Deliverable 2.1 Definition of content types and assignment to project stakeholders

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Executive summary

This present document (D2.1) is part of WP2 project- CAPTURE: Collect Crafts and Narratives.

The purpose of the document is to define the **content types** to be collected within the project and to link this knowledge with the **stakeholders** involved, always under the scope of representing, maintaining, and safeguarding it. An essential element of the process then is also the identification and recording of the stakeholders.

The stakeholders are the core of the project not only because they possess the knowledge, they maintain it by practicing the craft, they represent it and they finally preserve it, but they are also the ones who are going to benefit directly or indirectly from the project itself.

As skill is central to craftsmanship, Mingei will capture the motion and tool usage of HC **practitioners**, from **Living Human Treasures** and archive **documentaries**, to preserve and illustrate skill and tool manipulation. In addition, stakeholders for craft **preservation**, **CH economy** and **thematic tourism**, **impact evaluation**, and **dissemination** are identified, to explore the landscape for craft **preservation** and valorization of the Mingei project outcomes.

The selection of the three pilots of Mingei (Silk, Glass, Mastic) laid the foundations of the 4 categories of stakeholders,

1) For co-creation (WP1)
2) For content (WP2)
3) For impact evaluation (WP7)
4) For dissemination (WP8)

These four types of stakeholders are characterized by different needs that ultimately determine the influence, interest, benefits that will emerge from the project.

Through the process of acquiring and recording them, we wish to achieve the engagement of the parties involved. We recognize that the goal of this record is the viability not only of the results of the project but also, to the extent possible, of the three craft instances. Sustainability and externalization are therefore two of the main areas on which both mapping content types and stakeholders are equally involved.

The goal was to create a comprehensive representation of a community in such a way, that there are no significant gaps in the set of stakeholders engaged. At the same time, the community is open to everyone that wants to participate. The separation into different groups is necessary since specific groups of stakeholders qualify for different forms of contact and survey instruments.

Human knowledge, skill, and activity are at the heart of Mingei and this is a challenging goal by itself. Whether we refer toorganizations, communities, or practitioners, it is important to emphasize on the different goals and needs that each group has, on the possibility that these needs could overlap, even though they represent different groups. For example, the goal of a

museum to increase its visitorsexhibits common ground with the goal of a tour operator, which is to increase its bookings. Nevertheless, they are different in terms of scientific scope and the fact that they are part of a process that is alive, and for that continually reshaped, reflects the past, present, and future on the stakeholders mapping.

We also recognize that this recording procedure would not make sense by itself if the content types were not categorized based on three fundamental activities:

a) Provision
b) Production
c) Use of content

The pilots of Mingei (Silk, Glass, Mastic) are selected in complementary themes covering both tangible and intangible dimensions that are related to Europe's history and have historical and societal significance. Focused on these three crafts and their special characteristics, Mingei aims to provide examples and use cases for the treatment for other such cases, in the future.

Based on these pilots, stakeholders and information types were mapped, respecting the different needs and expectations that each group has.

The current comprehensive list of the identified stakeholders can be found at the end of this document in the annexes. The stakeholders' list will be improved and extended as the project progresses. Not only because contacts may change, but mainly because it is not intended to close the community at any stage of the project. Everybody who is interested in the topic of the project and wants to participate is highly welcome at any time. On the other hand, we also respect the wish of listed stakeholders that do not want to play an active role in the project anymore.

Keywords

co-creation, content types, stakeholders, heritage crafts, intangible heritage, silk, mastic, glass, environment, museum, research, society, technology, Europe

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Abbreviations

HCs	Heritage Crafts	
AD	Archived Data	
SD	Scanned Data	
ArD	Artefact Description	
MD	Material Description	
PD	Process Description	
HI	Historical Information	
SI	Societal Information	
DA	Descriptive Annotation	
SA	Semantic Annotation	
SL	Semantic Links	
InD	Integrated Description of craft	
EC	Economic Information	
TC	Traditional Contexts	

Table of Contents

List of figures

List of tables

1. Introduction

1.1 Purpose of Document

This deliverable responds to the **definition** of **content types** and **assignment**s to project **stakeholders** for the Mingei project. It is aimed to set the basis of the Collection of Knowledge in the Mingei project, which will be delivered in "D2.2 The Mingei knowledge collection". This basis is set by describing the procedures and criteria to identify stakeholders for the collection of tangible and intangible aspects of craft as Cultural Heritage (CH).

As skill is central to craftsmanship, Mingei will capture the motion and tool usage of HC **practitioners**, from **Living Human Treasures** and archive **documentaries**, to preserve and illustrate skill and tool manipulation. Furthermore, stakeholders for craft **preservation**, **CH economy** and **thematic tourism**, **impact evaluation**, and **dissemination** are identified, to explore the landscape for craft **preservation** and valorization of the Mingei project outcomes.

The identified **stakeholders** are initially **demarked** into stakeholder **types**. The following two mappings are investigated.

1. **Stakeholder types** are **associated** with the **information types** each stakeholder can provide towards craft preservation, such as knowledge, demonstrations, artefacts, archives, and curated information. These stakeholders include practitioners, LHTs, communities, associations, CHIs, and hobbyists.
2. **Stakeholder types** are **associated** with **expectations** and **benefits** that they have to gain from the outcomes of the Mingei project. Examples of such benefits are;
    - a **curator** has the benefit of the digital preservation and the provision of content-based search in HC representations,
    - a **primary educator** has the benefit of the provision of storytelling applications about tradition,
    - a **designer** has the benefit of access to a database of traditional motifs,
    - a**thematic tourism operator** has the benefit of facilitating edutainment HC experiences online and on-site, using the knowledge stemming from <u>authentic</u> communities of craft practice, etc.

In order to **collect knowledge** from the **first type** of stakeholders a relationship of **trust** has to be built and, , stakeholder must have **ownership** of the content they provide and the way that it is presented. In order to achieve the goal of **sustainable craft preservation** & **conservation** the **expectations & benefits** of the **second type** should be optimised. Furthermore, stakeholders are characterised as to their potential interest and scope of influence.

For these reasons, the implementation of Mingei approach is co-designed with both types of the above stakeholders, in a co-creation approach that runs through the life cycle of the project, from knowledge collection to product design.

1.2 Key Concepts

We define some basic terms used in the following pages, as we acknowledge the necessity for an initial clarification of terms, such as Heritage Crafts, stakeholders, content types.

Heritage Crafts (HCs) [1] , meaning crafts that are of Cultural Heritage (CH) significance, involve craft tangible artefacts and products, traditional materials and tools, while encompassing craftsmanship as a form of Intangible Cultural Heritage (ICH). HCs involve craft artefacts, materials, and tools and encompass craftsmanship as a form of Intangible Cultural Heritage. Intangible HC dimensions include dexterity, knowledge, and skilled use of tools, as well as, tradition, and identity of the communities in which they are, or were, practiced. There is increasing engagement of organisations such as UNESCO in the preservation of 'intangible cultural heritage' (ICH) the non-material aspects of culture – ephemeral products like stories, music and indeed language itself, as well as forms of knowledge and skill that contribute to cultural vitality and continuity. This includes the breadth of 'traditional' craft skills, which, once lost, may be almost impossible to recapture.

Stakeholders are groups or individuals who are directly impacted by the project or have a vested interest in it. Stakeholders are key to a project's success or failure because they are interested in, and exert influence over, the project's objectives and outcomes as contributors, creators, and consumers [2] . The idea is that once the target audiences start to be engaged, they become stakeholders. Careful analysis and selection of stakeholders should be carried out referencing the scale and type of project and the culture of the museum in which the project is to be delivered.

Content Types contain the multifaceted knowledge corpus that researchers & stakeholders have authored about an HC, which can be constantly improved. An HC representation will be an instance of this model and will include digital assets, semantically organised, annotated, and associated. A set of tools based on this knowledge representation will enable the creation of key applications that will serve contemporary needs in the domain of HCs and cast this form of CH more available to the public and researchers.

In Tangible Heritage, **conservation** and **preservation** are two methodsused to maintain the state of the object. **Preservation** is the non-invasive act of minimizing deterioration and preventing future damage of the object. **Conservation** is the practice of methods that act physically upon the artefact, in order to preserve its current condition. Such methods can be invasive: conservators use restoration treatments to enhance the object to its original state or appearance by removing accumulated layers of dirt and/or adding necessary components that have gone missing.

In the context of craft representation and **preservation,** it regards the documentation, representation, and digital preservation of knowledge, in a structured, meaningful, and usable manner. **Conservation** regards the continuation and maintenance of craft practice, or colloquially, to keep the craft alive. Relevant to the objectives of Mingei, craft conservation regards the **conservation of cultural resources**, their **accurate interpretation**, communication of **authentic visitor experience**, and the **stimulation of revenues** through thematic tourism.

1.3 Relation with other Mingei Deliverables

This deliverable is closely linked to the following deliverables:

D1.1 "Overview of the community of experts and draft definition of technical and user requirements", which will report on the definition and implementation of Mingei's co-creation strategy.

D2.2 "The Mingei collection of knowledge", which will contain the collected digital knowledge (pre-existing) and digitisation of new content that will be produced by the project.

D1.3 "Scientific protocol for craft representation", which contains the definition of the Mingei HC representation protocol.

D3.1 "Mingei CrO and online authoring platform", which will report on the structure of the Heritage Crafts Ontology and the online authoring platform to allow the structured definition of knowledge to be exploited by the project.

D4.1 "Use cases and application scenarios", which will define use cases for allowing the project outcomes to be used for (a) scientific research, (b) craft comprehension, and (c) craft education.

