RESILIENCE

Grant Agreement 101079792, RESILIENCE PPP

Workshop Proceedings – 2nd Batch

Title of Deliverable:	Workshop Proceedings – 2nd Batch		
Deliverable Number:	D3.2		
Type of Data:	Report		
Lead Beneficiary:	University of Münster		
Publishing Status	Public		
Last Revision Date:	25/11/2025	by:	Alexandra Nusser, Lena Mausbach
Verification Date:	27/11/2025	by:	Francesca Cadeddu
Approval Date:	[DD/MM/YYYY]	by:	[Name]
Document Name:	RESILIENCE_WP3_D3.2_Workshop Proceedings – 2nd Batch_01.00_FINAL		

Funded by the European Union

Change History

Version Number	Date	Status	Name	Summary of Main Changes
00.01	22.10.2025	DRAFT	Initial Draft	Initial Draft
00.02	14.11.2025	WORKING	First Revised Text	Feedback Reviewers
01.00	27.11.2025	FINAL	FINAL	Feedback Board of Directors

Author(s)

Name	Beneficiary	Role
Alexandra Nusser	INFAI	WP3 team member
Lena Mausbach	UNIVERSITY OF MÜNSTER	WP3 team member

Distribution List

Name	Beneficiary	Role
All Partners	Various	RESILIENCE members
Public		

Table of Contents

List of Abbreviations

AI	Artificial Intelligence
API	Application Programming Interface
DH	Digital Humanities
DOI	Digital Object Identifier
GLAM	Sector that includes Galleries, Libraries, Archives, Museums
IAP	Impact Assessment Plan
IxTheo	Index Theologicus
LLM	Large Language Models
ML	Machine Learning
OA	Open Access
OCR	Optical Character Recognition
Q&A	Questions and answers session
PP(P)	Preparatory Phase (Project)
RAG	Retrieval Augmented Generation
RI	Research Infrastructure
UN	United Nations
WP	Work Package

1 Introduction

RESILIENCE places its users at the heart of its mission, ensuring that all services are tailored to their needs, expectations, and visions. In line with this user-oriented approach, Work Package 3 (WP3) "Users," in collaboration with WP2 "Services" and WP4 "Communication, Dissemination and Exploitation" developed workshop formats to explore what a research infrastructure (RI) supporting the study of religions in Europe must offer to be relevant, useful, and sustainable for its prospective users. This report presents the "Collection of notes and media documents presenting the highlights of all Design Thinking workshops"[1] in the period after the preceding Deliverable D3.1 Workshops Proceedings - 1st Batch.

1.1. Workshop Format: "RESILIENCE Meets Researchers (and GLAM Professionals)"

The concept of the "RESILIENCE Meets Researchers" workshops was introduced at the beginning of the RESILIENCE preparatory phase to address task 3.1[2] and was presented in detail in Deliverable D3.1 Workshops Proceedings - 1st Batch, chapter 2. Its purpose was to investigate user requirements for a RI supporting research on religions. **Through individual and group interviews, researchers from various disciplines** were engaged as **potential future users**. The interviews were transcribed and analysed using qualitative content analysis, combining predefined and emerging categories. These categories informed the formulation of user stories in a standardised format. **Prioritisation** was based on the frequency and significance of the coded statements, identifying the most critical needs.

After the first three workshops it was decided to focus, besides the researchers, also on the user group **professionals from the GLAM sector** (Galleries, Libraries, Archives, and Museums) . Based on the decisions made in the design study[3], researchers remain the prioritised user group for

[1] GRANT AGREEMENT, Project: 101079792 — RESILIENCE PPP — HORIZON-INFRA-2021-DEV-02, p. 25.

[2] See GRANT AGREEMENT, p 8, Task 3.1: "By means of Design Thinking workshops and focus groups, T3.1 aims at inquiring in detail the user requirements, not only to understand the end-user needs but most importantly to learn what are his/her priorities and align the development of services accordingly."

[3] RESILIENCE D2.3: High-Level User Strategy Report — Grant 871127 — RESILIENCE, chapter 2.2.

RESILIENCE, but the user group of librarians and archivists will play a more important role in the future. To this end, an additional questionnaire for this target group was created (documented in the appendix).

These workshops aimed to identify priorities, analyse gaps, and align the development of RESILIENCE services with real research workflows. Five workshops with the workshop format "RESILIENCE Meets Researchers and GLAM Professionals" were successfully conducted, generating valuable input for the continued design of the RI.

The results of the workshops can be found in the following deliverables:

Workshop results that are incorporated into the deliverables D3.5 and D3.6 'User Stories': The results in the form of user stories from the first three workshops in 2023 in Sofia (Bulgaria), Ljubljana (Slovenia), and Volos (Greece)[4] were published in D3.5 User Stories Catalogue – 1st Batch in February 2024.

The second batch of user stories was gathered from interviews conducted during the 2024 workshops held in Münster (Germany) and Sarajevo (Bosnia and Herzegovina). In addition, individual interviews were performed following a training course on interview techniques, which took place in Münster in October 2023 and was attended by RESILIENCE staff. After the training, all RESILIENCE members were encouraged to carry out at least two individual interviews at their institutions with volunteers from the prioritised user groups in 2024 to broaden the dataset. These interviews, conducted at RESILIENCE PPP partner institutions such as TUA, the University of Warsaw, FSCIRE, KU Leuven, and non-partner institutions like University of Tirana and the University of Copenhagen, were already presented in D3.6 User Stories Catalogue – 2nd Batch in November 2024.

[4] See for this workshop format e.g. the videos: RESILIENCE Meets Researchers in Greece - Challenges of Research and RESILIENCE Meets Researchers in Greece.

Workshop results that are incorporated into the deliverables D3.1 and D3.2 'Workshop Proceedings': Four workshops have already been detailed in D3.1 Workshop Proceedings – 1st Batch, while the workshop held in Sarajevo 2024 is presented in Chapter 3.1 of this report.

1.2. Design Thinking Workshops

During the RESILIENCE PPP, the workshop format for capturing user requirements was complemented: in addition to the approach described in chapter 1.1, where user requirements were gathered through interviews and translated into user stories via qualitative evaluation, the Design Thinking Workshops were expanded to include discussions with domain experts about needs, challenges and opportunities in research on religions and how RESILIENCE can respond to them, jointly developing ideas for future tools and standards, as explained in chapter 2.

Participants included **experts in the study of religions, Digital Humanities, computer science, and research infrastructures**, many of whom have initiated DH projects or developed digital tools. Experts were invited as speakers and debaters who are at the forefront of new technologies and developments in DH and can therefore anticipate future needs as far as possible, as well as challenges and opportunities in this field. Three of those Design Thinking workshops were held in Menaggio (Italy), Münster (Germany), and Paris (France). Chapters 3.2, 3.3, and 3.4 of this report detail their methodology and key findings.

Finally, a third type of workshop is mentioned in this report: The event "Religion and the EU: A Perfect Match?" was a **high-level policy and research dialogue, structured as a roundtable format** to explore the societal, cultural and policy impact of academic research on religion within the European Union. It took place in Brussels (Belgium) in May 2025 and was organised by RESILIENCE partners in collaboration with the Emilia-Romagna Region's Delegation to the EU (chapter 3.5).

The following document presents the **Workshop Design** in chapter 2, while **Workshops of the Second Batch** are described in chapter 3, including **implementation, participant composition,**

outcomes, and **key findings**. Chapter 4 provides a **Mapping of Key Findings to Infrastructure Requirements**, and chapter 5 presents the **Evaluation Results**. Finally, chapter 6 offers **Conclusions and Next Steps**. The appendix contains supporting materials, such as the **interview guidelines for professionals in the GLAM sector**, **workshop agendas**, **detailed evaluations**, and **comprehensive reports from the Design Thinking workshops**.

2 Workshop Design

2.1 Strategy

The decision to complement the initial workshop format "RESILIENCE Meets Researchers (and GLAM Professionals)" with a format involving external experts with long-standing experience in Digital Humanities projects and Research Infrastructures is fully in line with the recommendations of the review report of the European Commission[5]. The report noted that "some conclusions, drawn from the workshops and stakeholder feedback analysis, are not always based on a critical mass of respondents or responses". By introducing workshops led by highly experienced external specialists, it is intended to strengthen the representativeness and depth of our insights and incorporate broader perspectives on how to "better accompany the cultural shift in academic practices triggered by new technologies", as suggested in the review. Participants are regarded as active experts and co-creators in the development of the RI beneath their role as potential users or recipients of service. Their professional knowledge, disciplinary experience, and methodological insights are essential to shaping the infrastructure in a way that genuinely serves the needs of the research community:

This strategic adjustment aligns with the overall vision of RESILIENCE to build an infrastructure with its community rather than for it. Consequently, it was the goal to design the workshops conducted in Menaggio, Münster and Paris as collaborative expert forums, where participants are invited to contribute their specialised perspectives, identify research challenges, and jointly define

[5] RESILIENCE PPP GENERAL PROJECT REVIEW CONSOLIDATED REPORT (HE), Period covered: from 1/6/2023 to 30/11/2024, p. 2f.

the priorities and standards for digital tools, data management, and long-term accessibility within the RI.

