description	Corrective measures	S	O	D	R
Risk that collaboration and contextualization campaigns for Pilot 1 will not gather enough targeted stakeholders, failing to achieve the set KPIs.	There is a stakeholder table clearly identifying target groups. There are 2 stakeholder campaigns (iterations). If, during the 1st iteration, stakeholder participation is lower than anticipated, there always is 2nd full-scale pilot execution phase to fine tune the campaign. Option to set up dedicated workshops engaging Pilot 1 partners' large networks, to create an extra stimulus for participation and meet the KPIs.	**7**	**5**	**2**	**3**
Poor implementation of the game hinders the proper testing of the enablers and the related framework (TBD)	Adopt an agile development methodology that includes iterative testing and regular validation sessions.	**7**	**5**	**6**	**5**
Third parties Intellectual Property Rights have a negative impact on content selection, digitisation and re-use in Pilot 1.	In the selection process, risks regarding copyright are a crucial selection criterion. MoMu will only select artefacts that are considered 'safe' (e.g., a 18th century dress) or are 'low-risk' (e.g., a dress from the 1920's, without any logo, nametag, or any clearly identifiable copyright holders). MoMu will work with a backup-list of objects, in case (active) IPR-holders are identified in a later stage of the project, and using these objects becomes risky. The study collection is a large and quali-	**8**	**3**	**5**	**3**

	tative dataset. If a larger dataset is needed, the museum collection of MoMu holds over 40.000 objects, and can serve as backup dataset.				
Legal and ethical barriers prevent the optimal organisation of Pilot 1.	A comprehensive legal and ethical framework was developed early in the project, by Arthur, ensuring compliance with GDPR and other relevant European directives. The quarterly updated Data Management Plan guides safe data handling and sharing practices, identifies and anticipates potential risks and problems. If problems occur, expertise is available to deal with these issues in the REEVALUATE consortium.	**7**	**4**	**8**	**4**
Pilot partners related risks: under-performing, leaving the project, key personnel temporarily not available, ...	Flexible project management structure and GA allow quick shift of resources to alternative project beneficiaries and inclusion of new beneficiaries. Project consortium groups many competent partners with overlapping skill and project portfolios. When necessary; consortium partners are engaged with sufficient staff members, ensuring immediate substitution if needed.	**8**	**3**	**1**	**6**

6 Pilot 2 - Olympic Games and Music

6.1 Introduction

Pilot Title: From Museums to Screens
Pilot Subtitle: Leveraging Digitized CH Artefacts for Creative and Sustainable Advertising
Partners involved: OLYMPIC MUSEUM, SMB, FFP

The pilot use case showcases the potential of the REEVALUATE framework addressing the challenges associated with the digitization of CH artefacts, and their exploitation for sustainable CH management addressing the Creative Industries and particularly Advertising. The pilot use case will involve the digitization of selected artefacts from both museums, including historical photographs, art pieces, and artefacts related to various cultures of the world and Olympic Games. The digitization process will involve the appropriate copyright tagging and acquisition to ensure that the artefacts' copyrights are managed effectively.

6.2 Pilot description

Pilot 2 plans an immersive exhibition with the working title “The Olympic Experience” on the premises of the Olympic Museum in Thessaloniki which visualizes and makes audible aspects of Olympic Games from the Antiquities to today. A multisensory experience that will engage visitors to immerse themselves in the history, values, and cultural essence of the Olympic Games and the Olympic Movement, as sporting and cultural events that unite sports and music. The exhibition consists five unites, represented by projections in five rooms at the Olympic Museum and will employ digitized artefacts from the Olympic Museum and the ethnomusicology collection of the Ethnologisches Museums (SPK). These assets will be visible in media installations developed jointly by the pilot partners. Some of these artefacts will be digitized by the REEVALUATE project.

The project result is more than a film; it's an immersive exhibition. Its purpose is to encourage museum visitors to immerse themselves into the Olympic Games, so they better understand the history, the values and the ideas behind the Olympic Games and the Olympic Movement through a multisensory experience. The focus is on understanding that Olympism represents more than a sport event and that it is a philosophy of life based on the unity of sport, culture and education for a better world.

Figure 29: The Olympic Experience Units

6.3 Pilot scenario

UNIT 1: FROM DISCOVERY TO REVIVAL

The Rediscovery of Ancient Olympia

In 1766, the ancient sanctuary of Olympia was brought to scholarly attention by the English antiquarian Richard Chandler. Subsequent excavations revealed temples, altars, stadiums, and artistic treasures, providing unprecedented insight into the cultural and religious life of ancient Greece. This rediscovery marked the first step in reconnecting the modern world with the Olympic tradition and laid the foundation for the revival of the Games.

Objective: Introduce visitors to the rediscovery and evoke curiosity.

- **Visuals**: Panoramic shots of ruins being uncovered, archaeological drawings, maps showing Olympia's location, photos of the excavation, Card-postal
- **Audio**: Ambient sounds of excavation; soft narration introducing Richard Chandler and the rediscovery.
- **Narrative focus**: Emphasize that Olympia had been lost to time and the rediscovery reconnects the modern world with ancient Olympic heritage.

The Ancient Olympic Games

From 776 B.C. to 393 A.D., Olympia hosted the most significant sporting, cultural, and religious festival of the Greek world. Athletes, musicians, poets, and spectators converged to honour Zeus in an integrated celebration of body, mind, and spirit. Music was in`separable from the Games: it accompanied the rigorous two-month training of athletes, coordinated rhythm and movement during competitions, and celebrated victory through hymns and epinikia. The olive wreath (kotinos), taken from the sacred tree of Zeus, was the sole prize for champions, yet it conferred unparalleled prestige. Victors were

immortalized through statues and civic honours, receiving lifelong privileges in their hometowns, while poets such as Pindar recorded their achievements, blending historical, mythological, and civic narratives into lyrical compositions performed with lyre or aulos.

Objective: Immerse visitors in the life, values, and multisensory experience of the Games.

- **Visuals**: Animated **reconstructions** of athletes training and competing, musicians playing lyre and aulos, spectators in ancient attire, significant figures, journey of the spondophoroi, Temple of Zeus in Ancient Olympia, Proclamation of the Sacred Truce

- **Audio**: Rhythm of music during training and contests, crowd reactions, narration describing Olympic rituals and events, victory songs (epinikia).
- **Narrative focus**: Athletic preparation and competitions. Role of music: coordinating movement, victory hymns (epinikia), presence of musicians. Victories: olive wreaths, statues, civic honours, and Pindar's victory odes. Ideals: excellence, honour, unity of sport and culture.

Romanticism and the European Revaluation of Ancient Greece

In the 19th century, European Romanticism fuelled renewed interest in classical antiquity. Artists, writers, musicians, and scholars sought inspiration in the ideals, aesthetics, and ethical principles of ancient Greece, perceiving it as a model of harmony, excellence, and civic virtue. The rediscovery of Olympia exemplified the Romantic fascination with historical grandeur and provided a tangible link to a world that combined artistic, intellectual, and athletic achievement. Music and literature of the period frequently drew upon Greek mythology and philosophical thought to express universal human values, emphasizing the integration of culture, emotion, and education.

Objective: Connect rediscovery to cultural fascination and European Romantic thought.

- **Visuals**: Philhellenic Paintings, Paintings by Delacroix, ancient Greek statues, music sheets, Romantic-era Greek landscapes, paintings, Card-postal
- **Audio**: Classical Romantic music inspired by Greek mythology, narration explaining the European interest in Greek heritage.
- **Narrative focus**: How Romanticism influenced art, music, and intellectual life. Ancient Greece as the model of harmony, heroism, and cultural excellence. Europe wanted to see the grandeur of the past with its own eyes. Archaeology becomes a science. The first missions arrive in Greece. In 1875, a German mission begins the excavation of Ancient Olympia. They discover the site of the first Olympic Games. The world looks once again to Greece. Rediscovery of Olympia as the symbol linking the past to modern imagination.

Evangelis Zappas and the Revival of the Olympic Spirit

Evangelis Zappas, a Greek philanthropist and visionary residing in Romania, became instrumental in translating the Romantic admiration for Greece into concrete action. In 1859, he sponsored the first modern Olympiad in Athens, followed by subsequent Games in 1870, 1875, and 1889. The Zappas Olympiads sought to emulate the ancient Olympic ethos, combining athletic competition with music and cultural celebration. Participation was guided by ideals of honour, excellence, and fair competition (εὖ ἀγωνίζεσθαι), rather than financial reward. These Games, while exclusively Greek in character, demonstrated that the Olympic tradition could be revived, establishing a cultural and moral precedent that would later influence the international Olympic Movement.

Through the rediscovery of Olympia, the cultural and athletic achievements of antiquity were illuminated; through the Zappas Olympiads, these ideals were reactivated, bridging the gap between ancient tradition and the aspirations of the modern world.

Objective: Show how the Olympic spirit was revived.

- **Visuals**: Zappas Olympiads to early modern Olympic imagery, symbolic lighting effects evoking continuity, athletes competing, detailed shots from the opening ceremony, the distinction between amateur and professional athletes, the athletes' oath, medals, and anthems.
- **Audio**: Period-appropriate music, narration describing Zappas' vision, crowds cheering, ceremonial elements, Soutsos' poem, Triumphant music gradually merging ancient and modern motifs; narration highlighting enduring values.
- **Narrative focus**: Evangelis Zappas' role and vision. For the first time in history, the Zappeion Olympics introduced significant elements like the distinction between amateur and professional athletes, medals, diplomas, sports attire and opening and closing ceremonies. Games guided by ancient-Olympic ideals: honour, fair competition, integration of sport and culture. Significance for Greek national identity and as a precursor to modern Olympics. Inclusion of music alongside athletic events to emphasize cultural revival. Rediscovery → antiquity → revival → continuity. Although the Zappeion Olympics had a national character, they became the starting point for the modern Olympic Idea and played a decisive role in the revival of the Olympic Games.

UNIT 2: THE FIRST MODERN OLYMPIC GAMES – THE REVIVAL & THE OLYMPIC SYMBOLS

The revival of the Olympic Games - 1st modern Olympic Games - Athens 1896: Pierre de Coubertin is regarded as the official reviver of the Olympic Games. His vision was not just to revive the institution, but to highlight the ancient Greek tradition of connection between art and sport, reflecting the principle of Olympic movement. The Olympic Games were therefore revived at the first Olympic Congress, organised by Baron Pierre de Coubertin and held at the Grand Amphitheatre at the Sorbonne University from 16 to 23 June 1894. Two thousand people attended, including 58 French delegates representing 24 sports organisations and clubs, and 20 delegates from Belgium, Great Britain, Greece, Ireland, Italy, Russia, Spain, Sweden and the United States representing 13 foreign sports federations. As the congress came to an end on 23 June, the Olympic Games were officially reborn and the International Olympic Committee created.

In 1906, Coubertin introduced the Pentathlon of Muses, a competition in sculpture, painting, music, literature, and architecture, but it wasn't until the 1912 Stockholm Games that arts competitions were officially held alongside sports and remained until 1948 London Games.

The revival of the Olympic Games, spearheaded by Pierre de Coubertin, reflects the deep connection between Romanticism and the ancient Greek tradition. Inspired by the values of ancient Greece, Coubertin believed that the rebirth of the Olympic Games could serve as a bridge for cultural and political reconciliation, promoting peace through sports. In 1896, the first modern Olympic Games were held in Athens, a poignant tribute to the country that gave birth to the institution.

Coubertin's Olympic ideal was based on three fundamental principles:

1. The moral dimension of sports – Athletics is not just physical exercise but a means of shaping character and values.
2. International brotherhood – The Games are not a battleground for nations but an opportunity for peaceful coexistence.
3. Amateurism – Sports should remain pure, free from commercial and material interests, as was the case in ancient Greece.

The phrase attributed to Coubertin, *"The most important thing in the Olympic Games is not to win but to take part,"* perfectly encapsulates his philosophy, which draws its origins from the principles of ancient Greek athletics.

THE FIRST MODERN OLYMPIC GAMES

Objective: Introduce the historical revival of the Olympic Games, highlighting Pierre de Coubertin's and Dimitrios Vikelas vision and the first modern Games in Athens 1896.

The Olympic Revival – Paris 1894

- **Visuals:** Historical images or animated reconstructions of the Sorbonne Congress, delegates debating, maps showing participating countries, External shot of the Sorbonne building, decorated with flags from various countries, with the sunlight falling on it, Letter from the Panhellenic Gymnastic Association, from President Ioannis Fokianos to Vikelas, Coubertin and Vikelas shaking hands, The delegates at the foyer
  Telegram from Vikelas to Ioannis Fokianos, President of the Panhellenic Gymnastic Association
- **Audio:** Ambient crowd murmurs, soft classical music, narration introducing Coubertin, excitement fills the room, applause breaks out
- **Narrative focus:** In the summer of 1894, the heart of Europe beats in Paris, at the historic Sorbonne. There, for the first time, people from around the world gather with the same passion and vision: to revive the ancient flame of the Olympic Games. History calls upon Dimitrios Vikelas, the Greek intellectual, to undertake a mission beyond the borders of his homeland. From the Panhellenic Gymnastic Association, with the signature of President Ioannis Fokianos, arrives the invitation – an invitation to participate in the conference that will decide the revival of the Olympic Games. Dimitrios Vikelas, with the calm and determination that characterized him, takes the floor. Without fear or doubt, he proposes the boldest step: that Athens, the city of the Olympic Games, once again become the center of the world for athletic harmony and the spirit of freedom. The partnership between Pierre de Coubertin and Dimitrios Vikelas becomes the force that connects the past with the future, the dream with reality. Humanity will forever have Athens, the birthplace of Olympism, as a symbol of global peace and excellence.