2. Background

Although stakeholders can be both organizations and groups, ultimately they are people [2] . The stakeholders' identification of Mingei was implemented according to the following steps:

1. Create a list of possible stakeholder categories (e.g., creators, contributors, artisans etc.) to encourage breadth of thinking about types of stakeholders.
2. Make a list of all the people or groups in each category to find out about current debates around topics relevant to Mingei and identify new conversation topics, people, and entities.
3. For each group, identify the members or nominate a representative to reach out to existing networks, talk to people to learn about their attitudes and behaviors in relation to cultural heritage and their experiences, observations, and concerns when promoting cultural content that brings out their local cultural environment.
4. Review the categories and names to ensure that no one has been forgotten.

Mingei stakeholders' strategy is implemented through a co-creation strategy. The co-creation aims are to create shared value in collaboration with communities. Co-creative methods start from the idea that everyone is an expert on one issue or another, primarily, their own life. Different levels of expertise are equally valuable in co-creation; participants build a relationship and in that dialogue the exchange of ideas and values is vital. '*Co-creation is not a one-off event, like a referendum in which the community decides what should be done. […] Nor is co-creation just a question of formal consultation in which professionals give users a chance to voice their views on a limited number of alternatives. It is a more creative and interactive process, which challenges the views of all parties and seeks to combine professional and local expertise in new ways*' [3] . To use co-creation effectively and efficiently an organization should be able to facilitate this bottom-up process and give some freedom for the project to change course (based on the outcomes of the co-creation and intermediate results).

2.1 Step by step procedure

In Mingei, craft/pilot partners work together with technology partners, research and design partners, and external experts, in co-creation, to develop new (technological) solutions to capture and share knowledge and skills for crafts. To achieve this, several work sessions with (a combination of) these different partners and experts have been organized.

Each pilot partner representing one of three crafts (jacquard weaving, glassblowing, and mastic harvesting) organizes their own co-creation process and works together with the tech partners. The tech partners will heed the needs and requirements that come forth out of these co-creation sessions, and take part in this iterative process.

Each pilot partner will host the interventions or solutions that are developed in the Mingei project in a pilot. Therefore, as a first step, all partners identified the target audiences, and create Mingei's stakeholder map including all of the project's target audiences; this will help us develop meaningful communication and dissemination activities for them and provide great content.

Throughout the Mingei project, we are working with four categories of stakeholders:

1. For co-creation (WP1)
2. For content (WP2)
3. For impact evaluation (WP7)
4. For dissemination (WP8)

Some of these stakeholders will overlap, but they are all different to a larger or a lesser extent.

1. **Stakeholders for co-creation.** The Mingei project is a three-year-long design process for the development of new ways to document and share (intangible) knowledge on specific crafts, using state-of-the-art technologies. To go through a balanced design process, we need to involve different stakeholders, connected to the crafts, the technology, the purpose (e.g. education, storytelling, tourism, entertainment, etc.), and the 'end-users of the project results for each pilot.
2. **Stakeholders for content.** Each craft has a specific group of experts that can provide knowledge, materials, and other input to describe both the tangible and intangible aspects of the craft. This would include the craftspersons, but also historians, curators, etc.
3. **Stakeholders for impact evaluation.** The impact assessment will be done with key communities and stakeholders per pilot; these are the people that should be influenced by the project and/or project results.
4. **Stakeholders for dissemination.** For communication and dissemination, the focus is on people that can be placed at two levels. First, the stakeholders that interact on the European level, including the project partners, the European commission and other parties directly involved in the project. Second, the communities that will be involved on a national, European, and international level as audience and followers of the project. This includes the involvement of and sharing results with (amongst others) craft communities, students and the scientific communities.

After identifying the stakeholders, it is important to analyse and prioritize aspects of their functional work that is related to the project [6] . For Mingei we mainly used the aspects of influence and interest that a stakeholder has in the project and in its results in order to evaluate the information that can be gathered and generated by the respective stakeholder. In order to prioritize and disseminate the work, we thought about the engagement aspects with which each stakeholder can contribute to the project. Those are to [2] :

- **Monitor** = track stakeholder position through discussion
- **Inform** = assist stakeholders to understand the drivers, alternatives, opportunities, solutions, and progress of the project
- **Consult =** obtain stakeholder feedback on issues, analysis, alternatives, and/or decisions
- **Involve =** work directly with the stakeholders through the process to ensure that their concerns and expectations are consistently understood and considered

2.2 Role of Stakeholders

Stakeholders are equipped with a wealth of knowledge on Mingei's crafts insight, historical background and current trends. Stakeholders are definitely not only those who are well versed with the technical skills regarding the project. They are all the categories mentioned above, such as primary educators, museums volunteers, visitors, policy makers, and others.

It is vital to involve all-important stakeholders in gathering and documenting all the requirements to avoid missing key deliverables. These depend on the position of the stakeholder in the context of the project development and implementation but typically could include the following responsibilities:

- **understanding** the domain rationale and ensuring that the project fits with the strategy for their area of expertise
- **making** their detailed requirements known
- **committing** the necessary resources to ensure the project is successful
- **taking** ownership of appropriate deliverables
- **keeping** informed of project progress and cascading information to others who need to know
- proactively **establishing** training and development requirements
- **approving** key project deliverables
- **identifying** and resolving any project issues and risks, especially those associated with managing change during the transition phase.

2.3 Stakeholder engagement

Stakeholder engagement is a core element of sustainability. It is a fundamental component of assessments, which are then used to inform sustainability strategy, reporting, and disclosure. Without input from key stakeholder groups, any approach to sustainability will be limited by an organization's self-interest and inward focus. Hence, a robust, defensible methodology is needed for stakeholder engagement.

For the engagement strategy, goals and level of ambitions of the project are reviewed. In addition, it is considered that stakeholders expect this interaction to generate change. Thereby, engagement is treated through co-creation rather as an interview process. Successful stakeholder engagement contributes to the resiliency of project outcomes.

Stakeholder engagements follow "BSR's Five-Step Approach" [6] :

1. **Engagement Strategy.** Set vision and level of ambition for future engagement, and review past engagements.
2. **Stakeholder Mapping.** Define criteria for identifying and prioritizing stakeholders, and select engagement mechanisms.
3. **Preparation.** Focus on long-term goals to drive the approach, determine logistics for the engagement, and set the rules.
4. **Engagement.** Conduct the engagement itself, ensuring equitable stakeholder contributions and mitigating tension while remaining focused on priorities.

5. **Action Plan.** Identify opportunities from feedback, and determine actions, revisit goals, and plan next steps for follow-up and future engagement.

The engagement of stakeholder groups will be strategic and clear about the type of stakeholder and the reason for engagement.

The principles of engagement will exhibit the following properties:

*   **Focused** co-creation, relevant, clear, and realistic.
*   **Timely** engagement to ensure that there is time for the perspectives of stakeholders to make an impact on the co-design choices of pilots.
*   **Representative** to enable the consideration of diverse perspectives.
*   **Inclusive** to ensure that engagement can reach sensitive groups, such as Living Human Treasures that are old.
*   **Respectful** in terms of cultural individualities, considering context, location, format, and language.
*   **Clear** on the objectives of the project.

2.4 Human participants

Establish institutional communication and **understand the collaboration goals** of partners. This involves the acquisition and sharing of contact information, as well as further logistic information, such as what are the optimal communication times and the communication tools. In addition, an initial mapping of staff roles and contacts per each partner is found to be quite useful, in order to communicate with the appropriate person or department with respect to the task in hand.

During initial communication with an institution **translation needs** to facilitate collaboration among partners and communities were surveyed. Correspondingly, translators available to partners are to be planned and involved.

Upon establishment of communication the **collaboration** with the pilot partners the community of craft practitioners was **specified**.

As the representation of the craft will involve **human participants,** it is mandatory to satisfy several requirements. Ethics, Data Protection, and Health & Safety requirements, are an integral part of research from beginning to end, and ethical compliance is pivotal for the success of the digitisation project and the accessibility its result. Compliance with these requirements is not only to respect the legal framework, but aims the provision of highquality research. The table below provides the requirements for this research in the EU, which should be adapted according to the locations of the digitisation project. Approval of the designated **Ethics Committees** for conducting research with human participants was obtained. Compliance to Health and safety rules has been also obtained. Pertinent documents and participation consent forms for the Mingei project can be found in Deliverables 10.1 through 10.7.

Requirement	Material

Ethics	European Commission's ethics self-assessment guidance [URL], Ethics Appraisal Procedure, and for CH projects the guide in [9]
Data Protection	GDPR law and additional national laws.
Health and Safety	Usage guidelines and safety warnings of devices used in the digitisation project, EU and national laws for the transportation of goods, use of machinery, and manned or unmanned vehicles.

Table 1. Requirements for conducting research with human participants and relevant materials. (source: Mingei, 2019) [15] .

Individual partner requirements were investigated as it is possible that community members belong to a sensitive population. It is important to consider that **Living Human Treasures** can be of old **age**. As such, individual requirements of sensitive population groups need to be considered and applied. These requirements regard both the ethics of engagement to members of this group [10] , which may be suffering from age-related diseases, and consideration of pertinent requirements in the design of project outcomes [11] [12] .

3. Stakeholder Types

This section presents the project's stakeholders together with their expectations from the proposed system. Our strategy towards Knowledge Collection is based on the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, which recognizes the key role of local communities in preserving and transmitting the intangible cultural heritage to the next generation. The utilization of new technologies in the preservation and promotion of intangible cultural heritage is particularly important in conjunction with the use of oral testimony by the members of the local communities.

The stakeholders are the main pillar of conducting research into the recording and rescue of traditional arts. Particular attention is given to the concept of intangible cultural heritage, namely the living traditions of local communities. The oral history is immediate, dynamic, and authentic, gives life to objects, composes a richer polyphonic past, and approaches issues that are not apparent in written sources. Oral history allows a more realistic and equitable reconstruction of the past as data is retrieved from the living legends of this heritage, which shifts the centre of gravity of the various historical disciplines that expand their research [5] .