2.2 Objectives

The strategy pursues the following objectives for the conduction of the workshops:

Recognition of Expertise

Participants are acknowledged as subject-matter experts in their fields, whether in theology, religious studies, cultural heritage, or digital humanities. Their insights are treated as authoritative contributions that inform both conceptual and technical decisions within RESILIENCE.

Collaborative Knowledge Creation

The workshops are structured to encourage co-design processes in which participants engage in constructive dialogue with RESILIENCE representatives. Instead of collecting requirements only passively, WP3 facilitates an exchange where participants critically assess, refine, and expand the infrastructure's service portfolio.

Cross-disciplinary Integration

The strategy promotes the encounter between experts from different disciplines and sectors (academia, GLAM, Information Technology, Digital Humanities). This interdisciplinary collaboration fosters innovation and ensures that the infrastructure reflects the diversity of research practices and data cultures across Europe.

Sustainable Network Building

By treating participants as long-term collaborators rather than one-time informants, RESILIENCE aims to establish an enduring European network of experts.

2.3 Preparation Before the Workshop

The preparation phase is crucial for ensuring that each RESILIENCE workshop functions not only as a site of consultation but as a collaborative expert forum. In line with the revised strategy of WP3, this phase aims to create the structural, organisational, and intellectual conditions necessary for meaningful co-creation between the RESILIENCE team and the participating experts.

Preparation by Partners and Hosts

The hosting institutions play a central role in the successful implementation of each workshop. They are responsible for all organisational arrangements, including the choice and preparation of the venue, logistical coordination, and the provision of suitable facilities. Beyond these logistical duties, hosts act as local mediators who connect RESILIENCE with their local research communities in the workshop format "RESILIENCE Meets Researchers and GLAM Professionals". The participating partners of the consortium identify and invite participants according to profiles defined jointly, ensuring a balanced representation. Participants are selected not as respondents but as expert contributors, whose professional perspectives and research experience are essential for shaping the future RESILIENCE infrastructure.

To facilitate communication with the invitees, information on the objectives and expected outcomes of the workshop are shared. These materials emphasise the participatory and expert-oriented nature of the event and clarify how participants' contributions will inform subsequent development phases.

Preparation by RESILIENCE Staff

RESILIENCE team members receive detailed briefings before each workshop to ensure conceptual coherence and methodological consistency across all locations. These briefings include an overview of the workshop format, the facilitation approach, and the use of supporting materials such as mock-ups of the planned RESILIENCE service portal, service catalogues, and visual templates for collaborative mapping sessions. Team members are encouraged to approach

participants not as interviewers but as facilitators of expert dialogue, capable of guiding discussion while allowing for open and critical reflection.

Additionally, internal coordination is supported through shared organisational tools and repositories where updated templates, checklists, and participant management tables are accessible to all partners involved.

Preparation of Participants

Prior to the workshop, participants receive a preparatory package consisting of an information letter, a concise overview of the RESILIENCE project, and a short questionnaire. This questionnaire collects basic background information (discipline, institutional affiliation, professional role, and research focus) and invites participants to outline their expectations and current challenges in their research environments. The information gathered helps tailor the workshop sessions to the participants' expertise and interests, enabling targeted discussion and more effective exchange.

In the Design Thinking workshops, which draw their results from keynote speeches and discussions with experts, the experts are familiarised with the workshop format during the preparation process and provided with information on the objectives, focus areas, and guiding questions. Participants are encouraged to prepare short presentations or case studies from their own research contexts. These contributions serve as starting points for the expert panels and collaborative exercises, allowing the group to build on real-world examples and to translate abstract infrastructural needs into concrete, actionable insights.

Preparation for Feedback Collection

The feedback collection approach is both goal-oriented and user-driven. Feedback from participants focuses on the predefined workshop objectives, enabling RESILIENCE team members to evaluate the extent to which these goals are achieved and to formulate targeted recommendations. In addition, feedback is obtained from the organisers to provide a broader perspective. This includes comparisons with the original objectives as well as general insights on

workshop implementation, helping us identify best practices and areas for improvement for future events.

Outcome of Preparation

Through this enhanced preparation process, the workshops become structured yet flexible environments in which participants can engage as equal partners in shaping the RESILIENCE Research Infrastructure. The careful coordination between hosts, RESILIENCE staff, and participants ensures that every workshop is grounded in mutual understanding, professional respect, and a shared commitment to co-developing sustainable research services for the broader community.

2.4 Implementation Approach

To realise these goals, the workshop concept was restructured along the following lines:

Workshop Opening and Exchange of Expertise

The first workshop phase is designed to foster mutual understanding, a shared starting point and set the foundation for collaboration: Participants and hosts are introduced, RESILIENCE's mission and objectives are presented, and attendees share insights from their own research contexts. This exchange establishes a collegial atmosphere in which participants are recognised as experts whose perspectives inform the further development of the infrastructure.

Expert Panels and Thematic Sessions

The Workshops are no longer limited to interviews and group discussions, but the aim is to evolve them into interactive expert laboratories that combine moderated panels, thematic break-out sessions, and collaborative mapping exercises. These formats enable participants to collectively analyse the needs of their research communities and to translate abstract requirements into tangible ideas for service design. A central innovation in this context is the evaluation of existing

services and the introduction of mock-ups of the possible future "RESILIENCE Service Portal", which was possible from 2025 onwards and was carried out during the workshops in Münster and Paris. The results are presented in Deliverable D3.4 Documented Use Cases – 2nd batch[6].

By engaging directly with these prototypes, participants can experience in a concrete and visual way what the Research Infrastructure aims to offer. This hands-on approach not only enhances understanding and engagement but also provides a more solid and practice-oriented basis for discussion, allowing experts to assess functionalities, identify gaps, and co-develop meaningful improvements for the next development stages of RESILIENCE.

Facilitation and Moderation

Moderators act as facilitators of expert dialogue rather than interviewers. Their role is to stimulate reflection, identify synergies, and synthesise recommendations that can directly inform RESILIENCE development tasks in other Work Packages as well.

Documentation

All discussions are documented to capture both concrete requirements and conceptual insights. The **evaluation of the mockups** is collected through standardised questionnaires to assure comparability (the results are presented in D3.4 Documented Use Cases – 2nd batch[7]).

Feedback Practice

After every RESILIENCE Workshop an Evaluation document is created (the evaluations of the workshops described here are included in the appendix). These documents contain the assessment of the online evaluations that capture feedback from participants, while organisers also collect their own observations and insights. These inputs are used to formulate recommendations for future events. The feedback is compiled into a comprehensive, living document with a list of recommendations of all workshops that is regularly discussed within the work units and consulted when planning new workshops.

[6] Forthcoming November 2025, will be available here.
[7] Ibid.

2.5 Expected Impact – "By Experts, for Experts"

By transforming the workshops gradually into expert focus groups, WP3 expects to generate richer and more actionable input for the technical and service development of RESILIENCE. This new approach fosters stronger engagement and a greater sense of ownership among community members, while ensuring that the evolving infrastructure aligns closely with the methodological and ethical standards of the research fields it serves. At the same time, it supports the emergence of a sustainable, pan-European community of practice around digital religion research. In this way, the revised strategy transforms the workshops from mere data-collection activities into collaborative laboratories of knowledge and innovation.

3 Workshops of the Second Batch

The following chapter outlines the Design Thinking workshops of the second batch held in Sarajevo, Menaggio, Münster, and Paris. Each workshop is presented with details on **participant structure**, **implementation**, **outcomes**, and **key findings**, which are further evaluated in Chapter 4 to provide recommendations and guidelines based on user needs and technical requirements for the continued development and strategic direction of the RESILIENCE Research Infrastructure. The workshop schedules, reports from Villa Vigoni and Paris, as well as the evaluations, are included in the appendix.

3.1 Workshop "RESILIENCE Meets Researchers and GLAM Professionals" in Sarajevo (Bosnia and Herzegovina)

"I love the opportunity to exchange experiences with researchers from all around the world and the possibility of making one data base that we will have about religious studies. Also, visiting different countries and their libraries and research centers will be a great addition to this project."
(Quote from participant evaluation)

The workshop in Sarajevo was planned as part of the "RESILIENCE Meets Researchers and GLAM Professionals" format by WP2 in collaboration with WP3 and WP5 "Impact", which is led by the University of Sarajevo, and was organised by the University of Sarajevo in collaboration with KU Leuven, Uni Münster, INFAI and other RESILIENCE partners. It took place on 4–5 March 2024 at the Gazi Husrev-Bey Library which is an associated member institution of the University of Sarajevo.

Participants: The workshop was attended by 21 participants, with a strong emphasis on librarians and archivists as a key user group.

Agenda and evaluation results are documented in the appendix.

