1   Binding letter of intent as advance notification of a full renewal proposal

x	Binding letter of intent (required as advance notification for renewal proposals in 2025)

2   Formal details

*Changes to the composition of the consortium are in **bold print***.

- ▪ Name of the consortium
  Business, Economic and Related Data @ NFDI
- ▪ Acronym of the consortium
  BERD@NFDI

Applicant institution and Spokesperson

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Co-Applicant institutions

- ▪ Co-applicant institution
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  Head: Prof. Dr. rer. pol. Bernd Huber; Prof. Dr. med. Dr. h.c. Matthias Tschöp (president-elect)

- ▪ Co-applicant institution
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  Head: Prof. Dr. Joybrato Mukherjee

DFG

- ▪ Co-applicant institution

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    Head: Univ.-Prof. Dr. Hauke Heekeren

- ▪ Co-applicant institution

    Leibniz Information Center for Economics (ZBW), Düsternbrooker Weg 120, 24105 Kiel;

    Head: Prof. Dr. Klaus Tochtermann

- ▪ Co-applicant institution

    GESIS - Leibniz-Institut für Sozialwissenschaften, B6 4-5, 68159 Mannheim;

    Head: Prof. Dr. Christof Wolf

- ▪ **Co-applicant institution**

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Participant institution

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- **Deutsches Institut für Erwachsenenbildung (DIE) - Leibniz-Zentrum für Lebenslanges Lernen e.V., Dr. Kerstin Hoenig**

- Gesellschaft für Sozial- und Wirtschaftsgeschichte e.V. (GSWG), **c/o Freie Universität Berlin, Prof. Dr. Thomas Ertl**

- Gesellschaft für Unternehmensgeschichte e.V. (GUG), Dr. Andrea H. Schneider-Braunberger

- Institut für Arbeitsmarkt- und Berufsforschung (IAB) der Bundesagentur für Arbeit (BA), Dana Müller

- Institut für Bank- und Finanzgeschichte e.V. (IBF), Hanna Floto-Degener

- Leibniz-Institut für Finanzmarktforschung SAFE (SAFE), **Prof. Dr. Florian Heider, Prof. Dr. Loriana Pelizzon, Dr. Dennis Gram**

- Leibniz-Institut für ökologische Raumentwicklung (IÖR), **Dr. Maria Nieswand**

- Verband der Hochschullehrerinnen und Hochschullehrer für Betriebswirtschaft e.V. (VHB), **Prof. Dr. Michael Wolff,** Tina Osteneck

- Verein für Socialpolitik – Wirtschaftshistorischer Ausschuss, **Prof. Dr. Sibylle Lehmann-Hasemeyer**
- ZEW - Leibniz-Zentrum für Europäische Wirtschaftsforschung, **Prof. Dr. Hanna Hottenrott**, Dr. Sandra Gottschalk

Participant individual

- **Prof. Dr. Stefan Feuerriegel, Ludwig-Maximilians-Universität München (LMU), LMU Munich School of Management, Institute of Artificial Intelligence (AI) in Management**
- Prof. Rayid Ghani, Carnegie Mellon University
- **Moritz Hardt, PhD, Max Planck Institute for Intelligent Systems**
- **Prof. Dr. Christoph Kern, Ludwig Maximilians University of Munich**
- **Prof. Dr. Florian Keusch, University of Mannheim**
- Prof. Julia Lane, Professor Emerita New York University
- **Dr. Sandra Gottschalk**, ZEW - Leibniz-Zentrum für Europäische Wirtschaftsforschung (ZEW)
- **Prof. Dr. Hanna Hottenrott, School of Management, Technical University of Munich & ZEW - Leibniz-Zentrum für Europäische Wirtschaftsforschung (ZEW)**
- Dr. Katrin Moeller, Historisches Datenzentrum Sachsen-Anhalt
- Dana Müller, Institute for Employment Research of the Federal Employment Agency (IAB)
- Prof. Dr. Isabella Peters, Leibniz Information Centre for Economics (ZBW)
- **Prof. Dr. Marc Ratkovic, University of Mannheim**
- **Dr. Felicitas Sommer, Technical University of Munich**
- Prof. Dr. Mark Spoerer, University of Regensburg
- Prof. Dr. Jochen Streb, University of Mannheim
- **Prof. Dr. Richard Traunmüller, University of Mannheim**
- **Prof. Richard Zemel, Department of Computer Science, Columbia University**

3   Objectives, work programme and research environment in the second funding period

Research area of the proposed consortium (according to the DFG classification system:
www.dfg.de/subject-classification)