As there is no readily available list of stakeholders for HC, stakeholder types were initially identified concerning for the impacts and strategic vision of the Mingei project. It is anticipated that stakeholder types will be updated and enriched as needed during the course of the project.

Initial identification of stakeholder types is given below. This list was prepared by the Mingei consortium. Stakeholders are a broader group of persons than those affiliated with the collaborating CHIs, association community of practitioners. They include experts from multiple fields, institutions or archives, educators, and businesses. The broadest stakeholder is the public as crafts are a component of the ICH pf humanity. The identified **stakeholder types** are the following:

1. **Craftspersons:** Individuals or members of local & online communities. This type of stakeholder includes Living Human Treasures.
2. **Museums & CH institutions:** showcasing crafts and craftsmanship.
3. **Conservators:** conservation departments and conservators.
4. **Curators:** museum and CH professionals.
5. **Museum educators:** staff in charge of educational, public outreach, and communication programs and activities for different types of public, community managers.
6. **Guilds:** Associations active for the safeguarding and promotion of crafts and craft artefacts
7. **Archives:** in possession of materials on crafts and craftsmanship.
8. **Content owners & Creative Industries:** portal, repository, collections owners, artefact creation businesses.
9. **Researchers and Academics:** in the field of Cultural Heritage.
10. **Policy makers and governmental bodies:** Working on developing and applying policing regarding the digital preservation of tangible and intangible CH.
11. **Tourism businesses:** companies that operate in the tourism domain (i.e. tour organisers).
12. **Tourism professionals:** Working in the domain of tourism information, tour guides, etc.

13. **Visitors & tourists:** interested in traditional crafts and members of the communities in which the museums are active, of all ages and backgrounds. A finer classification can of this population, based on speaking language, location of origin, age, etc.

14. **Craft enthusiasts:** Members of the general public are interested in traditional crafts. These can finer classified in (hobby) practitioners and people that are interested in craft as an observer.

15. **Museum volunteers:** Volunteers that help a CHI or makers that demonstrate a craft.

16. **Craft students and apprentices:** a person who is learning a trade from a skilled employer, having agreed to work for a fixed period at low wages, and art school students that learn a craft.

17. **Craft masters / educators:** persons that practice and teach a craft.

18. **Primary educators:** communicating the craft to students in educational programs of a CHI or in class, as CH, history, technology and others.

19. **General public:** Preservation of CH includes requirements, such as the formality of representation, and adherence to technical and scientific standards. The public is a stakeholder as it is the appropriate representation of its CH at stake.

During the implementation of Mingei, this categorisation may be extended or refined. For example, a **grouping of stakeholders** is of help, to organise interaction types with stakeholder groups:

1. Crafts communities (the practice of HC) and heritage professionals that are relevant to the craft, for understanding a craft, indicating craft narratives, digitisation of actions, and collection of knowledge.

2. Heritage professionals, CHIs, researchers (the study & preservation of HC), for content and knowledge collection.

3. The general public, craft students, museum visitors, and tourists (the experience & amateur-learning of HC), for impact evaluation and the design of experiences that represent the digitized craft and associated user-requirements.

4. Contemporary makers, businesses, organisation, policy makers (the appropriation of HC), for dissemination and exploitation.

It ought to be noted that stakeholder groups may overlap: one person might represent multiple types of stakeholders, as a practitioner may be the representative of an association as well, a curator may also be an educator, a community may be affiliated with a CHI or a business etc.

4. Content Types

This section presents the information (content) types to be used in the project and relates these types to stakeholders, based on three fundamental activities: (a) Provision, (b) Production and (c) Use of content.

1. **AD** (Archived Data), i.e., bank or municipality archives
2. **SD** (Scanned Data), i.e., text, images, video, audio, 3D reconstruction
3. **ArD** (Artefact Description), *i.e.*, inventory text
4. **MD** (Material Description)
5. **PD** (Process Description)
6. **HI** (Historical Information)
7. **SI** (Societal Information)
8. **DA** (Descriptive Annotation), i.e., the sword (artefact) of Alexander the Great (annotation)
9. **SA** (Semantic Annotation), i.e., description of artefacts and activities using CIDOC-CRM
10. **SL** (Semantic Links), i.e., links to artefacts of the same period, same material, same craftsman, etc.
11. **InD** (Integrated Description of craft)

Stakeholder	Has information (Provision)	Produces info (Production)	Uses information (Use)
Museums & CH institutions	AD, SD, ArD, MD, HI, SI, DA, SA, SL, InD	AD, SD, ArD, MD, HI, SI, DA, SA, SL, InD	AD, SD, ArD, MD, PD, HI, SI, DA, SA, SL, InD
Conservators	ArD, MD, PD, HI, InD	AD, SD, ArD, MD, PD, HI, InD	AD, SD, ArD, MD, PD, HI, InD
Curators	ArD, MD, PD, HI, DA, SA, SL, InD	AD, ArD, MD, PD, HI, DA, SA, SL, InD	AD, SD, ArD, MD, PD, HI, SI, DA, SA, SL, InD
Museum educators	PD, HI, SI	SD, ArD, MD, PD, SI, HI, SL	AD, SD, ArD, MD, PD, HI, SI, DA
Archives	AD, SD, HI, SI, SL	AD, SD, HI, SI, SL	AD, SD, HI, SI, SL
Content owners & creative industries	SD, PD, HI, SI, DA, SL, InD	SD, PD, HI, SI, DA, SL, InD	SD, MD, PD, HI, SI, DA, SA, SL, InD
Researchers & Academics	MD, PD, HI, SI, SL, InD	MD, PD, HI, SI, DA, SA, SL, InD	AD, SD, ArD, MD, PD, HI, SI, DA, SA, SL, InD
Craftspersons	MD, PD, InD	MD, PD, InD	SD, MD, PD, InD

Guilds	AD, HI, SI, InD	AD, HI, SI, InD	AD, SD, MD, HI, SI, InD
Policy makers & governmental bodies	AD, SI	AD, SI	AD, MD, SI
Tourism businesses			SD, MD, PD, HI, SI, DA, SA, SL, InD
Tourism professionals			SD, MD, PD, HI, SI, DA, SA, SL, InD
Visitors & tourists			SD, MD, PD, HI, SI, DA, SA, SL, InD
Craft enthusiasts			SD, MD, PD, HI, SI, DA, SA, SL, InD
Museum volunteers			SD, MD, PD, HI, SI, DA, SA, SL, InD
Craft students (apprentices)	MD, PD, InD	MD, PD, InD	SD, MD, PD, InD
Craft educators	MD, PD, InD	MD, PD, InD	SD, MD, PD, InD
Primary educators			SD, MD, PD, InD
General public			SD, MD, PD, HI, SI, DA, SA, SL, InD

Table 2. Stakeholders and content types. (source: Mingei, 2019) [14] .

5. Pilot context

Pilots are selected in **complementary themes** covering tangible and intangible dimensions and span for **handicraft to industrial craft,** have **historical** and **societal** significance**,** are related to **Europe's history,** and regard **endangerment** or **hyper-locality**. This complementarity regards defining attributes HCs and the goal of performing temporal and comparative studies. CHIs and their respective communities provide important assets for comprehending and articulating **principles** of HC representation that have the potential of being **applicable to further HCs**. All pilots manage heterogeneous digital assets from corresponding museums. Perhaps the most defining characteristic of craft is **material** and, as such, pilots are accordingly characterised below.

Pilots will investigate the presentation of HCs in the context of European history and CH. The support for comparative studies will enable a better understanding of HCs at different geographical locations, the history of the HC and location, as well as the cultural and societal impact of an HC. The representation of an endangered HC (HdS), the comparative study on silk (HdS, PIOP-Soufli), and the representation of an indigenous HC (Mastic) will provide examples and use cases for the treatment for other such cases, in the future.

Figure 1. Mingei pilots. (source, Mingei, 2019) [23] .

5.1 Silk

The Museum, *Haus der Seidenkultur*, in Krefeld, Germany is located in a building erected in 1868 as a residence combined with a weaving workshop for ecclesiastical textiles. Weaver Hubert Gotzes took over the business in 1908 and together with his three sons manufactured liturgical vestments including some for the neighboring Church of St. Stephan. The residential quarters were situated at the front of the four-windowed house and the weaving workshop comprising 20 handlooms some with Jacquard fittings on the first floor was at the rear. In a building extension, there were also looms to weave velvet. On the ground floor, there was a reception area, a fitting room, the sewing and embroidery rooms. In 1992, the factory closed and the last owner who wanted to preserve it for future generations sold it to the Association of Friends *Haus der Seidenkultur*. The Museum opened in 2000 and the weaving workshop became alive again. Former weavers demonstrate their skills on various handlooms. Former craftspersons now also demonstrate the skills involved in the preliminary stages to create the splendid fabrics, for example, the preparation of the warp beam, point paper design i.e. transferring a picture or pattern to graph paper, punching of the cards for the Jacquard units i.e. transferring the point paper design to the card sets which control the Jacquard unit, picture

embroidery. For silk fabrics, the materials used were at HdS were Italian and Chinese silk threads, while the gold thread was also used, mainly for church garments.

The establishment includes a weaving hall at the authentic site, which houses the Jacquard hand-looms where long-established textile craftsmanship is demonstrated on the eight wooden hand-looms dating from the 19th century. The museum has eight handlooms and auxiliary equipment, such as a warping machine, Jacquard card punch, a reeling unit, a large number of liturgical vestments and other ecclesiastical fabrics and items some of which originate from the factory. The library/archive containing more than 3000 items is currently being digitalized so that it will in the near future be available for research purposes.