Workshop Implementation: The first day focused on understanding the interests and needs of librarians, archivists and researchers in Bosnia and Herzegovina. After an **introduction to the aims, objectives, and services of RESILIENCE**, participants discussed **key challenges faced by libraries in the digital age**. **Two presentations** led to fruitful **discussions**: one addressed the problem of defining selection criteria for digitisation from both librarian/archivist and researcher perspectives, and the other focused on the complexity of large-scale digitisation projects, particularly the challenge of normalising millions of digital records originating from diverse collections, such as manuscripts, archival material, and photographs, each using different metadata models.

Eight individual interviews and one group interview were conducted with scholars, librarians, and archivists to gather detailed insights into user priorities.

In the **Evaluation session**, the highly interdisciplinary nature of Religious Studies was stated and their unique challenges, such as dealing with sensitive qualitative research involving individuals

affected by trauma. Participants stressed the need for training programmes tailored to Religious Studies, particularly addressing ethical and psychological aspects of research.

The second day featured a hybrid "**Impact Assessment Workshop**", led by WP5 colleagues from the University of Sarajevo, a guided **tour of the Gazi Husrev-Bey Library**, showcasing its museum, special collections of oriental manuscripts, archival documents, and conservation laboratory. The workshop concluded with a hybrid meeting between members of the **Book Heritage Lab of KU Leuven, the Gazi Husrev-Bey Library/UNSA, and New Georgian University** that explored options for collaboration between these institutions in manuscript analysis and digitisation.

Key Outcomes Interviews:

- Identified user needs for Religious Studies research infrastructure through individual and group interviews.
- Results documented in **D3.6 User Stories**[8].

Key Outcomes Presentations and Discussions:

- Key findings as a basis for defining infrastructure requirements (covering user needs and technical specifications) and planning the future RESILIENCE service strategy, reflecting user needs in the region (see below).

Key Outcomes WP2/WP3/WP5 Synergy Meetings:

- Overview of upcoming internal and external deadlines, workshops, events, and conferences across WP2, WP3, WP4, and WP5.
- Preparation of use cases linked to services.
- Planning for collection of individual interviews.

[8] Deliverable D3.6 User Stories Catalogue – 2nd Batch.

Key Outcomes Impact Assessment Workshop:

- Participants are informed about the planned methodology for future Impact Assessment Plan (IAP).
- Agreement reached on the proposed methodology for continued implementation of the IAP.

See also on YouTube: RESILIENCE Impact Workshop Sarajevo

Key Findings:

- **Need for Networking and Collaboration:** Participants value opportunities to connect within the RESILIENCE community and appreciate interdisciplinary engagement.
- **Need for clear communication of concept and services:** Participants need accessible explanations of RESILIENCE's purpose and benefits.
- **Need for access to core services:** The RESILIENCE ReIReSearch database and Zenodo were highlighted as particularly useful resources.
- **Need for remote expert access:** Funding limitations make physical travel difficult; researchers need mechanisms to consult international experts remotely.
- **Need for mental health and wellbeing support:** Researchers require support services addressing stress and emotional challenges linked to sensitive research topics.
- **Need for specialised training:**
    - Coping with trauma when interviewing victims or working on emotionally overwhelming subjects.
    - Conducting research in religiously sensitive contexts, including strategies for maintaining academic distance when studying one's own community.
    - Empowerment and resilience-building courses, ideally facilitated by experts with experience in religious contexts.
- **Need for improved access to sources and people:** Guidance on overcoming barriers posed by gatekeepers in religious communities and restricted access to archives.
- **Need for Networking, especially for institutional connectivity:** Libraries, such as the Gazi Husrev-Bey Library, need stronger links with similar institutions and increased collaboration with Western organisations.

See also At the Interface between Orient and Occident: Understanding User Needs in Bosnia and Herzegovina - RESILIENCE

3.2 Workshop "Religious Studies in the Digital Age: Aligning Research Methodologies and National Strategies" at Villa Vigoni in Menaggio (Italy)

"The workshop was a very intensive and productive exchange between international experts on the topics of big data and research infrastructure."
(Quote from a workshop participant after the event)

Two RESILIENCE consortium partners, Fscire and InfAI, had the opportunity at the start of the RESILIENCE PPP to apply for a workshop at the Villa Vigoni conference centre in Menaggio, which provides a setting for Italian and German scholars to exchange views on current research questions concerning European culture, history, and society. The workshop took place from 27 February to 4 March 2023 and provided an opportunity to discuss issues relevant to the development of a research infrastructure for the research on religion in a focus group, as the rise of the digital age presents religious scholars with three challenges:

- How to deal with data that are and will be available digitally or physically at the same time,
- How to make efficient use of digitally available material,
- How to do research exploiting the new digital options.

The workshop offered RESILIENCE the chance to:

- Reflect on models that make data repositories and their collections more widely accessible, contributing to and benefiting from Big Humanities Data as a new paradigm;
- Explore the opportunities and risks associated with artificial intelligence and data mining within this field.

Participants: Twenty researchers from the fields of IT, Digital/Computational Humanities and various other disciplines such as Arabic studies, palaeography, linguistics, philosophy and church history gave keynote speeches to initiate discussions on how the potential of Artificial Intelligence, Machine Learning, Big Data and digital tools can be used most effectively in the study of religion. The workshop participants are or have been part of pioneering DH projects such as AIUCD (Associazione per l'Informatica Umanistica e la Cultura Digitale), Biblissima+, CIRCSE (Centro Interdisciplinare di Ricerche per la Computerizzazione dei Segni dell'Espressione), the Armenian section of the "Conciliorum Oecumenicorum Generaliumque Decreta" (Corpus Christianorum), EADH (European Association for Digital Humanities), DigiPal, Exon Domesday, eScriptorium, FBK-ISR – Center for Religious Studies at Fondazione Bruno Kessler, Index Theologicus, Biblioteca Italiana, DigilibLT (Digital Library of Late Latin Texts), Geolat Project (description via EADH), DIXIT – Marie Curie ITN Project, LiLa – Linking Latin (ERC Project), Index Thomisticus Treebank (IT-TB), Lemlat – Morphological Analyzer for Latin, ITSERR – Italian Strengthening of ESFRI RI RESILIENCE, HTR (Handwritten Text Recognition) for Historical Documents, LAM Dataset Project, IDE (Institute for Documentology and Scholarly Editing), VeDPH (Venice Centre for Digital and Public Humanities).

The Agenda and a detailed report are documented in the appendix.

Workshop Implementation: The first day focused on the **epistemology of Digital Religious Studies**, opening with fundamental questions such as the specific characteristics of data in this field and the different uses of physical primary sources and their digital counterparts. Technical, methodological, and legal aspects of working with digital data were also examined.

On the second day, discussions turned to **the role of Artificial Intelligence (AI) as a tool and methodology for Religious Studies**, considering its technological, philosophical, and ethical implications. The group repeatedly addressed the **challenges of standardisation and interoperability**, particularly the difficulty of reusing data and results from different research projects. It was noted that interoperability is achievable when application areas, scope, research questions, and vocabulary are clearly defined, but that complexity limits interoperability, often requiring compromises in encoding depth and risking loss of semantic content.

The study of religions frequently involves **multilingual texts from different alphabets**, which present particular challenges for interoperability, especially when terms vary in meaning across historical or regional contexts. In this context, the **implementation of standards** for cataloguing systems and in the TL/ML environment was discussed.

The third day included debates on the requirements for an optimal **digital scholarly edition of historical texts**. Participants explored how origins and textual changes can be visualised by mapping stemmatological dependencies and textual variants, while providing a readable text that allows user interpretation and offers functionalities beyond those of printed or digitised editions. This exchange is already leading to further collaboration among participants within the ITSERR project.

A recurring theme throughout the first three days was **data quality**: What standards ensure that data can be used effectively in research? While digital data can enhance research processes, data alone does not produce results. Participants reflected on the distinction between the physical resource as an information carrier and the information that conveys meaning. **Physical resources** remain essential for answering certain questions in Religious Studies that digital text data alone cannot address. It was emphasised that tools and data depend on the research question, yet data creators must abstract from individual questions to anticipate relevant inputs.

The final day focused on translating the workshop discussions into the **design and operation of research infrastructures**, ensuring technological implementation and sustainability in light of software lifecycle challenges. These considerations were linked to the role of infrastructures such as RESILIENCE in meeting diverse user needs across disciplines, subjects, and research questions.

Key Outcomes:

- Key findings as a basis for defining infrastructure requirements (addressing user needs and technical specifications) for planning the future RESILIENCE service strategy.

