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Documented Use Cases – 2nd Batch

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1. Introduction

1.1 Previous Approach

RESILIENCE, as a European cross-disciplinary research infrastructure for research on religion in all academic fields, has placed its future users and their needs at the center of its development. The objective of WP3 is to gather user requirements as comprehensively as possible, enabling the research infrastructure (RI) to provide the services requested or envisioned by the community.

In collaboration with WP4 (Communication, Dissemination and Exploitation), WP3 organized several workshops in which the RI and its potential services were presented to selected focus groups. From the outset, WP2 closely cooperated in this process, ensuring that the collection of user requirements (WP3) was well aligned with the strategic planning and service preparation undertaken in WP2.

The workshops served to gain a detailed understanding of user needs and priorities, to identify concrete requirements, and to guide the development of the services accordingly. Existing services were also mapped to identify synergies, overlaps, and gaps. WP3 has completed the first full cycle of user-centered research and service design activities. Building upon the initial workshops and user stories (as reported in D3.1 and D3.5), WP3 refined the 1st batch of documented use cases (D3.3) representing the most prominent user needs. These include the areas of Accessibility, Networking/Mobility/Transnational Access, Research Data Management, and Scientific Support/Empowerment. Each use case was defined using a structured template that translated user stories into concrete functional and technical requirements for service development. The resulting documentation provided detailed descriptions, user goals, preconditions, success scenarios, and SMART objectives for implementation.

1.2 Current Approach

Recognizing that the results drawn on the initial workshop responses provided very valuable but not necessarily representative insights, the workshop methodology was -in line with the

recommendation of the EC¹- refined so that the sessions now serve as clearer and more expert-guided test settings. (cf. D 3.2 Workshop proceedings 2nd batch). However, it was notable throughout the samples that similar subjects were recurring in variety (cf. D 3.5, D3.6, D 3.3).

As it was made one of the objectives in D 3.3 to use synergies between RESILIENCE and the ITSERR-Project² WP3 created mock-ups for selected core services in collaboration with ITSERR. The mock-ups were subsequently tested and validated in user feedback sessions, ensuring that the proposed functionalities and interfaces correspond to real user expectations. These validation activities represent a major step toward the co-creation of RESILIENCE's digital marketplace, as they bridge the conceptual design phase and the technical development of future services.

Furthermore, WP3 describes use cases for selected services from the service catalogue by WP2 based on the user stories (cf. D3.5 and D3.6) collected through the workshops.

1.3 Next Phase

The insights gained from the workshops, user stories, and mock-up evaluations will be considered in the next phase of development, where prototypes will evolve into operational services integrated in the RESILIENCE Marketplace. This deliverable presents the information gathered so far for these further developments in four chapters. First, the refinement and application of the archetypes is presented. In a second step, the use cases based on the user stories and the service catalogue will be showcased. The use case template which was presented in D 3.3 will be applied again to achieve a high level of comparability. Thirdly, the evaluation of the UX/UI mock-ups will be presented and analyzed. Finally, objectives for further development will be formulated.

¹ Cf. General Project Review Consolidation Report (2nd Reporting Period), p. 2.

² ITSERR: Italian Strengthening of the ESFRI RI RESILIENCE.

2. Refinement and Application of Archetypes

As RESILIENCE places its future users at the center of its activities, its overall approach is primarily user oriented. During the Design Phase³, four main user target groups were identified, analyzed, and described in detail:

1. Researchers,
2. Collection managers, librarians, and archivists (GLAM sector⁴),
3. Decision makers, and
4. Workers in religious communities

Based on surveys conducted during the Design Phase, these four groups were further divided into eight archetypes of potential users, allowing for a more tailored and empathic approach to service design. These archetypes form the conceptual foundation of RESILIENCE's user centered design process and were established to enable the infrastructure to address diverse needs across its stakeholder community.

Within the RESILIENCE PPP, WP₃ has continued the refinement and validation of these eight archetypes as part of Task T_{3.2}. The process began with a focus group involving WP₂ members during the Innovation Meeting at WU and the WP Leaders' meeting in Palermo (August–September 2023) and has since evolved through multiple iterations. During this phase, WP₃ has focused primarily on the two prioritized user groups that are most actively engaged with existing RESILIENCE services: researchers and members of the GLAM sector. This focus aligns with the overarching aim of RESILIENCE to integrate and expand its existing services, such as the Transnational Access (TNA) Fellowship Program, the Religious Studies Discovery Environment (RelReSearch) and training activities. These services currently provide the greatest benefit to researchers and GLAM professionals and serve as practical foundations for further development.

³ Cf. the deliverable D2.3 from the Design Phase — Grant 871127 — RESILIENCE High-Level User Strategy Report (RESILIENCE_WP2_USR_01.00_FINAL), confidential.

⁴ Abbreviation "GLAM": Galleries, Libraries, Archives, Museums.

At the same time, WP3 has also made efforts to gather and analyze insights regarding the other two user groups, decision makers and workers in religious communities, based on the data collected so far. The interviews already conducted were therefore examined not only for their relevance to researchers and GLAM professionals but also for their informative value for these additional groups. This ensures that the work remains consistent with the RESILIENCE Vision and Mission Statement⁵, while maintaining continuity with the preliminary work carried out during the Design Phase.

The ongoing refinement of archetypes also guides the activities related to the workshops as an additional interview questionnaire dedicated for the GLAM sector was designed to complement the existing guidelines for researchers. This ensures that the perspectives and needs of collection managers, librarians, and archivists are adequately captured during the workshops

Building upon the user data collected through the workshops and interviews, Use Cases are now being developed for selected services listed in the RESILIENCE Service Catalogue. Each use case is directly based on the User Stories and User Needs identified during the interviews, translating them into detailed functional and technical requirements that guide the improvement of existing services and the design and implementation of future services. This structured approach ensures a clear link between user expectations and service development.

In collaboration with the ITSERR-Project WP3 has also designed mock-ups for two core services, which were subsequently tested and evaluated in two dedicated workshops with representative user groups. These mock-up validation sessions provided essential feedback on usability, interface design, and overall service relevance. The insights gained from these workshops have informed the refinement of both the prototypes and their underlying use cases, ensuring that the services respond effectively to real user needs. This iterative process, from the refinement of archetypes to the formulation of use cases and the testing of service mock-ups, ensures that the RESILIENCE service portfolio continues to evolve in close alignment with the actual research practices, workflows, and expectations of its future users.

⁵ RESILIENCE's Vision and Mission Statement: Vision, Mission, and Values – Serving Research, Building Knowledge, Version 02.00.

Each archetype is intended to reflect core professional context, key motivations and goals, typical workflows and challenges, and preferred communication channels. While the initial refinement drew on surveys, interviews, workshops, and mock-up testing to ensure that archetypes mirror real user behavior and service interactions, further work is still needed to consolidate and detail these characteristics. For example, researchers differ by career stage, research focus, and digital tool familiarity; GLAM professionals vary by institution type, collection responsibilities, and service usage; decision makers and religious community workers are characterized by strategic priorities, resource influence, and engagement needs. Recognizing this now provides a positive roadmap: the next steps will focus on completing and aligning these detailed archetype profiles fully with actual service usage and user insights, ensuring they are practical and actionable for service development and communication strategies. The insights collected so far propose for the ongoing refinement process, not to replace the original archetypes but to expand and differentiate them into specific subtypes, so that a more systematic alignment between archetypes and RESILIENCE’s existing and future services could be established. It is proposed

- a) To strengthen differentiation by digital skill level and career stage
- b) To be more precise about motivational profiles
- c) To represent a growing professional group essential for cross-institutional data exchange and interoperability
- d) To differentiate within the GLAM sector by roles and tasks

3. Use Cases

3.1 User Stories as Basis for the Use Cases

The basis for the selection and definition of the use cases for this 2nd batch is the user stories presented in D3.6 User Stories Catalogue – 2nd Batch. These user stories represent requirements collected from the user perspective in 27 individual interviews and 3 group interviews. While not designed to be fully statistically representative, the sample consisted of individuals affiliated with the relevant research environment. The participants were invited based on selection, ensuring valuable context-specific perspectives. The results of the evaluation of these user stories in D3.6 are structured as follows:

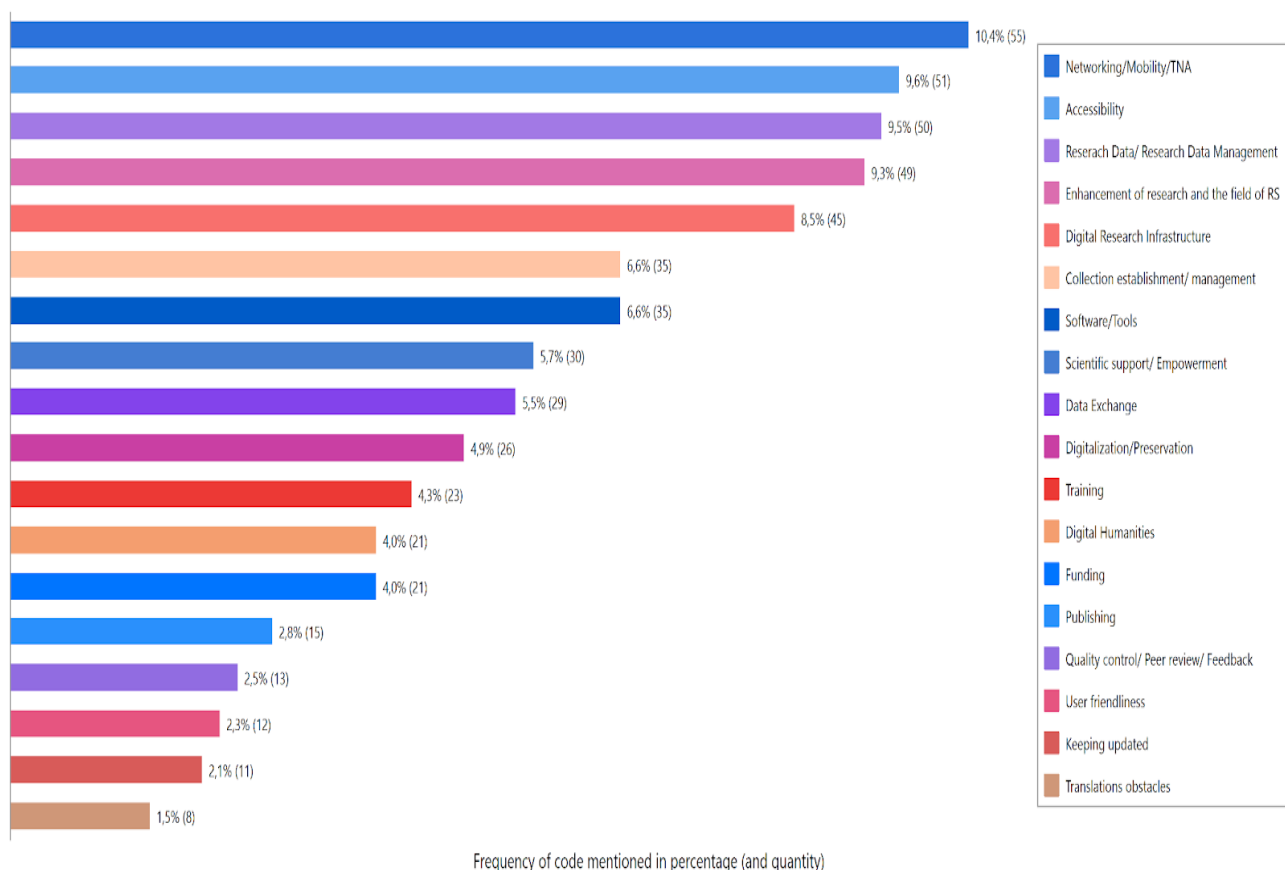


Figure 1: Quantitative Results of the Expressed User Needs from the Content Analysis of the Interviews

The use cases are built upon the user stories, which capture the need for future services from the perspective of RESILIENCE’s end users, in line with the project’s user-oriented approach. In these user stories, complex user requirements were broken down into specific, actionable elements that could be directly linked to corresponding services within the RI. Through the user stories, future users articulated their goals and expectations regarding how they intend to interact with and benefit from the RI. The resulting use cases translate these goals into concrete technical and functional scenarios, outlining how users can achieve their objectives through specific services. Each use case therefore focuses on the human perspective, describing the interaction between users and the system in a way that provides service developers with a clear understanding of what needs to be implemented and why. To systematically document these interactions, WP3 employed a structured use case template, detailing user roles, objectives, preconditions, workflows, and expected outcomes. This template was applied to six representative user stories from Deliverable D3.6 in combination with selected services from the service catalogue, which is currently established by WP2.

3.2 Definition of Use Cases

The aim of this approach is to create a list of specific service requirements based on the data and insights from the interviews and additionally already existing services, which are collected from all consortium members by WP2 for the RESILIENCE Service Catalogue.

User Needs	User Stories	Use Case Title
Networking/Mobility/TNA	As a researcher, I want to have a centralized platform, so that community building gets easier and more time effective.	Transnational Access Portal
Networking	As a researcher, I want to have a centralized platform, so that community building gets easier and more time effective.	RESILIENCE Experts Database
Accessibility	As a researcher, I want some kind of membership issued by RESILIENCE, that allows me to access libraries and catalogues throughout Europe, so that I am not restricted in my research.	Enhanced Discoverability and Access Guidance via the RESILIENCE Service Catalogue
Research Data Management	As a librarian, I want metadata to remain a public good managed by a European-based central partner so that it is accessible and supports open science without commercialization	European Central Metadata Service for Open Science (via MÜCOS and SCDM Münster)
Digital Humanities	As a researcher, I want a digital infrastructure that can store, search, and make usable 3D data from scanned objects, including manuscripts and coins, in various formats, so that the materiality of objects is fully captured and accessible for analysis.	3D Heritage Data Infrastructure via Book Heritage Lab
Data Exchange	As a researcher, I want access to an international norm database that provides unique identifiers and comprehensive metadata for individuals, books, and	CRTA database



	objects, so that I can ensure consistency in referencing these items across different projects and more easily process and share research data.	
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Table 1: The Evolution from User Needs to User Stories to Use Cases

3.3 Six Use Cases for RESILIENCE services

In this chapter, **six use cases with the user/functional requirements** are developed. The **use case template** contains the following categories:

- Each is based on a **User story** derived from the interviews.
- After determining the **User group** (e.g. researchers or members of the GLAM sector), the use case is named in the **Title** and given a **Description**.
- The **Primary Actor** is the service/tool that answers the need.
- The **Preconditions** outline the state the system is in before the use case begins, that is the situation in which the user finds her/himself with a need they need to resolve, and the **Postconditions** characterize the intended state that has arisen through the use of the service, that is the state the system is in after one of the use case pathway is completed.
- The **Main Success Scenario** describes the steps a user goes through in a use case where nothing goes wrong.
- **Constraints/Issues/Risks** and the **Frequency of Use** are anticipated.
- The **Status** indicates the degree of implementation of the service, the **Owner** of the service is specified, and the **Priority** of its implementation is categorized into high, medium or low.

3.3.1 Use Case Template Networking/Mobility/Transnational Access

User story:	As a researcher, I want to use the TNA program, so I can make use of very specific resources that can't be digitalized.
User group:	Junior and mid-career level researchers: PhD, Post-doctoral researchers, assistant professor, associate professor, and all their academic equivalents.
Title:	Transnational Access Portal



Description:	Online platform that will facilitate visiting scholar exchange visits to universities, archives and other institutes that include the study of religion in their scope of activities and research
Primary Actor:	RESILIENCE TNA Manager
Preconditions:	No access to specific sources, collections, libraries, or archives necessary to achieve and/or conduct their research; OR missing expertise and/or training in specific tools, software or catalogues to access the knowledge or research methodology needed for their research; OR missing expertise for staff (project management, IT, product development, digital skills, and more).
Postconditions:	Having had access to the specific sources, expertise and/or training, the quality of the research has improved to an extent not possible without the TNA Fellowship Programme.
Main Success Scenario:	TNA Fellow applies for a TNA Fellowship with a project proposal and the necessary sources, training, and expertise needed to improve or complete (a part of) their research. They are accepted by the peer review board. The TNA Host ensures that the required sources, expertise, and training will be available to the TNA Fellow on arrival. The TNA Fellow makes use of the offered package and completes that part of the research that is dependent on access to the TNA Host's facilities and writes a short report (to be used for communication purposes) to summarize their experiences. On completion of the research stay the TNA Fellow completes an evaluation of the full experience as feedback for both the Host and the RESILIENCE TNA Programme. The TNA Fellow reports back on all academic publications made possible by the research visit.
Constraints/Issues/Risks:	The above scenario can be expected in general. Exceptions and errors to the above scenario include: <ol style="list-style-type: none">1. Visit postponed or canceled by the TNA Fellow2. Visit postponed or canceled by the TNA Host3. Offered TNA Host incomplete or insufficient for the research needs of the TNA Fellow
Frequency of Use:	After implementation of the RI: 20 TNA Fellows per year.
Status:	Pilot programme until June 2026.
Owner:	RESILIENCE
Priority:	High