Each year the Museum organizes two temporary exhibitions on subjects relating to textiles - recently for example "Textile Culture of the Miaos, a minority group in China", "Golden Spinning Wheel for Pierre Cardin", "Antipendiums from the Protestant Church". It organizes readings on the topic of textiles and regularly participates in various events organized by others, e.g. flax market, International Museum Day. The work is carried out largely by volunteers from the Association of Friends and financed by membership contributions and donations.

> **Technical skill and historic relevance**. For centuries, the German city of Krefeld was known as 'silk city', although today many other industries can (also) be found there. At the Haus der Seidenkultur, a former silk factory turned museum, the traditional craft of Jacquard weaving is still practiced. While one might associate heritage crafts with dexterity, hand tools, and cottage industries, silk weaving forms the opposite in many ways. It takes place in a more industrialised environment, making use of large, noisy machinery, as well as a unique form of technology-enabled craftsmanship. As it ages, the delicate nature of historic silk stands in stark contrast with the sturdy machines on which it was once produced. How can we capture the local nature of this more industrial craft? How do we document the material culture of weaving, from the finest thread to the complex loom? Moreover, how can the production process inform the conservation of historic silk garments?

5.2 Glass

The *Musée des Arts et Métiers* results from the renovation of the collections spaces of the *Conservatoire National des Arts et Métiers* (CNAM) which was founded in 1974 by Abbé Grégoire as a "store of new and useful inventions". It is the oldest heritage repository and exhibit space for historical science and technology artefacts in Paris and a symbol of innovation. The *Musée des Arts et Métiers* is part of the *Conservatoire National des Arts et Métiers*, a French "*Grand établissement*" with its identity rooted to the scientific, cultural and professional fields, under the supervision of the Ministry for Higher Education and Research. It contributes to distribute knowledge related to technological innovation and scientific advances to the greater public. The museum's collections are testimonies of the history of science and technology since the Modern Era, with over 2400 inventions exhibited in the museum.

The museum is involved in cultural programs aiming to reach broad and various audiences of all ages through pedagogical visits, conferences and symposiums, temporary exhibits and thematic events. It has a public documentation centre for the broad public as well as for professionals with renowned

resources in the field of the history of technologies and industrial heritage. The museum is part of CNAM, which is a superior teaching and research establishment and is part of national and European actions, such as the national Mission PATSTEC for protecting scientific contemporary heritage.

The museum will be in charge of establishing common classification methods and descriptions of objects and knowledge with all project partners. CNAM will establish a joint working repository (prototype-structured interface) on the public website to test the propositions of each and work together. The repository will host the data contents of the ESTHER project and of course dialogue with other European databases already created (Inventing Europe, Europeana, PATSTEC, etc.). The museum will release a common paper guide summarizing these best practices in this area and distribute it to all European countries possessing scientific and technological contemporary collections.

> **Glassmaking - A sensory craft**. Being centuries old, the art of glassmaking is known across the world. However, the artistic skill and technical knowledge needed for the production of (luxury) glass, means some production methods, decoration techniques, and styles are strongly linked to a specific geographical location. The Conservatoire national des arts et métiers (CNAM) hosts a museum of technological innovation in Paris, contains objects related to both the artistic and more industrial production of glass. Glassblowing is a creative, as well as an embodied and manual skill. It combines hand and body gestures and a thorough understanding of the material with simple tools and creativity. An important aspect of glassblowing is the fact that during the production process, the material changes from liquid to solid, with the various states of the material allowing for different production and decoration methods. This makes glassblowing a highly sensory skill, where glassblowers are faced with the changing materiality of the glass, as well as the heat and smell related to the production process. How can we capture and convey these sensory aspects of crafts? Moreover, how can we differentiate between global production processes and local skills and design traditions?

5.3 Mastic

The Piraeus Bank Group Cultural Foundation (PIOP) is a non-profit foundation operating under private law. In accordance with its statutes, the Piraeus Bank Group covers its operational costs, including those of its Museums. The Chios Mastic Museum is one of the nine museums of PI Museums Network, located in the Mastihochoria (literally: mastic villages), a group of medieval villages in Southern Chios, the only site in the Mediterranean where the mastic tree, or *Pistacia lentiscus var. Chia*, is cultivated.

The Chios Mastic Museum aims to display the production history of the mastic tree's cultivation and the processing of its resin, which it integrates into the cultural landscape of Chios. Through the prism of UNESCO's inclusion of traditional mastic cultivation on its Representative List of the Intangible Cultural Heritage of Humanity in 2014, emphasis is given to the diachronicity and sustainability of this product of Chios.

The Chios Mastic Museum has a strong geographical link to the HC it represents. It is built at the south of the Greek island of Chios, whilst the craft is unique to that particular location. Mastíha, or mastic, is a product from the mastic tree, which exclusively grows in the southwest of Chios. This HC

related to mastic is therefore highly localized (indigenous craft) and part of the fabric of local life. The 24 villages from where mastíha is harvested are known as Mastihochoria, or Mastic Villages, their name is an indication of the importance of mastíha for the region. It is expected that the pilot at the Chios Mastic Museum will explore the impact of hyper-locality, as well as the challenges related to capturing a craft that is highly interwoven with the everyday life of a region. In addition, this pilot offers the possibility of exploring unique traits related to an outdoors craft that relies on cottage industry, but is also centralized and organized through the Association of Mastic Producers of Chios.

Mastíha (Mastic) – hyper-local craft. In the south of the Greek island of Chios, a single type of tree has shaped not only the local trade and culture but also even the built environment. The tree does not grow anywhere else in the world and its resin, mastíha, is harvested to be used for a variety of uses, from skincare to medicinal and culinary use. From the harvest of mastíha, or mastic, mastic villages (Mastihochoria) sprang, and local traditions were formed. The crafts related to mastic contain both outdoor and indoor activities that take place around the house and in a centralised location. The knowledge of cultivating, collecting, and processing mastic on the island of Chios is on the "Representative List of ICH of Humanity" of UNESCO [4] . The Chios Mastic Museum is dedicated to the mastic craft and has strong ties with the local artisan community. Harvesting is an ancient tradition, while the uses of mastíha are ever-growing. How do we collect a craft that is part of daily life? Where do the craft end and entrepreneurial skill begin? Moreover, how can this hyper-local craft enhance local and regional tourism?

6. Stakeholder demarcation

Intuitional liaison with all partners was initiated in the spring of 2018 and was established in the fall of 2018 with a Consortium Agreement. This agreement arranges IPR, legal, financial, and research collaboration topics, relevant to HdS, the project consortium, and the pilot application.

During institutional communication, the requirement for translation between English and German was evident as several members of the community speak only German.

In December 2018, an initial meeting with HdS representatives took place, during the kick-off meeting of the Mingei project, at Heraklion, Crete, Greece. After institutional presentations, a preparatory co-creation task took place.

In January 2019, the requirements for including human participants in research have been completed and reported in Mingei Deliverables 10.1 through 10.7.

In March 2019, a co-creation session was held, focusing on understanding the aspects of the craft silk weaving on Jacquard looms. In April 2019, two co-creation sessions were held on glass and mastic. These provided an initial demarcation of the stakeholders for each pilot.

Mingei will examine the possibility to collaborate with further stakeholders, because of reinforcing the pilots and the dissemination activities.

6.1 Silk Stakeholders

The immediate context of this craft instance is silk weaving at Krefeld. The broader context of this craft is weaving. In the context of the Mingei project, *Haus der Seidenkultur* (HdS) is the collaborating heritage institution for the silk pilot. The affiliated community of the Association of Friends *Haus der Seidenkultur* includes weavers and practitioners that practiced Jacquard silk and velvet weaving.

By declaration of the HdS community, the HC of Jacquard Silk Weaving at Krefeld is endangered due to the senior age of practitioners and the absence of apprentices. Thereby there is an urgency of representing this craft instance.

The identification of the stakeholders for the silk pilot can be found in Annex 1.

6.2 Glass Stakeholders

The immediate context of this craft instance of is glass making in France since the beginning of its industrialisation in the 18th century. The broader context of this craft is glassmaking. In the context of the Mingei project, the *Conservatoire National des Arts et Métiers* (CNAM) is the collaborating heritage institution for the glass pilot. Pertinently, stakeholders from the glass CERVAF (*Centre Européen de Recherches et de Formation aux Arts Verriers*) Glass School Located in Vannes-Le-Châtel, Lorraine, France will be included.

The identification of the stakeholders for the silk pilot can be found in Annex 2.

6.3 Mastic Stakeholders

The context of this craft instance is the cultivation of Mastic at Chios, Greece. In the context of the Mingei project, the Mastic Museum of the Piraeus Bank Group Cultural Foundation (PIOP) is the collaborating heritage institution for the mastic pilot. Affiliated stakeholders in the case of the Mastic pilot at the island of Chios are the affiliated Masticulture Company, the Municipality of Chios and the Chios Mastiha Growers Association, the AELIA Lab, the Chios Mastic Museum, and the Region of North Aegean.

The identification of the stakeholders for the silk pilot can be found in Annex 3.

7. Stakeholder expectations

Stakeholder types are associated with expectations regarding the outcomes of the Mingei project, and the ways that these outcomes are communicated. These are determined to provide initial orientation to pilot and product design, whether these refer to heritage professionals or the public. This mapping is to be further refined through actual interaction with stakeholders, throughout the implementation of the Mingei project.