Athens 1896 – The First Modern Olympic Games

- **Visuals:** Animated reconstruction of Athens stadium, athletes preparing, spectators arriving, Artist's painting, sculpting, composing music; performances alongside athletic competitions.
- **Audio:** Crowd cheering, trumpets, rhythmic footsteps, narration describing the opening, Classical music, sounds of brushstrokes or sculpting, audience murmurs.
- **Narrative focus:** Highlight the three principles of Coubertin: moral dimension of sport, international brotherhood, and amateurism; first modern Games as a tribute to Greece. Show how

Coubertin linked athletics with arts, inspired by ancient Greek ideals and Romanticism; demonstrate cultural integration.

Olympic Symbols: Olympic symbols are central to the identity and meaning of the Olympic Games, representing the values of excellence, friendship, and respect, and promoting the idea of a peaceful and united global community through sport.

1. The Opening Ceremony - Nations Parade

Visuals: Parade of nations entering the stadium, flags waving, Greece entering first.
Audio: Marching music, trumpets, cheering crowds, music from the opening ceremonies
Narrative focus: The Opening Ceremony of the Olympic Games is a grand and symbolic event that marks the official beginning of the Games. It is a highly choreographed celebration filled with tradition, spectacle, and the Olympic values of unity, peace, and excellence. In the 1924 Paris Olympics we had the first modern Opening Ceremony. The event featured the first official parade of nations, athletes marching in order according to their country's names. Greece always gets into the stadium first, as an honour to the birthplace of the games. The Nations Parade during the Opening Ceremony of the Olympic Games is one of the most iconic moments of the event. It is a symbolic procession where athletes from all participating countries march into the stadium, representing unity, peace, and global cooperation through sport.

2. The Olympic Rings:

Visuals: Animated Olympic rings, vinted colors of the 5 circles

Audio: Orchestral music, crackling flame

Narrative focus: The five rings represent the five inhabited continents: Africa, the Americas, Asia, Europe, and Oceania. The interlocking of the rings symbolizes unity and the coming together of these continents in peaceful competition. The colours were chosen because every nation in the world could find at least one of these colours in their flag.

3. The Olympic Flame:

Visuals: Torch lighting, relay across continents, torch relay forming symbolic shapes
Audio: Orchestral music, crackling flame
Narrative focus: The flame symbolizes the unity of the people, the pursuit of excellence, and sends the message of the Olympics ideals. The torch relay, which brings the flame from Olympia to the host city, represents the passing of Olympic values from one generation to the next.

4. The Olympic Motto – Flag – Anthem and Oath:

Visuals: Athletes in motion, flag raising, anthem performance, athlete taking oath with official.
Audio: Anthem music, ceremonial drums, narration emphasizing solemnity and ethics.
Narrative focus: The motto represents the aspiration of the Olympic athletes to push their physical and mental limits, aiming for excellence in sport. It encourages athletes to strive for personal improvement and achieve their best.

Narrative focus: The flag symbolizes the unity of the five continents and the global nature of the Olympic Games. It is flown during the Games and in Olympic venues around the world.

Narrative focus: It is a symbol of the unity and peace that the Olympic Games aim to promote. The anthem represents the ideals of Olympism and is performed whenever the Olympic flag is raised.
Narrative focus: The oath represents fair play, integrity, and respect for the Olympic values. It emphasizes the importance of ethics and sportsmanship in the Games.

UNIT 3: THE MESOLYMPIC GAMES “ATHENS 1906”

As a result of including the organization of the Olympic Games "PARIS 1900" and "SENT LOUIS 1904" during the period of International Exhibitions, the future of the Olympic Games was uncertain, as the popularity and the numbers of athletes and spectators were rapidly decreasing. The limited success of the two Olympic Games concerned the Greek athletic spirit. On the 10th anniversary of the revival of the modern Olympic Games (1896-1906), Greece claimed and undertook the organization of the "International Olympic Games" of 1906, which became known in history as the "Mesolympic Games", as they were held in between the scheduled Olympic Games of 1904 and 1908. The "International Olympic Games" were held from April 22nd to May 2nd, 1906, following the template of the flawless "ATHENS 1896". The scent of success of the 1896 Olympic Games created a new atmosphere of euphoria among foreign athletes and visitors, but especially among Greeks.

The final decision for Greece to organize the Olympic Games for the second time in modern era was taken in 1904 and the whole 1905 was devoted to the preparation of the Games. Athens, the city that hosted the 1906 Games, had changed a lot compared to Athens in 1896. It had been modernized and specially designed to welcome this great sporting event, with the main streets having been paved and lit by electricity, and the Athens-Piraeus railway and trams having been electrified. Especially for the Games, the city was decorated with flowers, colourful lamps, flags, blazons of all nations and signs in all languages. For the first time in the history of the modern Olympic Games, athletes participated through the National Olympic Delegations in teams, parading in the Panathenaic Stadium under the flag of their country, a ritual that was repeated in the following Olympic Games ''LONDON 1908''. Especially for Greece, that moment was particularly moving, since the Greek Olympic delegation includes Greek athletes for regions beyond the frontiers, as Crete, Macedonia, Cyprus and Smyrna.

The Mesolympic Games was attended by 903 athletes, coming from 21 countries and, according to newspapers of the time, around 20,000 visitors arrived in Athens. The opening of the Games took place at the Panathenaic Stadium, in the presence of King George I, King Edward of Great Britain and 75,000 spectators, almost all Athenians. The foreign athletes stayed in the Zappeion Hall, the first Olympic Village in the history of the Games. With great enthusiasm and following the great success of Spyros Louis, winner of the marathon race of the 1st Modern Olympic Games ''Athens 1896'', the spectators hoped again for a Greek winner. However, the 1st place was deservedly won by the Canadian William Sherring. In the poster, which was released after the Games, Spyros Louis congratulates William Sherring, while the goddess Nike raises two kotinoi, wreaths of sacred olive branches, signifying the victory of the two Olympic Winners. Regarding the results of the 1906 Games, Greece's expectations for the performance of its athletes were confirmed with 7 first, 17 second and 15 third places, even though medals for the first and second place were only awarded. Furthermore, apart from medals, finest cups crafted by remarkable sculptors, such as Greek sculptor Georgios Demetriades, also were given as prizes to athletes in many sports during the Mesolympic Games of 1906.

The success of the Olympic Games is usually connected to the number and the performance of the athletes, the number of visitors and distinguished people who travel to watch the Games, the operation of the sports facilities and the overall organizational structure. Therefore, from every point of view, the 1906 Games were organized in an exemplary way by Greece and were a complete success, giving new impetus to the Olympic movement and contributing to the enhancement of the Olympic Games' prestige.

THE MESOLYMPIC GAMES "ATHENS 1906"

Objective: Showcase the Mesolympic Games' achievements, organization, and significance in reviving the Olympic spirit.

Visuals: Athens cityscape in 1905, construction of stadiums, decorated streets, electrified trams, flags, Panathenaic Stadium filled with spectators and athletes, royal guests in attendance, Canadian William Sherring winning the marathon; Greek athletes performing well in multiple disciplines, Medals, cups as awards, wreaths (kotinoi), poster showing Spyros Louis congratulating Sherring, card postal, newspapers.
Audio: Sounds of construction, bustling city, tram bells, soft celebratory music, rhythmic sounds of running and competition, narration of notable winners and achievements, audience applause, uplifting orchestral music summarizing the success.
Narrative focus: Highlight Athens' modernization and meticulous preparation to host the "International Olympic Games" successfully, building excitement and national pride. Present the historical significance of national delegations and the emotional impact for Greek athletes representing regions beyond modern Greece. Highlight performances, athlete diversity, and moments of fair play, illustrate Greek hopes and international participation. Emphasize the symbolism of awards, continuity with ancient traditions, and cultural artistry integrated into the Games. Show how the exemplary organization, athlete participation, and public enthusiasm restored prestige to the Olympic Games and strengthened the Olympic Movement.

UNIT 4: OLYMPIC VALUES THROUGH SPORTS & MUSIC

Sports, music, and rhythm are intricately woven together, with the equipment in each sport playing a key role in shaping the pace, movement, and atmosphere. Just as music is composed of beats and tempo, the rhythmic sound of sports equipment in action provides a natural soundtrack for the game. As the equipment used in various sports often influences the timing, flow, and energy of the game, much like how music sets the tempo of a performance. The equipment used in sports not only serves a functional purpose but also contributes to the musicality and rhythm that elevate the athletic experience. For example, the rhythmic sound of a basketball bouncing on the court or the swift crack of a tennis racket hitting a ball creates a dynamic beat that mirrors the pulse of the game.

Sports, music, and rhythm are deeply interconnected, transforming athletic movement into dynamic and artistic performances. The rhythm of sport extends beyond the body itself, shaped also by the equipment athletes use. From the controlled timing of a golf swing to the rapid beat of a sprint, equipment adds its own cadence, influencing both pace and precision. In individual sports, the sounds produced by equipment—whether the crack of a racket, the thud of a ball, or the swish of a ski—intensify the rhythm of performance, heightening both the athlete's focus and the spectator's experience. In

team sports, music often plays a unifying role, fostering synchronization, coordination, and collective energy, turning play into a shared rhythmic experience. Yet rhythm in sports is not always marked by sound. Silence itself can become a powerful element, building anticipation, heightening emotion, and shaping the rhythm of competition through pauses and moments of stillness. Together, movement, equipment, sound, music, and silence create a layered rhythm that defines the emotional and artistic dimension of sport.

1. Interaction Between Sports, Music, and Rhythm:
This category explores the fusion of sports with music and rhythm, which elevates the overall athletic experience. Music and rhythm don't just add an auditory layer to sports—they shape the flow of movement, turning physical actions into expressive, almost artistic performances. This synergy enhances the visual appeal and emotional depth of the sport, as athletes move in time with the beat or rhythm of the event.
The integration of rhythm in sports (whether from equipment, natural movement, or music) turns athletic performance into more than just competition—it becomes a dynamic, artistic expression that draws both emotional and aesthetic connections from the audience.

Objective: Emphasize how sports equipment acts as both functional tools and sources of rhythm and sound.
Visuals: Slow-motion of athletes moving in harmony with rhythmic beats; overlays of musical notes blending into athletes' movements.
Audio: Layered beats, combining natural sport sounds with musical rhythm (e.g., basketball dribble merges with drumbeat).

2. Role of Equipment in Sports (materiality and sounds):
The equipment in sports not only serves a practical function but also contributes to the rhythm of the game. For example, in golf, the precise timing and swing rhythm required to strike the ball with accuracy creates a sense of pacing, while in sprinting, the rhythmic pounding of feet on the track sets a fast, intense tempo. Equipment influences the flow of the game and dictates the timing of movements, helping to synchronize an athlete's actions with the rhythm of the sport.
In this category, sports equipment functions like a metronome or musical instrument, producing sounds or guiding movements that create a sense of rhythm. Whether it's the sound of a bat hitting a ball or the quickness of a swimmer's stroke, the equipment becomes integral to the sport's rhythm.

Objective: Emphasize how sports equipment acts as both functional tools and sources of rhythm and sound.
Visuals: Close-ups of equipment in use-golf swings, sprinting shoes striking the track, tennis rackets hitting balls.
Audio: Clear, sharp equipment sounds (crack of a bat, thud of a ball, rhythmic footfalls).

3. Individual Sports and the Sounds of Equipment:
In individual sports, the sounds of the equipment become an essential part of the experience. In fencing, the clash of swords produces a sharp, rhythmic sound that matches the intensity of the contest. In cycling, the whir of the wheels and the clicking of the gears contribute to a mechanical rhythm, while in boxing, the sound of punches landing and the rhythmic movement of the boxers create an

auditory pulse that matches the speed and power of the fight. In wrestling or tae-kwon-do, the sounds of bodies colliding and the strikes echoing across the arena provide a rhythm that both athletes and spectators can feel.
The sounds produced by the equipment in these individual sports add an auditory dimension to the experience, providing a rhythm that enhances the athleticism and emotional intensity. The equipment is both a tool for performance and a source of rhythm that shapes the flow of the sport.
Objective: Highlight how the auditory dimension of equipment enhances intensity and rhythm in solo competitions.
Visuals: Fencers clashing swords, cyclists in motion, boxers exchanging strikes, wrestlers grappling.
Audio: Metallic clinks of swords, whirring wheels, rhythmic punches, echoing body collisions.

4. Team Sports and Communication Through Music (cooperation, respect to my co-athlete. co-musician, the role and importance of the team, the respect to rules):
In team sports, such as rhythmic gymnastics or synchronized swimming, music is a central element that helps coordinate and synchronize the athletes' movements. The athletes are not only working together to achieve a common goal but are also moving in harmony with the beat of the music. This synchronization requires precise timing, and the rhythm of the music helps establish a common pace for all participants. The rhythm becomes a means of communication, allowing athletes to instinctively respond to each other's movements, fostering cooperation and unity.
Music in team sports functions as a rhythm that connects athletes, helping them to cooperate and communicate non-verbally. The shared rhythm unites the team, turning their movements into a synchronized performance that combines athletic skill with artistic expression.
Objective: Show music as a unifying rhythm that enables cooperation, respect, and synchronicity in team events.
Visuals: Synchronized swimming, rhythmic gymnastics, rowing crews moving in harmony, team huddles before play.
Audio: Coordinated beats, team chants, music syncing movements, cheering.

