

Letter of Intent – NFDI4Memory

1 Binding letter of intent as advance notification or non-binding letter of intent

<input checked="" type="checkbox"/>	Binding letter of intent (required as advance notification for proposals in 2020)
<input type="checkbox"/>	Non-binding letter of intent (anticipated submission in 2021)

2 Formal details

Planned name of the consortium

NFDI4Memory – The Consortium for the Historically Oriented Humanities

Acronym of the planned consortium

NFDI4Memory

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3 Objectives, work programme and research environment

Research area of the proposed consortium (according to the DFG classification system):

Review Board	Subject areas
101 Alte Kulturen	101-03 Alte Geschichte
102 Geschichtswissenschaft	102-01 Mittelalterliche Geschichte 102-02 Frühneuzeitliche Geschichte 102-03 Neuere und Neueste Geschichte 102-04 Wissenschaftsgeschichte
106 Sozial- und Kulturanthropologie, Außereuropäische Kulturen, Judaistik und Religionswissenschaft	106-02 Asienbezogene Wissenschaften 106-03 Afrika-, Amerika- und Ozeanienbezogene Wissenschaften 106-04 Islamwissenschaften, Arabistik, Semitistik 106-05 Religionswissenschaft und Judaistik
108 Philosophie	108-01 Geschichte der Philosophie
109 Erziehungswissenschaft und Bildungsforschung	109-01 Allgemeine und Historische Pädagogik
112 Wirtschaftswissenschaften	112-05 Wirtschafts- und Sozialgeschichte
Ausschuss für Wissenschaftliche Bibliotheken und Informationssysteme (AWBI)	Archivwissenschaft Bibliothekswissenschaft Museumswissenschaft

Concise summary of the planned consortium's main objectives and task areas

4Memory aims to further develop historically oriented scholarship to meet the challenges and opportunities of digitalization, safeguard the critical functions and social relevance of the historical method and establish systematic, sustainable links among research, memory institutions and information infrastructures. Its specific objectives can be summarised under the acronym “**LINKAGE**”, providing a community-specific agenda for meeting the NFDI's goals.

1. Linking Research, Memory Institutions and Infrastructures: Expanding digital access to research data will allow bridging the gaps among research, memory and infrastructure institutions. 4Memory brings together representatives of these categories to work together to strengthen existing connections among different kinds of research data and to build new, systematic networks that make data findable, accessible, interoperable and reusable.

2. Integrating Historical Source Criticism into Data Services: Historical source criticism is a core aspect of the research undertaken by the historically oriented humanities. Questions of authorship and of the contexts in which sources were created are vital, as are the issues of verifying their chronology and authenticity. The conditions created by digitised (and born-digital) sources require that established traditions of source criticism be adapted – in a collaborative, community-driven process – to the new realities of historical research.

3. Network of Historically Oriented Research Communities: 4Memory serves the historically oriented humanities, including not only historians but also others who work with historical data in fields such as historical philosophy, religious studies and area studies as well as economic and social history. Each has specific research-data needs but also faces common challenges. Their participation in 4Memory allows interdisciplinary exchanges with the social sciences and cultural studies and reflection about non-European data.

4. Knowledge Order for the Digital Future of the Past: Knowledge is always produced, classified and disseminated within systems that create and connect institutional and disciplinary knowledge spaces. The humanities' knowledge order is still largely based on printed books and scholarly journals, traditional systems of library classification and procedures of physical archiving and distribution. There are criteria for what counts as “verified” knowledge in analogue contexts and how it should be evaluated and cited. Developing corresponding standards and practices for a digital knowledge order requires a collaborative process among research, memory and information infrastructure institutions.

5. Advancing the Analog / Digital Interface of Historical Source Material and Data: Digital media will always coexist with analogue media, and historians will never work in a fully digitalised context, and (not least because of limited resources) archives will remain dominated by physical sources long into the foreseeable future. 4Memory aims to ensure that the interface between digital and analogue sources and methods is improved and that no new divisions emerge between those scholars who work digitally and those whose work continues to depend upon analogue sources and methods.