Stakeholder	Expectation
Museums & CH institutions	(a) additional stories to present to visitors (b) valorise, reuse and repurpose existing digital content and archives (c) enhance community and activities for museum friends and visitors (d) serve and expand their cultural mission (e) increase their reputation, visibility and visitation
Conservators	(a) find information from other conservators to improve their skills (b) publish and disseminate own work (c) obtain documentation tools that ease publication (d) learn new techniques (e) enhanced and semantic search tools
Curators	(a) preserve forms of CH that have not been systematically documented before (b) acquire a scientific protocol and an integrated system for representing knowledge stemming from the preservation activities (for (a)) (c) gather material to author novel and better exhibitions (d) perform co-curation with partners in other CH institutions (e) make joint exhibitions (online, virtual, mixed reality, etc.) (f) reuse and repurpose CH in innovative cultural actions that serve the aforementioned expectations, including storytelling, craft education, and training
Museum educators	(a) create new learning and educational programs, workshops, hands-on activities, and visits based on crafts and related content (b) organize craft related programs at museums (c) organize craft training workshops and craft related seminars and other types of outreach events
Archives	(a) complement own content with pertinent content from other archives (b) disseminate own content, reuse and repurpose (c) perform advanced, semantic, contextual searches on linked data
Content owners & creative industries	(a) reuse existing content to document a craft (i.e. motion capture, documentaries, images, etc.) (b) repurpose existing content by using it in new ways (through (a)) (c) facilitate new content creation and artefact digitisation through new technologies (d) create a new immersive cultural experience (stories, narratives, re-enacting, training)
Researchers & Academics	(a) research and develop new search tools that enable semantic queries in heterogeneous and distributed sources (b) study and implement semantic

	correlation of information across knowledge sources and crafts (c) enable research on new topics (d) support new collaborations
Craftspersons	(a) obtain financial benefit from the increased interest in their craft and own artefacts/products - advertisement of own skills and products (b) obtain fame and reputation gained from collaboration as an expert (c) improve skills and general knowledge (d) learn, revive, and use traditional and authentic techniques in own craft
Guilds	Empower guild through (a) innovative training material and processes (b) increasing trend and popularity (c) representation in museums and CH institutions (d) financial benefit (e) assist in the preservation of craft
Policy makers & governmental bodies	Connect enhanced and competitive tourism services with national and regional sustainable growth policies. Support and enable more competitive tourism services. Reinforce local communities, economies.
Tourism businesses	Enhanced and competitive tourism services/destinations/activities. New forms of tourism (educational, CH related).
Tourism professionals	New tools and content that facilitate and extend their services. New services (i.e. craft training, storytelling).
Visitors & tourists	New visiting and CH experiences. Social and family bonding. Craft fruition. Satisfy needs for new forms of tourism (educational, CH related).
Craft enthusiasts	Discover information and processes of craftsmanship. Practice and master craftsmanship. Social networking within the community of craft enthusiasts, but also to generic popular social networks.
Museum volunteers	(a) new ways to actively participate (b) acquire professional experience (c) achieve cultural goals (d) create self-aware, resilient, CH aware local societies
Craft students (apprentices)	facilitate and expedite learning, certification, employment, receive training, advice, coaching from experts
Craft masters/educators	facilitate and expedite teaching, expand the audience, acquire apprentices from remote locations, collaborative teaching, course promotion, certification of expertise
Primary educators	Acquire new teaching material, including digital representation of HC, social and educational networks
General public	(a) preservation of CH (b) benefit from pertinent financial growth (c) reputation of location due to craft (national promotion)

8. Functional requirements

Stakeholder expectations are translated to **functional requirements**, to provide orientation to pilot and product design, whether these refer to heritage professionals or the general public. This section presents the concrete project and application of specific functional requirements that should be provided to each stakeholder, in order to facilitate the satisfaction of their expectations.

Stakeholder	Description of functional requirements
Museums, CHIs	Tools to: (a) enhance the presentation of crafts and artefacts through stories and narratives (b) support training programs of the museums (c) facilitate research (d) document their collections and assets (e) link their collections and assets with relevant collections and assets in other museums and CH institutions.
Conservators	Tools to: (a) query conservation documentation in other CH institutions, in order to improve their skills and gain information about conservation techniques and their efficacy (b) document own conservation techniques (c) acquire training in conservation techniques.
Curators	Tools to curate (document, preserve, conserve, and present) forms of CH related to heritage crafts. These tools should address: (a) knowledge representation (b) enable collaboration with complementing experts (c) authoring and presentation of represented knowledge (d) authoring narratives and storytelling (e) facilitating the education on craft training (f) enhance communication with the general public in an attractive way.
Museum educators	Tools to: (a) obtain narratives to use in new visits (b) obtain material for craft-related programs (c) organize craft training workshops.
Archives	Tools to: (a) document own content (b) semantically link own content with other sources (c) re-user and re-purpose own content by increasing its accessibility for the research community (d) semantic, contextual searches on own content and linked data.
Researchers & Academics	Tools for: (a) asking semantic queries in heterogeneous, distributed sources and craft models (b) establishing semantic correlation of craft instances (c) facilitating scientific collaboration.
Content owners & creative industries	Authoring tools to collect processed content for creative activities. These tools will cover the spectrum from conventional, scientific documentation to new immersive cultural experiences (stories, narratives, re-enacting, and training).

Craftspersons	Tools to: (a) learn techniques about the craft or the conservation of its artefacts (b) disseminate and advertise own work and skills (c) document authenticity of craft.
Guilds	Tools for: (a) craft training (b) disseminating and advertising own work and skills (c) documenting the authenticity of craft.
Policy makers & governmental bodies	Mapping of craft instances and relevant communities, associations, and CHIs.
Tourism businesses	Tools to: (a) enhance the presentation of tourist destinations through CH (b) provide content for the support of thematic tourism related to heritage crafts.
Tourism professionals	Tools to: (a) provide content for the enhancement of presentation of CH (b) provide new presentation services and training activities utilized in thematic tourism.
Visitors & tourists	Applications for: (a) New immersive, enhanced, participatory CH experiences - new forms of tourism. (b) Personalized narratives and storytelling (c) Personalized craft training.
Craft enthusiasts	Applications for: (a) New immersive, enhanced, participatory CH experiences to discover information and processes of craftsmanship (b) Practicing and mastering craftsmanship (c) Social networking within the community of craft enthusiasts.
Museum volunteers	Tools to aid and mediate own participation in educational and museological activities.
Craft students (apprentices)	Educational materials and tools.
Craft educators	Educational materials, tools, and authoring of such.
Primary educators	Presentations for primary education, linked to professional orientation, cultural heritage, science education.
General public	Tools to: (a) access the disseminated CH due to crafts (b) access documentation about national promotion.

Table 4. Stakeholders' description of functional requirements. (source: Mingei, 2019) [17] .

9. Stakeholder mapping

Stakeholder mapping is important to understand who the key stakeholders are, what their background and context are, and what relationship to HCs they stand-in.

Table 4 presents stakeholders in terms of the initial characterisations of influence-over and interest in the project. It also identifies what kind of action the project should take with them.

The outreach to stakeholders is planned to follow a scheme of gradual diffusion, based on AIDA communication model (Awareness-Interest-Desire-Action) that will grow along Mingei's rollout and deployment.

Type	Importance/Influence	Mingei Stakeholders	Actions
Monitor	Low influence less interested: Provide these stakeholders with minimal communication.	- 6 stakeholders under "**Media**" types. - 7 stakeholders under "**Policy makers & governmental bodies**" type.	**Awareness:** Uniform approach for all target stakeholders to raise awareness and visibility for the Project.
Consult	High influence less interested: Provide sufficient information to these stakeholders to ensure that they are up to date but not overwhelmed with data. Keep them satisfied	- 22 stakeholders under "**Researchers & Academics**" types. - 27 stakeholders under "**Primary educators**" and "**Archives**" types.	**Interest:** Uniform approach for all target stakeholders to create interest for Mingei.
Inform	Low influence, highly interested: Keep these stakeholders adequately informed, talk to them to ensure that no major issues arise.	- 13 stakeholders under "**Craft students (apprentices)**" and "**Curators**" types.	**Goal:** Uniform approach for all stakeholders to grow involvement and desire for participation in Mingei as content providers.
Involve	High influence, highly interested: These are the stakeholders we have to engage and make the greatest efforts with. Manage them closely	- 17 stakeholders under "**Craftspersons**" and "**Content owners**" types.	**Actions:** Uniform approach for all stakeholders to stimulate participation and prompt active involvement in the project.

Table 5. Stakeholders' Approach. (source: Mingei, 2019) [18] .

At this time, the recorded stakeholders belong to the following categories and countries accordingly:

Type Of Stakeholders	Germany	France	Greece	Total	% On total
Archives		6	3	9	9,68
Business	3			3	3,23
Content owners & creative industries	1	2	4	7	7,53
Coordinator	3			3	3,23
Craft enthusiasts		3		3	3,23
Craft students (apprentices)		4		4	4,30
Craftspersons	5	1	7	13	13,98
Curators	2	6	2	10	10,75
Media	2		5	7	7,53
Museum volunteers	1			1	1,08
Museums & CH institutions	1			1	1,08
Policy makers & governmental bodies		6	4	10	10,75
Primary educators			4	4	4,30
Researchers & Academics	1		16	17	18,28
Tourism businesses			1	1	1,08
Total per Country	**19**	**28**	**46**	**93**	
% On Total	**20,43**	**30,11**	**49,46**		**100,00**

Table 6. Mingei Stakeholder's per country (source: Mingei, 2019) [19] .

10. Knowledge collection

The basic hypothesis to begin the process of gathering information about a craft relates to the importance of the craft. It is summarized in the phrase "What Makes Craft Unique?" As a refinement to this question, there are the following critical questions:

1. What is the cultural significance of the craft?
2. What are unique aspects of the craft that need to be preserved?
3. How is knowledge being transferred?
4. Who are the craftspeople?
5. What is the future perspective of the craft?'
6. Why do these crafts take place in this territory?

The answers to the above questions will produce the backbone for collecting material concerning the intangible aspects of the craft.