Key Findings:

- **Data complexity:** Religious Studies data often involve rare scripts, non-linear writing systems, and multilingual texts, making digitisation and interoperability particularly challenging. Physical resources remain essential for certain research questions, and digital surrogates must preserve structural and semantic integrity.
- **Metadata and documentation standards:** Clear documentation of the relationship between physical sources and their digital representations is critical. Robust metadata standards are needed to ensure transparency, usability, and discoverability across languages and alphabets.
- **Legal/Licensing Barriers:** Significant gaps exist in the digital availability of 20th-century material due to copyright restrictions. Research infrastructures should integrate strategies to address licensing and access issues.
- **Interoperability and standardisation:** Interoperability depends on clearly defined application areas, shared vocabularies, and agreed scope. Standards such as TEI remain crucial for sustainability, reuse, and tool compatibility. Data in ad hoc formats risk becoming unusable over time.
- **Authority files and linked data:** Authority files and controlled vocabularies are essential for cross-linguistic discovery and interoperability between projects. Linked Data principles should guide the integration of linguistic resources and metadata to exploit network effects.
- **Digital scholarly editions:** Digital editions must go beyond simple digitisation. They should reflect multiple text layers and versions, allow annotation, hyperlinking to sources and translations, and provide tools for interpretation while maintaining readability.
- **Artificial Intelligence and computational methods:** AI offers significant potential as both a tool and a methodology for Religious Studies, but its integration requires clear ethical frameworks and consideration of sustainability, including "green AI".
- **Maintaining compatibility:** Computational approaches such as text mining, machine learning, and deep learning are driving a shift towards quantitative analysis. Research

infrastructures must support these techniques while maintaining compatibility with qualitative methods.

- **Big Religious Data and corpora creation:** The infrastructure should enable the creation and maintenance of large-scale digital textual corpora and provide adaptable computational tools for text analysis. Services for tool development and adaptation must be part of the infrastructure.
- **Digitisation strategies:** Digitisation for data processing and digitisation for long-term archiving are distinct processes and should be treated differently in infrastructure planning.
- **Long-term preservation and improved findability:** Awareness of historical patterns of data loss is essential. Advances in digital accessibility should not create new bottlenecks or lead to voluntary or involuntary loss of data. Strategies for long-term preservation and improved findability must be built into the infrastructure.
- **Sustainability**: Tools and software will evolve, but data must remain durable. Long-term usability depends on adopting robust standards rather than temporary or project-specific solutions.
- **User-centred design and inclusivity:** The infrastructure must be interdisciplinary, multicultural, multilingual, and multi-faith, reflecting the complexity of Religious Studies. It should start from user needs rather than from data or IT solutions and address challenges such as religious illiteracy and limited scholarly communication.
- **Physical and digital integration:** Both digital and physical data need to be captured by design. There is significant potential in unexplored collections across Europe and beyond, which are neither properly catalogued nor digitally accessible. Providing integrated physical and digital access will enable new insights and diachronic research.

See also the RESILIENCE news item How to Use AI, Machine Learning, Big Data and Digital Tools in Religious Studies - RESILIENCE.

3.3 Workshop "RESILIENCE Meets Researchers" in Münster (Germany)

"I have the impression that the exchange with the other researchers in the workshop on certain questions discussed was helpful for me, also to see the variety of databases (that is already there) and of course to get to know the RESILIENCE project :-)"
(Quote from participant evaluation)

The Design Thinking workshop in Münster took place on the 26th and 27th of May 2025. It was offered by WP3/WP2 to researchers at the University of Münster, with Münster taking the lead in the organisation.

The goals of the workshop were clearly outlined in advance and focused on three main areas: making the participants aware of RESILIENCE, its objectives and the status quo of existing and planned services in the field of research on religions; helping participants understand the planned services, using mock-ups of the user interface of the unified discovery environment RelReSearch, and of a service portal which the participants tested and evaluated. This enabled participants to contribute to the prioritisation of services.

Agenda and evaluation results are included in the appendix.

Workshop Implementation: The participants were divided into two groups, so the programme was conducted in the same way twice. The workshop began with a welcome and an introduction round, including a **presentation of the RESILIENCE status quo and its objectives**. This was followed by a **group session focused on service discussion**. Participants explored the Trial RelReSearch and evaluated the user experience. Afterwards, **mock-ups of a service portal were presented and evaluated**. After a presentation on the current status of services and the related questionnaire, a questionnaire on the **use of digital services**[9] was to be completed. The workshop continued with a discussion about the Münster project "Campus der Theologien", and Research Infrastructures. Finally, the results were collected and the workshop concluded with an overall evaluation.

[9] Provided by WP2, see RESILIENCE_WP2_D2.2_UserServicesCatalogue (forthcoming November 2025), chapter 3.2.

Participants: All participants were affiliated with the University of Münster, specifically the Faculty of Protestant Theology and the Centre for Islamic Theology. Among them, two held the position of Full Professor, five were PhD candidates, and two were postdoctoral researchers. In terms of academic disciplines, nine participants specialised in Theology and two in Religious Studies, noting that Religious Studies and Theology overlap within the Faculty of Protestant Theology. In addition to these participants, three members of the RESILIENCE team attended and led the workshop.

Key Outcomes:

- Internal coordination between WP2 and WP3 for workshop planning, evaluation, and cooperation on joint tasks.
- Participants gained awareness of RESILIENCE, its objectives, and the status quo of existing and planned services in the field of research on religion.
- Hands-on understanding of planned services through mock-ups of the ReIReSearch unified discovery environment and the service portal.
- Practical testing and evaluation of mock-ups, including user experience assessment.
- Participants contributed to the prioritisation of services based on their feedback and evaluations.
- Key findings as a basis for defining infrastructure requirements (addressing user needs and technical specifications) for planning the future RESILIENCE service strategy (see below).

Key Findings:

- Strong demand for a **shared database or platform**, especially for Greek and Latin texts and dictionaries.
- Need for a **search engine** that connects multiple systems for integrated access.
- Clear **gap for a curated database of qualitative interviews** in Religious Studies to ensure quality and relevance.
- A **multilingual, well-tagged database** is essential for international research and comparative studies, including areas like religious education.
- Interest in a **publication platform** to support dissemination of research outputs.
- High priority on **long-term data storage** with secure access and options for reuse; sustainability beyond project funding must be guaranteed.
- **Open Access** is desired but raises concerns about quality control and funding models.

- Integration of **useful tools (e.g., transcription from Arabic)** should be considered.
- **Training needs** identified: strengthening academic skills, research integrity, and critical source analysis; improving competence in using AI responsibly in research.
- Rapid technological developments make it challenging for researchers **to stay up to date; support mechanisms** are needed.
- Terminology matters: using "Religion" too narrowly may alienate related disciplines; **inclusivity in language** is important for engagement.

See also the RESILIENCE news item Testing Time in Münster! - RESILIENCE

3.4 Workshop "Shaping the Future of Research on Religion through RESILIENCE RI" in Paris (France)

"Once fully developed and implemented, the infrastructure will be very helpful. Especially, I am intrigued to learn more about the "marketplace" of services and tools."
(Quote from participant evaluation)

The Design Thinking Workshop in Paris was jointly organised as a collaborative effort between WP3 "Users" and WP2 "Services." Its primary goal was to identify and refine user requirements and service strategy for the future RESILIENCE Research Infrastructure. Building on insights from previous international workshops where user needs were gathered through interviews and group discussions, and the event "Religious Studies in the Digital Age: Aligning Research Methodologies and National Strategies," this workshop engaged international experts with extensive experience in Digital Humanities projects and research on religion.

It was held from 22 to 26 September 2025 at Campus Condorcet in Paris, a site of the RESILIENCE partner EPHE-PSL, renowned for its broad expertise in various areas of study of religions in combination with Digital Humanities.

Agenda, a detailed report and evaluation results are documented in the appendix.

Workshop Implementation: This Design Thinking workshop at EPHE Paris featured **20-minute keynote inputs** followed by **discussions, exploring key questions, challenges and opportunities** shaping the future of research on religion. The workshop aimed to reflect on past developments, challenges, and opportunities in the field, and to learn from those experiences. It also looked ahead to possible **future developments**, asking what will shape research on religions in the coming decades. A key focus was exploring **how RESILIENCE can effectively respond to these challenges**, supporting innovation, collaboration, and sustainability for our user community, with a dedicated **session with early career researchers**. Participants were invited to share their perspectives on the most urgent needs in the field, including tools, data, access, and training, helping to identify priorities and recommendations that will guide the next phase of RESILIENCE's development. On the first and fifth day, **internal meetings** with RESILIENCE members were held to foster cooperation and conduct evaluations. For details of the agenda, see appendix.

Participants: The keynote speakers and panellists were international experts with extensive experience in Digital Humanities projects, research on religions, and affiliated to research institutions such as CNRS, BibIIndex, Bible Online Learner, BibIIndex, Biblissima+, eScriptorium, the European Cloud for Heritage OpEn Science (ECHOES), HiSoMa, Index Theologicus, ITSERR, Kraken, IRISA, SysLex, and the Zurich University Research Priority Programme "Digital Religion(s)". It was attended on site by 23 participants and virtual by 2 participants.

Key Outcomes:

- Internal coordination between WP2 and WP3 for workshop planning, evaluation, and cooperation on joint tasks.
- Participants gained awareness of RESILIENCE, its objectives, and the status quo of existing and planned services in the field of research on religion.
- Hands-on understanding of planned services through mock-ups of the ReIReSearch unified discovery environment and the service portal (results are included in Deliverable D3.4, forthcoming).
- Practical testing and evaluation of mock-ups, including user experience assessment (results: see D3.4).