5. Silent Moments in Sports and Emotional Soundscapes:
Not every moment in sports is filled with sound from the equipment or music. Silent moments—like a tense pause before a critical shot or a still moment during a race—can be just as thrilling as the most action-packed sequences. These silent moments are often charged with emotion, as the athletes prepare for a pivotal action or moment of decision. Even without sound, the intensity, anticipation, and emotional stakes are palpable, creating an invisible rhythm that builds suspense. The emotional energy of these moments can often feel like an unspoken beat or pulse that resonates with the audience. Silence, in its own way, contributes to the emotional rhythm of the sport. These moments heighten tension and draw the audience deeper into the experience, allowing the emotions of the athletes and the spectators to fill the void. The emotional undercurrent becomes an integral part of the rhythm, even without an auditory cue.
Objective: Demonstrate how silence builds anticipation and adds emotional rhythm to sport.
Visuals: A sprinter before the start, a tennis player preparing to serve, the breath of a weightlifter before the lift.
Audio: Silence, amplified heartbeats, deep breaths, followed by sudden eruption of sound at the moment of action.

Olympic Values: The Olympic values are core principles that underpin the Olympic movement and guide athletes, officials, and spectators throughout the Olympic Games. These values promote the positive aspects of sport and foster a spirit of peace, unity, and respect. The three main Olympic values are: Respect, Excellence and Friendship. These three core values are integral to the Olympic philosophy and serve as a guide for athletes and all involved in the Games, encouraging them to uphold these ideals in their personal and professional lives. They form the foundation of Olympism, a philosophy that seeks to promote peace, understanding, and personal growth through sport. Together, these values form the essence of Olympism—sport as a path to peace, unity, and human progress.

Objective: Convey the three core Olympic values—Excellence, Friendship, and Respect—as the ethical foundation of the Games, inspiring athletes and audiences alike.

Visuals:
Excellence: Athlete's training, breaking limits, crossing finish lines.
Friendship: Competitors embracing, exchanging flags, celebrating together.
Respect: Handshakes, bows, gestures of sportsmanship, caring for the environment.
Audio: Orchestral and uplifting music, with shifts in tone for each value—intense for Excellence, warm for Friendship, calm and steady for Respect.
Narrative focus:
Excellence: Striving to give your best and grow beyond limits.
Friendship: Building bonds across cultures and borders.
Respect: Honouring yourself, others, and the rules of the game.

UNIT 5: INTERNATIONAL OLYMPIC DAY - A GLOBAL MOVEMENT

OLYMPIC DAY RUN - A WORLDWIDE CELEBRATION

The cultural events that take place during the interval of the Olympic Games are an important aspect of the modern Olympic tradition. Although the Games have their primary focus on sports, cultural activities incorporate the spirit of unity among nations and promote culture, art, and creativity, enhancing the experience of the Olympic Games on a global level.

It was in 1947 during the 41st Session of the International Olympic Committee in Stockholm, that Doctor Gruss, IOC member in Czechoslovakia, presented a report on a World Olympic Day celebration which would primarily be a day of promoting the Olympic idea. The first Olympic Day was celebrated on 23 June 1948. Olympic Day is not just a date on the calendar, but a universal celebration of humanity's shared aspirations. Each year on June 23, the world comes together to honor the birth of the modern Olympic Movement and to reaffirm the timeless values that lie at its heart: excellence, friendship, and respect. It is a day that transcends borders and generations, inviting people everywhere to discover the joy of movement and the unifying spirit of the Games. Olympic Day is a global celebration of sport and getting active. It takes place on 23 June each year to commemorate the day the International Olympic Committee was founded in 1894 - the birth of the modern Olympic Games. With more than 200 countries of the world participating in the celebration and more than 40,000,000 participations per year, the International Olympic Day is the largest mass participation sports event in the world and makes the heart of the planet ... beat with Greek rhythms.

The Olympic Day Run can be considered as the core activity of Olympic Day. First launched in 1987, it has been organized by NOCs to celebrate Olympic Day and promote the practice of mass sport. From 45 participating NOCs in the first edition in 1987, the numbers have grown to more than 150 participating NOCs. At the center of this global celebration stands the Olympic Day Run, an open invitation for everyone — regardless of age, background, or ability — to participate in a simple yet powerful act: running together. It is not a competition but a collective journey, a symbol of health, inclusion, and solidarity. In every stride, participants affirm that sport is a language all can speak, a bridge that connects communities across continents. For a few kilometers, the world runs as one.

In Greece, the Olympic Day Run resonates with a unique depth. Held in the land where the Olympic ideal was born, it is more than a sporting event; it is a living dialogue between past and present. Ancient heritage meets modern celebration, and the ideals that first inspired the Games are reawakened in today's society. By opening its streets to runners of every age, Greece transforms the Olympic Day Run into a festival of unity, joy, and collective identity.

Since 2018 and every year, the "Olympic Day Run" GREECE, the only Olympic Running Race in Greece is organized. Olympic and Paralympic medalists, as well as representatives of the international and Greek Olympic institutions join the supreme running event with top runners and active citizens of the world, to raise Greece even higher on the global Olympic and sporting map. The Thessaloniki Olympic Museum - founding member of the World Network of Olympic Museums and official body for the promotion of the global Olympic heritage and Olympism as a philosophy and way of life - is the responsible body for the planning and implementation of the celebration in Greece, as well as the headquarters of the mega sport event / Olympic running Race.

The purpose of this unit is to immerse visitors in the spirit of Olympic Day, enabling them to feel part of a worldwide celebration of unity, health, and hope. The space is designed not only to inform but also to inspire, inviting the public to personally connect with the values of the Olympic Movement. Visitors leave with the understanding that Olympic Day is not merely an anniversary but a living tradition that demonstrates the power of sport to bring people together across cultures and generations. By highlighting the Olympic Day Run as a symbolic act of inclusion, this unit encourages reflection on how simple actions — such as running side by side — can express solidarity, foster friendship, and create bonds that transcend boundaries.

Objective: Present the creation of Olympic Day, its purpose, and its global reach as a unifying celebration of sport and humanity. Highlight the Olympic Day Run as the core expression of Olympic Day, emphasizing both its global impact and its special resonance in Greece, birthplace of the Olympic ideal.
Visuals: Archival photographs, Maps highlighting participation worldwide, with crowds running in different continents, global scenes of Olympic Day Runs across cities and landscapes, diverse participants: children, elderly, Olympic and Paralympic athletes, families, streets in Greece filled with runners celebrating Olympic Day through Olympic Day Run Greece, blending images of ancient heritage and modern festivity.
Audio:
Warm, uplifting orchestral score building gradually to global scale, Soundscape of cheering, rhythmic footsteps, and voices in different languages, happiness of participation, pulse of running teams, rhythmic pulse of footsteps forming a collective beat, layered with cheers and applause.

6.3.1 Pilot site

One of outcomes of Pilot 2 will be a physical, immersive exhibition hosted at the Olympic Museum in Thessaloniki, Greece — the country deeply connected to the spirit of the Games and the birthplace of this global institution. Designed for visitors of all ages and backgrounds, the exhibition will invite audiences from around the world to step into the history of the Olympic Games and experience its enduring legacy in an innovative and interactive way. Spanning five individual rooms, the exhibition will guide visitors on a journey through the defining moments of the Olympic Movement — from its ancient roots to its modern revival, and from the triumphs of legendary athletes to the values of peace, respect, and excellence that lie at its core. Each room will be carefully curated to immerse the audience in the atmosphere of different eras and milestones. This multisensory approach will not only showcase the energy, emotion, and pulse of the Games, but will also highlight their unique role as a cultural and athletic celebration that unites humanity.

A second outcome is a film that uses assets from the immersive project to advertise for the exhibition.

6.3.2 Pilot personnel

The Olympic Museum of Thessaloniki has selected and provide artefacts from its rich collections for digitization, ensuring that the most significant symbols of Olympic history are represented. The museum's curators and historians will actively contribute to the collaborative contextualization of the digitized artefacts, working with citizens to co-create narratives that connect historical objects to contemporary values and lived experiences. They use their expertise in Olympic history to provide essential insights and interpretations that anchor the exhibition in authenticity and credibility. Additionally, they will ensure that the copyright manager enabler is applied appropriately to manage the copyrights of the digitised artefacts. Beyond content, the Olympic Museum will also act as the physical stage, orchestrating the immersive design of the five rooms and shaping how visitors engage with the Olympic legacy in a dynamic, participatory manner.

The ethnomusicological department of the Ethnologisches Museum (SPK) provides a selection of digitized assets related to music and sports from its collections, will suggest a storyboard for a chapter for the planned immersive production on music in the Olympic games, will participate in the testing of enablers (public sensing prioritization enabler, AI driven contextualization enabler (text, image, audio), collaboration enabler, context validation enabler, DLT-abed asset tokenisation & IPR management enabler).

FFP will create new video material based on input and digital assets from Olympic Museum and SPK for use in the immersive exhibition and another video that advertises exhibition to the public.

6.3.3 Pilot methodology

As specified in the KPIs, visitor attendance and on-site feedback and the impact of the exhibition will be measured through wider indicators of engagement and dissemination. Participant interaction and feedback will be evaluated via social media activity, campaigns, online questionnaires, and forms, as well as through responses to press releases and newsletters. These channels provide insight into the resonance of the exhibition beyond the physical museum space. Collaboration agreements and documented partnership reports will serve as evidence of institutional impact and the strengthening of networks around the exhibition. Feedback and evaluation will be gathered not only from visitors but also from participants and stakeholders, using both online and face-to-face surveys. The dissemination

process will be further assessed by monitoring media coverage, including press mentions, press releases, and newsletters.

Taken together, these measures—visitor numbers, social media engagement, partnerships, stakeholder feedback, and media presence—provide a multidimensional picture of the enablers' success in a realistic workflow of two CHI. They ensure that its impact is understood not merely in terms of attendance, but also in its cultural reach, public engagement, and contribution to the international dialogue on the Olympic heritage.

6.4 Timeline

6.4.1 Preparation

- January 2025 Beginning of T4.1
- March 2025 Beginning of T4.3
- May 2025 Pilot Planning Document begins
- June 2025 Madrid Consortium Meeting
- July 2025 Review Meeting Brussels
- May 2026 End of Task 4.1

6.4.2 Execution

- October 2025 Beginning of T4.5 Pilot execution – Implementation of the REEVALUATE framework in the CHIs
- November 2025 Iteration 1 (M23-M26 until February 2026)
- July 2026 Iteration 2 (M30-M36 until October 2026)
- November 2026 Exhibition opening "Olympic Experience"

6.4.3 Evaluation

- December 2026 End of the REEVALUATE funded projected phase

6.5 Assets used

Olympic has made a selection of objects in their collection to be used in Pilot 2.

SPK has made a selection of 18 audio piece from the archive that:

- use instrument types used in the ancient Olympic Games (flutes, trumpets, lyres, trumpets, percussion)
- relate to the assets selected by the Olympic Museum
- are ethically and legally sourced and easy to clear for an exhibition in Thessaloniki and
- are well-documented

6.6 Enablers used

The Pilot 2 assets will be used to test the Public Sensing Prioritization Enabler, which will be employed by Olympic Museum and SPK to run interactive campaigns with the purpose to engage audiences and to identify cultural heritage assets that engage a large public. Assets are available at Museums and will be tested in order to find out which are the most recognizable and of primary interest to the general public.

The following diagram (Figure 30: Mood boards for Pilot 2) shows two mood boards that were developed as a tool to facilitate the collaboration between Olympic and SPK by associating sounds and photos of artefacts. On the left the Assets of the Olympic Museum are presented; on the right sounds from SPK are linked with images meant to provide orientation for the project partner. The contextualization and collaboration enabler will serve a similar function at a later stage in the project. We will also test context validation enabler and the IPR management enabler to ensure appropriate use of assets within the exhibition project.

Figure 30: Mood boards for Pilot 2

In its activities, Pilot 2 will test the following REEVALUATE enablers:

- the Public Sensing Prioritization Enabler: Use social media to involve public in the making of the exhibition, including marginalized groups
- the Contextualization Enabler will be used to enrich metadata available for artefacts and to support the making of the exhibition; i.e., we use the contextualization enabler mostly as a tool for the curators and researchers involved in the exhibition design.
- Collaboration Enabler: make digitized artefacts available to FFP and others for creative reuse
- Context Validation Enabler: will be employed to test the use of the assets in the context of the planned immersive exhibition
- IPR management Enabler: ensures compliance with copyright while using assets for productions in Pilot 2

6.7 Stakeholders

In this section we describe parties that potentially have an interest in using the REEVALUATE framework in relation to pilot 2. Typically, this interest resolves around re-using of digital assets used by the pilot.

We group the state holders in four categories:

(1) Inside CHI

Today, many specialists with a range of different specialization are involved in the design of exhibitions. Many of them inside have an interest in the Reevaluation framework. These are CHI curators, exhibition designers, graphic designers, museum educators, advertisers and public relations specialists inside the institution.

(2) Education.

Teachers, researchers and publishing houses working in this area have an interest in using the Reevaluate framework in order to obtain resources and the appropriate licensing, including teachers, researchers and publishing houses representing source communities.

(3) Journalism, Musicians and Artists, advertising

Journalists, musicians, artists, advertising specialists may have an interest in discovering CH objects with high quality contextual information and to acquire licensing rights for assets to use them in their respective products (texts, music, art, advertising).