Table 2: Use Case Template Networking/Mobility/Transnational Access

3.3.2 Use Case Template Networking

User story:	As a researcher, I want to have a centralized platform, so that community building gets easier and more time effective.
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User group:	Researcher/GLAM-Sector
Title:	RESILIENCE Experts Database
Description:	<p>Context: Many research communities and projects rely on disparate tools (email lists, websites) to coordinate, share resources and dialogue. This fragmentation slows down interaction, diminishes visibility of community contributions and increases overhead for community management.</p> <p>Goal: Provide a platform for the academic community to find people, projects and resources in research on religion in one single access point. Thereby reducing time spent on coordination, increasing connections across members, and facilitating sustained community building.</p>
Primary Actor:	A researcher or community moderator who initiates or manages a research community and uses the platform to engage members, disseminate information and coordinate collaborative work.
Preconditions:	The platform is available and accessible (web-based, user accounts enabled). Researchers have credentials. The platform supports necessary functionality (user profiles, notifications etc.).
Postconditions:	Community members engage via the platform.
Main Success Scenario:	Community activities lead to collaboration, resource reuse, and less time spent on logistical coordination.
Constraints/Issues/Risks:	The platform lacks a feature needed. Researcher's institution blocks access or login fails. Engagement is low.
Frequency of Use:	Depending on community vitality.
Status:	Prototype/Development phase.
Owner:	INFAI/ITSERR
Priority:	Medium

Table 3: Use Case Template Networking

3.3.3 Use Case Template Accessibility

User story:	As a researcher, I want some kind of membership issued by RESILIENCE, that allows me to access libraries and catalogues throughout Europe, so that I am not restricted in my research.
User group:	Mainly Researchers (also applicable to others)



Title:	Enhanced Discoverability and Access Guidance via the RESILIENCE Service Catalogue
Description:	<p>Context: Collections like f. ex. The Portal Calvin database (TUA) texts and related catalogues. Many potential users outside the institution or country face restrictions accessing such specialized collections. Visibility of this valuable aggregation is also often limited.</p> <p>Goal: Although subscription licenses and other explicit access restrictions cannot be fully removed, RESILIENCE can improve discoverability, guidance, and usability through the digitized Service Catalogue. The Service Catalogue helps users to discover services relevant to their field, supporting efficiency even when access is limited. Users can access structured information on:</p> <ul style="list-style-type: none">• access conditions and licensing requirements• availability of open-access materials• related collections and catalogues across providers• relevant tools and digital services• available training and similar resources• authentication options where applicable <p>Additional enhancements:</p> <ul style="list-style-type: none">• Unified discovery of related catalogues and datasets• Centralized documentation of access routes and requirements• Metadata integration to serve visibility.
Primary Actor:	Researchers
Preconditions:	<p>The digitized RESILIENCE Service Catalogue is live.</p> <p>The researcher accesses the digitized RESILIENCE Service Catalogue.</p> <p>Portail Calvin database is indexed and described in the Catalogue.</p> <p>Access and licensing information has been collected from providers.</p>
Postconditions:	<p>Researchers understand how to access the Portail Calvin database under existing licensing framework</p> <p>Open-access materials and related collections are discoverable</p> <p>Relevant tools and training are visible in the Service Catalogue</p> <p>Interactions with the catalogue are logged for service improvement</p>



Main Success Scenario:	<ol style="list-style-type: none">1. User opens the RESILIENCE Service Catalogue.2. Catalogue shows Portail Calvin (or other collections, tools, and trainings based fitting for the user's context).3. User reads clear access information (open access, institutional access, subscription-only resources, request paths).4. User is guided to Portail Calvin (or other linked catalogues, tools etc.).5. Authentication proceeds via existing institutional mechanisms if applicable.6. User accesses available materials, tools, or training7. Interactions are logged to improve guidance and catalogue content.
Constraints/Issues/Risks:	RESILIENCE cannot override licensing restrictions. Providers may change access rules. Catalogue integration depends on metadata delivery and cooperation.
Frequency of Use:	Frequently during literature review, discovery, and early research phases.
Status:	Service Catalogue digitization in progress Integration of external repositories underway Access description workflows under development
Owner:	RESILIENCE
Priority:	High

Table 4: Use Case Template Accessibility

3.3.4 Use Case Template Research Data Management

User story:	As a librarian, I want metadata to remain a public good managed by a European-based central partner so that it is accessible and supports open science without commercialization.
User group:	Members of the GLAM-Sector
Title:	European Central Metadata Service for Open Science (via MüCOS and SCDM Münster)
Description:	<p>Context: Many libraries and information infrastructures generate and use metadata, but this metadata is often proprietary, fragmented, or managed by commercial service providers, which limits its use in the context of open science.</p> <p>Goal: A European central partner service (e.g., via MüCOS) manages metadata as a public resource, freely accessible and non-commercialized. The service enables libraries to manage their metadata holdings securely, interoperable, and openly. The focus is on accessibility, sharing, and reuse of metadata across the scientific ecosystem.</p>



Primary Actor:	Librarian or metadata manager who wants to manage or provide metadata for an open science institution.
Preconditions:	The institution has a metadata inventory overview and agrees to participate in the central service. The central service is set up technically and organizationally (e.g., infrastructure at MÜCOS). Terms of use ensure that metadata is not restricted for commercial purposes.
Postconditions:	Metadata from participating institutions is available in the central service and openly accessible. Librarians can manage, update, and share metadata via the service. The service contributes to improving metadata quality, interoperability, and visibility of scientific collections.
Main Success Scenario:	1. A library registers with the central metadata service. 2. The institution transfers or connects its metadata to the service. 3. The service makes metadata openly and interoperable available. 4. Librarians use the service to maintain, improve, and publish metadata. 5. Researchers and libraries access the metadata and use it for research, networking, and open science processes.
Constraints/Issues/Risks:	The institution only wants to contribute partial holdings. The metadata is in a format that still needs to be converted. The institution wants to exclude commercial use and needs to adjust the terms of use. Technical or organizational integration is delayed.
Frequency of Use:	Continuous: metadata updates, publication processes, research and networking activities; the service is used regularly by libraries and metadata managers.
Status:	Planning and design phase
Owner:	Münster Center for Open Science (MÜCOS), Service Centre for Research Data Management University Library Münster
Priority:	Medium Metadata as a public good is a key prerequisite for open science and for European research infrastructures.

Table 5: Use Case Template Research Data Management

3.3.5 Use Case Template Digital Humanities

User story:	As a researcher, I want a digital infrastructure that can store, search, and make usable 3D data from scanned objects, including manuscripts and coins, in various formats, so that the materiality of objects is fully captured and accessible for analysis.
User group:	Researchers



Title:	3D Heritage Data Infrastructure via Book Heritage Lab
Description:	<p>Context: The Book Heritage Lab at KU Leuven develops advanced imaging and digitization infrastructure (including multispectral and 3D scanning) for. Many researchers however face limited access to high quality 3D datasets or infrastructure to search, store and reuse them.</p> <p>Goal: To provide a digital infrastructure that enables storage, searchable access, and usability of 3D data sets of scanned objects (manuscripts, coins, bindings etc.) in multiple formats, thereby capturing their full materiality for research and analysis. The infrastructure will integrate with the Book Heritage Lab's imaging capabilities and allow researchers to explore, measure, and analyze objects in a way that traditional 2D digitization cannot.</p>
Primary Actor:	A researcher who needs to access, search, analyze 3D scan data of cultural heritage objects (objects scanned by the Book Heritage Lab infrastructure) for their study.
Preconditions:	<p>The Book Heritage Lab has created 3D scan datasets of heritage objects (manuscripts, coins, etc.).</p> <p>The digital infrastructure (repository + search & viewer capability) is in place and supports multiple formats and metadata.</p> <p>The researcher has access to credentials or appropriate rights to use the infrastructure.</p>
Postconditions:	<p>The researcher can locate, view, download or interact (measure, annotate) with 3D data of heritage objects.</p> <p>Material features (such as binding structure, coin relief, manuscript texture) are captured and usable in research.</p> <p>The dataset is logged/tracked for usage, and contributes to long-term preservation and reuse.</p>
Main Success Scenario:	<p>The researcher can locate, view, download or interact (measure, annotate) with 3D data of heritage objects.</p> <p>Material features such as binding structure, coin relief, manuscript texture) are captured and usable in research.</p> <p>The dataset is logged/tracked for usage and contributes to long-term preservation and reuse.</p>
Constraints/Issues/Risks:	<p>The researcher finds no suitable 3D dataset yet generated for the object (fallback: request scan or use 2D alternative).</p> <p>The researcher's access credentials are insufficient, or the format is unsupported.</p> <p>The dataset is restricted due to rights, size or format issues.</p> <p>The viewer tool fails, or browser incompatibility arises, researcher uses static download instead.</p>
Frequency of Use:	When researchers undertake material studies of heritage objects which could occur repeatedly across projects; especially in manuscript studies, codicology, numismatics, conservation science