12 Social and Behavioral Sciences

- 1.24 Economics

    - 1.24-02 Economic Policy, Applied Economics

    - 1.24-03 Accounting and Finance

    - 1.24-04 Management and Marketing

    - 1.24-05 Operations Management and Computer Science for Business Administration

    - 1.24-06 Statistics and Econometrics

    - 1.24-07 Economic and Social History

- 1.23 Social Sciences

    - 1.23-02 Empirical Social Research

    - 1.23-03 Communication Sciences

    - 1.23-04 Political Science

- 1.22 Psychology

    - 1.22-04 Social Psychology, Industrial and Organisational Psychology

- 1.21 Educational Research

    - 1.21-04 Educational Research on Socialisation, Welfare and Professionalism

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

The second funding phase of BERD@NFDI builds directly on the foundations established during the initial project period. The consortium has successfully developed a portfolio of interoperable services and infrastructures for working with unstructured data in business, economics, and the social sciences. Key outcomes include the establishment of the BERD Data Portal and Research Data Marketplace, the rollout of legally and technically robust data services, and the launch of community-focused training initiatives through the BERD Academy. These efforts have laid the groundwork for the continued development and consolidation of services that are FAIR, sustainable, and aligned with the evolving needs of the research community.

BERD@NFDI is dedicated to advancing the research capacities of scholars in business administration, economics, and the social sciences who work with unstructured data. The consortium develops and maintains research data infrastructures and services that adhere to FAIR principles, with a strong emphasis on usability, sustainability, and community relevance. In the second funding phase, BERD@NFDI seeks to consolidate its existing services, ensure their long-term viability, and foster deeper integration within the broader landscape of national and European research data infrastructures. Central to this endeavor is the guiding principle "Data for AI and AI for Data," which reflects the dual objective of enabling researchers to make effective use of artificial intelligence in analyzing unstructured data while also ensuring that data resources are fit for AI-based methodologies. Strategic priorities include the advancement of synthetic data capabilities, enhanced support for data annotation and preparation (e.g., through OCR and Audio2Text pipelines), and the development of benchmarking tools and use cases in collaboration with key partners, including the German Internet Panel and the Deutsche Bundesbank.

To realize these objectives, BERD@NFDI structures its work across seven interrelated task areas. One task area focuses on systematic engagement with the academic community to ensure that services are attuned to disciplinary needs. This includes the deployment of a dedicated community manager and a comprehensive survey effort targeting researchers at all career stages.

A second task area is dedicated to education and capacity building. Through the BERD Academy, the consortium will consolidate and expand its offerings in data science and research data management, including novel training formats on synthetic data, AI methods, and data ethics. The implementation of the BERD Data Science Monitor will provide an empirical foundation for curriculum development and skills tracking. Certification programs such as ASSURED will be

extended beyond academia to encompass stakeholders in public administration and the private sector.

Another task area concentrates on the continued development, technical refinement, and certification of the BERD Data Portal and related services. Particular attention will be paid to the integration of services provided by Base4NFDI (e.g., PID4NFDI, IAM4NFDI) and to ensuring the portal's interoperability with the European Open Science Cloud (EOSC).

A different task area addresses the identification and acquisition of novel data sources for academic inquiry, including web, behavioral, and administrative data. This work also supports the operation and expansion of the Research Data Marketplace and hosts incubator projects aimed at enhancing access to complex unstructured data.

One task area explores and supports the scholarly use of machine learning and unstructured data in applied contexts. It contributes curated datasets, classification frameworks, and performance benchmarks to ensure rigorous and transparent research practices.

Another essential task area encompasses governance, legal coordination, and sustainability. It oversees the strategic alignment of BERD's services with national and international standards, coordinates internal and external communications, and leads efforts toward securing long-term sustainability through certification and business model development.

Through this coordinated framework, BERD@NFDI aims to facilitate methodologically innovative, AI-supported research across its core disciplines. Its strong presence in national (NFDI) and European (EOSC) infrastructure initiatives ensures that its services are technically interoperable and scientifically robust. In doing so, BERD@NFDI contributes to a future-oriented and ethically grounded research environment in the economic and social sciences.

Brief description of the proposed use of existing infrastructures, tools and services that are essential in order to fulfil the planned consortium's objectives

In the second funding phase of BERD@NFDI builds upon a set of established infrastructures that are essential for delivering interoperable, sustainable, and FAIR-aligned services to its research communities.

ZBW will contribute its full infrastructure and tools to support BERD and ensure science policy insights from national and European levels are reflected. It will also further develop and consolidate the BERD data portal for operations and scalable services.

The BERD metadata schema builds on DataCite for general fields and uses Invenio RDM custom fields for discipline-specific fields. Tools will support metadata normalization and quality checks to enhance interoperability and discoverability. Existing services will be reviewed for integration using modern, sustainable solutions, while new components will focus on maintainability. The approach will enable high-quality metadata, schema alignment, and improved access. All activities will be aligned following the FAIR principles and their advances.

The technical integration with Base4NFDI services will be pursued to ensure alignment with the "OneNFDI" vision. Key services under consideration are, e.g., identity and access management (IAM), persistent identifiers (PID), terminology services (TS), and ontology support. Furthermore, ZBW will contribute to NFDI's engagement to enrol NFDI as the German National Node to the European Open Science Cloud (EOSC).