(4) The General public may have an interest in the assets and contextual information and the services provided by the Reevaluate framework for example if information provided by the Pilot 2 can be used in Wikipedia for general information. The general public may also include people from communities where the objects represented originate from.

6.8 KPIs

6.8.1 List of KPIs

Table 10: KPI Table for Pilot 2

KPI	Verification/Measurement mechanism	Target results (numbers)	Priority (critical or not)	Can be automatized? How?	Other comments
Number of participants engaged in the collaborative contextualisation and prioritization process	Participant's engagement – feedback would be measured via interaction and attendance on social media posts, campaigns, online questionnaires and forms, press releases and newsletters.	50 participants (Olympic)	Not critical	Partially – via automated registration forms and attendance tracking tools	Related to task 4.6
Number of digitised artefacts stored in the repository and made accessible to the wider public	Repository will provide the quantitative measurement regarding the chosen and uploaded artefacts - files	12 artefacts Olympic) + 20 assets (SPK)	Not critical	May be tracked via the repository's backend system	Related to task 4.6
Number of collaborations established between CHIs and stakeholders related to creative reuse of	Collaboration agreements or documented partnership reports	12 (open call for videographers)	Not critical	No – requires manual tracking and documentation	Related to task 4.6

Artefacts					
Number of copyright violations prevented through the use of the copyright manager enabler	An enabler could be used showing flagged or blocked usage due to copyright violations The exact measurement will be defined later in conversation with relevant enabler creator.	1			
Feedback and satisfaction surveys from participants and stakeholders involved in the pilot	Feedback and evaluation from participants and stakeholders will be quantitative measured via online and face-to-face surveys.	20	Not critical	Yes – automated survey tools can collect and analyze data	Related to task 4.6
Number of media mentions and press coverage of the pilot	The dissemination process includes media mentions, press releases and newsletters.	10 mentions	Not critical	Maybe manual	
Increase in revenue or funding secured by CHIs as a result of increased engagement with stakeholders and promotion of digitised artefacts	Number of users-visitors of the immersive exhibition	+3%	Not critical		

6.9 Risks

Including worst case scenarios and corrective measures.

Risk Description	Corrective measures	S	O	D	R
Public sensing prioritisation enabler does not receive enough input or does yield not coherent input.	We revise the concept and repeat the public facing campaign	2	7	10	9
Contextualization enabler does not yield usable results	We will try to structure the enabler's output better in another iteration.	5	5	5	5
Unethical use of assets or without proper license.	We will check the used assets manually/conventionally	7	5	8	10
It's possible that we don't reach all stakeholders	Increase dissemination activities	4	4	8	8
Reused material is not attributed correctly.	Involve legal department of asset-holding institution	8	5	5	5

- S = Severity
- O = Occurrence

- D = Detectability
- R = Recoverability

Scale 1- 10 (1 = least, 10 = most), aligned with D6.2

6.10 Deviation from Proposal

Originally, REEVALUATE only proposed the creation of an advertising video as part of the Pilot 2. In order to test the REEVALUATE platform in a more practical setting, we now want to test the enablers in a more realistic museum environment. Hence, we attempt to set up an immersive exhibition at the Olympic Museum to test the enablers and produce an advertising video for the exhibition. The Olympic Museum provide the exhibition space, projection equipment and other services in addition to the REEVALUATE project funds. FFP will create additional video material in addition to the advertising video using the same assets. Advancements in AI-based video creation over the time span of the project allow FFP to create more video than originally planned with the same funds.

7 Pilot 3 – Historic Location of Aquileia

7.1 Introduction

This pilot case aims to showcase the potential of the REEVALUATE framework in **empowering a small community** with strong connections and bonds to the CH, **to take an active role in the management of their CH digitization**. Moreover, the appropriate contextual use of the CH artefacts will be validated, again, reflecting the identity of the community and history-enthusiastic people. The final result will be a virtual tour.

Figure 31:Aquileia aerial picture

7.2 Pilot description

7.2.1 Pilot scenario

This pilot case will involve Fondazione Aquileia and 3DR for its implementation, while LINKS will support the community engagement activity.

The pilot use case will involve the digitisation of a selection of artefacts and sites from the ancient city of Aquileia, which includes building and CH artefacts. These sites and artefacts are closely related to the local community that has been continuously inhabiting the area since 180/181 BC. The young citizens of Aquileia (students) will be called to participate in the selection of the assets to be digitised through the Public Sensing Prioritization Enabler.

After the digitisation by 3DR, the community will be called again to collaboratively provide the context for the selected assets, using the Contextualisation Enabler. This community will be composed of archaeologists, archaeology students, historians, or people with passion for history, to collect the relevant contextual information for the items digitised, including dating, use of the item, historical data on the item, eventual symbology explained (in the case of the mosaic floors).

The pilot will thus conceive a double stakeholder inclusion, considering as Aquileia's community not only the students and citizens living in the area, but also as historians, archaeology students, and history enthusiasts with expertise in the field.

All the collected inputs will lead to the realisation of a **virtual tour** by 3DR.

The tour will be based on Titus Macer's Domus (archaeological area). The premises of the Domus could be virtually reproduced to allow an immersive visiting experience:

- To raise awareness of both **local population and tourists** on one of the most extended Domus of north Italy;
- To provide a tool to **schools** for better understanding the archaeological heritage in an innovative and engaging way.

Figure 32:Aquileia interior

Some possible implementation ideas related to the fruition of the virtual tour:

- Immersive visiting experience using **smartphones/tablets**. Access will be possible via **link/QR code**;

- Interactive visiting experience accessible through a dedicated **web link**, available on **PC** or **personal devices**, enabling users to explore the virtual tour also from home.

Lastly, the produced virtual tour will be assessed for appropriate use of context through the Context Validator.

7.2.1.1 Important historical clues & references about Aquileia Cultural Heritage

One of the most significant reference about Aquileia's cultural heritage, and more precisely to the strategic role it had from a commercial point of view -to which could be linked the Titus Macer's House, that is the object of the digitization process thanks to the REEVALUATE project- is the ancient text of Strabo.

Around the same era of the building of the domus, according to Strabo the geographer Aquileia was a big emporium: the terminal of the Mediterranean maritime trades and a redistribution hub serving the Danube and the Balkans drawing wealth and well-being from this favourable position.

Titus Macer's name is carved on a stone weight discovered during excavations by the University of Padua in the back of the house: T. MACR, i.e., T(iti) Macr(i), "Titus Macer's". Using the same method applied in Pompeii, the house discovered in the Cossàr Estates is thus called "Titus Macer's house". Unfortunately, the name of the family name (gens) between the praenomen Titus and the cognomen Macer is missing. We can only assume that Titus Macer was a wealthy merchant who could afford to buy two adjacent properties to create a 1,500 square meters new house.

"Aquileia, then, which is the closest to the bottom of the gulf, is the foundation of the fortified against the barbarians of the region above, and is reachable by cargo ships, which go up the Natisone river to more than sixty stadiums. It served as an emporium for the Illyrian peoples of the Istro basin; they buy goods from the sea: wine, which they load into barrels on covered wagons, and oil, and export slaves, cattle and skins. Aquileia is located outside the territory of the Eneti, from whom it is separated by a river that descends from the Alps and is navigable for twelve hundred stadia in direction of the city of Noreia, near which Gneo Carbone clashed unsuccessfully with the Cimbri. In this area there are located, in a happy natural position, construction sites where you can gold washing and iron industries" (Strabo - 5,1, 8 C214)

Today, school tourism represents an important slice of visitors, in the spring period: for this reason, Aquileia institutions are beginning to develop a dedicated educational offer, with the aim of facilitating the visit and use of the heritage. Starting from the 2024/2025 school year, an educational department ("EducA") shared between the Aquileia Foundation and the National Archaeological Museum of Aquileia has been activated for the first time. The establishment of this department has made it possible to begin to present the numerous sites of archaeological and cultural interest within a unified proposal, which at the moment, however, is lacking in terms of tools that can be made available for the understanding and learning of students, as well as for the creation of customized and engaging visual experiences.

Currently, several projects related to the theme of accessibility have been launched (such as an ad hoc visit path within the National Archaeological Museum for people with cognitive disabilities; paper activity book for children; theatrical visits for primary school student), but there are no digital supports that allow interactive learning, as well as access to additional information on the heritage under study and that encourage discovery through scientifically validated information and documentation.

6.2.1.2 The Titus Macer Domus: description of the selected area

The "Titus Macer's House", one of the largest dwellings of Roman times among those found in northern Italy, covers an area of 1,500 square meters and is unique in Europe. The dwelling extends for about 77 metres in length and 25 in width, between two paved streets of the city (kardines) within one of the southern blocks of the colony, founded in 181 B.C., from which come the famous mosaic of the kidnapping of Europe, the beautiful floor with vine shoot with bow and the 'unswept floor', now on display at the National Archaeological Museum, and the mosaic of the Good Shepherd, provisionally located in Palazzo Meizlik.

The residence was partially investigated in the 1950s and, between 2009 and 2015, it was the object of excavations carried out by the Department of Cultural Heritage of the University of Padua, in agreement with the Aquileia Foundation and under the concession of MiBACT, under the direction of Prof. Francesca Ghedini and Prof. Jacopo Bonetto. The excavations have made it possible to recognise, in particular, the plan of the domus, built in the first century B.C. and lived continuously until the sixth century A.D. and to propose its attribution to Titus Macer, a wealthy inhabitant of Aquileia, based on the discovery of a stone weight with an iron handle with the inscription T.MACR.

The activity carried out by the University of Padua has brought to light an entire dwelling, an 'atrium' house: the first one found in Aquileia, a site known for its numerous remains of domestic buildings, most of which, however, consist of fragments or portions that are difficult to understand. Hence the decision to face one of the biggest and most original challenges: to re-propose a Roman house in its entirety and in its spatial encumbrance, creating a roof that would make the articulation of the spaces clear to the general public and offer a sensorial experience different, but no less exciting, than that which can be experienced through virtual reconstructions.

Archaeological investigations have also made it possible to document the evolution phases of the domus, which was the subject of various transformations and renovations, including the large fishing mosaic, which will be relocated to the reception room open to the garden. The standard of living of the owners is testified by a beautiful ring of gold and glass paste dating back to the II-III century AD. More than 1,200 coins have been returned from the excavations, among them the sestertium of Maximin the Thracian (235-236 A.D.), the emperor who died in Aquileia by the hands of his own soldiers who had besieged, without success, the city remained loyal to Rome. A treasure of 560 coins was then found in the area of the atrium, hidden by its owner in a hole around 460 A.D., in the turbulent years following the siege of Aquileia by Attila, king of the Huns, and never recovered.

The house was accessed from the west, through an atrium supported by four columns and equipped with a central pool for collecting water and a well, partially preserved and integrated in the missing part. In axis with the access was the tablinum, the landlord's reception room, with a rich mosaic floor. The rear part of the house gravitated on a central open space, the garden, surrounded by a mosaic corridor and equipped with a fountain. On it opened the large reception hall and, to the south, the triclinium, flanked by living rooms and a bedroom. To the north there was the kitchen with a masonry counter, while in the eastern part there were four shops, among which also the shop of a baker with a baking oven, whose remains are still visible.

7.2.1.2 The virtual tour

To match the target of creating a tool that emphasize the strong connection between the small community of Aquileia and the Cultural Heritage site of the city itself, a virtual tour will be developed inside

the REEVALUATE framework for the execution of Pilot 3. The virtual tool will be a representation of the current state of the Titus Macer Domus, allowing users to fully explore and freely navigate the archaeological area. Usually, virtual tours are usable via these main options:

1. web-app: the tour exists inside a webpage and can be accessed by users using their personal computer. An internet connection and a mouse-keyboard kit are required;
2. Application for PC: the tour is accessible by installing an application on users' personal devices. An internet connection is required for the download, and a mouse-keyboard kit for use;
3. Mobile application: by installing an application on their smartphone, users can explore the tour.

All of these solutions have advantages and disadvantages. Considering the maximisation of diffusion and the end user of this type of solution, option number 1 is preferred for Pilot 3 development.

The virtual tour will be accessible by visiting a **web page**, without requiring specific hardware, software or to download particular applications from third parties.

User experience will be focused on the Domus of Titus Macer, its different areas and related archaeological finds. Consequently, the structure of the virtual tour (more properly, the virtual walkthrough) is represented as follows:

- Users are spawned inside the area of the Domus;
- Users can move inside the area using the keyboard for simple movements such as going forwards, backwards, left and right;
- Users can change the view by moving the mouse (for example by clicking and dragging or just moving);
- Users can interact with objects by clicking on them, and a pop-up window will show some detailed information such as provenance, typology, use, etc.;
- 3D models can also be manipulated using the mouse with simple movement (rotate, pan, zoom).

For the development of this tool, the game engine Unity3D or the framework Aton will be used, along with software for 3D modelling (blender), 3D scanning (Agisoft Metashape, Artec Studio), and image editing (Adobe Suite). Either a cloud server or an externally accessible local server can be used to host the service.

7.2.2 Pilot site

The virtual tour will be developed in the archaeological area (Titus Macer's Domus) where a QR code will be displayed on an on-site panel, near the site. It will also be promoted through institutional communication channels, more specifically in multilingual website dedicated to the Domus and the institutional newsletter, which reaches more than 6,000 users[11].