Status:	Functioning
Owner:	Book Heritage Lab – KU Leuven
Priority:	High

Table 6: Use Case Template Digital Humanities

3.3.6 Use Case Template Data Exchange

User story:	As a researcher, I want access to an international norm database that provides unique identifiers and comprehensive metadata for individuals, books, and objects, so that I can ensure consistency in referencing these items across different projects and more easily process and share research data.
User group:	Researcher
Title:	CRTA database
Description:	<p>Context: The CRTA project publishes open-access bibliographic and academic information about Chinese religious texts (pre-1949) and connects bibliographic information across collections, archives and private libraries. Many research projects struggle with inconsistent identifiers or missing comprehensive metadata for books, authors, persons and objects when aggregating data across institutional boundaries.</p> <p>Goal: To provide a central, international norm database under CRTA that assigns and manages unique identifiers for individuals, books and objects and offer comprehensive metadata to researchers. This enables consistent reference, facilitates interoperability across research projects, and supports open science practices by making metadata openly available for processing and sharing</p>
Primary Actor:	A researcher who needs to reliably reference individuals, books, or objects in research data, cross-project or cross-institution, using the CRTA norm-database service.
Preconditions:	<p>The CRTA system is operational and provides persistent unique identifiers and rich metadata for items.</p> <p>Researchers have access to the CRTA data.</p> <p>Metadata standards and governance are in place to ensure the service can function as a trusted norm-database.</p>
Postconditions:	The researcher uses CRTA identifiers and metadata to annotate or link research data across projects.



	Cross-project references become consistent and interoperable. The metadata is openly accessible, enabling reuse and sharing, and contributes to open science infrastructure.
Main Success Scenario:	<ol style="list-style-type: none">1. Researcher logs into (or accesses) the CRTA database.2. Researcher searches for an individual/book/object and finds a CRTA identifier and full metadata record.3. Researcher uses the identifier in their dataset or publication to reference the item.4. Researcher exports metadata or links via API into their project environment.5. Researcher shares or merges their data with other projects using the same identifiers and metadata standards.6. The system logs usage and updates are maintained.
Constraints/Issues/Risks:	The item (individual/book/object) is not yet in CRTA (fallback: researcher may request creation or use local identifier) Metadata insufficient or incomplete (fallback: researcher enriches local dataset and may contribute back)
Frequency of Use:	Frequently used by researchers during data preparation, data sharing, publication, and integration phases, especially when combining data from multiple sources/institutions.
Status:	Operational
Owner:	EPHE
Priority:	Medium

Table 7: Use Case Template Data Exchange

4. Evaluation of UX/UI Mock-ups

The objective of WP3 was to conduct User Interface/User experience validation sessions. Additionally, to the use cases, UI/UX mock-ups allow users to better understand which services are more positively disruptive for users, and as such they are relevant also for the future work of RESILIENCE. The evaluation of UI/UX mock-ups was the main output for WP3 of the workshops organized in Münster (May 2025) and Paris (September 2025). While they were part of the program in the 5-day Paris workshop, the focus in the Münster workshop was particularly on these evaluations (for more detailed information cf. D 3.2 Workshop proceedings– 2nd Batch).

WP3 decided to present two services for evaluation by the workshops' participants: The already accessible RelReSearch discovery environment (from now on DE) and the Marketplace designed by the ITSERR project, which will be used as the marketplace for RESILIENCE. Both services are not yet fully developed. RelResearch is already operational and usable, though still in an early stage of development, while the Marketplace is in preparation and yet to become operational. The services were selected for the evaluation for specific reasons.

First, their early stage of preparation/demonstration allows user feedback to directly influence further development. Second, they represent core components of the RESILIENCE ecosystem: RelReSearch for discovery and research functions, and the Marketplace for service provision. Third, because they are not yet fully developed, they offer potential for improvement, enabling early integration of user needs, suggestions, and priorities. Fourth, they have strong demonstration value, making them suitable for workshops where participants can explore the concept, the design and test concrete usage scenarios. Finally, as mentioned, the two services differ in their maturity. RelReSearch is already operational and usable, providing participants with hands-on experience, while the Marketplace is in preparation and on its way to becoming operational.

4.1 Evaluation of RelReSearch

In the workshops in Münster and Paris (cf. D 3.2 Workshop proceedings– 2nd Batch), participants were invited to explore the DE firsthand using their own laptops. The session began with a brief introduction, after which they were asked to freely navigate the DE at their own pace. To guide

them initially, two example search terms were suggested, providing a starting point for exploration. After this initial guidance, participants were encouraged to conduct their own searches on any topics of interest, allowing them to experience the DE’s functionality and content in an open, self-directed manner. Following this hands-on exploration, participants’ impressions and experiences were collected through a structured questionnaire, capturing their feedback and insights about the DE’s usability and content

4.1.1 Results of the Evaluation

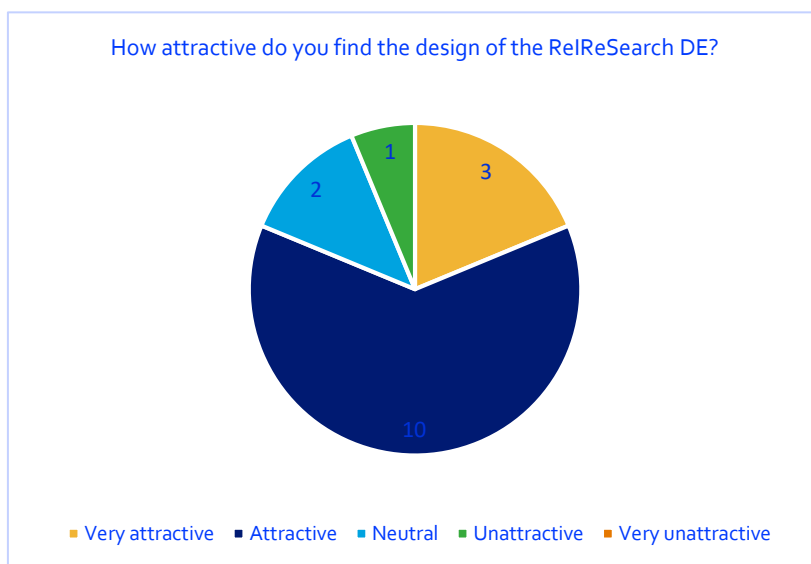


Figure 2: Attractiveness of DE

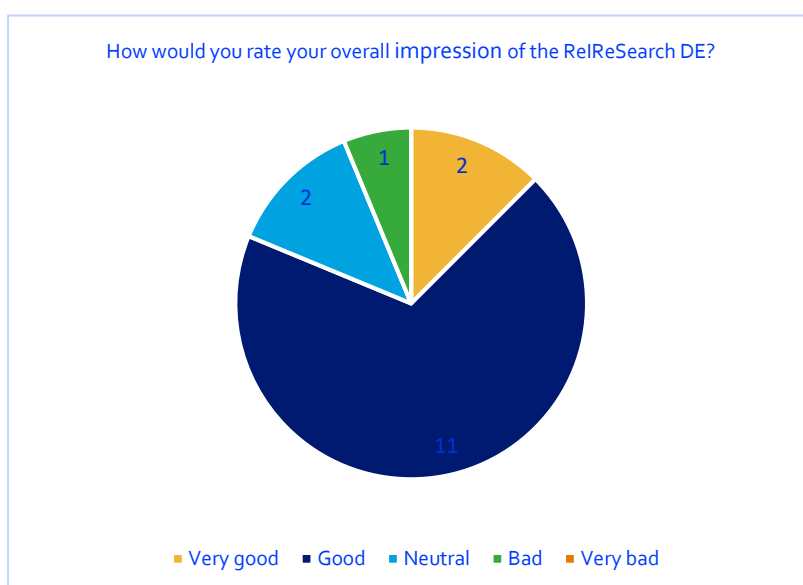


Figure 3: Overall Impression of DE



How efficient do you find the use of the RelReSearch DE?