- Participants contributed to the prioritisation of services based on their feedback and evaluations (results: see D3.4).
- Key findings as a basis for defining infrastructure requirements (addressing user needs and technical specifications) for planning the future RESILIENCE service strategy (see below).

Key Findings:

The following key findings have been selected from the presentations and discussions and are grouped by topic. The full detailed results are documented in the report of the workshop in the appendix.

1. Accessibility

- **Open Access priority**: Open and accessible resources are a priority: examples like "CURSOR_" and "SysLex" show the value of platforms that integrate research and teaching in participatory formats.
- **Open Access versus compensation for creators:** Full open access for all resources is unrealistic; sustainable models must balance accessibility with fair compensation for content creators.
- **Democratised access to tools**: Access to costly databases, specialised software and high-performance computing should be democratised through shared European platforms. This would improve opportunities for early career researchers and ensure excellence is not limited by institutional wealth.
- **Centralised repository**: A centralised repository is essential to bring together dispersed resources and ensure accessibility for researchers.
- **Modular infrastructure:** Infrastructure should be modular and adaptable, allowing integration of diverse sources such as manuscripts, religious texts and cultural heritage materials.
- **Secure access platforms**: Develop secure platforms for resource access, enabling authenticated researchers to use high-resolution materials without compromising institutional ownership or copyright.
- **Integrated resource access**: Need for integrated access to texts, images, and dictionaries.

- **Offline accessibility**: Provide offline solutions for regions with limited internet access, such as local servers or systems like TheWell, to guarantee accessibility and continuity of learning.

2. Networking & Community Building

- **Need for Networking**: Networking across institutions can reduce isolation during funding gaps and strengthen collaboration. These relationships need structured frameworks to survive beyond individual contacts.
- **Need for collaboration**: Desire for community interaction and collaborative development.
- **Community Engagement**: Engage communities early. A broad consultation will help identify digital practices and real needs, which is crucial for adoption and relevance.
- **Discipline-specific engagement**: Specialist Information Services (FID) show the importance of discipline-specific infrastructures with strong community engagement through advisory boards, conferences, and workshops.
- **Funded Internships:** The University of Rennes offers to provide international funded internships in computer science, digital communication, and multimedia. The students bring expertise in programming, technical development, and digital media, offering practical support for future projects in RESILIENCE. This opportunity opens a pathway for strengthening technical capacity within RESILIENCE and fostering interdisciplinary collaboration.

3. Data & Metadata Standards

- **Big Data readiness**: Big Data was identified as a priority for future services. RESILIENCE should develop solutions that enable large-scale data processing and integration for research purposes.
- **Challenge of data integration**: Religious research data is scattered across sources, languages, and formats, making integration a major challenge. Linking materials and standardising metadata are essential for interoperability and long-term usability.

- **FAIR Principles**: Keep data quality high and follow FAIR principles. Reliable metadata and persistent identifiers will make resources reusable and trustworthy.
- **Necessity of Interoperability**: Start with interoperability. The infrastructure should connect smoothly with European initiatives like EOSC and Data Spaces to avoid isolation and ensure visibility. / Avoid a lack of interoperability and inconsistent standards across collections.
- **Conceptual Modelling**: Anticipate conceptual challenges. Representing complex entities such as rituals or sacred texts digitally requires careful modelling and shared standards.
- **Clear data exchange standards**: Establish clear standards for data exchange while allowing research-specific adaptations.
- **Robust integration tools**: Provide robust import/export and API (Application Programming Interface) options to enable integration and data portability.
- **Migration & preservation**: IxTheo illustrates that migration strategies and metadata preservation are essential to avoid dependency on single hosting systems.

4. Legal Issues

- **Legal restrictions on linking**: Interconnecting diverse sources such as biblical texts, patristic quotations and related materials is technically feasible but requires solutions for legal and copyright restrictions.
- **Clear licensing frameworks**: Legal and copyright issues further complicate data sharing. While giving up rights on small datasets was suggested, raw material requires heavy processing before it becomes usable. Clear licensing frameworks must be part of any infrastructure.
- **Copyright and data access**: The creation of digital corpora depends on resolving copyright issues and ensuring access to archives and specialised libraries. RESILIENCE could serve as a unique entry point for these resources.
- **Address copyright and legal issues**: Copyright and legal issues must be addressed to enable sharing of digitised materials while respecting institutional concerns.

5. Funding & Sustainability

- **Crucial need for stable long-term funding**: Long-term funding models are needed to maintain infrastructure, technical development and staff continuity. Stability would allow projects to take calculated risks and experiment without fear of losing support. / A global funding approach, ideally through state-supported systems that guarantee access via universities, is considered the most viable long-term solution. / Sustainable funding cannot rely solely on short-term project phases. Ministries and public bodies need to commit to continuous investment and maintenance beyond prototype development. / RESILIENCE should model long-term maintenance and integration.
- **Advocacy for niche domains**: Funding for niche domains and "small disciplines" in Religious Studies is at risk. Advocacy for inclusion in European strategies remains essential.
- **Plan sustainability from the beginning**: Governance, funding and legal frameworks need to be clear to guarantee long-term viability.
- **Integration into frameworks**: Integrate into National and European Frameworks: There is potential to include RESILIENCE e.g. in the Swiss roadmap for research infrastructures and to align with European initiatives. This would require clear service models and sustainable funding strategies.
- **Revenue streams**: Revenue streams and structured financial models are essential to keep services running and ensure regular updates.
- **Cost structures for free services**: Financing of platforms and services was identified as a critical challenge. Sustainable funding models are needed, including cost structures for free services to cover operational expenses throughout their lifecycle.

6. Technical Architecture

- **Interoperability and durability**: Technical architecture should focus on interoperability and durability rather than isolated, project-specific solutions. Dedicated teams working for shared infrastructure, not individual projects, are essential for continuity.
- **Unique identifiers and linking**: Technical needs include unique identifiers and linking tools. Multilingual collections highlight the importance of consistent references for people, places, and concepts.
- **AI-based access tool**: A concept for an AI-based, question-driven tool similar to ChatGPT should be examined to enable interactive access to resources. The technical feasibility will be examined with IT specialists (planned at the University of Münster), whereby such a tool would require comprehensive data input.
- **Semantic frameworks**: Invest in semantic frameworks. Ontologies and knowledge graphs are essential for linking heterogeneous sources and enabling meaningful research on religions.
- **Specific technical requirements** were noted, such as displaying fragmented papyri on one single screen and improving the quality of digitised images.

7. Collaboration & Governance

- **Shared ownership Infrastructure**: Collaboration must be supported by an infrastructure that allows shared ownership while enabling cooperation between universities, research institutions, and religious communities.
- **Public-private partnerships**: Collaboration between public institutions and private providers remains underdeveloped. Sustainable economic models are required to balance publisher interests with scholarly access.
- **Interdisciplinary collaboration**: Collaboration between humanities and computer science can accelerate tool development. Hackathons and joint coursework could offer practical solutions.

- **Cross-initiative cooperation**: Collaboration between existing initiatives and partners, supported by sustainable funding and open access policies, is necessary for long-term success.
- **Advanced Retrieval Systems**: Collaboration: Initiatives like SpiritRAG and IxTheo could form the basis for advanced retrieval systems, provided sufficient funding is secured.
- **Authentication infrastructure**: Collaboration with ITSERR and the integration of an Authentication and Authorisation Infrastructure (AAI) were considered essential for such a platform, although implementation would be complex and time-consuming.

8. Skills & Training

- **DH Training requirements / Shortage of Digital Skills / Programming, Encoding and Reproducibility Skills**: It was stated that digital skills are lacking. Training in programming and data encoding should be prioritised. / Strong need for training and mentoring in DH and AI tools. / Growing importance of reproducibility and coding skills (Python, R) / There is a shortage of scholars who combine philological expertise with digital skills. Graduate programmes and professional training must integrate digital methods into traditional religious studies and contribute directly to data production. / A shortage of experts combining religious studies and ICT skills was noted as a major obstacle. RESILIENCE should aim to address this gap through targeted training and capacity building.
- **Methodological training gaps**: Address gaps in methodological training: There is a clear need for practical training in research methods and data management, which is often missing from existing curricula in religious studies. RESILIENCE should provide syllabi, educational materials and opportunities such as summer or winter schools. These should include hands-on courses in qualitative and quantitative research and introductions to relevant tools.
- **Interdisciplinary innovation**: Support interdisciplinary and methodological innovation: Researchers often face challenges when moving beyond their disciplinary comfort zones, for example, when adopting quantitative approaches. RESILIENCE could offer workshops,

mentorship programmes and training that enable scholars to develop new methodological skills and apply emerging technologies in their research.

- **Ethical training framework**: Consider the PERSUADE model as a guiding framework for training design, ensuring ethical, evidence-based and learner-centred approaches in all training services.
- **Train-the-Trainer programmes**: Train-the-Trainer programmes were identified as essential for promoting tool adoption and communicating benefits effectively.