[11] https://www.fondazioneaquileia.it/it/cosa-vedere/domus-di-tito-macro

The use of a multilingual platform ensures accessibility and engagement for a broad and diverse audience. Moreover, in 2026 a new InfoPoint will be created in “Via Popone”, and the Fondazione Aquileia is considering displaying the QR code inside this new Aquileia Hub.

7.2.3 Pilot personnel

Fondazione Aquileia will provide a selection of artefacts/sites from the ancient Roman city of Aquileia. The personnel of the Aquileia Foundation will use their expertise in ancient and early Christian history to provide the assets that need digitisation and the contextual interpretations. Moreover, they will be the gatekeepers for involving the local citizens and students in the participatory actions of the pilot. More specifically, their contribution will include:

- Staff from the promotion and communication department of Fondazione Aquileia to promote the virtual tour project through online and offline channels;
- Archaeologists from universities with which Fondazione Aquileia has collaboration agreements for excavation work within their areas; this interaction will be relevant in the contextualization phase;
- The Director/archaeologist of Fondazione Aquileia for contextualization/validation of content.
- EducA educational department of the UNESCO site of Aquileia (participated in by Fondazione Aquileia and the National Archaeological Museum of Aquileia), to promote the virtual tour to schools;
- Custodians of Fondazione Aquileia, for on-site use of the virtual tour.

3DR will be representing the IT industries and specifically, virtual tourism. Their role will be to demonstrate the potential for reuse of the digitised CH artefacts and sites of Aquileia. Specifically, they will use the artefacts to create a virtual tour in order to promote the CH of Aquileia. They will collaborate with Fondazione Aquileia to ensure that the creative reuse of the artefacts is done appropriately. The 3DR team that will be involved in the activities is composed of the following professionals:

- Restorer – responsible for analyzing artefacts and archaeological finds before the digitizing process, to ensure the conservative needs and the procedure to be followed during the manipulation and digitization;
- Digital Image Specialist – expert in digitizing techniques using several technologies and instrumentations. He is responsible for the digitization of the archaeological area and the archaeological finds preserved in the museum's rooms, and for the processing of the dataset for obtaining final 3D models;
- 3D Artist – expert in 3D modelling of artefacts and historical contexts. Responsible for the modelling of the 3D environment and of the optimized model, in accordance with the target platform for end users;
- Software developer – responsible for the development of virtual experiences (webapp, XR) for the interaction with historical contexts and 3D objects.
- Tester & Quality Checker – expert in quality control and bug hunting.

Fondazione LINKS will contribute its expertise in innovation and digital transformation to support the design and implementation of the Aquileia pilot. Specifically, LINKS will help define the pilot’s execu-

tion and management plan. In addition, LINKS will support Fondazione Aquileia in stakeholder engagement, the preparation of communication materials, and the monitoring of pilot KPIs. The LINKS team member directly involved in these tasks is a senior researcher with consolidated expertise in digital transition and participatory project design in the cultural sector, ranging from stakeholder engagement to the management and facilitation of co-design and participatory planning workshops.

7.2.4 Pilot methodology

The Pilot methodology is characterized by three relevant phases: the first is the **Preparation** one, which encompasses preliminary choices, such as defining strategies for access and target groups involvement. Subsequently, the following step is **Execution**, defined by the actual digitisation, culminating in the development of an interactive 3D virtual tour of Titus Macer's Domus. Finally, the last phase is the **Evaluation** one, encompassing the qualitative and quantitative stakeholders' feedback. This Pilot case will involve Fondazione Aquileia and 3DR for its implementation, while LINKS will support the community engagement activity.

Firstly, in the **Preparation** phase, when the final target group had not yet been identified, meetings were held with the residents of Aquileia and with local schools, not simply for presentation purposes, but to raise their awareness about the future project. This helped to establish contacts and connections that were useful for maintaining constant dialogue, supported by a short document prepared to keep participants up to date. Subsequently, the collaboration focused on schools, and a discussion was initiated with the Museum of Aquileia in order to identify which elements could be digitized. Moreover, an on-site visit was made with 3D Research to the House of Titus Macro, which allowed for a concrete assessment of the space and testing of the possibilities for intervention.

Secondly, within the **Execution** framework, young citizens of Aquileia (students) will be called to participate in the selection of the assets to be digitised within a participatory process enabled by the Public Sensing Prioritization Enabler. More specifically, by the middle of November 2025, students will be asked about their interests and why, to establish the following prioritization on the Roman objects to be digitized. The involvement of schools raises awareness among young citizens of Aquileia about the local archaeological heritage and its preservation. At the same time, through the questionnaire and the participatory campaign, it allows a direct link to be established with tourism, guiding the narrative and methods of enjoyment towards content that is more accessible and attractive to different target audiences. The campaign carried out in schools will be reviewed and taken into consideration for the selection of items to be digitized. Namely, the personnel of the Aquileia Foundation will use their expertise to provide the assets that need digitisation and contextual interpretations, which then will be the basis for a broader virtual tour of the Domus. The assets already identified in Pilot 3 will be a *stone weight*, found during the excavations of the Domus and is currently preserved in the National Archaeological Museum of Aquileia; a *stone brick oven* (still located within the Domus), dedicated to the production of bread; a *stone wellhead* (still located within the Domus); a *sestertius*, an ancient coin (found on the premises of the Domus and currently preserved in the National Archaeological Museum of Aquileia); and, finally, a *polychrome mosaic* with a fawn and a dog (still located within the Domus). Moreover, the National Archaeological Museum of Aquileia has identified some macro-classes of objects, from which around two or three items will be selected for each class, for a total of 15 objects. These will be added to the artifacts already planned by the Aquileia Foundation, bringing the total number of digitalized artifacts to 20. Thereafter, the Pilot execution will require several months

and will involve phases of digitization, development, study and documentation, modelling and optimisation.

For the digitalisation, eight high-resolution videos focused on the 3D reconstruction of the archaeological areas of the UNESCO site of Aquileia will be used as case study to support the initial phase of modelling and development of the virtual tour. As already mentioned, this latter will be accessible by visiting a web page, without requiring specific hardware, software or to download applications by third parties. Some historical items currently on display inside the National Archaeological Museum of Aquileia will be digitalized alongside the archaeological area of the Titus Macer's Home using a combination of metrological-grade scanning and photogrammetric workflows to generate accurate 3D models.

After the digitisation made by 3DR, the community will be called again to collaboratively provide the context for the selected assets, using the Contextualisation Enabler. This community will be composed of archaeologists, archaeology students, historians, or people passionate about history, to collect the relevant contextual information for the items digitised, including dating, use of the item, historical data, and eventual symbology explained (in the case of the mosaic floors). Indeed, the digitalized objects will also display a descriptive text containing the following information:

- provenance;
- description of historical relevance;
- materials;
- aim;
- comparison with similar "objects" of other areas outside Aquileia;
- institutional IDs, inventory numbers, references to the holding collection;
- picture of the real "object" and/or 3D reconstruction.

Thus, the virtual tour will be assessed for appropriate use of context through the Context Validation Enabler, whose task is to verify that what is produced during contextualization is correct, consistent, and scientifically acceptable. Then, the virtual tour will be a narrative and interactive experience, accessible from a web browser. It will be enabled via QR codes through which visitors can directly connect to the digital recreations and will also be available on the foundation's website for remote users.

Lastly, in terms of **Evaluation**, this will be carried out both in terms of quantity (number of participants, visits, surveys completed) and quality (stakeholder feedback, perception of educational value, degree of satisfaction).

7.2.5 Ethical and legal requirements

The execution of Pilot 3 must comply with the ethical and legal standards established at EU level, as well as with the specific requirements outlined in the REEVALUATE framework.

7.2.5.1 Intellectual Property Rights (IPRs)

The materials and tools used in the digitisation process will likely be subject to certain IPRs, as well as the outputs (i.e., the digitised assets). Indeed, the 5 digital assets will most likely be generally covered and protected by copyright law, in line with the **Berne Convention**, which lays down certain minimum standards for a work to be protected. Moreover, it is also worth noting that copyright in a qualifying

work will arise automatically on the work's creation, without any formality or registration. The practical effect of being a copyright holder in relation to a specific work is that the author/owner will enjoy certain exclusivity rights in respect of their work and can enforce such rights. By having the exclusive right to reproduce the work or authorise its reproduction, by creating or authorising the creation of a translation, or by making an adaptation of the work. Further, REEVALUATE partners are required to grant each other, a royalty-free basis, access to results needed to implement their own tasks under the action. Finally, the use of the DLT-based Asset Tokenisation and IPR Management Enabler will ensure secure, transparent, and traceable handling of IPRs across the consortium.

Also noteworthy is the fact that raw data is usually not considered an intellectual creation of the human mind, so it will not generally be granted copyright protection. That is why the **Directive (*96/9/EC*)** ensures protection of the database as a whole. If the database has been fixed in a given form, then the Database Directive grants its maker a number of exclusive rights, including the right to carry out temporary or permanent reproduction of the database or its part, translation or adaptation, and distribution to the public of the database or its copies.

7.2.5.2 Privacy and Data Protection

In order to assess the effectiveness of the solutions within the proposed framework, Pilot 3 has been interviewing and working with human participants and, in doing so, collecting and otherwise processing their personal data. Naturally, this raises certain privacy-related ethical issues which the project partners are aware of and committed to address. Any data processing will be done in full compliance with the relevant legal requirements applicable in the country where the data collections are taking place (Italy). These may include **GDPR** as well as any other sector specific rules, all of which stem from the principles set out in the **CFREU** (namely Arts. 7 and 8) and **ECHR** (Art. 8). Most notably, any personal data processed is in line with the following principles:

- **Lawfulness, fairness and transparency**: Students and expert stakeholders will be informed about the purposes of processing their data when, for example, they participate in the prioritization and contextualization campaign;
- **Integrity and confidentiality**: The personal data collected will be stored by 3RD, Links, and the Fondazione Aquileia with adequate security measures to prevent unauthorized access;
- **Accountability**: The responsible partner must be able to demonstrate that all data collection and management activities are carried out in full compliance with the GDPR;
- **Consent**: When students or expert stakeholders participate in campaigns, they must have signed before a clear and understandable consent form. Such consent will be obtained using information sheets and consent forms in a language and terms fully understandable to them. These will describe the aims, methods, and implications of the interviews, workshops and online survey, the nature of their participation, and any benefits or risks (e.g., to privacy) that might be involved;
- **Purpose limitation**: No data collected will be sold or used for any purposes other than the current project;
- **Data minimization**: Only strictly necessary data will be collected (e.g., age, opinions on objects), avoiding the storage of additional or irrelevant data;
- **Data sharing**: Data will be shared with other project partners only insofar as such sharing is lawful, such as on the basis of data subjects' consent or for the legitimate interest of the project partner.

7.2.5.3 Gender-sensitive aspects

Recognising the principle of gender equality as enshrined under Art. 23 of the **CFREU**, in the EU's **Gender Equality Strategy 2020-2025**, as well as under the **United Nation's Sustainable Development Goal No. 5**, the Pilot requires the partners to take all measures to promote equal opportunities between men and women in the implementation of the project and aim, to the extent possible, for a gender balance at all levels of personnel assigned to the project, including at the supervisory and managerial levels. Indeed, the project aims to have an even, 50/50 participation rate of both men and women amongst teams and in leading roles. Gender balance across the project's research team, advisory boards and committees is continuously monitored to ensure women and men are equally represented. To this end, project partners are asked to confirm the respective numerical ratios between male and female staff/participants, as well as any inclusion and exclusion criteria in the relevant WPs. This means that participation in the prioritization and contextualization campaign will also be balanced between students and scholars (archaeologists, historians, and researchers).

7.2.5.4 Socio-economic aspects

The consideration of socio-economic aspects is derived from and supported by a high-level non-discrimination principle required by Art. 21 **CFREU**. Also, relevant here is the requirement for integration of persons with disabilities arising from Art. 26 CFREU. The Pilot contributes to "*democratise access to CH in a traceable and unbiased manner that recognises and has the capacity to identify any possible misuse*". Particular attention is paid to the inclusion of vulnerable or traditionally marginalized groups, so that their perspectives are also heard and valued. To do so, the Pilot framework envisages a set of standardised tools and enablers to promote an active engagement of the public in the prioritisation and contextualisation process of the CH artefacts.

7.3 Timeline

Pilot execution will require several months involving digitization, development, study and documentation, modelling and optimisation, implementation and testing phases. It will run until October 2026:

- The prioritization campaign in scheduled by the middle of November 2025 (schools' engagement), then, followed by the digitization phase.
- The contextualization campaign through the virtual interaction will start at the end of the previous tasks, around November and December 2025.

The Pilot assessments and evaluations will begin in November 2025 and will continue until December 2026. There will be two rounds: one that will last until September 2026, and the second that will start immediately afterwards and conclude at the end of the project.

7.3.1 Preparation

To initiate the process of identifying the CHIs and to establish a comprehensive overview of the available digital cultural assets, a dedicated questionnaire was designed and distributed to all CHI partners engaged in the Pilot actions. More specifically, meetings were held with schools, the Museum of Aquileia and with 3DR at the House of Titus Macro, which allowed for a concrete assessment of the space and testing of the possibilities for intervention. The primary objective was to collect structured, standardised information that would enable the project team to map the current availability, typology, and accessibility of artefacts. This section focuses on identifying digital objects already in the possession of the CHIs, which are available and potentially usable within the pilot use case. As a result, a collection

of eight high-resolution videos has been made available. These videos focus on the 3D reconstruction of archaeological areas within the UNESCO World Heritage Site of Aquileia. While only the final video outputs are available (not the original 3D model source files), these assets provide valuable audio-visual material that can support the communication and dissemination components of the pilot. At this stage, however, some limitations also emerged: there were some unexpected technical limitations related to Facebook's META API. The issues that arose prevented the questions from being posted on the main Facebook page, as originally planned. To ensure timely dissemination and demonstrate the functionality of the tool in action, the campaigns were posted via the project's own profile. Moreover, the text appeared as a single block that was difficult to read. This could have created confusion in the framing and threatened the credibility and importance of the project. Finally, the first phase coincided with school closures, thus limiting the participation of a key target group.