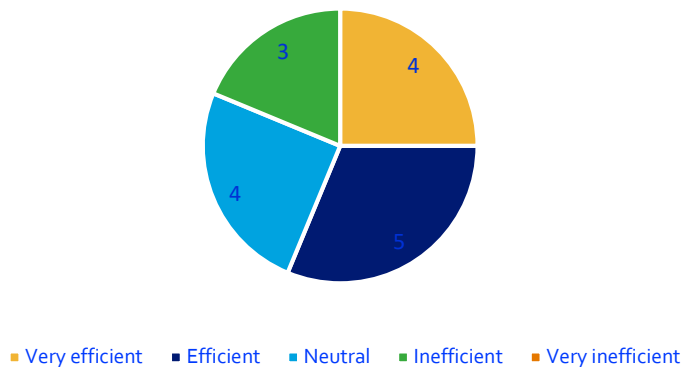


Figure 4: Efficiency of DE

How easy do you find it to use the RelReSearch DE?

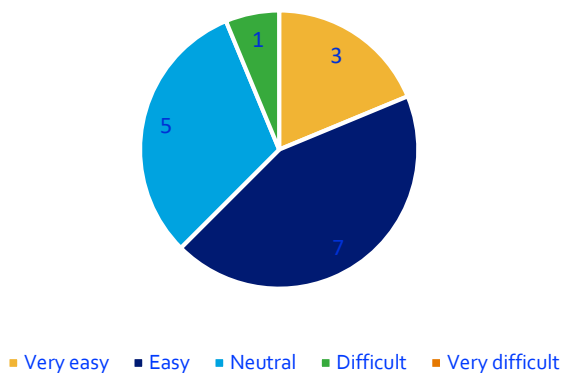


Figure 5: Usability of DE

How confident are you that RelReSearch will provide you with helpful search results?

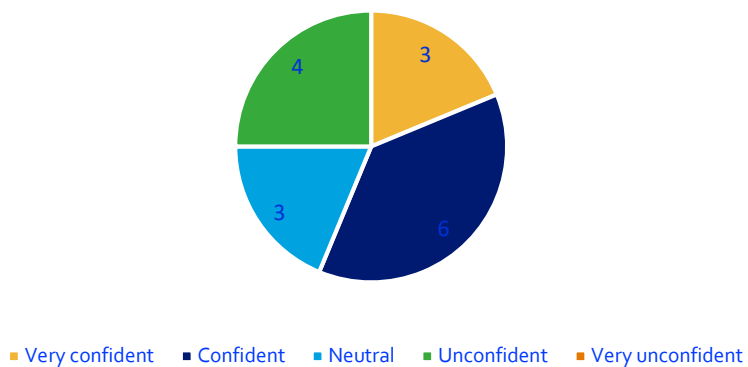


Figure 6: Confidence in Search Results

How comprehensible and well-structured do you find the RelReSearch DE?

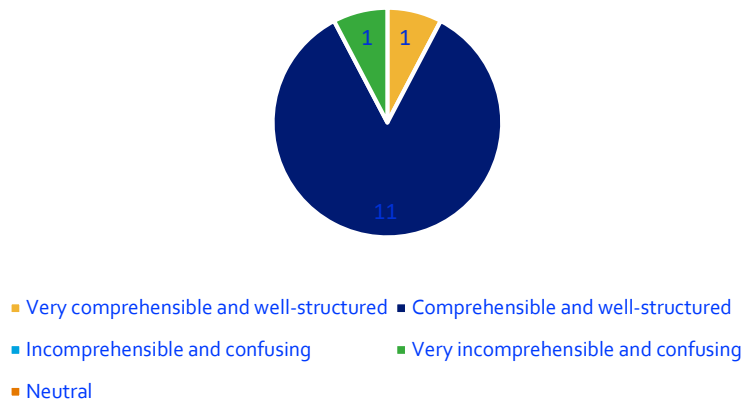


Figure 7: Clarity of DE

How accessible did you find the information on using the RelReSearch DE?

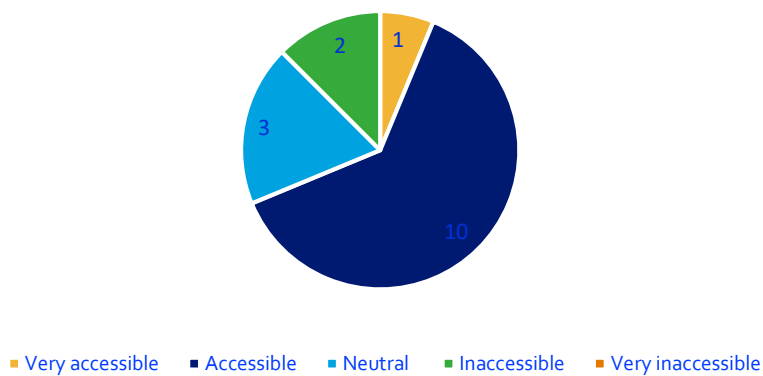


Figure 8: Information Accessibility

How motivated are you to use the RelReSearch DE?

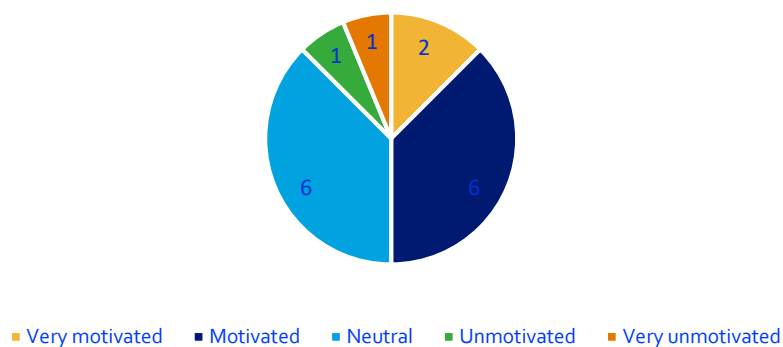


Figure 9: User Motivation

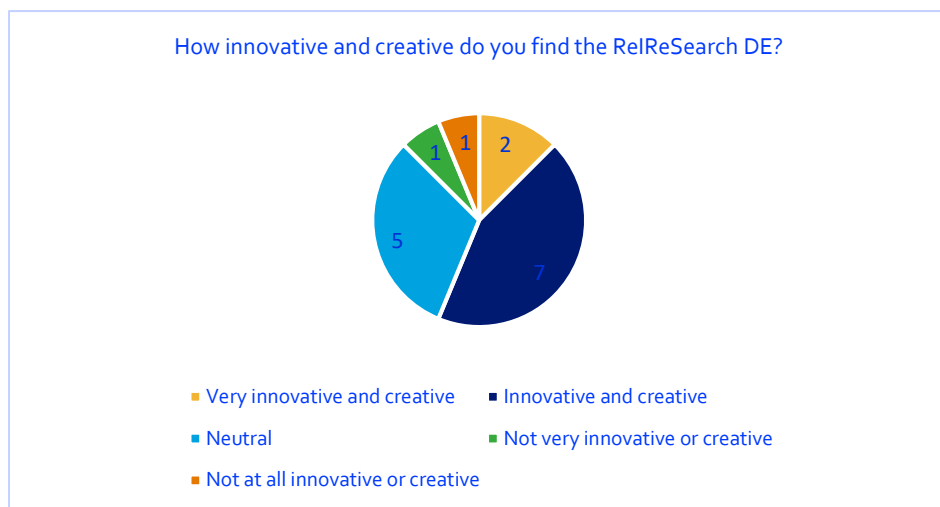


Figure 10: Creative Quality of DE

The analysis of the questionnaire responses presents a nuanced picture of how users perceive the RelReSearch DE. Overall, most respondents view the DE positively, particularly regarding its design, structure, and user-friendliness. At the same time, participants highlighted several areas for improvement, especially concerning visual modernization, communication of the DE's added value, and the functionality of the search tools.

Overall Impression and Design

Most respondents describe the design of the RelReSearch DE as *attractive* or even *very attractive*. This positive perception is also reflected in the overall ratings of the DE, which are predominantly *good* to *very good*. Several comments emphasize that the DE "looks good" and that, compared with many scholarly repositories or library catalogs, it offers a clear and modern visual presentation. However, a minority of respondents expressed dissatisfaction, noting that certain parts of the interface appear old-fashioned or outdated. This suggests that, despite the generally positive impression, some design elements could benefit from modernization, such as updated visual styling, enhanced layout consistency, or more interactive components. These remarks indicate that improvements in design could further enhance user engagement.

Usability and Navigation

One of the DE's strongest points, as reported by users, is its ease of navigation. Participants highlight that the DE is easy to move through and understand, with several responses praising the clear interface and filtering options. This indicates that the fundamental information architecture is effective and that the system supports intuitive user behavior. For users working under time pressure, the clarity and simplicity of the interface appear to be key advantages of the RelReSearch DE.

