RESILIENCE

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1. Introduction

Deliverable 1.3 presents the Financial Sustainability Plan (FSP) for the RESILIENCE Implementation Phase proposed by WP1, Sustainability, to the General Assembly of RESILIENCE PPP. The work on the RESILIENCE FSP lays the groundwork for discussion with consortium partners and the future ERIC's member states on steps to be taken at all levels to ensure the RI's sustainability in the medium and long term.

Therefore, the RESILIENCE FSP intends to outline short- and long-term strategies supporting the sustainability of the RESILIENCE activities, its nodes and services. It focuses on securing the continuity of RESILIENCE's operations in the transition between the Preparatory Phase (PP) and the Implementation Phase (IP) and for the Implementation Phase as a whole.

This is of relevance as the transition from the PP to the IP will be characterized by the establishment of RESILIENCE as an ERIC.

2. The RESILIENCE FSP

The FSP is a tool to support RESILIENCE in achieving its goals in the short term and continue to thrive on the long term: it assesses the amount of funds to be raised, and includes means, strategies, and actions to obtain and maintain those funds.

RESILIENCE is one of the infrastructure projects approved by the European Strategic Forum on Research Infrastructures (ESFRI) and included in the ESFRI roadmap 2021. A first financial plan was submitted along with the ESFRI proposal, developed on data collected in 2019. Back then, the consortium members[1] were asked to measure the commitment of effort and in-kind resources and services to implement the infrastructure at the different stages of the infrastructure's lifecycle[2]. Following the financial plan, a first cost book was elaborated, in a pre-pandemic environment and mindset, which was completely turned upside down by the pandemic.

In the years 2020-2021 the scientific community of Religious Studies, such as almost all scientific communities, accelerated its digital turn, changing the scenario for a research infrastructure like RESILIENCE, which responds to the need to access resources and services which are both physical and digital. Such a turn imposes RESILIENCE to move faster than initially foreseen in all aspects related to the digital transformation of the community, such as the construction of datasets, digitally-supported-human and software elaboration of data, Artificial Intelligence usage in Religious Studies' methodologies and research questions. Therefore, for the elaboration of an FSP willing to ensure sustainability in the long run, the RESILIENCE consortium realized that there is a need for a new data collection and different processing of the resulting information.

This FSP not only rebuilds the foundation of the original model but also aims to define the operational plan for the later stages of the preparation (2025-2026) and implementation (2026-2033) phases of the RESILIENCE research infrastructure.

1.1 Previous estimations

The business plan formulated at the time of the RESILIENCE proposal submission for the ESFRI Roadmap 2021, which included a cost book, presents 49 e-services and 11 physical services, which are the sum of services that were already offered by the different RESILIENCE facilities and other services that were planned to be developed. The cost estimations related to the development,

[1] Fondazione per Le Scienze Religiose Giovanni XXIII (Italy), Westfaelische Wilhelms Universitaet Muenster (Germany), Ecole Pratique Des Hautes Etudes (France), Katholieke Universiteit Leuven (Belgium), Leibniz-Institut Fur Europaische Geschichte (Germany), Uniwersytet Warszawski (Poland), Institut Fur Angewandte Informatik (Germany), Theologische Universiteit Apeldoorn (Netherlands), Sofia University St Kliment Ohridski (Bulgaria), Volos Academy For Theologicalstudies (Greece), Univerzitet U Sarajevu (Bosnia&Herzegovina), Ufo Au (Albania).
[2] Here understood as: Design Phase, Preparatory Phase, Implementation Phase, Operation Phase, Dismission Phase.

provision and maintenance of such services (mostly allocated to the physical pillar) would have been covered by more than 80% of in-kind contributions.

RESILIENCE supports scientific excellence based on two main pillars. The physical pillar covers all the research sources and data which have not yet been digitised and are available only by physically accessing the facilities; the digital pillar is the corresponding e-infrastructure that aims to collect all the digitally available, born-digital and digitally transformed data into one single and distributed ecosystem and make them available to the research community. This synthesis of physical and digital resources is one of the key factors that allows RESILIENCE to meet ESFRI's criterion of excellence for Religious Studies.

Accordingly, services were assigned to the following clusters:

- Research-Enhancing services, such as OCR/HTR, 3D Scanning& Modelling, Unified Discovery Environment, Virtual Manuscript Room, Critical Text Reconstruction, Training, TNA, etc.
- Research-Enabling services, such as Multilingual Data Management, Source Indexing & Retrieval, Expertise
- Research Data Management
- Service Center
- Data Center
- Reference Architecture

The resulting cost book aimed at estimating the costs and the investments made by the RESILIENCE consortium partner at the benefit of the whole community of scholars studying religion. Each partner identified the services on which it was already sustaining cost, or planned to invest, or wished to contribute to their development, in terms of FTEs and other resources. The already sustained costs were calculated as in-kind costs, while the remaining was calculated as the sums that RESILIENCE would have asked the governments willing to financially and politically sustain it through an ERIC. Reasons for the partners to plan to invest or contribute in different ways to the development of additional services were based on a preliminary study of the community of users – centered on the RESILIENCE consortium partners research personnel, and the awareness of the research trajectories taken by the community as a whole, consolidated through the participation of the many RESILIENCE team members to national, European and international societies.