The expected output of the Preparation phase consists of a preliminary dataset of preferences and classifications, stored in the shared project platform, together with a shortlist of artefacts from the Domus of Titus Macro. This ensures both awareness among the young citizens of Aquileia and a concrete basis for the subsequent Execution phase.

7.3.2 Execution

The execution of the Pilot is structured into different steps leading to the implementation of the virtual tour.

7.3.2.1 Prioritization of Historical Artefacts

Using a participatory approach made achievable by the Public Sensing Prioritization Enabler, young people in Aquileia will be socially engaged (FB) to guide choices. The “sentiment analysis” questionnaire makes it possible to develop a direct connection with young tourism, directing the story and enjoyment techniques toward information that is more appealing to various target audiences and easier to access. After collecting and analysing questionnaire responses from the participating Pilot, a broad classification of the identified cultural heritage artefacts will be produced (in a standardized collection of information). This means that a “sentiment analysis” will be carried out to understand the importance and how these digitalized objects must be reaching the public. This campaign directly involves young people and is therefore an innovative way for them to learn about heritage and, at the same time, actively contribute to defining how objects are treated, valued, and made accessible. In line with the project's KPIs, which set a target of twenty digitized assets, additional artefacts may also be included, thus expanding the collection for the tour and strengthening the overall impact of the pilot.

7.3.2.2 Digitalization

The selected artefacts will be digitized by 3RD, using a combination of metrology-grade scans and photogrammetric workflows to produce high-fidelity 3D models. In addition, eight high-resolution videos of the UNESCO World Heritage archaeological sites in Aquileia will complete this process. While only the final video outputs are available (not the original 3D model source files), these assets provide valuable audio-visual material that can support the communication and dissemination components of the pilot. Also, for archaeological areas**,** LiDAR scanning and unmanned aerial vehicle (UAV) photogrammetry provide high-resolution topographic data critical for mapping and monitoring excavation sites and landscape features. These geospatial data sets are integrated within Geographic Information Systems (GIS) to support spatial analysis, stratigraphic interpretation, and site management. So, in

most cases, digitising is a process that involves both 2D and 3D representations of objects, being the process of transformation of data from analogue to digital form.

Moreover, metadata will be created for each artefact, including provenance, historical significance, materials, function, comparisons, and institutional references. Photographs and extracted images from the existing video material may also be provided to support the digitalization. Through the combination of storytelling and 3D content creation, the Aquileia pilot contributes not only to the technical testing of the REEVALUATE framework but also to the broader goal of engaging especially the young audiences with the hidden richness of Roman heritage preserved within and beneath this historic site.

The digitisation phase is scheduled for the end of September 2025. During this period, 3DR specialists will digitise the archaeological area and the artefacts within the Museum rooms. The approach will be split into two phases:

- PHASE 1 - Digitization of Titus Macer's Domus

Being an outdoor archaeological area, the complete 3D model of the Domus will be obtained by a photogrammetry process that will involve the integration of two different optical datasets. The photogrammetry technique allows merging two different sets of photography, in which the first one will be obtained by drone survey and the second one by manual camera shots. Due to the size of the structure covering the area, a manual flight will be executed to ensure the preservation of the structure and instrumentation. Considering the major complexity in digitising a large area in manual flight, several photos taken by a manual camera will be added, ensuring the coverage of the whole area in terms of undercuts and details.

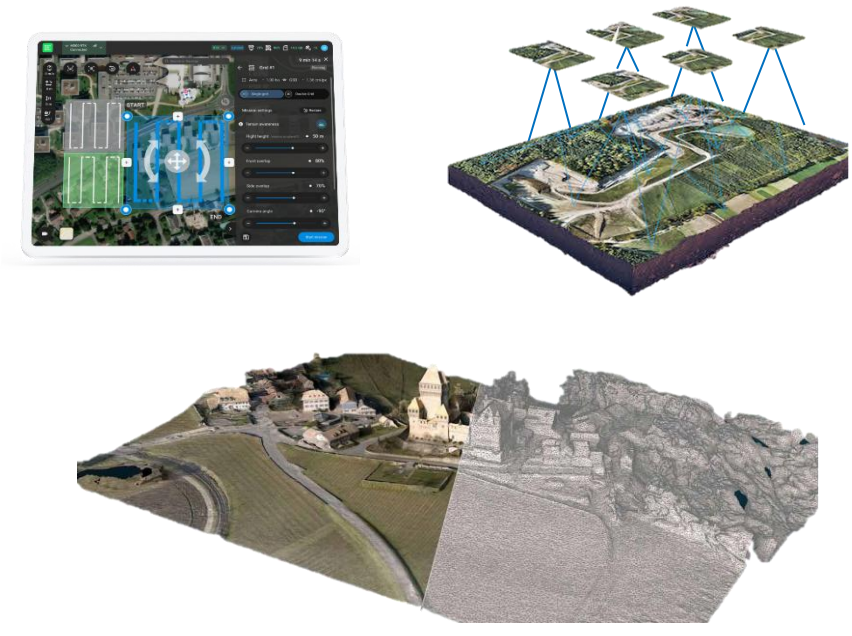

Figure 33: Aerial photogrammetry process by drone

A codified colour palette will be used to ensure the right representation of colours in the digital environment. The two datasets will be later light-balanced and merged into a unique alignment process to obtain a single large and well-detailed 3D textured mesh. Various format files can be subsequently exported from the project, such as images of portions of the area, point clouds, and cut meshes, useful for use with the enabler developed inside the REEVALUATE framework.

- PHASE 2 – Digitization of museum objects

Museum objects will be digitised during the same session, but in a separate moment. Considering the material composition and dimension of these archaeological finds, a combination of photogrammetry and structured-light scanning techniques will be integrated. Using a 3D scanner for the digitisation of medium-sized objects allows the generation of precise and detailed geometry with texture information, which is useful for online virtual experiences, considering the object can be processed and simplified within the same and unique environment. Photogrammetry will be used as a support technique for objects that are either very small or have extremely high detail, as needed. The codified colour palette will again be used to ensure colour and light correction. Finally, the professional involved will be a Digital Image Specialist, a 3D Artist and a Tester & Quality Checker.

Figure 34: Light Structured Scanners

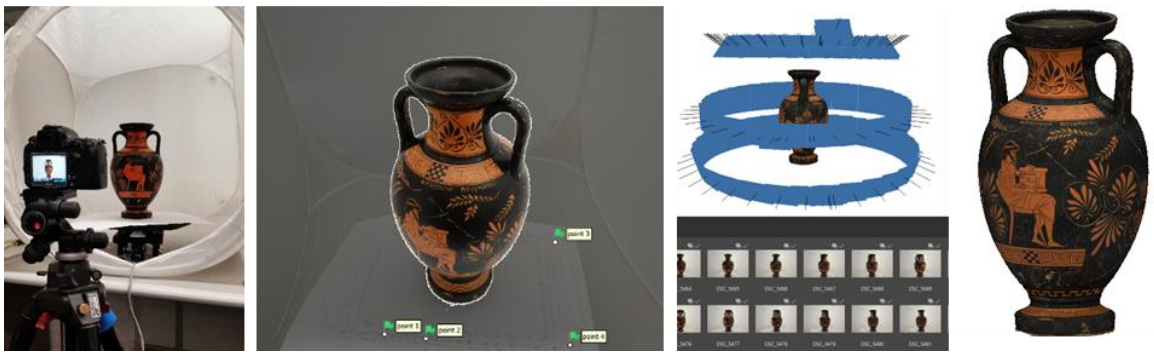

Figure 35: Workflow of processing with photogrammetry.

7.3.2.3 Contextualization

After digitisation, the community will be re-engaged through the Contextualisation Enabler, involving archaeologists, archaeology students, historians, and enthusiasts. The number of participants engaged in the collaborative contextualisation and prioritization process (*6.3.2.1*) is not precisely defined, however, the interactions of the prioritisation social media campaign and contextualisation on FB must be at least 50. Hence, two distinct samples of participants are involved: in the first phase, young students from Aquileia, whose involvement made it possible to understand the interests and

curiosities of younger audiences, helping to enhance the museum's appeal and potential visitors; in the second phase, however, the involvement of professionals- archaeologists, historians, and scholars- provided a more specific and scientific contribution, ensuring the quality and reliability of the contextualization. Moreover, their contribution will be assessed through the Context Validation Enabler to verify that what is produced during contextualization is correct. Although different in nature and purpose, both contributions are essential and are also implemented through the project's KPI.

7.3.2.4 Development of the Virtual Tour

At the end of the digitizing task, a virtual tour will be developed. Users will fully explore and freely navigate the archaeological area of the Titus Macer Domus. The virtual tour will be a narrative and interactive experience, accessible directly via a QR code located on site, which will allow visitors to connect to the digital reconstructions, while for remote users it will be available on the Foundation's website. The structure of the virtual walkthroughs will be as follows:

- Users are spawned inside the area of the Domus;
- Users can move inside the area using the keyboard for simple movements such as going forwards, backwards, left and right;
- Users can change the view by moving the mouse (for example, by clicking and dragging or just moving);
- Users can interact with objects by clicking on them, and a pop-up window will show some detailed information such as provenance, typology, use, etc.;
- 3D models will be optimised in terms of mesh topology and texture size, ensuring the preservation of high details using specific techniques of manipulation of virtual objects.

During the completion of the 3D environment and the secondary elements (terrain, trees, grass), the fundamental interaction mechanics will also be integrated: walk, turn, grab, and select. The digitised objects from the museum will be placed inside the archaeological area, giving them a context for common use during the Roman period and according to the importance given by the prioritisation enabler and contributions from the contextualisation enabler.

This phase will last until the end of the development of the full experience, according to entertainment and scientific accuracy. The word commonly used to describe this process is *edutainment*. Finally, the Professional involved will be a 3D Artist, a Software developer, a Tester & Quality Checker.

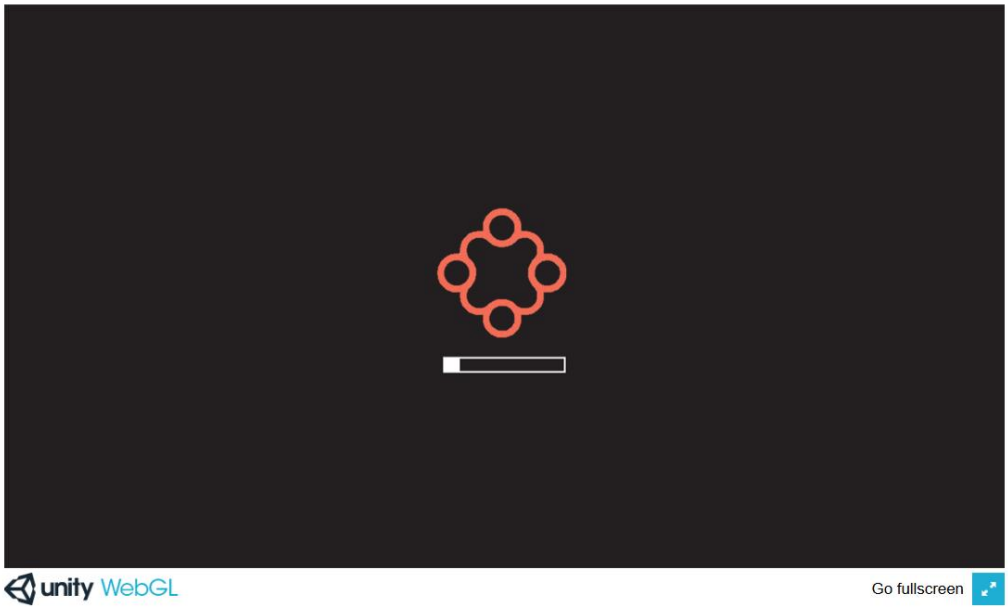

Figure 36:. Prototype of the loading page for the online virtual experience.