6. Generating Standards for Historical Research Data and Sustainability: Maintaining research-data quality requires both discipline-specific and cross-disciplinary data-handling standards. Documentation and curation procedures are needed that enable re-use at the technical and legal levels (usability) and at the intellectual level (comprehensibility). These priorities must be fully integrated into the research process to ensure true sustainability, requiring new research data management personnel as well as empowering researchers themselves to ensure their data meets standards of quality, transparency and reusability.

7. Education and Citizen Participation: 4Memory will improve researchers' data literacy and encourage a new data culture within our community. These tasks extend beyond academia in a time when research is presented on computer screens, where sources of information of vastly different levels of reliability can appear indistinguishable. Empowering the broader citizenry to use

digital information effectively – as readers or as “citizen scientists” – is a must for maintaining the social relevance of historical scholarship.

The **LINKAGE** objectives provide orientation for the specific measures and services adopted by the **task areas (TAs)** in the 4Memory consortium:

TA1 – Data Quality: TA1’s aim is to create the basic conditions for data from the historically oriented humanities to be findable, accessible, interoperable and reusable (FAIR). Through a standardised and structured data quality, research data can be prepared and made use of with computer-based tools and analyses. Account needs to be taken of the diversity of data types and formats, varying levels of data quality, discipline-specific workflows and the methods of historical source criticism.

TA2 – Data Connectivity: A digital knowledge space requires contextualising digital objects to connect all relevant data – from analogue sources to digital presentation of results – and fostering transparency and traceability. Connectivity means making research data linkable and interoperable. First, subject-specific authority and metadata, taxonomies and controlled vocabularies will be used to connect research data with regard to its semantic content. Second, 4Memory’s data models and technical interfaces will enable connectivity within the community, with other NFDI consortia and with national and international archival and museum directory services, library catalogues and (subject) bibliographies.

TA3 – Data Services: In research and memory institutions, heterogeneous historical data and metadata (resulting from differing datasets, tools, services and methodologies) and the need for individual, project-based solutions for dealing with them has led to “data silos”: closed systems designed for single use-cases. TA3 addresses such problems through measures tailored to the historically oriented humanities: 1) operating a set of key services in a reliable, sustainable manner; 2) making existing repositories, DH tools and data offerings interoperable; 3) providing services for reliable storage and long-term archiving of historical research data; 4) ensuring the FAIRness of research data in 4memory, and 5) acknowledging the CARE principles for data governance.

TA4 – Data Literacy: TA4 aims to develop a DL competence profile for historically oriented researchers, a DL counselling network and a sustainable and certified DL training catalogue comprising training courses and materials geared towards specific target groups. Data Literacy has a distinctive meaning for historically oriented disciplines: sound historical scholarship depends on a rigorous and careful application of the “critical historical method” as the basis for historical hermeneutics, historical knowledge production and the communication of knowledge about the past. Historians need to learn how to evaluate and to re-use historical research data produced with digital methodologies and based on digital source material.

TA5 – Data Culture: TA5 aims to promote the use and reuse of research data and the corresponding digital methods in our community and to encourage a distinct data culture in historically oriented disciplines. This requires developing a common discourse about the demands, pathways and consequences of digitalisation for our disciplines, incentivising the development of new competencies within them, as well as expanding our instruments of information, opinion-formation and communication, including new procedures for reviewing research data and data-driven research.

TA6 – Participation and Steering: TA6 ensures the widest possible participation of our community in 4Memory and is responsible for organising 4Memory’s governance structure, via a steering committee that also takes key decisions regarding the consortium’s strategic development. Its other main responsibilities include: directing 4Memory’s external communications, managing relationships with other consortia, coordinating task-area activities (especially with regard to cross-cutting topics), evaluating the progress of the consortium’s measures and tasks, conducting day-to-day operations, managing financial disbursements and supervising 4Memory-wide technical developments.