The distribution of the budget for services along the RI life-cycle had been distributed, as compared to the total budget of services, as follows:

- Research-Enhancing services: 92.81%
- Research-Enabling services: 3.45%

- Research Data Management: 1.14%
- Service Center: 1.13%
- Data Center: 1.05%
- Reference Architecture: 0.42%

The overall expenses projected for RESILIENCE amounted to €318,360,388, allocated over a 34-year period. The envisaged in-kind contribution stood at 80.1%, equivalent to €254,861,317, which is a very significant in-kind contribution which, on the one side, is necessary to sustain, develop, and ensure the advancement of RESILIENCE, but on the other side exposes the RI to a risk which should be managed.

Today's ex-post analysis of that cost book is conducted with 5 years of experience, more knowledge about the functioning of RIs, a wider appreciation of the RI's landscape in Europe, a better understanding of the service life-cycle, a more in-depth knowledge of the users' needs and many more opportunities to offer remote access to services.

That analysis brings us to say that the 2019 cost-book is a reliable source in terms of service cataloguing and general cost estimation, and in terms of self-assessment of the scale of funds by which the community of scholars studying religion in Europe is supported, service-wise.

The same analysis also suggests that a more careful calculation should be conducted in terms of available funding for the running of the whole RI – and the related services, in terms of service strategy and development, and on the different chances that RESILIENCE should consider when planning the development of its ERIC.

Among others, the accurate assessment of the in-kind contribution remains a debated subject and continues to be a matter of discussion among experts, lacking a definitive method for precise evaluation, which may lead to ambiguity. The previous cost book was built mainly on the in-kind contribution, leading to a possible distortion of data, providing yet another reason to consider it outdated.

Moreover, RESILIENCE remains an infrastructure addressing the needs of a community which relies extensively on physical access, but the possibilities offered by the development of AI and other technologies after the COVID19 pandemic represent an opportunity that should not be missed in terms of remote access.

These are the main reasons which brought the RESILIENCE PPP Working Unit on sustainability to re-organise the plan.

1.2 Guiding principles of the Financial Sustainability Plan

The first step towards the RESILIENCE FSP is the definition of the principles guiding it, which are the following:

1. Governance. Adhering to the ERIC statutes and regulations, financial regulations and ethical guidelines is fundamental to build trust and credibility.
2. Diversification. While the RESILIENCE ERIC will be funded by the member states contributing to it, the resources ensuring the sustainability of the RI will also be in-kind and distributed. Moreover, micro- projects may be supported with additional funding coming from public and competitive calls.
3. Cost optimization. Even if the ERIC funding is usually stable, the in-kind contributions to the functioning of the ERIC may not. The FSP should envision how to reduce costs without compromising the quality of the services offered.
4. Risk mitigation. By identifying potential risks and crafting plans to address them (e.g. through reserves or insurances) RESILIENCE should safeguard against unexpected financial hits.
5. Monitoring. Regular monitoring and transparent reporting are key for maintaining financial transparency and accountability.

1.3 Current Financial Status Assessment

The RESILIENCE consortium's composition and funding has evolved over time.

The inception of the RESILIENCE project stems from a starting community and a shared vision fostered in 2018 through the ReIReS project (GA n.730895., 2018-2021), engaging 11 partners collectively dedicating 280 person-months and receiving a total funding of €3,083,936.25.

Further funding from the European Commission has been allocated via the RESILIENCE 2YSEP project (GA n. 871127, 2019-2021, involving 12 partners collectively dedicating 274.34 person-months and receiving a total funding of €2,179,161.25.

The two projects together, ReIReS and RESILIENCE 2YSEP constitute the Design phase of the RI. In between the two, ESFRI declared Religious Studies a High Strategic Potential Area (Roadmap 2018).

The current RESILIENCE PPP - Preparatory Phase Project (GA n. 101079792., 2022-2026), comprising 13 partners contributing a total of 459 person-months and receiving a total budget of 3,981,620.73 euros is funding part of the preparation phase of the RI.

To gain insights on the budget structuring of the Design and Preparation Phases of RESILIENCE as a whole, information on each project was gathered with the aim of understanding

- how many person months have been spent on coherent set of activities (gathered into WPs) that constitute the set-up of the RI;
- the amount of funding the RI received to cover the related costs;
- the average monthly costs spent on each set of activities;
- how personnel costs and person months have been distributed in the reference period.

Figure 1 collects the person months and costs of personnel sustained by each project since 2018. Figure 2 offers only the percentages of the distribution of the effort in the different projects.