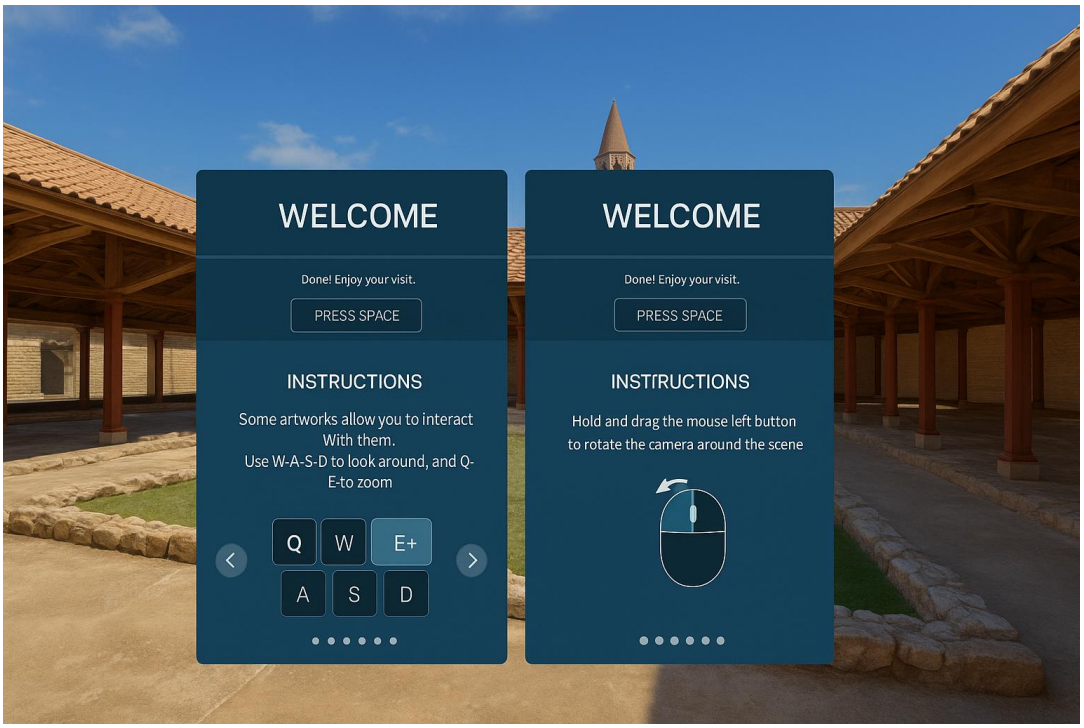

Figure 37: Example of a starting page with a tutorial and main instructions.

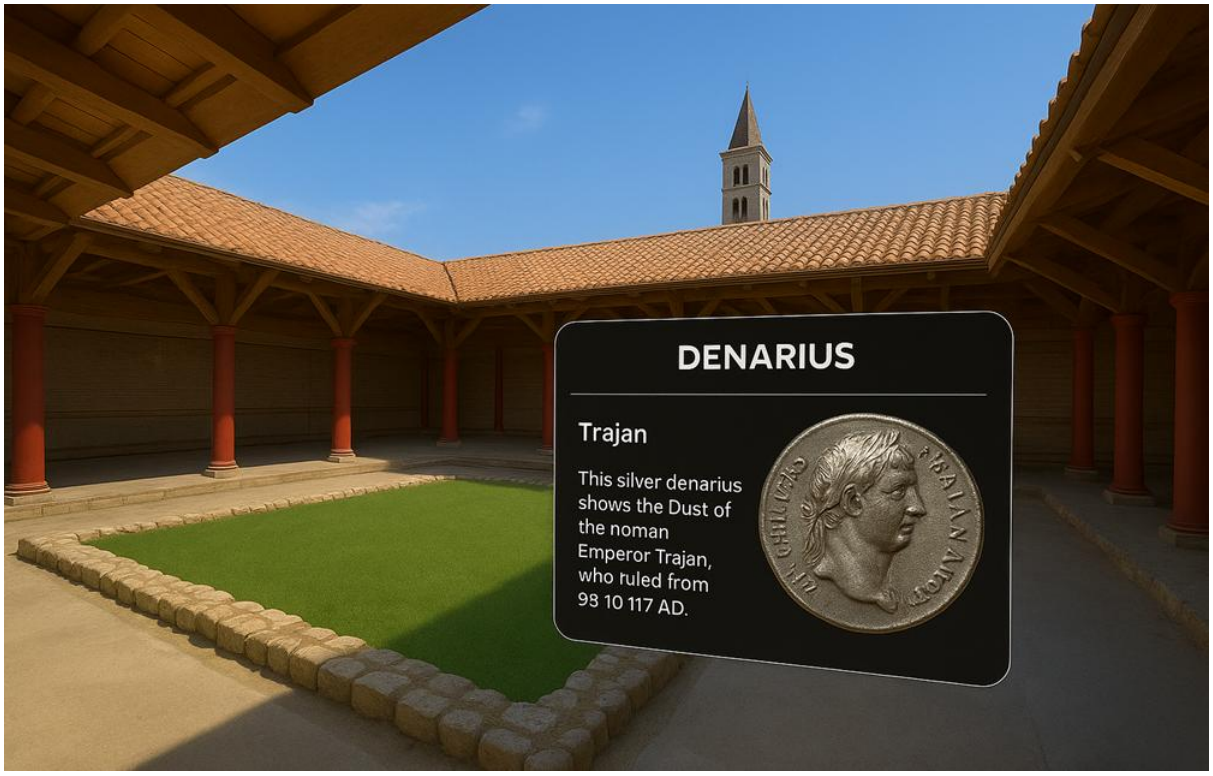

Figure 38: Preview of the virtual experience with an example of a card of a Roman coin.

7.3.2.5 Dissemination and Public Engagement

The project will add value to the Aquileia's established status as a **UNESCO World Heritage Site**, recognised worldwide for its Patriarchal Basilica and extraordinary archaeological sites. This allows the tour to be promoted not only locally (Aquileia and Friuli Venezia Giulia), but also nationally and **internationally**, enhancing a cultural heritage of universal significance. The creation of a virtual tour inside the house of Titus Macer offers a tangible way to experience daily life in a wealthy roman household, reflecting the outstanding universal value (OUV) of Aquileia's UNESCO sites. Through the virtual representation of a wealthy Roman house, the project highlights the prosperity and cultural importance of the ancient city and makes its historical significance accessible to the public.

The virtual tour will be promoted through various communication channels, such as its **website** and **remote access** (newsletters, social media, articles, etc.) to publicise its use and actively engage the various target audiences. Indeed, the institutional newsletter and the multilingual website dedicated to the Domus reaches more than 6,000 users. Additionally, its dissemination will also occur through **offline tools**, such as:

- Archaeological journals with which the Foundation collaborates. In particular, ***Archeologia Viva*** *(Giunti Editore S.p.a)*, will play an important role. *Archeologia Viva* is the first major Italian magazine dedicated to the divulgation of archaeology and it also has an Instagram page with almost 9,000 followers, thus offering an additional digital channel capable of reaching a wide and diverse audience.
- **Aquileia Film Festival** that Aquileia hosts at the end of July. It is a major cultural event featuring screenings of films on archaeological and historical themes, accompanied by talks by historians, experts, writers and prominent figures. The event takes place in the two squares sur-

rounding the Basilica of Aquileia, Piazza Capitolo and Piazza Patriarcato, which can accommodate around 500 viewers. In this prestigious setting, the Aquileia virtual tour project will be presented and promoted, offering a further opportunity for face-to-face dissemination and direct public involvement, thus increasing the visibility of the initiative.

- Furthermore, at the end of September, the Aquileia Foundation participates in the **European Heritage Days**, with a rich programme of initiatives including historical re-evocations, guided tours and special openings of excavation sites. In this context, the Virtual Tour would not only be an additional element, but also a bridge between tradition and innovation, capable of combining the historical and archaeological dimension with the potential offered by new technologies.
- In addition to the festivals already mentioned, the Virtual Tour can also be promoted at other important events held in Aquileia throughout the year, such as the **European Archaeology Days** (June) and the **Festival dei Cammini di Aquileia** (April), dedicated to rediscovering Roman heritage through itineraries, conferences, etc.
- Collaborations with the **academic world**, namely the universities that are conducting excavations and research in Aquileia (Padua, Trieste, Udine, Venice, and Verona). They will be a fundamental channel for disseminating the project.
- **Local associations**, such as the National Association for Aquileia and Pro Loco Aquileia, which ensure the direct involvement of the local community and broader public participation.
- In 2026 a **new InfoPoint** will be created in “Via Popone”, and the Fondazione Aquileia is considering displaying the QR code inside this new Aquileia Hub.

7.3.3 Evaluation

The Evaluation phase aims to measure the impact of the virtual tour from both a quantitative and qualitative point of view, ensuring that the pilot also generates real engagement among the various target groups. Put differently, it will be possible to allow for an overall assessment of the pilot's effectiveness, providing useful elements for future improvements within the REEVALUATE framework. More specifically:

- In **quantitative terms**, feedback and satisfaction surveys from participants and stakeholders involved in the pilot will be collected. Following the “Feedback and Satisfaction” KPI, in order to provide a complete measurement of the stakeholders, the target results will be at least 40. Furthermore, the number of interactions on social media posts, web page and press visits, and the frequency of QR code scans will complement the dataset. This KPI requires 10 screenshots and links to media mentions and proof of press coverage, which will serve as verifiable evidence of the dissemination efforts and the public visibility achieved by the pilot.
- In **qualitative terms**, feedback will be collected through an online questionnaire (such as Google Form), structured to capture both experiential and knowledge-based dimensions. The questions will concern accessibility, interactivity, and overall satisfaction. Participants will also be asked to express the perceived impact of the experience, both in emotional terms (e.g., engaging, immersive, surprising) and in informational terms (e.g., new knowledge acquired, comparison with previous visits, greater understanding of the artefacts).

7.4 Assets used

Among the assets used, there are archaeological artefacts provided by the National Archaeological Museum of Aquileia, divided into heterogeneous macro-areas, for a total of 15 items.

Approximately two clay oil lamps with open-channel moulds from the 2nd-3rd century AD and three pieces of fine common ware ceramic jugs from the 2nd- 4th century AD will be selected. The museum will also make available for digitisation two bronze statuettes, preferably well-preserved pieces such as those depicting Athena and Mercury. Next, a common ceramic pot with a globular body, a terra-cotta inkwell, glass bottles, or alternatively a glass cup and a glass jug will be digitized. A large amphora from the 2nd-3rd century AD and a slab decorated with a bas-relief depicting a male figure. In addition, a bust depicting a mature adult male from the 2nd century AD and, finally, a decorated marble mortar.

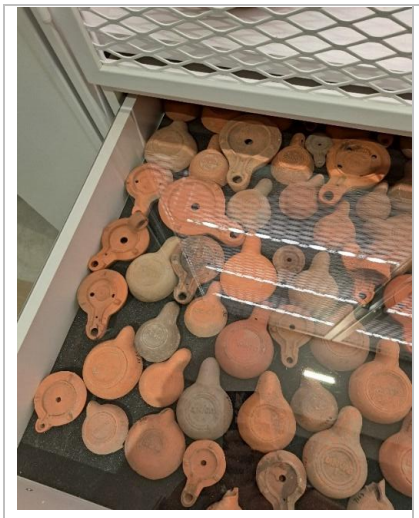

Figure 39: Clay oil lamps

Figure 40: Ceramic jugs

Figure 41: Bronze statuettes

Figure 42: Amphora

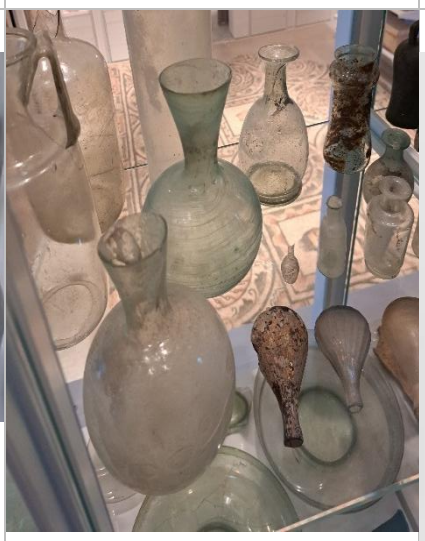

Figure 43: Glass bottles bust

Figure 44: Adult male

In addition, there are five artefacts located within the Titus Macer House, which are described in the following table:

Table 11: Table of assets used in pilot 3

#1	Information
Object	Stone weight (“peso di pietra”)

Provenance	Archaeological Area “Cossàr Fund” (“Fondo Cossar”). It has been found in the excavations of the Domus -Titus Macers’ House- and it is currently preserved in the National Archaeological Museum of Aquileia.
Date	I century AD
Description / historical relevance	Titus Macer’s name is carved on a stone weight discovered during excavations by the University of Padua in the back of the house: T. MACR, i.e., T(iti) Macr(i), “Titus Macer’s”. Using the same method applied in Pompeii, the house discovered in the Cossàr Fund is thus called “Titus Macer’s house”. We don’t know who Titus Macer was: unfortunately, the name of the family name (gens) on the stone weight between the praenomen Titus and the cognomen Macer is missing. We can only assume that Titus Macer was a wealthy merchant who could afford to buy two adjacent properties to create a 1,500 square meters new house.
Materials	Stone with iron handle
Aim	Commercial weight (10 lbs)
Comparison with similar “objects” of other areas outside Aquileia	/

#2	Information
Object	stone wellhead
Provenance	Found (and still located) within the Domus (belonging to the archaeological area of the Cossàr Fund)
Date	I century BC-I century AD
Description / historical relevance	The well was located in the atrium of the domus, the "public" part of the house. In the center of the atrium there was the impluvium basin (now rebuilt) with a well. The wellhead, i.e., the protective balustrade closed around the hole of a well, was partially found. The missing part was then reconstructed with 3D printing techniques. The well was not very deep because the aquifer in Aquileia is almost at ground level.
Materials	Stone
Aim	Rainwater collection for the domus
Comparison with similar “objects” of other areas outside Aquileia	The wellheads in Roman world are very different from each other, but the general shape is functionally the same

#3	Information
Object	oven
Provenance	Found (and still located) within the Domus

Date	I century B.C.?
Description / historical relevance	The oven is located inside the southernmost shop of the domus, which was used as a bakery. Today we can recognize the lower part, circular inside, of the oven, the brick base for the millstone used to grind the wheat as well as a counter for preparing bread. The sale then took place directly on the facing road, the eastern cardo.
Materials	Stone bricks
Aim	Oven belonging to one of the shops of the Domus, dedicated to the production of bread
Comparison with similar "objects" of other areas outside Aquileia	Ovens from Pompeii offer the best comparisons, even if they are better preserved in the higher part of their structure.

