

**Agreement between the Federal Government and the *Länder* concerning the
Establishment and Funding of a National Research Data Infrastructure (NFDI)
of 26 November 2018**

Preamble

Subject to the approval of funding by their legislative bodies, the Federal Government and the governments of the *Länder* of the Federal Republic of Germany adopt the following administrative agreement concerning the establishment and funding of a National Research Data Infrastructure (NFDI) on the basis of Article 91b(1) Basic Law.

Access to digitally available knowledge and the management of data from publicly funded research are key challenges for research and transfer in Germany.

Germany needs a National Research Data Infrastructure (NFDI) to develop research data into resources that can be broadly used in science to produce an added value for society.

Systematic and lasting access to digital resources is indispensable for generating new scientific findings and innovations in research and society. The data collected at various places using different methods must be made available in such a way as to also ensure easy and systematic access for third parties and enable the combination and analysis of such data across databases, disciplines, and countries. Data management must be standardized for this purpose: In accordance with the FAIR principles¹, research data must be findable, accessible, interoperable and re-usable.

The aim of the NFDI is to provide the scientific community in Germany with systematic access to research data which is still frequently stored in a decentralized, project-based and temporary form. The NFDI will be organized by users of research data and by infrastructures working together in and across consortia for that purpose. The NFDI will set new data management standards and serve as a digital, regionally distributed and networked knowledge platform to secure research data and its usability in the long term. Such a knowledge platform means a competitive advantage and can help attract the best researchers from around the world.

¹ FAIR stands for Findable, Accessible, Interoperable and Re-usable. The FAIR Data Principles; <https://www.force11.org/group/fairgroup/fairprinciples>

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The NFDI will be predicated on existing responsibilities and supplement existing funding. This does not affect any efforts to develop currently project-based funding models into long-term funding schemes.

The NFDI will create added value for the entire science system as existing data collections and services will be integrated and contribute to the establishment of the NFDI. The additional need for the NFDI is also due to this integration as well as to the general services to be developed and the resulting solutions for research data management in Germany. Data management procedures will be established in those research areas where data collections and services are not yet available. The NFDI will also make a substantial contribution to solving new interdisciplinary research issues of great relevance to society.

The NFDI will closely cooperate with European and international research data infrastructures wherever this is possible to the benefit of all sides.

Section 1 Objectives of Funding

Funding shall be provided for the NFDI in order to establish and develop a general research data management system and increase the efficiency of the entire science system. This includes in particular

- a) Building a coordinated and networked information infrastructure to support the development of a sustainable and interoperable research data management system;
- b) Establishing processes and methods for the standardized handling of research data that are accepted in the scientific disciplines;
- c) Providing reliable services on a long-term basis which cover general and specific research data management needs in Germany;
- d) Developing cross-disciplinary metadata standards to ensure the universal re-usability of research data;
- e) Linking German research data infrastructures to European and international platforms;

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- f) Optimizing the re-usability of existing research data and of the infrastructures in which they are embedded, thus generating additional knowledge without costly repeated data collection;
- g) Creating a common basis for data protection and data sovereignty, integrity, security and quality.

Section 2

Organization of the NFDI

Consortia, the Consortia Assembly, the Scientific Senate and the Directorate shall cooperate in the NFDI. The member institutions in the consortia shall work together in a networked structure as independent legal entities.

Section 3

Object of Joint Funding

(1) The Federal Government and the *Länder* shall fund the NFDI jointly.

(2) Funding for the NFDI shall be composed of funding for the consortia with their NFDI-related added value and funding for the Directorate. The Directorate shall initially be hosted by an existing research or higher education institution which has both a scientific reputation and experience with the operation of inter-institutional infrastructures. For this purpose, the Federal Government and the *Länder* shall conduct an expression of interest process. The Directorate of the NFDI will acquire legal personality as an entity to be established for that purpose and its seat will be determined in the first year of the consortia project funding period at the latest.

(3) Funding shall also cover the cost of the procedure and the evaluation and of any supporting research on structural aspects of the NFDI.

Section 4

Eligibility

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(1) Applications for consortium funding may be submitted by alliances of state-funded and state-recognized higher education institutions, non-university research institutions, departmental research institutions, academies and other publicly financed information infrastructures or further relevant stakeholders. Individual institutions may participate in several consortia.

(2) The institution hosting the Directorate may apply for funding for the Directorate. The new legal entity may apply for funding once it has been established.

Section 5 Criteria for Funding

The following criteria shall apply to funding for consortia:

- a) Thematic relevance and quality of the planned measures;
- b) Expected added value for the development of cross-disciplinary metadata standards and the creation of reliable long-term services in the consortium;
- c) Establishment of the consortium in the respective scientific community and involvement of the relevant partners;
- d) Structural importance for the NFDI and the science system;
- e) Efficiency and sustainability;
- f) International compatibility;
- g) Consistent approach to data use and access as well as findability and re-usability of data based on the FAIR principles;
- h) Operating model which meets the needs of users and suppliers (including reasonable user fees where appropriate).