	ReIReS (36 months)					
Activity	**WP**	**PC**	**PM**	**PC/year**	**PM/year**	**% PM**
Management	WP1	362.855,60	56	120.951,87	18,66666667	22%
Services	WP3+WP4+WP5+WP6	861.782,05	133	287.260,68	44,33333333	52%
Sustainability	WP2+WP9	304.539,52	47	101.513,17	15,66666667	18%
Users	0	-	0	-	0	0%
CDE	WP8	136.070,85	21	45.356,95	7	8%
Impact	0	-	0	-	0	0%
	Subtotal	1.665.248,02	257	555.082,67	85,66666667	100%
Scient.case	WP7		23	-	7,666666667	
	TOTAL	1.814.278,00 €	280			

	RESILIENCE Infradev (24 months)					
	WP	**PC**	**PM**	**PC/year**	**PM/year**	**% PM**
Activity	WP1	439.777,80	82,91	219.888,90	41,455	30%
Management	WP3+WP4	256.196,69	48,3	128.098,35	24,15	18%
Services	WP7-WP8	232.645,69	43,86	116.322,85	21,93	16%
Sustainability	WP2	161.303,14	30,41	80.651,57	15,205	11%
Users	WP5	239.223,00	45,1	119.611,50	22,55	16%
CDE	WP6	126.029,68	23,76	63.014,84	11,88	9%
Impact		1.455.176,00	274,34	727.588,00	137,17	100%
	TOTAL	1.455.176,00 €				

	RESILIENCE PPP (48 months)					
	WP	**PC**	**PM**	**PC/year**	**PM/year**	**% PM**
Activity	WP6	315.999,83 €	55,5	78.999,96 €	13,88	12%
Management	WP2	1.140.446,23 €	200,3	285.111,56 €	50,08	44%
Services	WP1	438.414,18 €	77	109.603,54 €	19,25	17%
Sustainability	WP3	395.142,13 €	69,4	98.785,53 €	17,35	15%
Users	WP4	232.871,95 €	40,9	58.217,99 €	10,23	9%
CDE	WP5	90.529,68 €	15,9	22.632,42 €	3,98	3%
Impact		2.613.404,00 €	459	653.351,00 €	114,75	100%
	TOTAL	2.613.404,00 €				

Figure 1 - Person months and costs of personnel since 2018

Legend:

PM	Person.months
PC	Personnel costs
CDE	Communication/Dissemination/Exploitation
p/m	Average monthly costs, for the duration of the three projects (108 months)
m/WP	Total number of months for each WP, for the duration of the 3 projects

	ReIReS	RESILIENCE I.	RESILIENCE PPP
Activity	**% PM**	**% PM**	**% PM**
Management	22%	30%	12%
Services	52%	18%	44%
Sustainability	18%	16%	17%
Users	0%	11%	15%
CDE	8%	16%	9%
Impact	0%	9%	3%
	100%	100%	100%

Figure 2 - Percentage of person months spent in each RESILIENCE-related project

The set of activities are identified according to the following descriptions:

a) Management: operational and strategic management of the RI; financial planning and monitoring;
b) Services: planning, preparation, construction, delivery and maintenance of services; training; technical sustainability;
c) Sustainability: consortium establishment; funding sustainability;
d) Users: research on users (mapping, surveying, interviewing); analysis on user requirements
e) CDE: Communication/Dissemination/Exploitation activities
f) Impact: measuring and evaluating the impact of the RI

In particular, Table 2 highlights how the RI spent its effort in the different phases, according to the objectives of each. It is important to keep in mind that expenditures were only mainly directed towards setting up the different elements and not necessarily to make them operational.

1.4 Financial Support

Besides the funding received by the European Commission, two of the RESILIENCE partners receive financial support from national authorities for their contribution to the RI, FSCIRE and UNISOFIA.

It is interesting to present the two cases because they offer insights on the cost of the RI headquarters and an example of a single-service development in one of the RI participating countries.

FSCIRE is entitled to receive a quota of the Ordinary Fund (FOE) distributed by the Italian Ministry of Research to Recognised Research Entities. CNR, the National Research Center, receives the funding from the Ministry, and re-distributes it according to a ratio that varies every year.

FSCIRE is recognized as a national research infrastructure since 2014, and in the period 2014-2022 received FOE funding for an amount of €400.000. In 2023 and 2024, the funds allocated amount to € 200.000 for each year. The funding is renewed every year.

The budget is usually allocated as follows:

Personnel costs 33%

- 40% dependent personnel (45% access provision, 40% communication/dissemination activities, 15% administration)
- 60% other personnel (65% research; 35% management of the RI)
- Functioning, maintenance 15-20%
- Equipment 25-35%
- Library and archives (acquisition of sources and data, access management) 10-15%
- Communication and dissemination activities 8-12%
- Travel 5%

UNISOFIA manages the 'Electronic Research Infrastructure for Bulgarian Medieval Written Heritage' which is funded by the Ministry of the Education and Science through the funding instrument of the National Roadmap for the Research Infrastructures. The national funding has been issued twice, in 2021 (€25.000) and 2023 (€100.000). UNISOFIA will receive the funding until 2027.