Existing infrastructures, tools and services

4Memory will establish systematic, sustainable links among research, memory institutions and information infrastructures. It combines the capabilities of the participating universities, research institutes, libraries, archives, museums and informational infrastructure institutions and will integrate them with further (and continuously emerging) services, tools and infrastructures both within and beyond our community, making a substantial contribution to research data management in the NFDI. The consortium benefits from and will contribute to existing international networks and contexts for the development of research services and tools. It will help build – and make available to our community – an improved data infrastructure for historical research. Specialised services are vital to our consortium, though not all can be listed due to lack of space; broadly oriented services essential to our objectives include:

Authority Data Services and Infrastructures:

- Authority Files for historical research (GND of the German National Library, Virtual International Authority File, Wikidata, etc.); integrating data from historical sources / collections
- Reference Bibliographies (Deutsche Historische Bibliografie, Gnomon Bibliographische Datenbank, Regionalbibliographien etc.)

Data Cataloguing and Aggregators:

- Union catalogues (B3Kat, K10plus)
- Aggregators and portals (Archivportal-D, Handschriftenportal, DDB)
- Repositories and registries of digitised sources (ZVDD, VD 16/17/18, FIDs etc.)

Data Processing, Storage, Publishing and Archiving Infrastructure:

- Collecting and processing infrastructures and environments (FuD Trier)
- Storage and computing infrastructures (Rechenzentrumsallianz Rheinland-Pfalz, DFN)
- Long-term storage and archiving (DIMAG, RADAR, ViDa, BSB)

Information Services, Communication infrastructure and community networks

- Information and digital services for historical research (H-Soz-Kult, CLIO ONLINE, Historicum.net and specialised information services)
- Research data management networks (nestor, RDA)

Consulting and educational services

- Consulting services for research data management and training in methods of analysis (e.g. those at institutions in Trier, Darmstadt, Berlin, Mainz, etc.) will be developed into national services for the benefit of our community

4Memory also prioritises deepening and widening the reach of existing international networks by collaborating with international experts in digital humanities research and research data management. Among the relevant partners are German humanities institutions abroad, national research institutes in Europe and the rest of the world and EU-level cooperation projects and initiatives (e.g., DARIAH-EU, EHRI, LIBER, OPERAS, RDA, and SSHOC/EOSC).

Many further existing services are relevant to our community, but not all of them are currently usable by all of its members because they are too project-specific, not in regular operation or otherwise restricted. There are shortcomings regarding quality standards, interoperability, persistent identification and long-term archiving. Through the measures of its task areas, 4Memory will identify current problems and problems with existing services and resources; make existing repositories, DH tools and data offerings interoperable; and improve services for reliable storage and long-term archiving. Examples include establishing a working group of service providers to identify and enhance key services, setting up an expert group to implement a 4Memory knowledge graph, creating a shared 4Memory data space and a virtual indexing layer to ensure that this research data is cross-searchable. 4Memory will further develop existing elements of the community-specific data infrastructure and improve the integration of consulting and educational offerings in the area of research data management across the historically oriented humanities.

Interfaces to other proposed NFDI consortia: brief description of existing agreements for collaboration and/or plans for future collaboration

NFDI4Memory will establish a network of institutions and projects that work digitally with historical data, connecting its community in a subject-related and data-driven manner. 4Memory has developed a particularly strong connection with three other humanities consortia, each of which addresses a specific community: **NFDI4Culture**, **NFDI4Objects** and **Text+**. In 2019 we signed a joint [Memorandum of Understanding](#) in which the four consortia pledged to collaborate on issues of common interest to the consortia and to the NFDI as a whole.

As set out in the agreement, representatives of the consortia have met regularly and discussed how they will coordinate their activities in order to address cross-cutting topics collaboratively. The memorandum group participated in meetings between the consortia and representatives of professional associations in the context of the “Forum geisteswissenschaftliche NFDI” to discuss routines and procedures to integrate professional organisations in the NFDI process. The memorandum group will continue to exchange information on how services and tools relevant to the humanities as a whole can be jointly developed and operated, thereby deepening the degree of collaboration among the humanities consortia.

Beyond the named humanities consortia, 4Memory will cooperate with other consortia regarding knowledge exchange and cross-cutting topics. We have common interests with several other consortia. 4Memory will collaborate with **BERD@NFDI** on topics such as automated text, layout and structure recognition as well as in the harmonisation of terminologies and the mutual exchange of controlled vocabularies and ontologies. Historical data have many of the same issues as the qualitative and quantitative social science and economic data that are the focus of **KonsortSWD**. **MaRDI** supports the network analysis of historical data (such as correspondence or itineraries) and develops algorithms that take into account temporal issues and factual inaccuracies, capabilities that are of interest to 4Memory.