Functionality and Perceived Value

Users appreciate DE's platform-connecting function, enabling access to resources from multiple systems. This cross-platform capability is described as a significant strength, as it enhances discoverability and reduces fragmentation across digital research environments.

On the other hand, several responses reveal that the unique selling point of the DE is not immediately obvious. One respondent explicitly states that they do not understand what the DE offers that they could not find on a standard library website. This highlights a need for better communication regarding the DE's purpose, scope, and added value, potentially through clearer explanations on the landing page, onboarding tutorials, or contextual prompts. Another issue raised concerns the mixing of modern publications with archival sources, which some users find confusing. This indicates a desire for clearer categorization or visual differentiation between resource types in order to support a more structured exploration experience.

Search Challenges

A recurring theme in the responses concerns difficulties with the search function, particularly with formulating appropriate search terms. One respondent notes that "finding the right search words" is challenging. This suggests that the search system could benefit from enhancements such as:

- improved search suggestions or autocomplete,
- synonym and concept recognition,



- clearer explanations of supported search strategies,
- or integration with controlled vocabulary.

Since search functionality is critical in academic environments, improving this feature could have a substantial impact on user satisfaction and efficiency.

Critical Perspectives

One respondent expressed extensive dissatisfaction, stating that the DE does not offer unique features beyond what typical library websites provide. They also reported frustration with the mobile version of the navigation menu. Such feedback underscores the importance of working on:

- a clear value proposition,
- intuitive mobile usability, and
- distinct features that set RelReSearch apart from standard catalogs.

While this view represents a minority, it provides valuable insights into potential barriers to broader adoption.

4.1.2 Conclusion from the RelReSearch Evaluation

The questionnaire responses indicate that the RelReSearch DE has established a solid foundation, with its strengths lying in its attractive appearance, clear navigation, and cross-platform integration. These positive aspects are acknowledged by most respondents.

However, the feedback also highlights specific opportunities to further improve the DE:

- updating and modernizing interface elements,
- clarifying the DE's purpose and unique value,
- improving differentiation between archival and modern materials,
- enhancing the search function with smarter input guidance,



- and optimizing the user experience on mobile devices,
- Onboarding more data sources relevant to religious studies to the RESILIENCE data hub and discovery platform RelReSearch.

Overall, users recognize the DE as a valuable research tool with strong potential. Addressing the identified improvement areas helps to ensure that the DE becomes even more effective and widely adopted within the research community.

4.2 Evaluation of RESILIENCE Marketplace

After the evaluation session of RelReSearch the participants were introduced to the RESILIENCE marketplace with a brief presentation about its goals, its audience and how it is tailored to support research. Afterwards six different screens were shown to the participants on their individual laptops representing core user flows of the virtual marketplace. The participants' impressions and experiences were collected through a structured questionnaire, capturing their feedback and insights about the usability and its content. Each mock-up represents views of the interface that users will interact with. The screens are described in the following:

1. Home

The Home screen constitutes the primary access point to the RESILIENCE Marketplace. It features a structured interface designed to orient users immediately upon entry. The visual composition includes a central introductory section, complemented by prominent navigation elements that guide users toward key functional areas. Core modules (profile management, news, events, and resources) are highlighted to facilitate efficient access. Overall, the design is held clean to serve as a comprehensive starting hub for exploring the platform's principal features.

2. Personal Profile

The Personal Profile screen presents a comprehensive overview of an individual user's identity within the system. The design includes a dedicated area for a profile image, accompanied by fields for personal data and account information. The page is organized into distinct sections that

encompass user credentials, contact information, participation history, or other profile-related attributes. Overall, the interface is structured to support straightforward review and modification of personal information.

3. Personal Workspace Dashboard

The Personal Workspace Dashboard constitutes the individual user's operational environment. It employs a modular layout composed of multiple widgets that consolidate essential information such as tasks, activities, or relevant content items. This dashboard provides users with personalized insights, progress indicators, and shortcuts to frequently used features, thereby serving as the central control point for their interactions within the marketplace.

4. Events

The Events screen provides a formal overview of all events associated with RESILIENCE. The design displays upcoming and previous events, facilitating selection and review. The inclusion of a Participation/Certificate supports user registration, attendance tracking, and access to related certifications. The interface is structured to provide essential event information while enabling deeper exploration of event details and administrative functionalities.

5. News

The News section serves as a curated information hub, presenting a series of news items in a visually structured, tile-based format. Each item includes a headline, a short summary, and an illustrative image. The section is designed to enable users to remain informed about developments relevant to the RESILIENCE community.

6. Resources

The Resources screen operates as the primary knowledge and materials repository within the RESILIENCE Marketplace, consolidating all relevant content into a single, systematically organized interface. The layout can adapt to a modular card- or list-based structure in which each resource is presented as an individual, clearly distinguishable item. These items include titles, brief descriptions, and metadata (file type, date of publication, author, source). Resources are grouped

into thematic categories or collections, supported by filtering and sorting mechanisms that allow users to narrow results according to criteria (topic, format, relevance, or recency.) The interface includes a dedicated search module.

4.2.1 Results of the Evaluation

First, the participants were asked to indicate how appealing they found the UI of the future RESILIENCE Marketplace on a scale from 1 (not appealing at all) to 5 (very appealing) for each mock-up.

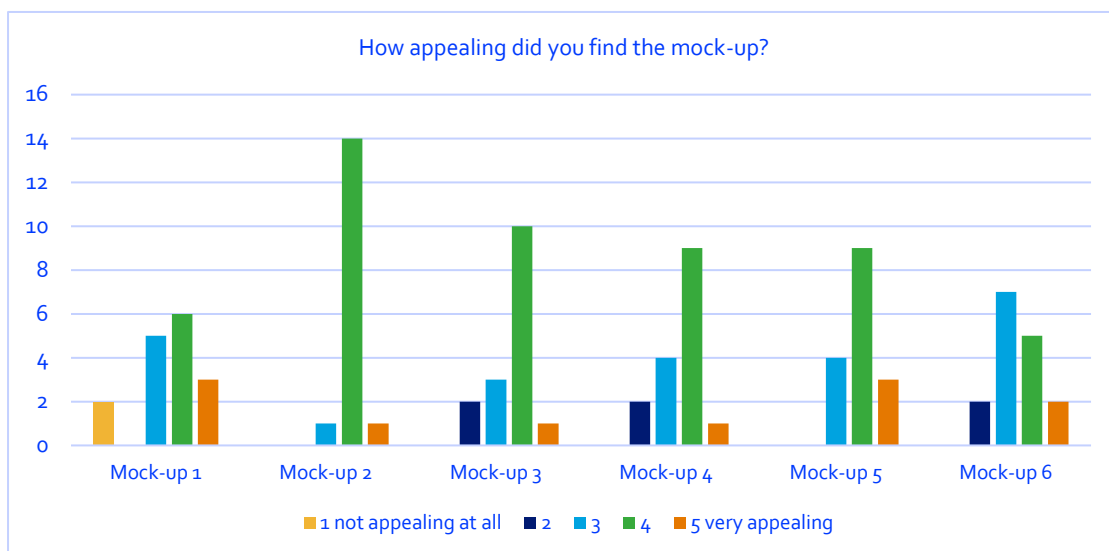


Figure 11: Visual Appeal of Mock-Ups

Secondly, participants were asked to assess the perceived intuitiveness of the mock-ups presented to them on a scale from 1 (very confusing) to 5 (very intuitive) for each mock-up.