The budget is usually allocated as follows:

- Personnel costs 50 %
- Equipment 15 %
- Travel 15 %
- Other (services, administration, TNA scholarships, etc.) 20 %

3. Framing the cost book

3.1 Methodology

Building a new cost book for RESILIENCE is a strategic process aimed at accurately assessing the financial dimension of its activities. This plan involves several crucial steps to ensure precision and thoroughness in evaluating the financial aspects. The ultimate goal is to develop a robust methodology that not only comprehensively evaluates RESILIENCE financial health but also charts a clear course toward enduring financial sustainability for the RI.

Here's a breakdown of the plan followed:

- Review of Existing Documentation: a comprehensive review of existing financial reports, budgets, operational plans, and other pertinent documents is underway. This step aims to identify trends from past records.
- Identification of services and other main cost items: the list of services presented in 2019 is currently being re-organised and prioritized, according to a defined service strategy.
- Data collection: to gauge the financial sustainability of the RI, funding sources, operational costs, and projected expenses have been collected via direct interviews.
- Stakeholders engagement: various stakeholders are actively involved, including management, financial officers, scientific personnel, and relevant administrative staff. Their involvement is pivotal in predicting future needs accurately.
- Benchmarking and Analysis: RESILIENCE financial data is compared with other research infrastructures, to assess performance, identify gaps, and understand best practices.
- Forecasting and Scenario Planning: different scenarios have been created, considering potential changes in funding sources, economic conditions, or operational requisites.
- Review and Data Validation: data and the related analysis is shared and discussed with stakeholders to identify trends, patterns, strengths, weaknesses, opportunities, and threats.
- Delivery: the report is finalized and delivered to the RESILIENCE Board of Directors and General Assembly.

The methodology plan is constructed in a flexible way, to accommodate requests coming from the RESILIENCE governance, unforeseen challenges and changes in the research infrastructure's financial landscape. Regular updates and reviews will be necessary to ensure the sustainability plan remains relevant and effective.

3.2 Identifying the main cost items

Moving forward from the structure of the set of activities highlighted in the analysis of the project spanning the years 2018-2026, the main cost items of the RESILIENCE infrastructure will be:

a) Management: operational and strategic management of the RI; financial planning, monitoring, and sustainability. Considering that the RI aims at the establishment of an ERIC (R1), the headquarters, which will be based in Italy, will be in charge of this set of activities.
b) Services: planning, preparation, construction, delivery and maintenance of services; training; technical sustainability. There will be a need for Technical Equipment and Software & IT for running the central services, while costs for running services provided by the national nodes will be in-kind.
RESILIENCE PPP WP1 team partners with WP2 – Services and the Board of Directors to identify the services that RESILIENCE is planning to onboard (existing services or in-kinds) and/or develop, who will be in charge of their development, in which facility of the RI and with what resources.
Moreover, analysis on user requirements will be conducted along the service cycle (planning, preparation, construction, delivery, maintenance) as a part of the in-kind provisions of the national nodes taking care of different services.
Finally, it is necessary to plan what services will be under the direct management of the RESILIENCE ERIC and what will be handled under the responsibility of national nodes. At the moment, RESILIENCE only counts on 3 services:

- ReIReSearch, which need 2 servers (6CPU + 200GB ram + 1TB storage (primary + mirror))

- TNA services, for which WP2 is testing the management cycle and is coordinating with the team managing the TNA service for the ITSERR project in Italy[3] to possibly develop a platform for TNA management, which is still in an exploratory phase.

- Training services, for which WP2 is going to test some prototypes between September 2024 and March 2025, and will likely only need, as equipment, an online conference system.

Additional services are and will be presented in the User Services Catalogue. Their cost is indicated in the cost book.

[3] ITSERR is the Italian research project aimed at enhancing the ESFRI RESILIENCE Research Infrastructure. It is funded with NextGenerationEU funds delivered by the Italian Ministry of Research. Cfr. ITSERR website.

c) CDE: Communication/Dissemination/Exploitation activities require a central coordination for which the ERIC will be in charge, while leaving to the in-kind contributions of the members specific national and local initiatives. Moreover, it is under this umbrella that initiatives regarding technology transfer should be identified. This is a new matter to RESILIENCE, which is being explored via the ITSERR project in Italy.
d) Impact: measuring and evaluating the impact of the RI is a great challenge, which RESILIENCE is addressing with an in-depth study and a provision of a matrix that is under a testing phase. The ERIC should consider the need for a centralized coordination and data collection, while asking to the members to contribute with national and local data collection.

3.3 Cost Book

While the ideal scenario would involve having detailed information from all project partners, it is acknowledged that the costs are usually subject to a number of variables and therefore, we opt for an estimation based on country-specific average wages and costs as per the year 2024, coupled with an assessment of the partners' current roles and contributions within the RESILIENCE project.

It is acknowledged that this estimation methodology entails a certain degree of speculation and uncertainty, but it supports the further operationalization of the RI (ERIC construction, service development, budget allocation, etc.).