#4	Information
Object	Sestertius (ancient coin)
Provenance	Found in the area of the shops of the Domus. It is now preserved in the National Archaeological Museum of Aquileia.
Date	Dated 235-236 A.D.
Description / historical relevance	Over 1200 coins have been returned from the excavations (of the University of Padua), among which stands out the sestertius of Maximinus Thrax, the emperor who died in Aquileia at the hands of his own soldiers who had laid siege, without success, the city remained loyal to Rome.
Materials	Bronze
Aim	Commercial use
Comparison with similar "objects" of other areas outside Aquileia	Coins of Maximinus Thrax are known in other parts of Roman world

#5	Information
Object	Polychrome mosaic with fawn and dog
Provenance	Titus Macers' House (and still located within the Domus)
Date	End of the 2°century-beginning of the 3°century
Description / historical relevance	The mosaic, rich in details and colours, located in the small room overlooking the garden, represents a deer and dog with their jaws wide open. In general, the mosaics kept in the Domus offer a sampling of the tastes in vogue for mosaic decoration.
Materials	mosaic tiles
Aim	Decorative use for one of the rooms of the Domus: the studio ("studiolo")
Comparison with similar "objects" of	/

other areas outside Aquileia	

7.4.1 Digitization status

ALREADY DIGITISED	
Types and number of existing digitised objects that will be included in the pilot use case	8 high-resolution videos focused on the 3D reconstruction of the archaeological areas of the UNESCO site of Aquileia.
File formats of the digitised objects	.mp4
Is there a description of its corresponding physical item or additional content (either as an accompanying file or included within the object)?	No
Types of metadata related to each digitised artifact that will be used in the pilot use case	-
Estimate total size (in MB)	around 230 MB per each video
Intellectual property rights currently applied to the digitised objects, or intend to be applied in the future?	Current situation: copyright. Future: Depending on possible policies changes
Intended or planned sharing of digitised artefacts?	The videos are currently available at https://www.fondazioneaquileia.it/it/visita-aquileia/aquileia-3d
Is data stored/processed on your own machines or externally (cloud, hosted)?	Website, social media (YouTube channel @FondazioneAquileia) and internal server
Are your digitized artefacts and metadata externally accessible?	No
If digital objects are stored in external repositories, how does the pilot leader plan to provide access?	-
Is the APIs publicity available?	No
Are access rights handling specific to your institutions or can it be integrated into a wider Reevaluate "single sign on"?	No

(For example by logging in with Google, Apple, Facebook or Microsoft credentials)	
Would you be (organisationally/legally) able to provide content access to the project (for the pilots) or should the information above be considered for conceptual use (i.e., architecture) only?	No

TO BE DIGITISED	
Number of new physical objects provided for the case study	In the context of the archaeological site "Domus di Tito Macro / Titus Macer's House" (please find here more information https://shorturl.at/SauvI), 5 "objects" could be the basis for a broader virtual tour of the Domus.
file formats for each type of digital object	
Types of objects provided for the case study	stone weight (found in the premises of the Domus and currently preserved in the National Archaeological Museum of Aquileia) stone brick oven (still located within the Domus) stone well (still located within the Domus) ancient coins (found in the premises of the Domus and currently preserved in the National Archaeological Museum of Aquileia) mosaic (polychrome mosaic with fawn and dog, still located within the Domus) > if possible, considering that it is developed on a horizontal dimension
Expected file type for the new digitised objects	3D model for a virtual tour
For each physical item intended for digitization in the pilot use case, is there a description (as an accompanying file)?	For each item it could be provided a descriptive text containing the following information: provenance description of historical relevance materials aim

	comparison with similar "objects" of other areas outside Aquileia Moreover, a picture of the real "object" and/or 3D reconstruction (taken from the already available videos) can be provided.
Type of metadata needed to create for the new digital objects	historical period, weight (when possible, e.g., stone weight)
Intellectual property rights intended to apply to the digitised artefacts	Copyright

7.5 Enablers used

The REEVALUATE framework envisages a set of standardised tools and enablers; the Pilot 3 will include:

- Public Sensing Prioritization Enabler, the general aim is to promote an active engagement of the public in the prioritisation process of the CH artefacts, ensuring that diverse voices and perspectives (also from marginalized or sensitive groups) are heard and taken into consideration. The Aquileia pilot aspires to create a model for participatory heritage digitization, where technology and tradition intersect to preserve and promote the stories of the past in ways that are meaningful for the present and future. It is in this context that young students living in Aquileia will be asked to participate.
- Contextualisation Enabler, through the combination of storytelling and 3D content creation, the Aquileia pilot contributes not only to the technical testing of the REEVALUATE framework but also to the broader goal of engaging different public with the hidden richness of Roman heritage preserved within and beneath this historic site. In this case professional stakeholders such as archaeologists, historians, experts, passionate people, and scholars will be taken into account in order to enhance the knowledge and the information while in parallel asking for their active participation.
- Context Validation Enabler, to verify that what is produced during contextualization is correct, consistent, and scientifically acceptable.

7.6 Stakeholders

1. Museo Archeologico Nazionale di Aquileia; a public institution that will not only provide scientific and collaborative support to the project but also makes available several archaeological artefacts to be digitized.
2. Local Students; a community group part of the prioritization campaign. They participate through social media interactions and give their preferences and motivations about the objects to be digitalized and their narrative consumption.
3. Archaeologists, Scholars, Historians, Experts, and history enthusiasts; the network is actively involved in the contextualisation process, giving important scientific contributions.
4. EducA educational department of the UNESCO site of Aquileia; an educational programme that promotes innovative learning activities for schools through thematic pathways and workshops. It will play a key role in disseminating and valorising the virtual tour.

5. University of Padua - Department of Cultural Heritage; the Department has been directly involved in the archaeological excavations over the years, and it will provide scientific support to the contextualization.
6. CNR-ISPC; is the developer of the framework that will be used for the development of the virtual tour.

7.6.1 Forms and documents

- Agreement between Fondazione Aquileia and DRM FVG for the establishment of the joint Educational Department "Aquileia" (EducA); The document regulates the establishment of a joint Educational Department, called 'Aquileia', aimed at designing, organising and implementing teaching and educational activities aimed primarily at school children. The agreement was signed in Trieste in June 2024 between DRM FVG, namely the National Archaeological Museum of Aquileia and the Early Christian Museum, and the Fondazione Aquileia. It will remain in force until 30 June 2026 and may be extended until June 2028.

- Invitation letter for local students' engagement (*Grant Agreement No 101132389*); the invitation text, addressed directly to students, encouraged them to imagine themselves as "time travellers" and to choose the Roman artefact that fascinated them the most, explaining why.

- Invitation letters for Archaeologists, Scholars, Historians, Experts, and history enthusiasts; the aim of these communications was to involve them in the contextualisation process, ensuring that their scientific knowledge and perspectives contributed to the interpretation of the digitised artefacts.

7.7 KPIs

7.7.1 List of KPIs

Table 12: KPI Table for Pilot 3

KPI	Verification/ Measurement mechanism	Target results (numbers)	Priority (critical or not)	Can be automatized? How?	Other comments
Number of participants engaged in the collaborative contextualisation and prioritization process	Number of interactions for each post of the prioritisation social media campaign and contextualisation on FB and IG	50	NO	?	Related to task 4.6
Number of digitised artefacts stored in the repository and made accessible to the wider public	Quantitative measurement of the uploaded files	20	NO	Maybe by linking a counter on the repository	Related to task 4.6
Number of copyright violations prevented through the use of the copyright manager enabler					NOT APPLICABLE for Pilot 3

Feedback and satisfaction surveys from participants and stakeholders involved in the pilot	Quantitative measurement of the filled in surveys and qualitative evaluation of the feedback provided by the stakeholders	40	NO		Related to task 4.6
Number of media mentions and press coverage of the pilot	Dissemination package of Pilot 3 containing the screenshots and links to media mentions and proof of press coverage	10	NO		
Increase in revenue or funding secured by CHIs as a result of increased engagement with stakeholders and promotion of digitised artefacts					**Not directly feasible. Probably to be replaced by number of users accessing the webpage in which the virtual tour will be available?**

7.7.2 Materials for determining KPIs

In order to determine KPIs and verify their achievement, different operational approaches and instruments might be envisaged.

PKI n.1, Number of participants engaged in the collaborative prioritization and contextualisation process:

Online questionnaires: FB surveys will be distributed to participants, both local students (prioritization) and professional stakeholders (contextualisation). The nature of the questions will be quantitative:

- Prioritization: The survey will include the number of respondents, the number of completed forms, and social media interactions (likes, comments, shares etc.).
- Contextualisation: Professional stakeholders (archaeologists, historians, enthusiasts, etc.) will provide comments and additional information on the digitalised artefacts. The materials will then undergo a validation process, since these inputs are checked and eventually integrated into the final narrative of the virtual tour. From the qualitative perspective, the relevance and accuracy of experts' contributions will be assessed (approved/revised/rejected). More specifically, to properly respond to the KPI, both the number of professional stakeholders involved, and the subsequent validated contributions will be considered.

KPI n.2, Number of digitised artefacts stored in the repository and made accessible to the wider public:

Counting measurement: This KPI will be evaluated by counting the number of artefacts that have been successfully digitized and uploaded. By consequence, not only will the mere quantitative measure of the assets be considered, but also other factors such as**:**

- Metadata records, including typology, materials, dating, and additional information.
- Effective accessibility, since it is fundamental that the uploaded file is truly accessible to the public through QR codes or the Fondazione Aquileia website.

KPI n.3, Feedback and satisfaction surveys from participants and stakeholders involved in the pilot:

Online and on-site questionnaires: short surveys will be distributed to participants after the virtual tour experience (both online using, for instance, google form, and on-site). Questions will be qualitative (evaluate the satisfaction, accessibility, clarity, emotional and cognitive impact, etc.), quantitative (number of visitors, interactions, etc.) and open-ended questions.

- Qualitative: "*Do you feel that your knowledge has increased after the tour?*" "*How would you rate the experience?*" "*Do you find the tour to be clear and accessible?*"
- Quantitative: *"How many times have you visited Aquileia before?" "How did you take the tour, on-site or from home?"*
- Open-ended questions: *"What are the shortcomings of the tour/things you would improve?" "What would you digitize to make the experience even more immersive?"*

Social media analytics: insights from Facebook and Instagram will be collected to monitor the number of interactions (likes, shares, comments). Screenshots and reports will be archived as evidence.

Web analytics: access statistics from the Aquileia Foundation's website (page views, unique visitors, time spent on page) will be recorded to measure online engagement.

KPI 4, Number of media mentions and press coverage of the pilot:

7. **Counting measurement**: The KPI will be evaluated by compiling a dissemination package containing:
   - Press articles and news
   - Online publications and URLs
   - Broadcast records that may come from radio, television, or podcast mentions.

   The target can be local, national, and possibly international coverage.

7.8 Risks

Risk Description	Corrective measures	S	O	D	R
Risk that prioritization and contextualization campaigns will not gather enough target audience content, failing to achieve the set KPI.	Strengthen communication in schools and with experts, using local social media. Provide visibility recognition (an academic one for the contextualization campaign).	7	6	8	8
Problems with accessibility to the virtual tour, which means that users who are not very familiar with technology may find it difficult to use.	Provide simplified functions.	7	5	6	5

Ethical and Legal Requirement Risks	Apply clear consent forms; use the DLT-based IPR Enabler for traceability and security and comply with what is described in *D6.2.5*	6	4	8	7
Post-project sustainability risk. At the end of the REEVALUATE project, the tour may lose its value in the medium to long term.	Maintain, update, and continue to promote the virtual tour and citizen participation.	6	7	7	5
Lack of interest in the experience and in the digital product	Development of an engaging and interactive product, in line with the requirements of the initial analyses and dissemination programme	6	5	4	5
Poor quality of digitised artefacts in terms of superficial and geometric properties and texture representation	Improvement during post-processing and 3D modelling	6	4	7	2
Bugs and interruptions during the use of the virtual experience	The tool will be tested several times and by different testers to diversify the quality checking	8	6	3	3

- S = Severity
- O = Occurrence
- D = Detectability
- R = Recoverability

Scale 1- 10 (1 = least, 10 = most), aligned with D6.2

8 Conclusions & Outlook

REEVALUATE will perform its pilots in two separate pilot phases. While some results contributing to the KPI evaluations are expected to be collected in the first pilot phase, the primary purpose of the first pilot phase is to ensure that the enablers provide the functionality required by the pilots and ensure that the pilots run smoothly, stable, well integrated and according to the needs of the CH partners and the requirements of the projects.

As such, this document provides the initial plans for the pilots and, while being forward looking towards the planning and execution of the pilots in the final pilot page, is mostly targeted towards the preparation and smooth operation of the first pilot phase. While early pilots already partly involve the general public, the first phase is mostly about the technical aspects of the pilot execution.

It is expected that, following the first pilot phase, the pilot plans described in this document will be refined and adapted to serve es plans for the second, more publicly visible, pilot phase. These modifications and additions to the pilot plans will be made available in an updated version of this deliverable, due in M29.