Section 6

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Procedure

(1) The Federal Government and the *Länder* intend to select up to 30 consortia in three application rounds.

(2) The *Deutsche Forschungsgemeinschaft* (DFG) shall carry out the review procedure for the consortia in accordance with this Agreement. The review will be based on the principles of a science-driven process. The Joint Science Conference (GWK) shall decide on the basis of the DFG's recommendation for funding. A positive vote from the review procedure is a prerequisite for the funding of consortia within the framework of the NFDI.

(3) For the purpose of implementing the review process, the DFG shall set up an NFDI expert panel in consultation with the Federal Government and the *Länder*. The panel's tasks include in particular the assessment of the proposals based on a scientific and infrastructure-related review and the formulation of funding recommendations addressed to the GWK. The panel shall be composed of experts with proven experience in various research fields who have spent many years abroad and have worked in science management, science infrastructures or industry.

Section 7

Decision-making by the Federal Government and the *Länder*

(1) The GWK shall take all fundamental decisions on financial matters concerning the NFDI. It shall decide on the admission of consortia to NFDI funding and withdrawal of funding on the basis of the results of the evaluation. The GWK shall decide on the level of funding of each individual consortium within the limits of the available funds in accordance with Section 8(2).

(2) The GWK shall decide on the level of funding for the Directorate on the basis of an application and within the limits of the available funds in accordance with Section 8(3).

(3) The GWK shall decide on the legal form and seat of the NFDI.

(4) The GWK shall appoint the Director of the NFDI at the suggestion of a search committee that will be set up and involve expertise in matters of science and science organization. This task shall be assumed by the supervisory body of the NFDI once the NFDI has been established as an independent legal entity.

Section 8

Provision of Funds, Type and Scope of Funding

(1) Subject to the approval of funding by their legislative bodies, the Federal Government and the *Länder* shall provide annual funding for the NFDI project between 2019 and 2028 rising up to 90 million euros in the final development phase. This sum includes not only the funding for the consortia and Directorate including overhead allowances but also the costs of the procedure and evaluation and of any supporting research on structural aspects of the NFDI. Investment expenditure is only eligible in exceptional cases.

(2) The Federal Government and the *Länder* shall provide annual funding for the consortia rising up to 85 million euros in the final development phase. Between 2 and 5 million euros per year will as a rule be provided for each consortium depending on the relevant application. Funding for the consortia will be awarded in the form of non-repayable project grants. The additional staff, equipment and operating expenses necessitated by the implementation of the project as well as expenditure on project-related contracts will be eligible for funding. The stakeholders represented in the consortia shall contribute funds of their own for research data management.

(3) The Federal Government and the *Länder* shall provide annual funds of up to 2.5 million euros for the Directorate starting in 2019. Funding for the Directorate will take the form of a grant provided by the Federal Ministry of Education and Research (BMBF). The *Länder* shall allocate their pro rata funding to the Federal Government on an annual basis. Funding for the Directorate including its managing office will be awarded as non-repayable project grants to cover staff and equipment expenses. The request for and approval of the grant shall be based on a project application. The BMBF shall be responsible for the review of the proper use of the funds.

(4) The Federal Government and the *Länder* shall provide the funding for the consortia during the project funding phase in the form of a special annual grant paid to the DFG. The funds will be made available within the framework of flexible resources management. The Federal Government and the *Länder* will take care to ensure that unspent funds will once again be made available within the framework of the funding commitments made. The DFG shall pay the grant to the consortia during the project funding phase. The DFG shall be responsible for the review of the proper use of the funds.

(5) Funding shall be provided by the Federal Government and the *Länder* on a 90:10 basis. The *Länder*

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shall contribute their share in accordance with the Königstein formula.

(6) The Federal Government and the *Länder* shall cover the cost of the procedure, in particular the administrative costs incurred by the DFG and the evaluation costs as well as the cost of any supporting research on structural aspects of the NFDI on a 90:10 basis; the *Länder* shall contribute their share in accordance with the Königstein formula.

(7) The DFG and the BMBF shall properly indicate in the approval that the measure involves joint funding by the Federal Government and the *Länder*.

Section 9 Consortia

(1) Consortia are long-term collaborations between users and providers of research data such as state-funded and state-recognized higher education institutions, non-university research institutions, departmental research institutions, academies and other publicly financed information infrastructures. They shall normally be organized according to research domains or methods without any requirements as to institutional composition.