This procedure will carry out the collection of contextual information (historic, economic, societal, traditional, gender roles, teaching methods, etc.) for the represented HCs. This information will be used to rationalize the representation of a craft and for allow the project to tell stories that contain both the tangible and intangible dimensions of a craft, expanding to information that exposes the historic and societal significance, importance or even role in conjunction to major historical events or focal points. The collected knowledge will be aligned with the extended model produced in the context of WP4 to contribute towards enriching when possible existing collections.

Knowledge elements to be collected regard primarily the descriptions of the individual entities involved in the crafting process. The involved entities are objects, actors, actions, concepts, tools, places, and media objects (texts, audio-visual objects, images, audio messages, and the like) that document various steps of the crafting process.

These entities require practitioners and curators from a group of stakeholders. Hence the growth of stakeholder groups should aim the involvement of practitioners, where the present ones are inefficient.

11. Stakeholder insights

The targeted impact to the Cultural Heritage Domain has three axes, relevant to Objective 6 of the Mingei project "Impact to the Cultural Heritage Domain", which entails three sub-objectives:

- Benefit for Museums, Content Owners, and Cultural Institutions
- HC training, education, and HC research
- Promoting HC tourism, raising business interest, and funding HC preservation

Co-creation with stakeholders in the design of pilots will be aligned to these axes. Hence planning for the enhancement of the stakeholder groups is to be oriented in their directions, as reviewed below.

11.1 Benefit for Museums, Content Owners, and Cultural Institutions

The representation of HCs is of interest to **CH research** as it contributes in the **documentation** and **preservation** of HCs.

Benefits CHIs and CCIs regard:

- **re-use of digital assets** in **new content and new presentations** on HCs, and
- **new ways** of **appreciating and experiencing HCs** important in reaching new collocated and distant audiences.

11.2 HC training, education, and HC research

Mingei will support the HC training of different initiation levels. In Mingei, the teaching process will be modeled as part of the HC representation, providing a basis for authoring instructions and training experiences. Off-site training will be facilitated through the Mingei Online Platform (WP3, T3.4). Corresponding applications will show how HCs have been practiced and transmitted through generations, and include insightful annotations of digital assets, such as illustrated instructions and motion summarization. On-site training will be implemented by experiential hands-on tasks will teach by demonstrating essential craft gestures, dexterities, and the use of tools. In Craft Centres, Maker Spaces, and FabLabs HC practitioners and LHTs will be engaged in the physical making of artefacts to test and enhance techniques offered on the Mingei Online Platform.

11.3 Promoting HC tourism, raising business interest, and funding HC preservation

The wealth and variety of expressions and forms of ICH are steadily becoming a principal motivation for travel around the world. Many forms of ICH tourism are associated with a longer duration of stay than TCH sites (i.e. archaeological sites), which is required for appreciating and experiencing ICH. The UN-World Tourism Organization (UNWTO) recognizes that an important challenge lies in identifying, protecting and safeguarding ICH by investing in sustainable tourism development, in consultation with local communities and other stakeholders [7].

Mingei aspires to bring forward the value of HCs and their communities, by offering attractive presentations of HCs that engage interest and provide a **comprehensive** and **accurate** picture of HCs.

These properties follow the UNWTO recommendation to actively support *"initiatives that follow international best practice for documentation, the use of information technologies and the communication of ICH values"* [7]*,* [7] based on international standards for the documentation of CH (CI-DOC CRM, ISO 21127:2006) and state-of-the-art in interaction, narratives, and storytelling. Digital outputs of the project will provide content to *tourism* experiences and products. Education and delectation content will be carefully balanced and *"the sale of ICH-related goods through official outlets and licensed retailers"* [7] will be facilitated by the Mingei Online Platform.

12. Conclusion

This deliverable has presented the process to identify potential Stakeholders of this project. The identification process was based both on the ability of stakeholders to provide content to the project and on the possibility to promote and disseminate the results' project. It demonstrates Mingei's selected approach to ensure that information about the project and its findings will be effectively and efficiently communicated and disseminated over the project's course.

The key components of a successful strategy have been identified, the type of stakeholders and content types per craft have been described in detail, while a systematic approach for the implementation of the co-creation strategy has been presented and partners' roles have been defined. Understanding who our stakeholders are and the impact they have on this project is crucial to success. This deliverable provides a starting point for the collection of material in the context of WP2 Collect Crafts and Narratives and the preparation of D2.2 "The Mingei Collection of Knowledge".

Annex 1. Silk stakeholders

Stakeholders	Haus der Seidenkultur
Coordinators / Local administrator / PR	Hansgeorg Hauser (M), born 1939, has knowledge in Wholesale and External Trade. He has established Hauser Dämmtechnik GmbH (HD) in 1969, co-founded HAT GmbH (a nation-wide association of 14 technical trading companies) in 1976, established Fördergemeinschaft Dämmtechnik Wärme-, Schall- und Brandschutz e.V. Bonn, to market the insulation sector in the Federal Republic in 1984. He has joined VÖDU (Verein österreichischer Dämmstoffunternehmen e. V., an association promoting insulation technology) and was chairman of this association for over 10 years, until 1992. He has established Hauser Sicherheitstechnik GmbH (HS) in 1986, ESKORTE- Lösungen im Umweltschutz GmbH (ES) in 1992, Hauser-zehn-GmbH in Nauenhof in 1992, Hauser-acht-GmbH in Regensburg in 1993, Hauser-zwei in Seevertal in 1994, ACTA Milieu + Veiligheidstechniek B.V. in Zeewolde near Amsterdam with a Dutch partner in 1994, and Hauser Umwelt-Service GmbH (HU) in Krefeld in 1994. The Hauser Group qualified to ISO 9001 in 1996. Hauser Group was transferred to next generation with the exception of Hauser Umwelt for which Hansgeorg Hauser retains responsibility, in 1999. Hauser was appointed as chamber of Commerce and Industry in 1986, honorary judge for local court in Krefeld in 1988, and deputy Supervisory Board Chairman of Zoo eGmbH Krefeld until 2008, in 2005. He has established Association of Friends of TAM Theater in Krefeld (Chairman to this day), in 1992. Awarded Order of Merit of the Federal Republic Germany at Haus der Seidenkultur, in 1999. Appointed Chairman of the Association of Friends of Haus der Seidenkultur Paramentenweberei Hubert Gotzes e.V. Krefeld (still Chairman to this day), in 2003. Awarded the seal of the town of Krefeld, in 2012. Brigitte Altmann (F), born 1956, widow, trained as an industrial management assistant at a chemical company in Krefeld. 1977 to 2012 secretarial/PA positions in various departments at different companies in Krefeld and Erkrath. Since 2014 part-time paid employment at Haus der Seidenkultur (general office tasks and museum reception). Also voluntary assistance at the museum. Dieter Brenner (M), born 1950; 1970-72 employee at "Westfälische Nachrichten" (regional newspaper), 1972-73 editor of Krefelder Rundschau/NRZ (local newspaper), 1973-1995 editor and later editor-in-chief of "Niederrhein Nachrichten" (regional newspaper) and at same time employee at RTL Radio, 1995-2005 independent press agency (brepress) focusing on property marketing, 2005 – to present: part-time paid employee at Haus der Seidenkultur as press spokesman and organizer of guided tours in-house and along the "silk route" in Krefeld.

Museums & CH institutions	• Affiliation with Krefeld Textile Museum (contact: Dr Annete Schieck). • Extend affiliations through a network of contacts and National Contact Point, in Germany. • Survey relationship with technology, science, and industry museums.
Conservators	HdS employs technical staff for the conservation of looms.
Curators	• Ulrike Denter, born 1957, PhD in Chemistry – thesis on the textile chemical subject. • Ilka Neumann (see above). • Institutional affiliation with Dr. Annete Schieck from the Krefeld Textile Museum.
Museum educators	• Dr. Ulrike Denter (see above). • Ilka Neumann (see above).
Archives	• HdS has extensive documentaries of craft demonstrations and craft history. • The items involved are books relating to the history of silk and silk production, the silk industry in Krefeld and the famous families involved, the history of the town of Krefeld, textiles in general, business documents relating to the Hubert Gotzes company some of which originate from the subsidiary in Chicago USA (recently donated to the museum by a descendant of the family Gotzes), certificates and documents relating to various historical topics, paintings with the appropriate point paper designs. Also literature on the subject of tie-making – Krefeld was the main centre for tie-making in Germany - silk ties are still made there partially by hand today. • HdS has archives of, orders, sample catalogues, design and pattern catalogues, documentation, curated documentation, local, and historical information, and library items. They are non-digitised, though digital catalogues are being prepared. • Association with Krefeld Textile Museum may exhibit the potential of additional archives and literature of interest.
Researchers & Academics	• Ulrike Denter, Ilka Neumann • The SilkNow EU H2020 project (769504).
Craftspersons	• Christian Beckers, born 1936, Textile supervisor with excellent knowledge of Jacquard weaving • Günter Oehms, born 1935, Lecturer at the Textile Engineering College, master of hand weaving especially Jacquard weaving; proficient in

	setting up a Jacquard loom: warping, beaming, drawing-in warp ends, piecing. Setting up of Jacquard machine: harness, harness board, healds. • Manfred Weisters, born 1940, Master weaver, active in HdS weaving workshop for the past 15 years • Dipl. Ing. Dieter Blatt, born 1945, Textile engineer, point paper designer and technical college lecturer • Günter Göbels, born 1942, Trainer for Point Paper Design, Mr. Göbels has converted the Jacquard loom point paper designs so that the patterns which are more than 100 years old can also be produced on modern weaving machines in Krefeld.
Guilds	Currently, most likely none. HdS has a museum shop and some ties with local media. There is historic information of past existence and activity of guild in the literature.
Policy makers & governmental bodies	• German contact point. German Ministry of culture. The city of Krefeld. • Portals regarding EU projects in digitisation of CH: https://www.digitalmeetsculture.net/ • A European Platform gathering all the existing clusters on European, regional, national, international level. https://www.clustercollaboration.eu/
Tourism professionals, businesses	HdS is mentioned as the prominent cultural / tourist / recreational destination of Krefeld in online guides and resources. Initial thought on the potential business of interest relates to: • Tourism Agents • Tourism reviewers, guides, communities • Hotels • Restaurants near the museum location • Traders of the silk products sold by the museum shop The Krefeld-based, VR company named "Weltenweber" inquired about our activities and potential of collaboration with Mingei https://weltenweberengl.weebly.com/
Visitors & tourists	HdS is a prominent attraction of Krefeld as mentioned in several tourist guides. School students: the museum runs education programs described on its webpage.