To present a structure of the expenses given by the set of activities enlisted above, the ESFRI RI Questionnaire, whose template was distributed in 2023, particularly fits the purposes (Annex 1) and allows for a specific customization without affecting its effectiveness.

Figure 3 makes use of it, adapting it to RESILIENCE and providing estimated costs for the HQ of the RI, which will host the ERIC. The costs related to the basic functioning of the facility (utilities, maintenance of the building, etc.) hosting the HQ are not included.

Figure 4 provides, on the same structure, a basic list of cost items for the National Nodes of the RI. The costs related to the basic functioning of the facilities led by the National Node (utilities, maintenance of the buildings, etc.) are not included.

The lump sum cost estimation is designed as an initial planning aid and does not delve into specific expense breakdowns. It is based on rough assessments and may require further details or analysis for a more precise projection of expenses. Its purpose is to provide a broad understanding of potential costs associated with the various activities.

i. Figure 3. Expenses of the Headquarters of the RI (and of the ERIC)

The table of the HQ costs is divided into Personnel costs and Other operational costs, for the current year, the last two years of PP and the IP.

Expenses HQ/ERIC	Realised	Planned PP		Planned IP						
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Personnel costs	**266,500**	**266,500**	**266,500**	**412,500**	**426,938**	**441,880**	**577,346**	**597,553**	**618,468**	**640,114**
				277,500	287,213	297,265				
M - Director	88,000	88,000	88,000	120,000	124,200	128,547	133,046	137,703	142,522	147,511
M - CTO				120,000	124,200	128,547	133,046	137,703	142,522	147,511
M - Secretary	6,600	6,600	6,600	17,500	18,113	18,746	19,403	20,082	20,785	21,512
M - Legal and administration office	9,900	9,900	9,900	20,000	20,700	21,425	22,174	22,950	23,754	24,585
M - Project manager	82,000	82,000	82,000	30,000	31,050	32,137	33,262	34,426	35,631	36,878
S - Software architect/developer							120,000	124,200	128,547	133,046
CDE - Communication/community engagement officer	80,000	80,000	80,000	70,000	72,450	74,986	77,610	80,327	83,138	86,048
CDE - Open Science and Technology transfer officer				35,000	36,225	37,493	38,805	40,163	41,569	43,024
Other operational costs	**12,000**	**12,000**	**12,000**	**156,000**	**163,500**	**171,000**	**180,500**	**188,000**	**195,500**	**203,000**
				31,000	33,500	36,000				
CDE - Annual Conference				30,000	35,000	40,000	45,000	50,000	55,000	60,000
O - Equipment				5,000	7,000	9,000	11,000	13,000	15,000	17,000
O - Travel	12,000	12,000	12,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
O - Consumables				3,000	3,500	4,000	4,500	5,000	5,500	6,000
O - Insurance and legal expenditures				3,000	3,000	3,000	5,000	5,000	5,000	5,000
S - TNA mobility grants teams				75,000	75,000	75,000	75,000	75,000	75,000	75,000
S - TNA mobility grants individuals				20,000	20,000	20,000	20,000	20,000	20,000	20,000
TOTAL expenses max	**278,500**	**278,500**	**278,500**	**568,500**	**590,438**	**612,880**	**757,846**	**785,553**	**813,968**	**843,114**

Figure 3 - Cost book HQ/ERIC

The costs realized in 2024 are a lump sum projection of the staff effort assigned to that RESILIENCE PPP activity until the end of the year, and the costs planned for 2025 and 2026 are a lump sum estimation of the staff effort assigned to that same activity until the end of RESILIENCE PPP.

For what concerns **Personnel costs in the IP**, they are calculated according to the following estimation of FTEs:

- Director: 1 FTE
- CTO: 1 FTE (permanent staff)
- Secretary: 0,5 FTE (permanent staff)
- Legal and administration officer: 0,5 FTE (permanent staff)
- Project manager:0,5 FTE, to support the preparation and implementation of additional funding projects
- Software architect/developer: 1 FTE starting from the 4th year of ERIC activity
- Communication and community engagement officer: 1 FTE
- Open Science and Technology transfer officer: 0,5 FTE, dedicated to train the national nodes on Open science practices and Research Data Management support on the national level.

During the IP, salaries are adjusted according to the OSCE estimations for Italy in 2024.

Please, note that in the PP, RESILIENCE counts on 3 directors, which however amount to 1 FTE.

Other operational costs include:

- the organization of the RESILIENCE Annual Conference (with a forecast of higher costs/more cost items every year),
- the (basic) equipment needed to run the HQ (laptops, printers, mobile phones, etc.)
- travel costs for the HQ personnel (€20000/year, according to the needs incurred during the RESILIENCE PPP, in which €20000 for 4 years have been assigned to each partner and proved not to be enough for the whole team)
- Consumables (printings, other graphic materials, stationery, etc.)
- 5 TNA mobility grants for teams (5k for each team member, for teams of 3 members, for a duration of about 1 month – as it has been estimated by the ITSERR project, which is testing this specific type of TNA[4]) and
- TNA mobility grants for individuals (2k each, for a visit of about 10 days according to the estimations of WP2).