9. Innovation & Future Directions

- **Check the need for AI for advanced research**: Artificial intelligence offers opportunities for advanced search and analysis; future development should consider including AI-based tools to improve discoverability and usability for researchers and educators.
- **Prepare for AI and ML (Machine Learning)**: Future infrastructure must prepare for artificial intelligence and machine learning in areas such as textual analysis and pattern recognition, while safeguarding the humanistic values that define religious studies.
- **Multilingual capability**: Multilingual capability is critical for global scholarship and should be built into future systems.
- **Technological opportunities**: Tools such as BibleOL and eScriptorium were recognised for their potential impact. eScriptorium offers flexibility and multilingual capabilities, making it valuable for future projects.
- **Agile innovation**: Address the speed of technological development: Examples such as SpiritRAG demonstrate that IT solutions can be developed rapidly compared to traditional academic timelines, suggesting opportunities for agile innovation.

10. Additional Strategic Points

- **Expand networks**: Expanding networks from local to national and European scale is desired, but will require dedicated funding and strategic planning.
- **Meta-infrastructure role**: RESILIENCE should act as a meta-infrastructure that fosters networking, visibility and collaboration. It should organise innovation workshops, bring

experts together and explore additional funding opportunities. The aim is to become a European entry point for research on religion.

- **Combine distribution and research**: Current European frameworks (e.g., SSHOC) focus on distribution rather than research; RESILIENCE should aim to combine both functions.

See also Shaping the Future of Research on Religion: Workshop at EPHE-PSL Paris - RESILIENCE

On YouTube: Vassa Kontouma on Shaping RESILIENCE: Insights from EPHE-PSL Paris

3.5 Workshop "Religion and the EU: A Perfect Match?" in Brussels (Belgium)

"I think the research which RESILIENCE is supporting can be very valuable for providing data here for decision makers on EU level, but at the same time, if it's about comparative studies, it can also be a very valuable resource of knowledge."
(Quote from a roundtable panellist)

The workshop "Religion and the EU: A Perfect Match?" took place on 7 May 2025 in Brussels. It was hosted by the Emilia-Romagna Region's Delegation to the European Union and organised in collaboration with RESILIENCE partners. The event explored the relevance of research on religions for society, culture and policy, and its potential contribution to innovation. It was not a workshop planned by WP3 to survey user requirements, but it should be acknowledged in this context.

The roundtable aligns with the review report's recommendation[10] to connect academic research with public policy. As the report notes, "If RESILIENCE's ultimate goal is to facilitate knowledge about religions and feed that knowledge into the expertise of state actors and public policy, one of

[10] GENERAL PROJECT REVIEW CONSOLIDATED REPORT (HE), Period covered: from 1/6/2023 to 30/11/2024, p. 3.

its unexpected outcomes could be the empowerment of religions in the European public space", this event directly supports that goal by fostering dialogue between scholars and EU policymakers.

Workshop Implementation: The programme consisted of t**wo roundtable discussions**. The first addressed **whether academic research on religion can influence society and culture**. The second examined **its impact on policy and innovation**, with particular attention to the role of RESILIENCE as a research infrastructure. The event also provided opportunities for **networking** before, during and after the sessions, leading to several follow-up meetings.

Participants: The workshop gathered around 45 participants, including a representative from an EU institution responsible for dialogue with religious and philosophical organisations, a director of a European faith-based community centre, an ambassador from a permanent mission to an international organisation, a representative of a church office in Brussels, a director of a research foundation specialising in Religious Studies, a policy officer from the European Commission's research and innovation unit, and a representative of a regional delegation to the European Union.

Key Outcomes:

- The first roundtable concluded that academic research on religion does not directly resolve societal issues but facilitates dialogue and fosters mutual understanding. Speakers emphasised the importance of academic freedom and diversity as foundations for resilience in society.
- The second roundtable highlighted the need for dedicated research infrastructures to advance the study of religion. Participants agreed that robust research can strengthen interreligious understanding and inform policy development.

Key Findings:

- Academic research on religion is essential for promoting informed debate and cultural awareness.
- Religion plays a significant role in periods of societal transformation and must be taken seriously in policy contexts.

- Research infrastructures such as RESILIENCE are crucial for elevating the quality and impact of research on religions.
- Collaboration between academia, policy-makers and religious communities enhances trust and innovation.

See also for example: Discussing the Impact of Research on Religion - RESILIENCE,

and the videos: Alberto Melloni Voices, May 2025

Katrin Hatzinger #Voices, May 2025 in Brussels

Vincent Depaigne #Voices, May 2025 in Brussels

4 Mapping Key Findings to Infrastructure Requirements

The following tables summarise the strategic key findings from the five workshops into ten thematic categories and map each finding to a corresponding infrastructure requirement. The purpose is to provide actionable guidance for the development of the RESILIENCE Research Infrastructure for the study of religions.

Categorisation: The summarised key findings were grouped under the categories Accessibility, Networking & Community Building, Data & Metadata Standards, Legal Issues, Funding & Sustainability, Technical Architecture, Collaboration & Governance, Skills & Training, Innovation & Future Directions, and Additional Strategic Points.

Each finding was paired with an infrastructure requirement to translate strategic advice into practical implementation steps. Infrastructure requirements marked with an arrow indicate those already addressed by RESILIENCE either through existing services, community services, or other activities. Their feasibility will be further evaluated in the coming months.

4.1 Accessibility

Key Finding	Infrastructure Requirement
Ensure integrated access to texts, images, dictionaries, and multilingual resources.	Develop a unified portal that aggregates diverse resources and supports multilingual access for global research. → Via the HORTUS platform[11] users can access a range of different services offering multilingual access.
Develop secure platforms for sensitive or high-resolution materials with authentication.	Implement secure authentication systems and controlled access for sensitive or high-resolution content.
Provide modular, task-specific tools for manuscript analysis (OCR, layout recognition).	Offer specialised, modular tools for OCR, layout recognition, and script analysis within the infrastructure. → eScriptorium is one of the key tools RESILIENCE has added to its service catalogue that answers this need.

[11] HORTUS is a prototype platform developed for RESILIENCE by ITSERR, an affiliated project of RESILIENCE. It is designed to provide a unified entry point to publications, events, projects, datasets, and people, integrating diverse metadata sources under FAIR principles and hosting Virtual Research Environments with tools for annotation, visualisation, and AI services. See RESILIENCE_WP2_D2.2_UserServicesCatalogue, chapter 7.2 (forthcoming in November 2025).

Improve findability and reduce complexity in resource navigation.	Ensure that services support efficient resource discovery and navigation processes. → IXtheo and RelBib are online bibliographies that allow for intuitive search and navigation interfaces. Other examples: Biblissima+, ATLA.
Shared database/platform for Greek and Latin texts, dictionaries.	Provide a centralised, discipline-specific repository for classical texts. → RESILIENCE provides access to a wide range of discipline-specific repositories.
Shared database/platform for qualitative interviews.	Provide a centralised, discipline-specific repository for qualitative research data. → The need for this service needs to be reviewed and evaluated.
Integrated search engine connecting multiple systems.	Provide an interoperable search engine that links existing infrastructures and databases for seamless discovery. → RelReSearch
Multilingual, well-tagged database for international research.	Provide a database that supports multiple languages and writing systems, with robust tagging and standardised metadata to enable research across languages, facilitate work on diverse texts, and support comparative studies.

	→ ReIReSearch
Publication platform for dissemination of research outputs.	Provide an integrated publication platform for open-access dissemination of scholarly outputs and datasets. → Check whether this is actually useful and desirable.
Secure, long-term data storage with options for reuse.	Establish durable storage solutions with persistent identifiers and FAIR principles to ensure long-term accessibility. → Dependent on stable long-term financing
Need for physical access to resources, also on remote places.	Enable physical access. → TNA and Training.
Need for physical and digital access to collections across Europe.	Enable hybrid access models combining physical archives with digital surrogates for comprehensive research opportunities. → TNA: many TNA Hosts offer both physical and digital access to their collections and resources.

4.2 Networking & Community Building

Key Finding	Infrastructure Requirement
Foster networking across institutions.	Establish networking platforms to connect researchers and institutions across Europe. → The HORTUS Platform will be able to connect researchers across Europe.
Position RESILIENCE as a meta-infrastructure for visibility and collaboration.	Develop a central hub that integrates services, promotes visibility, and facilitates collaboration among existing infrastructures. → The HORTUS Platform aims to provide its users with a single discovery entry point across the whole future infrastructure with publications, events, projects, datasets, and people.
Organise innovation workshops and community-driven initiatives.	Schedule regular innovation workshops and collaborative events to encourage knowledge exchange and co-creation of tools and services. → The HORTUS platform and future training programmes will make this possible.

Strengthen institutional connectivity (e.g., libraries and archives).	Create interoperable systems linking libraries, archives, and research centres to enable seamless resource sharing. → See for example IxTheo, RelBib, ATLA, Biblissima in the RESILIENCE User Service Catalogue.[12]
Facilitate interdisciplinary engagement and collaboration within RESILIENCE.	Implement collaborative tools and forums to support interdisciplinary projects and cross-domain research. → This will be possible as part of the HORTUS Platform.
Provide remote expert access to overcome travel limitations.	Develop secure virtual consultation platforms for remote expert engagement and advisory services. → Integration of an experts database.
Offer mental health and wellbeing support for researchers.	Integrate wellbeing resources and support services into the infrastructure, addressing stress and challenges in sensitive research contexts. → Analyse the requirement to determine whether there is sufficient demand and how it can and should be addressed.