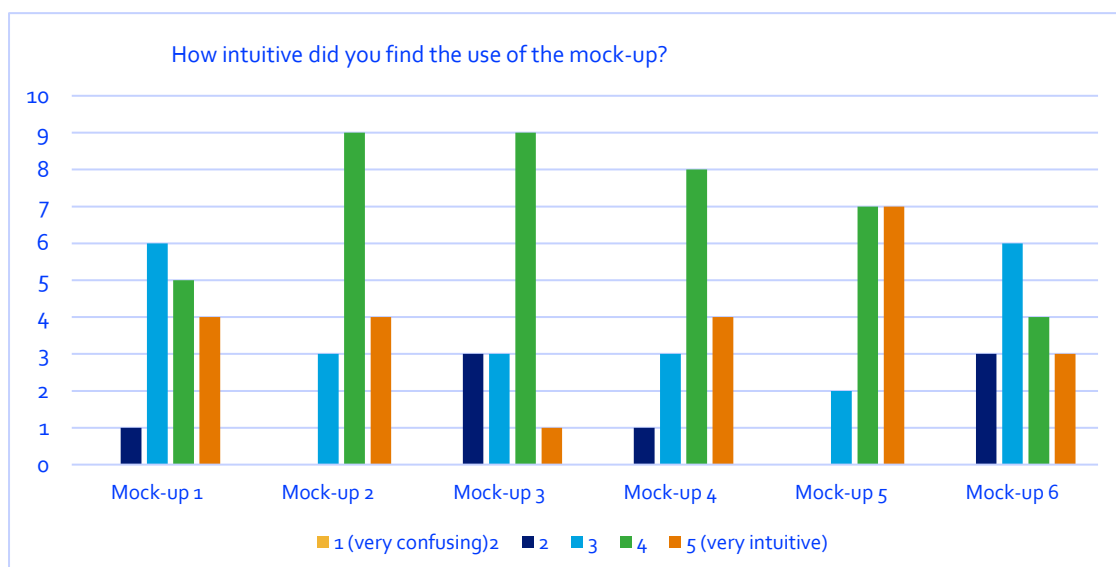


Figure 12: Intuitiveness of mock-ups



Afterwards, the participants were asked to rate their navigational orientation in the system.

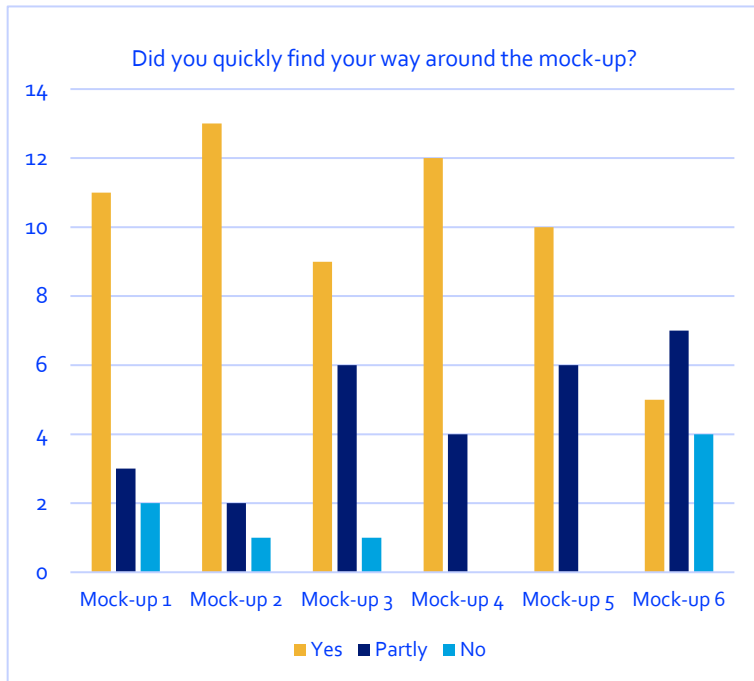


Figure 13: Navigational Orientation within Mock-Ups

The participants were also asked to indicate their willingness to use the interface regularly.

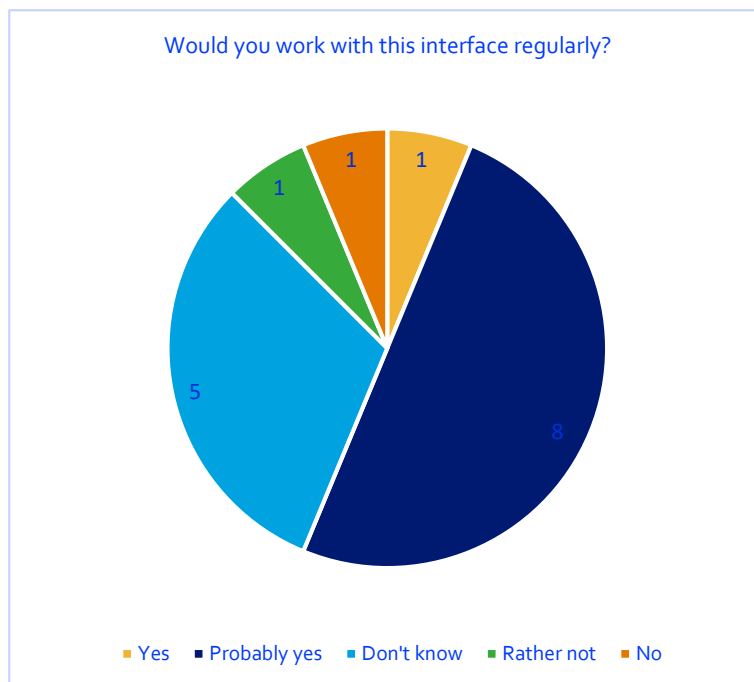


Figure 14: Motivation for Regular Use of Interface

Additionally, the participants were asked to evaluate the perceived relevance and helpfulness of the content

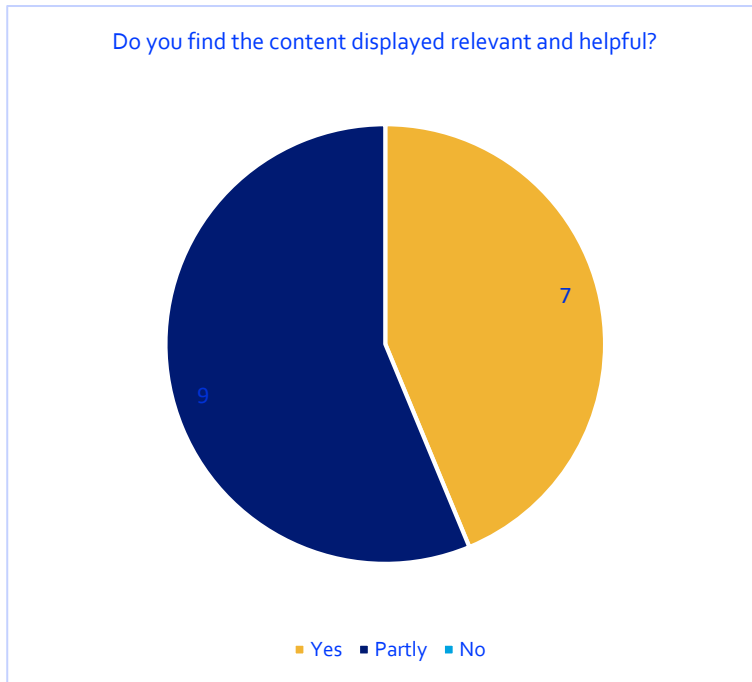


Figure 15: Relevance and Helpfulness of Content

Follow-up questions within the evaluation with free response options were:

- Were there any parts that were unclear or hard to find?
- What features or content did you notice were lacking?
- Which feature did you find particularly useful or appealing?
- Do you have any suggestions for improving the design?
- What did you particularly like?
- What bothered or confused you?
- Further comments or ideas?

Clarity and Understanding

A recurring issue across mockups was lack of clarity regarding the portal's purpose:

- Several participants specifically mentioned they did not understand *what the platform is for* at first glance.
- A suggestion was to add onboarding explanations or clearer introductory text.
- Some noted that the naming of sections or features lacked meaning or context.

Specific Strengths Identified

a) Profile and Data Integration

Many participants highlighted the potential and importance of:

- Automatic profile import, ideally from ORCID or similar services.
- A synchronized system that reduces manual data entry effort.
- A centralized academic identity management function.

b) Structured Display of Academic Information

Some participants appreciated:

- Organized presentation of publications,
- Clear sections or blocks outlining professional achievements

c) Visual Presentation

For certain participants:

- The layouts appeared clean and modern.
- Information seemed easy to scan.

This was mostly associated with Mockup 1 and 2.

Areas for Improvement

a) Publication Section

Multiple users found the publication area:

- Unclear in meaning,
- Not intuitively structured,
- Lacking explanation of symbols, categories, or ordering.

b) Navigation and Layout

Some users reported:

- Confusing navigation,
- Weak visual hierarchy,
- First pages are not effectively communicating the platform's purpose.

c) Ambiguous Naming and Labels

Participants noted:

- A lack of compelling or descriptive names for some elements,
- Terms that do not clearly indicate their function or relevance.

d) Missing Value Proposition

A few comments suggested that:

- While the platform has potential, users don't immediately understand *why they should use it*.
- Without strong positioning, it risks being overlooked.

Additional Suggestions by Participants

Participants made several forward-looking suggestions:



- Explain the portal more clearly: Provide a quick introduction or "What this platform does" section.
- Enable full ORCID data import: Not just partial metadata, but comprehensive transfer.
- Promote the platform aggressively: One participant mentioned positioning it as an alternative to major academic identity portals, but only if the value is clearly communicated.
- Improve publication section: Make it more visual, more structured, and more informative.
- Improve overall usability: Reduce cognitive load and enhance clarity.