In addition, we see interfaces with those planned consortia that address cross-cutting issues of infrastructure development (**2LinkNFDI**), web-based data (**NFDI Web**) and sustainable software development (**NFDI4RSE**).

4 Cross-cutting topics

4Memory has identified the following cross-cutting topics relevant for the consortium that need to be designed and developed by several or all NFDI consortia but are particularly important with regard to a cooperative approach to the other planned humanities consortia (4Culture; 4Objects and Text+), with whom 4Memory has a [Memorandum of Understanding](#) (see also the “[Leipzig-Berlin-Erklärung](#)” on cross-cutting topics that 4Memory has signed):

- Questions relating to data standards and quality and the broader issue of how we work with data across the data life-cycle: here, issues of sustainable re-usability in research data management (e.g. persistent identification) and ensuring that the routes through which data were produced (i.e. data transparency) are particularly relevant;
- Basic technical components of research data infrastructures (e.g. authentication / authorisation, storage systems, long-term archiving);
- Interoperability between data collections and standards for interfaces;
- Approaches to problems of data accuracy and inaccuracy.

In addition, our consortium sees the following cross-cutting topics related both to the FAIR Data Principles and the CARE principles for Indigenous Data Governance as particularly relevant to the issues faced by our community:

- Terminologies, terminology management and services (e.g. multilingual controlled vocabularies, ontologies, knowledge graphs);
- Data literacy;
- Data ethics and law;
- Data publication workflows;
- Linking publications and research data;

Please indicate which of these cross-cutting topics your consortium could contribute to and how.

4Memory is the only currently planned consortium defined by its focus on the distinct challenges of historical research across a broad range of data types as defined above. Historically oriented research extends across epochs and cultural contexts, posing particular challenges to those scholars working in our community. **The combination of distinct objectives and the experience that the consortium brings together will enable 4Memory to make unique contributions to the following cross-cutting topics:**

Critiquing data / data criticism in multiple temporal and spatial contexts

By its nature, historical data derives from very different epochs and geographical regions. The practice of historical research, moreover, now takes place in a substantially (and increasingly) global context, making it essential to take into account perspectives on – and challenges in dealing with – research data from beyond a European context. Historical source criticism is relevant to all data, which invariably is created in particular chronological and geographical contexts, whether it addresses topics from the humanities, social sciences or natural sciences, giving 4Memory an opportunity to enrich the efforts of other consortia.

Provenance and contextualization of research data

Research data can only be reused if the context in which it was generated, the underlying research questions and methods that guided its generation and, if applicable, the technologies employed (as well as several other factors) are taken into account. The procedures, practices and perspectives of historical source criticism have a long tradition, and it is a central aim of 4Memory to adapt them to research data of different provenances, languages and cultural and temporal location without ignoring power differentials and issues of data sovereignty. Such source-critical methods have a relevance beyond the specific community of 4Memory and can be used to contextualize research data in other consortia.

Community-driven / participatory authority files

Authority data and controlled vocabularies are mainly built, developed and maintained by memory institutions. While an essential part of research, many such files fail to include entries that are essential from particular research perspectives. 4Memory has made dealing with this challenge a central aim, and it will develop and establish community-driven procedures that will make it possible to integrate authority data identified and obtained in the course of research projects into established authority files.

Data literacy concepts, materials, workflows

4Memory will pursue specialized methodological innovation and activities to enhance data literacy (DL) in historically oriented research and teaching by addressing the challenges and methodological implications of the digital turn for historical scholarship. We will develop a DL competence profile for historically oriented researchers and a sustainable and certified DL training catalogue that comprises specific training courses and training material geared towards specific target groups. An exchange with other NFDI consortia will enable a cross-disciplinary and cross-data approach and, at the same time, enable the possibility of identifying generic elements of data literacy in order to jointly develop methodological competence profiles.