[12] RESILIENCE_WP2_D2.2_UserServicesCatalogue, forthcoming November 2025, will be available here.

Clear communication of RESILIENCE's concept and services.	Design a user-friendly communication strategy, including clear documentation, tutorials, and outreach materials to explain services and benefits. → Performed continuously.

4.3 Data & Metadata Standards

Key Finding	Infrastructure Requirement
Implement FAIR principles and persistent identifiers.	Adopt FAIR-compliant standards and assign persistent identifiers (e.g., DOIs) to ensure data is findable, accessible, interoperable, and reusable. → See D2.4 Data Management Plan as well as the RESILIENCE Zenodo Community.
Standardise metadata, authority files, and controlled vocabularies.	Develop and enforce common metadata schemas and controlled vocabularies across all collections to guarantee consistency and interoperability. → See D2.2 User Service Catalogue, Annex "Service Dictionary"[13].

[13] RESILIENCE_WP2_D2.2_UserServicesCatalogue, forthcoming November 2025.

Invest in semantic frameworks (ontologies, knowledge graphs) for interoperability.	Build semantic layers using ontologies and knowledge graphs to enable meaningful linking and advanced search across heterogeneous datasets. → RESILIENCE is part of GRAPHIA, a project which aims to create a comprehensive SSH knowledge graph (KG) that consolidates fragmented data into a single access point, enhancing the visualisation and analysis of SSH data.
Shared vocabularies, TEI standards, and interoperability frameworks.	Implement TEI and other recognised standards for text encoding and interoperability to support long-term sustainability and tool compatibility. → RESILIENCE closely collaborates with SSHOC-EU on implementing shared standards. See also D2.2 User Service Catalogue, Annex "Service Dictionary".
Authority files and linked data for cross-linguistic discovery.	Create and maintain authority files and linked data services to enable accurate cross-linguistic and cross-cultural resource discovery.
Strategies for long-term preservation and improved findability.	Establish durable storage solutions, persistent identifiers, and indexing strategies to safeguard data integrity and enhance discoverability over time.

	→ Dependent on stable long-term financing.

4.4 Legal Issues

Key Finding	Infrastructure Requirement
Address copyright and licensing barriers, especially for 20th-century material.	Develop a comprehensive licensing framework and implement secure access systems to manage copyrighted content responsibly.
Develop clear frameworks for balancing open access with fair compensation.	Establish policies that promote open access while ensuring fair remuneration for content creators and rights holders. → IxTheo and RelBib provide a self-archiving / republication service that addresses this need for Theology and Religious Studies.
Develop frameworks balancing open access with quality control and funding models.	Create governance and funding models that maintain scholarly quality and sustainability alongside open access principles.

4.5 Funding & Sustainability

Key Finding	Infrastructure Requirement
Advocate for long-term funding models beyond short project cycles.	Establish sustainable funding frameworks supported by public bodies and research councils to ensure continuity beyond initial project phases.
Explore revenue streams and structured financial models for continuity.	Consider developing cost-sharing models, subscription options, and institutional contributions to maintain services and infrastructure.
Guarantee sustainability beyond project funding.	Implement governance and financial strategies that prioritise ongoing maintenance and service provision after project completion.
Adopt durable standards and avoid project-specific solutions.	Use widely recognised technical and metadata standards to ensure interoperability and long-term usability across projects.
Plan for evolving tools while ensuring data durability.	Design flexible architecture that accommodates technological innovation while safeguarding data integrity and accessibility.

4.6 Technical Architecture

Key Finding	Infrastructure Requirement
Design modular, flexible, and interoperable platforms.	Develop a modular architecture that supports flexibility and interoperability, ensuring compatibility with diverse tools and datasets. → The HORTUS platform meets this requirement by offering a modular, interoperable architecture compatible with diverse tools and datasets.
Provide robust API options and avoid fragmentation through shared hosting.	Implement well-documented APIs and shared hosting solutions to enable seamless integration and prevent system fragmentation.
Ensure open-source development with clear governance.	Adopt open-source principles with transparent governance structures to guarantee sustainability and community-driven innovation.
Integration of useful tools (e.g., Arabic transcription).	Incorporate specialised tools such as transcription services for non-Latin scripts to meet the needs of diverse research communities.
Support for digitisation strategies: distinguish between processing and archiving.	Establish clear workflows and standards for digitisation, differentiating between short-term processing needs and long-term archival requirements.

4.7 Collaboration & Governance

Key Finding	Infrastructure Requirement
Enable shared ownership and cooperation between universities, research institutions, and religious communities.	Establish governance models and collaborative frameworks that allow joint ownership and shared responsibilities among partner institutions.
Integrate with existing infrastructures (IxTheo, EOSC, Data Spaces).	Ensure interoperability and connectivity with established infrastructures to avoid duplication and maximise resource sharing.
Define governance structures for decision-making and accountability.	Create transparent governance structures with clear roles, responsibilities, and decision-making processes to ensure accountability.
Provide clear governance structures for decision-making and accountability.	Formalise governance policies and operational guidelines to maintain consistency and trust across the infrastructure.

4.8 Skills & Training

Key Finding	Infrastructure Requirement
Launch Train-the-Trainer programmes.	Develop structured Train-the-Trainer schemes.
Integrate DH and AI into curricula.	Embed Digital Humanities and AI modules into academic programmes to build capacity.
Offer practical training in programming, data encoding, and reproducibility.	Provide hands-on courses and online resources for coding, data management, and reproducibility to strengthen technical skills.
Expand language training resources, including smaller languages.	Create language learning modules and resources for less commonly taught languages to support diverse research needs.
Strengthen academic skills, research integrity, and critical source analysis.	Deliver targeted workshops and guidelines on research ethics, integrity, and critical evaluation of sources.
Training for AI use in research.	Introduce specialised training on responsible AI use.

Training for coping with trauma in sensitive contexts.	Offer training (with psychological support frameworks) for researchers working on sensitive topics. → A difficult topic that does not necessarily belong in a RI, but certainly plays a role in research on religions.
Strategies for conducting research in religiously sensitive environments.	Provide training, guidance or best-practice protocols for fieldwork in sensitive or faith-based contexts to ensure safety and ethical compliance.

4.9 Innovation & Future Directions

Key Finding	Infrastructure Requirement
Validate AI-driven tools (e.g., Religious ChatGPT, RAG systems). / AI and computational methods for advanced analysis and discoverability.	Explore integrating AI-powered tools into the infrastructure to enhance resource discovery, semantic search, and interactive research capabilities. → Generative AI tools for religious data should only be considered for research once a reliable solution is available that avoids current problems such as lack of accuracy and unverifiable interpretations[14].

[14] See, for example, from April 2025 the study that states, when used for searching, generative AI missed between 68% and 96% of relevant studies (median 91%) div-class-title-generative-artificial-intelligence-use-in-evidence-synthesis-a-systematic-review-div.pdf , or the July 2025 MIT study on the use of generative AI in US companies, which found that 95 per cent of companies do not generate revenue with artificial intelligence due to functional deficits in AI tool: v0.1_State_of_AI_in_Business_2025_Report.pdf.

Support interdisciplinary and methodological innovation.	Provide collaborative platforms and training programmes that encourage cross-disciplinary research and adoption of new methodologies.
Support creation of large-scale digital corpora and adaptable computational tools.	Monitor the market in order to be able to pick up on and address new developments.
Address rapid technological developments with support mechanisms.	Create responsive support structures, including technical assistance and continuous training, to help researchers adapt to evolving technologies.

4.10 Additional Strategic Points

Key Finding	Infrastructure Requirement
Encourage student involvement through internships and encoding projects.	Create structured internship programmes and collaborative encoding projects to engage students and expand data resources.
Build solutions for reproducibility and graph/network modelling.	Provide tools and workflows that support reproducible research and enable advanced graph and network modelling for complex relationships.

User-centred design: interdisciplinary, multicultural, multilingual, and multi-faith.	Design the infrastructure around user needs, ensuring inclusivity across disciplines, cultures, languages, and faith traditions.
Inclusivity in language and terminology to avoid alienating related disciplines.	Adopt inclusive terminology and communication practices to foster engagement across diverse academic and cultural contexts.
Ethical frameworks for AI and digitisation ("green AI").	Implement sustainability-focused AI practices and ethical frameworks to minimise environmental impact and uphold scholarly integrity.
Awareness of historical data loss and proactive preservation strategies.	Develop robust preservation policies and backup systems to prevent data loss and ensure long-term accessibility of resources.

5 Evaluation Results

For each RESILIENCE Workshop, an evaluation document is prepared. These documents summarise the results of online participant evaluations to what extent the goals of the workshops are met, and also incorporate observations and insights from the organisers. Based on these inputs, recommendations for future events are developed.