General Overview

In summary:

- Moderate satisfaction with design appeal (mockups mostly rated 3–4).
- Strong demand for better clarity, structure, and data integration.
- Significant potential if key usability and communication issues are addressed.
- Users want automation, not manual work.
- Users need clarity.

4.2.2 Conclusion from the RESILIENCE Marketplace Evaluation

The evaluation of the mockups shows that the platform is built on a strong foundation and resonates well with users, particularly in terms of its overall concept and visual direction. Participants recognized clear potential in the idea of a centralized academic profile system and responded positively to several aspects of the design. At the same time, the results highlight opportunities to further strengthen the clarity, usability, and communicative framing of the platform.

A key user expectation is the seamless integration of existing academic data, especially through a comprehensive ORCID import, which is perceived as a major value driver and an element that could significantly enhance the platform's attractiveness. In addition, targeted improvements to the publication section, naming conventions, and initial user guidance would help users better understand and navigate the platform from the very beginning.

The goal of the marketplace is to become a professional, accessible and research-oriented platform that provides services for its users in a coherent and structured way. Overall, the feedback indicates that the platform is on a very promising trajectory to meet the future user's needs. With clearer communication of its core purpose, enhanced usability, and strong automation features, it can evolve into a compelling and competitive solution for a platform dedicated to research on Religion in all academic fields. The marketplace is seen as an opportunity to offer an integrated, specialized platform tailored to research flows and designed to meet researcher's actual needs rather than forcing them to adapt to a pre-existing academic ecosystem. The positive user sentiment toward the concept provides a solid basis for further development and refinement, making it even more closely aligned with research.



5. Conclusion and Next Steps

The second batch of documented use cases, combined with the refinement of archetypes and the evaluation of the UX/UI mock-ups, confirms that RESILIENCE is progressing on a strong conceptual foundation. Across all workshops and validation sessions, users showed strong interest in the core ideas behind the RESILIENCE Marketplace, ReReSearch, and the broader service ecosystem. At the same time, the evaluations highlight clear priorities for improvement that should guide the next development phases. Together, these findings not only highlight concrete priorities for improvement but also show that the insights generated are considered valuable, feasible, and directly useful for RESILIENCE. The evaluations confirm the relevance and appropriateness of the chosen user-centered approach and reinforce its importance for guiding the next phases of design and implementation. In the following the Key Findings from the Marketplace and ReReSearch Evaluations and their Implications are presented in a condensed form.

1. Marketplace Evaluation: Strengths, Issues, and Proposed actions

The Marketplace mock-ups were positively received in terms of concept and visual direction, but users emphasized the need for:

- a) Clearer explanation of purpose and added value → It seems advisable to focus on development of onboarding flows, introductory text, and contextual explanations in the next design phase.
- b) Improved navigation and information hierarchy → A navigation redesign could be conducted based on user workflows and refined archetypes.
- c) A redesign of the publication section → The publication component may be restructured with visual grouping, explanation icons, and logical ordering.
- d) Strong demand for automation (ORCID import) → Technical development may prioritize automated data pipelines and minimize manual user input.

These insights demonstrate that the core concept works, but clarity, usability, and automation are essential for adoption.



2. RelReSearch Evaluation: Strengths, Issues, and Proposed actions

The RelReSearch evaluation provides a different but complementary picture. Users generally perceive the tool as solid, helpful, and visually appealing, but they also identified critical strategic challenges:

- a) Unclear Unique Selling Point → Stronger communication of scope, differentiators, and supported research scenarios may be advisable
- b) Mixing of resource types → Clearer categorization, visual separation, or filtering between resource types could be useful
- c) Search difficulties → The search features could be enhanced through autocomplete, synonyms, guided search, and clearer instructions.
- d) Need for more modernization in design and mobile use → Responsive webdesign/ Same visual and UX standards as planned for the Marketplace.

Overall, the RelReSearch results show that the tool is already functioning but may require stronger communication, clearer structure, and improved search intelligence to reach its full potential.

3. Strategic Impact Across Both Evaluations

Taken together, the evaluations of the Marketplace and RelReSearch reinforce several cross-cutting development priorities:

- 1. **Users need clarity:** Purpose and added value must be communicated explicitly and early.
- 2. **Users expect intelligent automation:** Manual data entry is a barrier to adoption.
- 3. **Navigation and visual hierarchy must follow user workflows**
- 4. **Filtering, searching, and categorization must be intuitive and research-oriented**
- 5. **Mobile usability should be carefully considered**

The insights gained from the mock-ups are useful information to define overarching strategic requirements for RESILIENCE's service ecosystem. The evaluation of the RelReSearch discovery environment and the RESILIENCE Marketplace mock-ups confirm that users see significant potential in the platform's core concepts and visual direction. At the same time, it highlights important areas where communication, usability, and data integration need to be strengthened to

ensure a seamless user experience. These insights are useful to inform the next steps of RESILIENCE as prototypes will be translated into functional services during the upcoming phases of RESILIENCE. To ensure systematic and measurable progress, the following SMART goals provide a roadmap for the next phase of development:

1. Digitization of the RESILIENCE Service Catalogue

Our goal is to digitize and operationalize the RESILIENCE Service Catalogue, integrating at least 100 service entries, and to integrate it into the RESILIENCE Marketplace by June 2028. This goal should be accomplished by completing metadata, implementing search and filtering functionalities, establishing editorial and quality workflows, and enabling interoperability with SSHOC. Achieving this goal will improve discoverability, provide clear guidance for researchers, and support efficient navigation and cross-institutional collaboration within the RESILIENCE community.

2. Expansion of the Transnational Access (TNA) Program

Our goal is to expand and maintain the RESILIENCE TNA Program with 2 new hosts per year, 15 TNA fellows per year, and 2 calls per year from 2026–2036. This goal should be accomplished by continuing established procedures, recruiting new hosts annually, and through establishing the TNA portal. Accomplishing this goal will ensure long-term access to unique research resources and expertise, improving the quality and international reach of research on religion in all academic fields.

3. RESILIENCE Marketplace

Our goal is to develop and launch a fully functional, user-tested RESILIENCE Marketplace by June 2028. This goal should be accomplished by refining the UI/UX based on mock-up evaluation results, implementing full ORCID-based data import, redesigning key sections such as publications and navigation flows, and conducting iterative user testing with representative user groups. Accomplishing this goal will ensure that the Marketplace becomes an intuitive, valuable, and

widely used entry point to RESILIENCE services, significantly improving user adoption and overall service visibility.

Final Outlook

The results of the use case development and mock-up evaluations show an example of how RESILIENCE adopts a user-driven approach. The use cases presented here highlight that the Marketplace and ReReSearch are perceived as promising, forward-looking tools with strong potential to transform research on Religions. The user feedback collected does not challenge the conceptual framework; instead, it provides precise guidance on how to transform prototypes into viable, intuitive, and valuable services. By acting on the identified priorities (clarity, automation structured navigation and improved search functionality), RESILIENCE will improve its ability to deliver a truly integrated digital research ecosystem. In summary, RESILIENCE is well positioned to transition from conceptualization to implementation. The insights gained through user stories, mock-up evaluations, and cross-project collaboration underscore a clear path forward: strengthen clarity and usability, expand access and interoperability, and align technical development with the concrete needs of the research community. The SMART goals outlined above provide a structured and achievable framework that offer guidance towards a functional, user-responsive European research infrastructure.

6. Reference Documents

Reference documents are intended to provide background and supplementary information.

ID	Date	Title/Reference
R1	18/08/2022	GRANT AGREEMENT, Project: 101079792 — RESILIENCE PPP — HORIZON-INFRA-2021-DEV-02
R2	31/08/2020	D2.3: High-Level User Strategy Report — Grant 871127 — RESILIENCE (RESILIENCE_WP2_USR_01.00_FINAL) [Confidential]
R3	31/10/2023	D3.5 User Stories Catalogue – 1st Batch
R4	29/02/2024	D3.1 Workshops Proceedings – 1st Batch
R5	24/01/2024	RESILIENCE's Vision and Mission Statement: Vision, Mission, and Values – Serving Research, Building Knowledge, Version 02.00
R6	31/3/2024	D3.3 Documented Use Cases– 1st Batch
R7	27/11/2024	D3.6 User Stories Catalogue– 2nd Batch
R8	12/02/2025	General Project Review Consolidation Report (2nd Reporting Period)



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