The specific form of support for TNA in the budget of the HQ aims at highlighting the commitment of the RI in supporting physical access to the services, which remains one of the most relevant needs expressed by the community and, in several cases, the only way to conduct research [R2].

There is a number of cost items indicated in red, which are attributed to the Headquarters of the ERIC in its maximum performance, but in the first three years of the ERIC activity could be shifted to the in-kind contributions of the National nodes.
In the optimal forecast, the following items can be allocated as in-kind contributions, though perhaps not in a full(-time) capacity:

- Personnel costs: Project manager; Communication/community engagement officer; Open Science and Technology transfer officer
- Other operational costs: Annual Conference; TNA mobility grants teams; TNA mobility grants individuals.

[4] Cfr. ITSERR TNA webpage

ii. Figure 4. Expenses of the national nodes

The table of the National Nodes costs is divided into Personnel costs and Other operational costs, for the current year, the last two years of PP and the IP.

Expenses National Nodes (13 countries)	Realised	Planned PP		Planned IP						
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Personnel costs	**228,500**	**228,500**	**228,500**	**1.199,000**	**1.258,950**	**1.472,231**	**1.586,434**	**1.682,382**	**1.755,842**	**1.832,602**
M - National Node coordinator				378,000	396,900	410,792	425,169	440,050	455,452	471,393
M - National Node legal and administration officer				168,000	176,400	182,574	188,964	195,578	202,423	209,508
S - TNA National host officer	35,000	35,000	35,000	56,000	58,800	61,740	64,827	68,068	71,472	75,045
I - Impact officer	16,000	16,000	16,000	35,000	36,750	38,588	40,517	42,543	44,670	46,903
M - Project officer						70,000	72,450	74,986	77,610	80,327
S - Access programme coordinator	45,000	45,000	45,000	30,000	31,500	33,075	34,729	36,465	38,288	40,203
S - Helpdesk	0,000	0,000	0,000	30,000	31,500	33,075	34,729	36,465	38,288	40,203
S - Training and education officer	65,000	65,000	65,000	21,000	22,050	30,000	31,500	60,000	63,000	66,150
S - RelResearch support staff	17,500	17,500	17,500	21,000	22,050	23,153	24,310	25,526	26,802	28,142
S - OCR/HTR lab staff				70,000	73,500	77,175	81,034	85,085	89,340	93,807
S - HistDict staff	50,000	50,000	50,000	50,000	52,500	55,125	57,881	60,775	63,814	67,005
S - Expert finding service				21,000	22,050	11,000	11,550	12,128	12,734	13,371
S - Supercomputing Support staff				21,000	22,050	23,153	24,310	25,526	26,802	28,142
S - RDM support staff				63,000	66,150	69,458	72,930	76,577	80,406	84,426
S - Digitisation experts				70,000	73,500	77,175	81,034	85,085	89,340	93,807
S - Infrastructural administrator				60,000	63,000	66,150	120,000	126,000	132,300	138,915
S - Software maintenance				105,000	110,250	210,000	220,500	231,525	243,101	255,256
Other operational costs	**226,100**	**216,100**	**216,100**	**641,700**	**921,700**	**921,700**	**921,700**	**921,700**	**921,700**	**921,700**
CDE - Events	39,000	39,000	39,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
S - TNA grants				28,000	28,000	28,000	28,000	28,000	28,000	28,000
O - Travel	70,000	60,000	60,000	280,000	280,000	280,000	280,000	280,000	280,000	280,000
S - RelResearch hw	22,100	22,100	22,100	25,000	25,000	25,000	25,000	25,000	25,000	25,000
S - Supercomputing credits	20,000	20,000	20,000	26,700	26,700	26,700	26,700	26,700	26,700	26,700
S - Expert DB (1st year, investment cost)				23,000	3,000	3,000	3,000	3,000	3,000	3,000
S - RESILIENCE Infastructural platform (virtual research environment)					300,000	300,000	300,000	300,000	300,000	300,000
S - HistDict	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
O - Other equipment	60,000	60,000	60,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
O - Consumables				39,000	39,000	39,000	39,000	39,000	39,000	39,000

Figure 4 - Cost book National Nodes

Assumption is that the costs exposed here are covered with national funds via the facilities constituting the National Nodes of the RI, and that the Implementation Phase will see the participation to RESILIENCE of 14 different National Nodes, not necessarily all represented in the RESILIENCE ERIC General Assembly. Estimation of costs is done considering average salaries.

The costs realized in 2024 are a lump sum projection of the staff effort assigned to that RESILIENCE PPP activity until the end of the year, and the costs planned for 2025 and 2026 are a lump sum estimation of the staff effort assigned to that same activity until the end of RESILIENCE PPP. It should be noted that staff costs sensibly vary according to national context and that data collection on Israel has not been possible due to the current war.