(2) The consortia shall define their cooperation and select from their midst a spokesperson who shall represent the consortium in the Consortia Assembly. The member institutions within a consortium shall conclude cooperation agreements in which they define joint goals and milestones and establish who will be the recipient of the grant, how the flow of funds within the consortium will be organized and who will be responsible for proving the use of funds vis-a-vis the grant providers.

(3) The consortia shall implement the requirements formulated in the applications and confirmed by the evaluation and/or funding decision and cooperate with the bodies of the NFDI in this process.

(4) The consortia shall provide for the ability to communicate and act in the partnership between the scientific community and participating infrastructure operators; they shall develop and promote a culture of data sharing and informational skills based on the FAIR principles; they shall see to it that technical services for data provision, archiving and indexing are established and maintained and that the necessary data storage and hardware capacities are adapted to ensure the performance of national tasks.

Section 10
Consortia Assembly

- (1) The Consortia Assembly shall be composed of the spokespersons of each and every consortium. It shall determine the substantive and technical principles for the general work of the consortia.
- (2) The Consortia Assembly shall ensure exchange between the consortia; it shall submit to the Scientific Senate proposals for decisions on cross-consortia standards, metadata standards and formats; it shall define the general conditions for the implementation of standards set by the Scientific Senate in the consortia and the interfaces for generic services in the participating services.
- (3) The Consortia Assembly shall comment on strategic issues of the NFDI and on the involvement of the NFDI in international developments.
- (4) The Consortia Assembly shall adopt its own rules of procedure which require the initial consent of the Federal Government and the *Länder*.

Section 11
Scientific Senate

- (1) The Scientific Senate is the strategic body of the NFDI and shall in particular be responsible for the overall operational strategy of the NFDI including the impact on the science system.
- (2) The Scientific Senate shall decide on cross-consortia standards, metadata standards and formats at the suggestion of the Consortia Assembly.
- (3) The Scientific Senate shall consider the project progress of the consortia based on regular reporting by the consortia and taking account of the overall objectives of the NFDI, and it shall decide on the admission and integration of cross-cutting services into the NFDI.
- (4) The Scientific Senate shall be comprised of a total of 13 persons. It shall be composed of the Director as chair; four representatives of the Consortia Assembly chosen from among its members; four experts from member institutions of the Alliance of Science Organizations in Germany designated by the Alliance and a further four experts designated by the GWK. The members of the Scientific

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Senate shall be appointed by the GWK.

(5) The Scientific Senate shall adopt its own rules of procedure which require the initial consent of the Federal Government and the *Länder*.

Section 12

Directorate

(1) The NFDI shall have a Director and a managing office (Directorate). The managing office shall support the work of the entire NFDI. The Director will be an expert from the science sector and shall be appointed for a five-year term. The Directorate will also include staff with commercial, legal and IT expertise. The Director shall also be chair of the Scientific Senate.

(2) The Director shall manage the NFDI on the basis of the decisions and consultations of the Scientific Senate and the Consortia Assembly in accordance with relevant funding provisions. He/she can submit issues to the Scientific Senate and the Consortia Assembly for discussion and decision-making. Furthermore, he/she shall coordinate cooperation across the NFDI, represent the interests of the NFDI, draft agreements with the consortia and monitor adherence to them.

(3) The Director shall represent the NFDI internally and externally.

Section 13

Evaluation

(1) In order to review the effectiveness of the NFDI, the German Council of Science and Humanities will carry out a structural evaluation to establish whether the objectives defined in Section 1 have been or can be achieved.

(2) The Director shall forward to the GWK by 31 August 2024 a report of his/her experience with the structural organization of the NFDI, including its bodies and governance, as well as its impact on the NFDI's work to achieve the objectives set out in Section 1. The Federal Government and the *Länder* shall ask the German Council of Science and Humanities to evaluate the NFDI and consider the achievement of objectives, the effectiveness and increase in efficiency and to submit to them the result of this structural evaluation by 31 December 2025.

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(3) The consortia shall be evaluated at regular intervals by the DFG. On the basis of the evaluation, the Federal Government and the *Länder* shall decide within the GWK on further membership in the NFDI, further funding and, if appropriate, consolidation of the services or withdrawal from NFDI membership. If joint funding is discontinued, the consortium will receive degressive phase-out funding by the Federal Government and the *Länder* for a maximum of two years.

Section 14

Duration, Consolidation, Entry into Force

- (1) This Agreement is concluded for the period 1 January 2019 to 31 December 2028.
- (2) Taking account of the results of the structural evaluation by the German Council of Science and Humanities in accordance with Section 13, the GWK shall decide in 2026 on the further organization of the NFDI and the details of further funding from 2029.
- (3) This Agreement shall become effective on 1 January 2019 following the decision by the GWK.