	Town and in-vicinity citizens, visitors. Each year the museum organizes two temporary exhibitions on subjects relating to textiles - recently for example "Textile Culture of the Miaos, a minority group in China", "Golden Spinning Wheel for Pierre Cardin", "Antipendiums from the Protestant Church". It organizes readings on the topic of textiles and regularly participates in various events organized by others, e.g. flax market, International Museum Day. The work is carried out largely by volunteers from the Association of Friends and financed by membership contributions and donations.
Craft enthusiasts	online weaving communities. • Portal on communities related to crafts: https://bonniechristine.com/2010/handmade/getting-involed-in-the-craft-community/ • List of many online craft communities: https://www.indiemade.com/resource/craft-communities-and-resources-makers • Craftster is an online community where people share craft projects: https://www.craftster.org/
Museum volunteers	"Association of Friends Haus der Seidenkultur": A network of senior citizens that demonstrates all the craft steps. For HdS, this group is a superset of practitioners and who are also museum volunteers. They have formed the Association of friends of HdS. Former weavers demonstrate their skills on various handlooms. Former craftspersons now also demonstrate the skills involved in the preliminary stages to create the splendid fabrics, for example, the preparation of the warp beam, point paper design i.e. transferring a picture or pattern to graph paper, punching of the cards for the Jacquard units i.e. transferring the point paper design to the card sets which control the Jacquard unit, picture embroidery. They are: Mr Hansgeorg Hauser, Mr. Christian Beckers, Mr Günter Oehms, Mr. Manfred Weisters, Mr. Dieter Blatt, Mr. Günter Göbels, Mrs Ilka Neumann, Mrs. Cynthia Beißwenger. Mr. Christian Beckers, Mr Günter Oehms, Mr. Manfred Weisters, Mr. Dieter Blatt, Mr. Günter Göbels, Mrs Ilka Neumann, Mrs. Cynthia Beißwenger.
Scientific Consultants, Reviewers, Translators	• Ilka Neumman • Cynthia Beisswinger
Content owners & creative industries	• The museum has a shop of ties and scarfs, which feature traditional patterns relevant to the history of Krefeld and its geographical vicinity.

	• A museum of weaving machines exists at the vicinity of Krefeld: TextilTechnikum (Textile Technology Center) in Monforts Quartier, Mönchengladbach • Survey: online repositories, catalogues, collaboration with Arts & Crafts and pattern designers. • The Dior Company collaborates with "Tessiture Bevilacqua Venezia", an artisanal weaving workshop in Venice, to create special fabrics used for gowns. • The "Jacquard" project by Google, investigates new fabrics and uses Jacquard technology to create "smart" fabrics that connect to digital life instantly.
Craft students (apprentices)	A community does only demonstration. Currently no students.
Craft masters/educators	Same individuals with craftspersons above. Each year the museum organizes two temporary exhibitions on subjects relating to textiles - recently for example "Textile Culture of the Miaos, a minority group in China", "Golden Spinning Wheel for Pierre Cardin", "Antipendiums from the Protestant Church". It organizes readings on the topic of textiles and regularly participates in various events organized by others, e.g. flax market, International Museum Day. The work is carried out largely by volunteers from the Association of Friends and financed by membership contributions and donations.
Primary educators	School teachers coordinating school visits in HdS.
Media	Newspapers that published material about the Mingei plenary meeting at Krefeld: RP Digital GmbH, Westdeutsche Zeitung

Table 7. Silk Stakeholders (source: Mingei, 2019) [20] .

Annex 2. Glass stakeholders

Stakeholders	Musée des arts et métiers, part of the Conservatoire National des Arts et Métiers
Coordinators / Administrators / Communication	**Yves Winkin (M)**, is currently director of the Musée des Arts et Métiers in Paris. He is also an "extraordinary professor" of urban anthropology at the University of Liège (Belgium). He was trained in communication at the University of Liège and trained in urban ethnography at the University of Pennsylvania. He introduced in the francophone world innovative American scholars in the field of communication and anthropology. Books like *La Nouvelle Communication, Anthropologie de la communication, Erving Goffman: les moments et leurs hommes*, have been translated into several languages, from Spanish to Greek and Japanese. Yves Winkin now plans to apply his ideas about "enhancement engineering" to the world of museums of sciences and techniques. **Dr Catherine Cuenca (F)**, PHD of art history, conservateur general du patrimoine, deputy director of the Musée des Arts et Métiers, Cnam-Paris since 2016, also "Head of department of collections and curators" to the Musée des Arts et Métiers, CNAM. In charge of a regional program aiming at safeguarding the contemporary scientific and technical heritage at the University of Nantes (1996-today), she is currently manager of the national Mission PATSTEC, which preserves the scientific and technical contemporary heritage at the Musée des Arts et Métiers in CNAM (since 2003-today). **Olivier Gilot (M)**, head of départment des Publics, Musée des Arts et Métiers, CNAM **Agnès Cléquin (F)** , head of Communication Department, Musée des Arts et Métiers, CNAM
Museums & CH institutions	The Musée des arts et métiers is part of the Conservatoire National des Arts et Métiers (President: Jean-François Dehecq, Executive Officer: Thibault Duchêne, Executive Delegate: Xavier de Montfort) Centre Européen de Recherches et de Formation aux Arts Verriers (CERFAV) (Contact: David Arnaud, graphist, Media Department, Director: Denis Garcia) Collaboration with ICOM, ECSITE and ARTEFACTS Affiliation with Musée du Verre Yves Blaquière (private museum, musée privé, Sorèze).
Conservators	Team of conservators at the museum? Are there external partners that collaborate with the museum concerning the conservation of glass artefacts?

Curators	**Dr. Anne-Laure Carré (F)**, curator, Materials Collection, is in charge of the collection since 2000, and worked previously for the renovation project of the Musée des Arts et Métiers. She holds a doctorate in History and has worked in glass mechanization and glass products for architects. Her research is now turned towards the historical collection of the museum and particularly on conservation challenges. Any curator in the team of the museum specialized in glass CH. Affiliation with Anne Pluymaekers, Médiation artistique, culturelle, scientifique et technique, CERFAV.
Museum educators	Affiliation with Sébastien Kieffer (Directeur pédagogique) and Nadia Derrien (Assistante de direction formations industrielles CERFAV | PROVER) at CERFAV
Archives	The Musée des arts et métiers has an extensive historical archive regarding the history of sciences and techniques. The archive extends to the Documentation Center and Library of the museum to the newly founded Conservatoire numérique des Arts et Métiers where the digitization of the museum's and CNAM's archive takes place. Other archive sources include: ● CNAM Library ● CERFAV Library ● Choisy-le-Roi archives ● The Representative List of the Intangible Cultural Heritage of Humanity by UNESCO ● Inma documentation center More bibliographical references include: ● Augé, Paul (1928). Larousse du XXème siècle en 6 Volumes. Paris: Librairie Larousse. ● Blaquière, Yves (1995). "Le Souffle du verre: notes d'un amateur". Sorèze: Yves Blaquière. ● Bontemps, George (1839). "Verrerie-Cristallerie de Choisy-le-Roi. Rapport présenté à MM. les membres du Jury de l'exposition des produits de l'industrie". Paris: imprimerie de Ducessois. ● Bontemps, George (1844). "Verrerie de Choisy-le-Roi. Rapport présenté à MM. les membres du jury de l'exposition des produits de l'industrie". Paris: imprimerie de Ducessois. ● Bontemps, Georges (1845). "Grands établissements industriels de France". IV. La verrerie de Choisy-Le-Roi. *L'illustration* Journal universel 133 (6).