For what concerns **Personnel costs in the IP**, they are calculated according to the following estimation of FTEs:

- National Node coordinators, National Node legal and administration officers, and TNA National host officers will be placed one in each National Node and they are the minimum structure requested to establish a RESILIENCE National Node.
  i) National node coordinator: 0,3 FTE/member
  ii) Legal and administration officer :0,3 FTE/member
  iii) TNA host officer: 0,1 FTE/member
- Impact officer: 0,5 FTE
- Project officer: 1 FTE, starting from 2029 to strengthen the capacity of the RI to manage new projects
- Access programme coordinator: 0,5 FTE
- Helpdesk: 0,5 FTE
- Training and education officer: 0,3 FTE in 2027-2028, 0,5 FTE in 2029-2030, 1 FTE in 2031-2033, reflecting the foreseen increase in the number of services offered and in training requests from the Religious Studies community and adjacent communities
- ReIResearch support staff: 0,3 FTE dedicated to hosting and maintenance support for keeping the service running (security updates, patches, ...)
- OCR/HTR lab staff: experts who extensively worked with technologies enabling OCR and HTR, for a total amount of 1 FTE/year
- HistDict staff: experts involved in the construction, maintenance and development of the HistDict Service at the University of Sofia, for a total amount of 1 FTE/year
- Expert finding service: effort requested to finalise the search tool of the RESILIENCE experts, 0,3FTE
- Supercomputing Support staff: staff involved in the development of the IT services at CINECA
- RDM support staff: 3 resources, 0,3FTEs each, located in 3 different RESILIENCE National Nodes
- Digitisation experts: staff from National Nodes who extensively work in digitization of sources for Religious Studies, 5 resources, 0,2FTEs each, located in 5 different RESILIENCE National Nodes
- Infrastructural administrator: 0,5FTE in 2026-2027, 1FTE in 2028-2031, for maintenance of tools e.g. e-scriptorium, kraken, etc.
- Software maintenance: 3 resources for 0,5FTE in 2026-2027, 1FTE in 2028-2031, for maintenance of ITSERR/RESILIENCE-born tools.

During the IP, salaries are adjusted according to the OSCE estimations for Europe in 2024.

Please, note that the Access programme coordinator in the PP deals only with TNA.

Other operational costs for the IP

- Events, TNA grants, Travel, Other costs and Consumables will be a fixed cost item for each National Node:
  i) Events: a rough calculation of 2 events costing about €5000 for each of the 14 National Nodes
  ii) TNA grants: additional TNA grants offered by National Nodes and not included in the costs exposed by the HQ of the ERIC. According to the estimations of WP2, each individual scholarship allowing a visit of 10 days should be of at least € 2000
  iii) Travel costs for the National Node personnel
  iv) Other equipment: basic equipment needed to run the National Node (laptops, printers, mobile phones, etc.)
  v) Consumables (printings, other graphic materials, stationery, etc.)
- ReIResearch hw: hosting and maintenance hardware (virtual servers + mirrored storage)
- Supercomputing credits: as compared to the instances that are available in 2024
- Expert DB: investment costs and maintenance
- RESILIENCE Infrastructural platform: RESILIENCE virtual research environment
- HistDict hw: hosting and maintenance hardware

The costs of remote access and physical access to services are included, when possible, in each service operational cost. Such calculation is not always possible as it proves to be difficult to estimate e.g. the cost of the usage of a library, or archive, or the time that an expert dedicates to a colleague to offer him/her advice, the usage of digitisation equipment, to online indexes and databases.

Moreover, the cost items of Table 4 do not include the operational costs of specialised libraries that mainly serve the RESILIENCE community and those of general libraries offering specialized collections. Such an effort was made in previous calculations highlighting a figure of about 4.2 million of euros spent every year in the 14 facilities constituting the RI.

Please, note that the RESILIENCE TNA Programme does not offer scholarships to date, but partners ease many of the expenditures incurred by TNA Fellows. The calculation of these expenditures is not standardized yet at the infrastructural level.

4. Budgeting and Sustaining RESILIENCE Research Infrastructure

The figures presented earlier serve as approximate estimates, in a stable framework where the ERIC establishment is confirmed at the end of 2026-early 2027, and each country now represented in the RESILIENCE PPP consortium expresses a National Node starting from 2027.

RESILIENCE's overall expenses can be covered through contributions from Members, including cash, in-kind contributions, and other revenue streams. An overall budgeting of the Research Infrastructure will be only possible when the real costs of the items will be known, and therefore the distribution of services and other expenditures will be assigned to each National Node.

Nonetheless, it is now possible for RESILIENCE to identify the costs that will be incurred by the HQ of the ERIC and therefore propose a membership contribution model which guarantees its sustainability and can be discussed by the Member States participating in the RI Interim council and future ERIC Assembly [R1].

Membership fees are applied to Member Countries and may be applied to Observers as well. According to the RESILIENCE governance, Observer status is a pathway to full Membership.