All feedback and recommendations are consolidated into one dynamic, continuously updated document that is regularly reviewed within the work units and serves as a reference when planning upcoming workshops.

In the following, an overview of the evaluation results for the workshops discussed in this report is presented; the detailed evaluations are documented in the appendix.

Across all three evaluated workshops, participants rated their overall impression with an **average score of 8.7 out of 10**, where 10 represents "very good" and 1 "poor," indicating a **consistently positive experience**.

5.1 Evaluation of the Workshop Sarajevo

The participants were asked six questions, four were to be answered quantitatively.

- "I have gained a clear insight into RESILIENCE." (Answer: 1-5 points)
- "I got a clear insight into how RESILIENCE can support me in doing research in Greece in general." (Answer: 1-5 points)
- "(In case you were interviewed): I feel adequately supported by the interviewer in putting into words what I need for my research." (Answer: 1-5 points)
- "I am convinced of the necessity of a European Infrastructure for Religious Studies." (Answer: 1-5 points)
- "What did you like most about the meeting?" (Answer: Full sentences)
- "How can we improve our future meetings? (Answer: Full sentences)

Result: 88% of participants (22 out of 25) reported gaining a clear understanding of RESILIENCE. The same percentage of **88% indicated they understood how RESILIENCE can support their research**. Among those interviewed**, 96% (24 out of 25) felt adequately supported in expressing their research needs**. All participants **(100%) agreed on the necessity of a European Infrastructure for Religious Studies**.

On the question "What did you like most about the meeting?" participants answered that they most appreciated the **opportunity to exchange experiences** and **network with researchers from abroad, clarify suggestions and ask questions freely**, and valued the prospect of **creating a shared database for Religious Studies** along with **future visits to libraries and research centres**.

In response to the question "How can we improve our future meetings?", participants indicated that overall everything was considered great, but suggested **offering more practical outputs** for participants, **ensuring the hybrid mode functions smoothly** through additional equipment checks, and **involving more historians and archivists** in the team.

For the question "What is your **overall impression** of the meeting?" rated on a scale from 1 (poor) to 10 (very good), participants gave an average score of 9, corresponding to **90%, showing a very positive experience**.

5.2 Evaluation of the Workshop Villa Vigoni

The workshop at Villa Vigoni was initiated, organised, and conducted by RESILIENCE members, while funding and framework conditions were provided by the DFG (German Research Foundation) and Villa Vigoni (a binational association supported by the Federal Republic of Germany and the Italian Republic). WP4 Communication, Dissemination and Exploitation was not involved. Therefore no evaluation was carried out by RESILIENCE in the usual feedback collection workflow.

5.3 Evaluation of the Workshop Münster

Participants were asked to rate their experience on five key questions as "Very Good", "Good", "Satisfactory", or "Poor":

- I have gained an impression of the possibilities of a research infrastructure.
- I have gained an impression of the possibilities of RESILIENCE.
- I have gained an impression of the possibilities of RESILIENCE's services.
- I gained an impression of the use of the RESILIENCE services through the mock-ups.
- I gained an impression of the exemplary use of the services.

Result: Out of 45 responses, 17 were "Very Good," 21 were "Good," 6 were "Satisfactory," and 1 was "Poor." This means that 38 out of 45 responses **(84%) reflected a very good or good impression of the topics addressed**.

Additional Questions and Insights:

- **Can you identify an advantage for your research?** 5 participants answered "Yes" and 4 "No." Those who responded positively highlighted several potential benefits, including improved international networking, greater accessibility to academic publications and research data, and enhanced interlinking with other European researchers and institutions. Some also mentioned the value of accessing data material and connecting with other projects.
- **Were you able to contribute to the prioritisation of the service?** 4 participants answered "Yes" and 5 "No." Comments indicated that contributions were made through discussions on mock-ups and RelReSearch, with organisers noted as being open and appreciative of feedback. Specific contributions included evaluating interface colours and providing suggestions during the workshop.
- **Overall impression of the workshop:** Participant feedback indicates that the workshop was generally well received, achieving an **average overall rating of 8.1 out of 10 (81%)**.
- **Was the workshop useful for your research?** Responses were mixed: 5 agreed, 3 were neutral, and 1 disagreed. Comments suggested that while the workshop was not always directly relevant to current research, participants found it helpful for future planning, networking, and gaining insights into existing databases and the RESILIENCE project. Several expressed optimism about improved access to data in the future.

The workshop was well received, with **84% positive ratings of the first five goals and an overall score of 8.1/10**. Feedback shows strong appreciation for networking opportunities and future potential of RESILIENCE services, though immediate research benefits were mixed. Overall, the meeting was successful and aligned with its objectives.

5.4 Evaluation of the Workshop Paris

Participants were asked three questions at the beginning that aimed at evaluating their **understanding of the potential and offerings of RESILIENCE and its services**:

- **I have gained an impression of the possibilities of a research infrastructure:** 78% rated "Very Good," 11% "Good," and 11% "Satisfactory."
- **I have gained an impression of the possibilities of RESILIENCE:** Same results as above: 78% "Very Good," 11% "Good," and 11% "Satisfactory."
- **I have gained an impression of the possibilities of RESILIENCE's services:** 67% "Very Good," 11% "Good," 11% "Satisfactory," and 11% "Poor."
- **I can identify an advantage for my research: 100% answered "Yes."** Participants provided detailed comments emphasising the value of networking with scholars in their field and the potential for interdisciplinary collaboration. Several responses highlighted the importance of easier access to resources and tools, including centralised databases and integrated platforms. Others expressed interest in the future "marketplace" of services and tools, which they believe will save time and improve visibility for research. Additional benefits mentioned included training opportunities in digital humanities, improved interlinking with European researchers and institutions, and even use cases for computer science contributions. Overall, participants see RESILIENCE as a way to enhance research efficiency and foster collaboration across disciplines.
- **I was able to contribute to the discussion of the services and future developments of RESILIENCE: 89% answered "Yes."** Comments reflected appreciation for the open and constructive atmosphere of the workshop, where questions and suggestions were welcomed and noted by organisers. Participants valued being able to provide feedback on mock-ups and RelReSearch, with some mentioning specific contributions such as evaluating interface colours. Others noted that the discussions helped them better understand RESILIENCE and its possibilities, even if they were unfamiliar with the project beforehand.

- **Overall impression of the workshop:** The **average score was 9/10**, with most ratings between 9 and 10, indicating very high satisfaction. This reflects that participants found the workshop well organised, informative, and engaging.
- **The workshop was useful for my research: 33% "Strongly agree," 55% "Agree," and 11% "Neutral."** Comments revealed that while the workshop was not always directly relevant to participants' current research projects, it was considered highly useful for future planning and networking. Many appreciated learning about RESILIENCE's potential and gaining insights into existing databases and tools. Some participants noted that the workshop sparked new ideas for their work and provided opportunities to connect with European colleagues. Others acknowledged that certain resources were not immediately applicable but still found the discussions interesting and valuable for long-term research strategies.

Request for additional comments: Participants valued the interdisciplinary nature of the discussions, which they felt opened new perspectives and ideas. Networking opportunities during breaks were highlighted as excellent, and several respondents appreciated updates on new technologies (such as RAG) and resources (like Index Theologicus). The expertise of contributors was singled out as an important asset. The workshop was described as very well organised, with multiple moments for discussion and social interaction.

Summary: The workshop was well received, with most participants rating the key aspects positively and giving an average score of 9/10. Feedback suggests that the event successfully provided insights into RESILIENCE and its services, fostered networking and interdisciplinary exchange, and highlighted future potential, even if its immediate relevance for ongoing research was limited. Overall, the event met its objectives effectively and provided valuable insights for future development.

6 Conclusion and Next Steps

This document records the second batch of workshop proceedings and outlines the formats employed by RESILIENCE PPP to gather user needs and strategic guidelines for a research infrastructure dedicated to the study of religions. It details the preparatory and implementation steps of the workshops held in Sarajevo, Menaggio, Münster, Paris and Brussels, including their structure, methodology, and key findings. These results have been organised by category and mapped to corresponding infrastructure requirements.

Building on the results presented in this document, the forthcoming RESILIENCE deliverable D2.2 User Services Catalogue[15] will be reviewed during the final months of the PPP in comparison with the key findings and resulting infrastructure requirements. This process will assess whether the collected community services adequately address the identified needs and will outline remaining gaps.

The insights gained will inform the prioritisation of actions and highlight opportunities to strengthen our approach, ensuring that the services offered are both relevant and effective for the research community.

7 Appendix

Information is provided only under request.

[15] Forthcoming November 2025, will be available here.

8 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
R3	29/02/2024	Deliverable D3.1 Workshops Proceedings - 1st Batch
R4	31/10/2023	Deliverable D3.5 User Stories Catalogue – 1st batch
R5	27/11/2024	Deliverable D3.6 User Stories Catalogue – 2nd Batch
R6	02/2025	GENERAL PROJECT REVIEW CONSOLIDATED REPORT (HE), Period covered: from 1/6/2023 to 30/11/2024

Funded by the European Union

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