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Content owners & creative industries	• Musée des arts et métiers • Affiliation with CERVAF: Centre européen de recherches et de formation aux arts verriers (CERVAF Glass School) • Affiliation with InMurano Associazione Culturale noprofit, a non-profit organisation of Murano glassmakers
Researchers & Academics	**Dr Catherine Cuenca (F)**, PHD of art history, conservateur general du patrimoine, deputy director of the Musée des Arts et Métiers, Cnam-Paris since 2016, also "Head of department of collections and curators" to the Musée des Arts et Métiers, CNAM. In charge of a regional program aiming at safeguarding the contemporary scientific and technical heritage at the University of Nantes (1996-today), she is currently manager of the national Mission PATSTEC, which preserves the scientific and technical contemporary heritage at the Musée des Arts et Métiers in CNAM (since 2003-today). **Arnaud Dubois (M)** holds a PhD in Social Anthropology from the École des Hautes Études en Sciences Sociales (2014) and a MFA from the Paris École des Beaux-Arts (2008). He has been a visiting researcher at the Musée du Quai Branly (2013–14) and a research manager at the Musée des Arts et Métiers (2015–16). He is currently a Fyssen Foundation postdoctoral fellow at the University College London (2016–18). Contacts through UNIVERSEUM (European Academic Heritage Network) and UMAC (an international network of universities created by the International Council of Museum).
Craftspersons	• **Ali Deli**, Responsable atelier parachèvement Vannes-le-Châtel, CERFAV • **Olivier Léonard**, Responsable atelier décoration Vannes-le-Châtel, CERFAV • **Jean-Pierre Mateus**, Responsable atelier soufflage Vannes-le-Châtel, CERFAV • **Maryline Didier**, Responsable atelier vitrail Vannes-le-Châtel, CERFAV • **Louis Mocek**, Ingénieur formateur CERFAV	PROVER • **Paul Stojadinovic**, Animateur FabLab, CERFAV

	• **Olivier Weber**, Plasticien et modelage, CERFAV
Guilds	• Louis Luc Associations for the History of Choisy-le-Roi • Glass and History Associations • Institut National des Métiers d'Art • InMurano glass association
Policy makers & governmental bodies	• Ministère du commerce et de l'artisanat • Ministry of Research • Ministry of Culture • Ministry of Education • Municipality of Choisy-le-Roi • Municipality of Vanne-le-Châtel • Fédération des Cristalleries Verreries à la main et mixtes (FCVMM) • UNESCO
Tourism professionals/businesses	Affiliation with the Musée du Verre Yves Blaquière. The Musée du Verre Yves Blaquière is at Southern France availing a connection to tourism.
Visitors & tourists	• The Musée des arts et métiers is the French national museum of Science and Technology cited in every tourist guide of Paris. • School students: the museum runs educational programs described in the museum website • CERFAV hosts exhibitions.
Craft enthusiasts	Audience of educational, training programmes of CERFAV Audience of CNAM education program participants and visitors.
Museum volunteers	Stage museum volunteers.
Scientific consultants/Reviewers	Dr Anne-Laure Carré.
Craft students (apprentices)	4 schools in France are dedicated to glass blowing studies: "CAP Arts du verre et du cristal" 1. Lycée polyvalent Jean Monnet 03401 Yzeure 2. CFA arts et technique du verre CERFAV 54112 Vannes-le-Châtel 3. Lycée professionnel Dominique Labroise 57400 Sarrebourg

	4. Université Régionale des Métiers et de l'Artisanat 81540 Sorèze CERFAV offers educational programmes and collaborates with art & design schools.
Craft masters / educators	• Lycée polyvalent Jean Monnet 03401 Yzeure: educator • CFA arts et technique du verre CERFAV 54112 Vannes-le-Châtel: See Craftspersons above • Lycée professionnel Dominique Labroise 57400 Sarrebourg: educator • Université Régionale des Métiers et de l'Artisanat 81540 Sorèze: educator.
Primary educators	Survey: on schools educators organizing schools visits at the Musée des arts et métiers and educational programmes funded by the Ministry of Education
Media	Revue de la Céramique et du Verre
Modern industry	CERFAV
General public	What is the importance of the Musée des arts et métiers for CH? • Craft specific knowledge • Preservation of the craft • Dissemination of the craft via tourism and trade

Table 8. Glass Stakeholders (source: Mingei, 2019) [21] .

Annex 3. Mastic stakeholders

Stakeholders	ON MASTIC PILOT IN CHIOS ISLAND // MASTIC MUSEUM
Curators/ Coordinators/ Local administrator	• Mrs. Anna Kallinikidou (curator) • Mrs. Maria Venizelea (curator) • Mr. Dimitris Gavalas (local administrator)
Scientific Consultants / Reviewers	• Mr. Dimitris Tsouchlis • Mr. Manolis Vournous • Mrs. Nadia Macha • Mrs. Eleni Beneki • Mrs. Stavroula-Villy Fotopoulou scientific editor
Archives	• From Chios Gum Mastic Growers Association • "Adamantios Korais" Municipal Library of Chios • Municipality of Chios • Visual material- photographic archives • The Representative List of the Intangible Cultural Heritage of Humanity by UNESCO • Piop's Digital Collection Bibliography : • Adamakopoulos Triantafyllos, Koutsi Regina, Matsouka Penelope, Acknowledgment of the natural environment in the area of the Mastic Museum under construction in Pyrgi, Chios • Filiz Yaşar, *Chios mastic in the Ottoman fiscal registers*. • Galani-Moutafi Vasiliki, The commercial culture of mastic. Narratives of tradition and cultural heritage • Koumanoudi Marina, The Maona of Chios and the administrative structure on the island at the time of the Genoese rule • Koutsi Regina, Geological study of Chios island • Loupis Dimitris, The Chios mastic in the Ottoman period • Mendoni Lina G., Written sources on the use and price of mastic in Antiquity • Plytas Antonis, Detailed description of various production lines of mastic in the factory of the Chios Gum Mastic Growers Association • Tsouchlis Dimitris, Study of primary material from the archive of the Chios Gum Mastic Growers Association • Varlas Michail, Special uses of mastic and the social history of the Mastichochoria region

	• Varlas Michail, Study of the history of mastic during the Ottoman period in the history of Chios. Women and mastic production from the field to the factory. Mastic and visual arts • Vournous Manolis, Housing in the Mastichochoria region of Chios • Vournous Manolis, Chios: the settlements and fortifications on the island during the Genoese and the Ottoman rule • Belles Christos, The mastic island • Kolliaros Giannis, Once upon a time… Folklore of Chios. The 21 Mastichochoria villages. • Merousis Nikos, Chios: natural environment and inhabitation. From the Neolithic period until the end of Antiquity, Chios 2002. • Savvidis Thomas, The mastic tree of Chios (pistachia lentiscus var. Chia). • Vassi Olga, Medieval Chios, Association of Friends of the "Korais" Library of Chios, Chios 2014. • Vios Stylianos, The massacre of Chios told by the Chios people. • Vios Stylianos, Chios folklore, ed. Stergios Fasoulakis, Chios Art Lovers Association-Omireion Cultural Centre of Chios, Chios 1997. • Zacharopoulos Kostas, Barbikas Ilias, The book of mastic, Mediterra, Athens 2007. • Aspects of intangible cultural heritage on Chios], scientific editor Stavroula-Villy Fotopoulou, Piraeus Bank Group Cultural Foundation, Athens 2016. • The engravings of Chios. The Collection of Kostas and Despoina Koutsika], vols. A-B, Akritas Editions, Athens 1994. *Content could also be found on the British Library/ Cambridge University Library/ Benaki Museum/ National Library of Greece etc.
Content owners & creative industries	• Chios Gum Mastic Growers Association • The subsidiary company of Chios Gum Mastic Association, "Mediterra".

Researchers & Academics	• Historians
	• Environmental Experts
	• Biologists
	• Chemical scientists
	• University of Aegean
	   o Spyros Vosinakis, Associate Professor
	   o Panayiotis Koutsabasis, Assistant Professor
	   o Pavlos Chatzigrigoriou, Postdoctoral Researcher
	• Doctors
	• Practitioners
	• Architects

	○ Mr. Yiannis Kizis ○ Mr. Pavlos Zannis
Craftspersons	-Cultivators/ Mastic growers ● Mr. Manolis Zafeiris – Cultivator ● Mr. Vassilis Barlas – Cultivator ● Mrs. Roula Boura - – Cultivator ● Mr. Dimitris Koyntouriadis – Cultivator ● Mrs. Eirini Parthenidou – Cultivator ● Mr. Konstantinos Karnis – Cultivator ● Mr. Miltiadis Sarantinidis – Cultivator ● Mr. Yiannis Mandalas – Cultivator During the harvesting and the cleaning of mastic, everyone works, men and women, children, adults and the elderly. ● Craftswomen [The sifting that separates the fine pieces and the mastic in powder form from any impurities, is usually carried out by women and requires a special knack and experience]. ● Family Members / family tradition
Policy makers & governmental bodies	● Ministry of Rural Development and Food ● Ministry of Economy and Development ● Ministry of Tourism ● Municipality of Chios ● Chios Gum Mastic Growers Association ● The subsidiary company of Chios Gum Mastic Association, "Mediterra".
Tourism businesses/ professionals	● Masticulture, (a private tourism company specializing in ecotourism on the island of Chios, based in Mesta) ● Tourism Agents ● Hotels ● Restaurants that use mastic on their menu ● Traders that sell mastic products ● Car Rental Companies / the Museum is located at the Mastichochoria region in the southern part of Chios
Visitors & tourists	● Mastic Museum is a prominent attraction of Chios Island as mentioned in every tourist guide.

	• School students: the museum runs educational programs described in PIOP's webpage.
Craft enthusiasts	Association for the Conservation and Promotion of the Natural and Cultural Wealth of Chios with the distinctive title "MASTICHA"
Craft students (apprentices)	• Family tradition • Workers from abroad (mainly from Albania)
Craft masters/educators	Family tradition
Primary educators	Find data of the museum and persons regarding school visits ● Mrs Maria Maistrou- Principal of Elementary School of Kalamoti Chios ● Mr. Dimitris Manaras - Principal of 3rd Elementary School of Vrontados Chios ● Mr. Ioannis Tsiropinas - Principal of 7th Elementary School Chios ● Mr. Antonis Nikolaou – Principal of Gymnasium of Vrontados Chios
Media	Local newspapers: ● «Η αλήθεια», www.alithia.gr ● «Χιώτικη Διαφάνεια», https://diafaneia.com/ ● «Ο Πολίτης», www.politischios.gr ● www.chiosnet.gr ● www.chiospress.gr National newspapers and media programs often hosting articles about the therapeutic uses of mastic.
Modern industry	• Chios Gum Mastic Growers Association • The subsidiary company of Chios Gum Mastic Association, "Mediterra".
General public	What is the importance of the Mastic Museum for CH? • Craft specific knowledge. • Preservation of the craft • Dissemination of the craft via tourism and trade

Table 9. Mastic Stakeholders (source: Mingei, 2019) [22] .

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