The RESILIENCE PPP consortium sees the participation of the following countries:

1. Albania
2. Belgium
3. Bosnia&Herzegovina
4. Bulgaria
5. France
6. Germany
7. Greece
8. Israel
9. Italy
10. Poland
11. The Netherlands

In the past two years, facilities belonging to

12. Slovenia (where RESILIENCE is part of the National Roadmap for Research Infrastructures)
13. Georgia and
14. Cyprus

expressed their interest in joining RESILIENCE.

All Members contribute financially to the HQ/ERIC budget through a sum calculated using a membership formula. Many are the possible formulas to be chosen by ERICs to establish the Member contribution.

After some further considerations, and also considering the experiences of other consortia in the SSH domain (CLARIN, CESSDA, DARIAH EU), RESILIENCE proposes a model which includes a flat rate contribution and a GDP-based contribution, and a GDP-per-capita-based contribution.

Concerning the flat rate contribution, Members are classified into two groups based on their population size:

- €10,000 for Members with a population below 5 million (group 1)
- €15,000 for Members with a population between 5,01 and 10 million (group 2)
- €20,000 for Members with a population above 10 million (group 3)

The collective amount of the variable fee is calculated by deducting the overall sum of flat rate contributions from the total amount of contributions needed by Members.

The aggregated variable fees are based on the country's gross domestic product (GDP) as a percentage of the RESILIENCE Member States GDP[5]. This rounded percentage indicates the number of fee units that a country will pay as annual contribution.

On the basis of the costs calculated in the figures above, the following would be the distribution of the fees among the 14 RESILIENCE member states. This is the calculation methodology that will be proposed to the RESILIENCE PPP General Assembly and, if approved, discussed with the RESILIENCE PPP Interim Council, composed by representatives of the RESILIENCE PPP MS/AC.

							2027 max	2027 opt
MS/AC	Population (in millions)	Population group	Flat contribution (in K euros)	GDP (in millions)	Ratio	Unit n	Unit euros	Unit euros
Albania	2,83	1	10	22977,68	0,17%	1,00	3,827	0,494
Belgium	11,68	3	20	632216,58	4,74%	5,00	19,135	2,468
Bosnia&Herzegovina	3,21	1	10	27054,89	0,20%	1,00	3,827	0,494
Bulgaria	6,68	2	15	101584,38	0,76%	1,00	3,827	0,494
Cyprus	1,26	1	10	32229,62	0,24%	1,00	3,827	0,494
France	64,75	3	20	3030904,09	22,73%	15,00	57,404	7,404
Georgia	3,72	1	10	30535,53	0,23%	1,00	3,827	0,494
Germany	83,29	3	20	4456081,02	33,42%	15,00	57,404	7,404
Greece	10,34	3	20	238206,31	1,79%	2,00	7,654	0,987
Israel	9,17	2	15	509901,5	3,82%	4,00	15,308	1,974
Italy (flat + 50)	58,87	3	70	2254851,21	16,91%	15,00	57,404	7,404
Netherlands	17,61	3	20	1118124,75	8,39%	9,00	34,442	4,442
Poland	41,02	3	20	811229,1	6,08%	7,00	26,788	3,455
Slovenia	2,11	1	10	68216,78	0,51%	1,00	3,827	0,494
TOTAL			270	13334113,44		78,00	298,500	38,500
TOTAL fees							568,500	308,500

Figure 5 - Fees of the 14 RESILIENCE MS/AC

[5] Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD

5. Annex 1. ESFRI RI Funding Questionnaire

ACRONYM of the RI	Full name of the RI												
All the amounts are in M€													
HQ Income	realised		planned for the current year	planned for the 4 coming years				planned for the next 6 coming years					
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Membership fees													
cash													
in-kind													
Host country contribution													
cash													
in-kind													
National/regional project funding													
European project funding													
Permanent / recurrent national and/or regional funding													
cash													
in-kind													
Other funding													
TOTAL RESOURCES	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
HQ Expenses													
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Personnel costs													
Other operational costs (excl personnel)													
access costs													
Capital investments													
TOTAL expenses	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Balance	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Reserve													

National Nodes Income (Total)	realised		planned for the current year	planned for the 4 coming years				planned for the next 6 coming years					
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
National / regional project funding													
European porject funding													
Permanent / recurrent national and/or regional funding													
cash													
in-kind													
European structural/cohesion Fund													
Recovery and Resilience Facility													
Other funding													
TOTAL RESOURCES	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Expenses													
Personnel costs													
Other operational costs (excl personnel)													
access costs													
Capital investments													
TOTAL expenses	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Balance	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Reserve													

6. Reference Documents

Reference documents are intended to provide background and supplementary information.

ID	Date	Title/Reference
R1	21/10/2021	D8.1 RESILIENCE Governance, HR Policy and management and Access Policy (RESILIENCE 2YSEP GA n. 871127)
R2	03/04/2024; 01/03/2024	D3.3 Documented Use Cases - 1st batch; D3.1 Workshops proceedings - 1st batch

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