Complementing this, the *University Library Mannheim* contributes through its *Research Data Center (RDC)*, which offers secure, professionally managed infrastructure for research data access and stewardship. A key asset now incorporated into BERD's activities is the *German Internet Panel (GIP)*, a long-standing, high-quality longitudinal survey infrastructure operated by the RDC. The GIP will be used in BERD for benchmarking AI models, validating synthetic data pipelines, and serving as an exemplary use case for integrating structured and unstructured data in social science research. in addition the University Library's IT services further ensure the reliable deployment and long-term maintenance of the BERD platform and additional services like the BERD Academy

Together, these infrastructures provide the technological and organizational backbone of BERD@NFDI and ensure that its mission to support innovative research practices around unstructured data remains firmly anchored in operational excellence.

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

Within the NFDI framework, BERD@NFDI plays a central role in cross-consortia collaboration through its active involvement in several NFDI sections and foundational initiatives. It co-founded the Section "Industry Engagement" in 2023, with BERD spokesperson Florian Stahl elected as section speaker. Under his leadership, the section published a series of whitepapers focusing on academia–industry collaboration, with a particular emphasis on the role of (research) data in this context. Additionally, an industrial advisory board was established, featuring high-profile representatives from BASF, Siemens, SAP, Bosch, and the Federation of German Industries (BDI). In the Section "(Meta)data, Terminologies, Provenance", BERD co-initiated the Working Group Knowledge Graphs and contributed to the successful Base4NFDI proposal KGI4NFDI. BERD member Renat Shigapov serves as the group's coordinator. In the Section "Ethical, Legal and Social Aspects" (ELSA), Vasilka Stoilva was elected speaker in 2024 and leads the Task Force on Data Protection. BERD also contributes to the Section "Training & Education," organizing a community event on RDM learning objectives and supporting the ongoing update of the Learning Objectives Matrix for RDM-Training. Partner institutions are further engaged in the Section "Common Infrastructures".

As part of Base4NFDI, BERD contributes to three funded proposals: PID4NFDI, KGI4NFDI, and RDMTraining4NFDI. Consortium partners serve as use-case contributors, principal investigators, and institutional participants. These efforts advance core services for use across NFDI consortia and support the broader goal of interoperable research data infrastructures.

In terms of direct cooperation, BERD collaborated with Text+ to organize the Joint Conference on Research on Text Analytics (Mannheim, 2023). Additionally, BERD is working with NFDI4DataScience and KonsortSWD to advance FAIR metadata practices and the development of the ASSURED training modules, the latter also involving GHGA. BERD also partnered with NFDI4DataScience to extract scholarly entities for its AI Analytics Portal. These activities exemplify BERD's contribution to converging domain-specific infrastructures. BERD@NFDI members cooperated on workshops with NFDI4Earth and NFDI4Energy. We are conceiving a multidisciplinary use case on the digitalization of zoning plans together with NFDI4Earth.

BERD will build on these collaborations in the second funding phase and continue its active involvement to further advance joint efforts across consortia, strengthening synergies and contributing to the development of interoperable research data infrastructures.

4   International and national networking

BERD@NFDI actively cultivates international and national collaborations to advance responsible research data management (RDM) in business, economics, and related fields.

At the European level, BERD@NFDI is intensively involved in all activities promoting the development of EOSC. In particular, BERD@NFDI is a driving force to establish NFDI as a German contribution to the EOSC Federation. Beyond Europe, BERD@NFDI maintains working relationships with initiatives in the United States and Australia such as the Wharton Data Services (WHDS), AI at Wharton Initiative, University of New South Wales AI Institute, Morrison Center for Marketing and Data Analytics, UCLA, Data Science Knowledge Center, NOVA School of Business and Economics, and the Coleridge Initiative, which focus on improving research access to public and administrative data. These collaborations support knowledge exchange on technical infrastructure, data governance, and user engagement.

Additionally, individual experts affiliated with BERD@NFDI—such as those from Carnegie Mellon University, Columbia University, and New York University—bring deep methodological and policy expertise to the consortium's international engagements. These links facilitate the cross-border development of interoperable RDM solutions and promote the adoption of international best practices.

At the national level, BERD@NFDI engages with external academic, governmental, and historical institutions to broaden the scope and utility of its services. Key partnerships include the Institute for Employment Research (IAB), the Gesellschaft für Unternehmensgeschichte (GUG), and the Institute for Bank and Financial History (IBF). These collaborations enable tailored RDM solutions for diverse data types, from contemporary labor market and firm data to historical corporate records.

A core component of BERD@NFDI's strategy is community engagement, e.g., through cooperation with state initiatives for research data management. In addition, the consortium works closely with the German Academic Association for Business Research (VHB) and other professional bodies to promote data-sharing practices, gather user feedback, and align services accordingly. Through participation in conferences, disciplinary working groups, and outreach events, BERD@NFDI supports a growing culture of data stewardship and strengthens its role as a trusted infrastructure partner in empirical business and economics research.