



Rat für
Informations
Infrastrukturen

2015 OPENING DECLARATION

GERMAN COUNCIL FOR SCIENTIFIC INFORMATION INFRASTRUCTURES
OPENING DECLARATION

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1 MANDATE AND VISION OF THE COUNCIL

The German Council for Scientific Information Infrastructures (German acronym: RfII) was appointed by the Joint Science Conference (German acronym: GWK) in 2014 for an initial pilot phase of four years. It was tasked with formulating recommendations, identifying courses of action and increasing the level of transparency of developments and processes in the area of information infrastructure. These recommendations should be directed at science and, via the GWK, at the Federal Government and Federal States of Germany. Similarly RfII should support the development and communication of German positions in European and international debates.

RfII should strengthen self-organising processes in science, identify new areas of action and possible synergy potential in good time and coordinate the advancement of competitive processes to further develop scientific information infrastructures. It should also investigate the requirements for supervision by the relevant players concerned with science policy.

The activities of RfII should focus on selected areas such as hosting and long-term archiving, retrodigitisation, cultural heritage, digital transformation, data production and quality, access to (research) data, virtual research environments, licensing, user integration, specialists, framework conditions and international competition.¹

Based on this mandate the GWK formulated the following vision for the work of the German Council for Scientific Information Infrastructures.

¹ The formation of the Council as described here originates from the GWK document 13.48 from the meeting on 22 November 2013.

1.1 INFORMATION INFRASTRUCTURES AND DIGITAL TRANSFORMATIONS IN SCIENCE

The activities of RfII concern the design of a future-proof information infrastructure for science. Science comprises research, teaching and the transfer of knowledge. Information infrastructures comprise technically and organisationally networked services and facilities for working with data, information and inventories of knowledge significant to science. They are a component of research infrastructure and also serve the economy and society.

Science requires high-performance, reliable information infrastructures in order to ensure the sustainable provision of information and knowledge, to improve cooperation with economy and to enable innovation. The performance of information infrastructures depends significantly upon expertise and training, technical features, userfriendly access methods, international standards and tools, and the quality of customised services. In order to maintain the services and facilities at the state of the art and to ensure that their development is future-proof, facilities of the information infrastructure conduct their own research.

Future-proof information infrastructures must support the digital transformation in science. The focus should be on various aspects such as the development of new Internet based forms of research and publication, the promotion of open access to scientific knowledge where possible, the management of an increasing quantity of (research) data from the perspective of sustainable use and long-term availability, the development of innovative equipment and services, and the qualification of specialists.

An important future potential for scientific advancement is the exploitation of data, information and inventories of knowledge from various areas of public life. The promotion of open access to scientific knowledge (Open Access, Open Data) will alter the landscape of commercial and non-commercial service providers. As the advisory body, RfII will monitor this digital transformation process and support it with recommendations.

RfII will first engage in the areas of "Research Data - Sustainability - Internationality" in detail. Substantial recommendations should be compiled which serve as an example for the future, sustainable design of information infrastructures in the context of international developments. From an innovation policy and legal viewpoint these areas also have great potential – for example against the background of demands for the results of research to be available to third parties in a re-usable data format.

The challenges of digital change in science have already been comprehensively described in previous years and are being addressed by an increasing number of players. The Federal Government and Federal States promote their Digital Agenda for science, business and culture with numerous initiatives and programmes.

Building on the work of the "Future of the Information Infrastructure Commission" (Kommission Zukunft der Informationsinfrastruktur) (2011), the recommendations of the German Council of Science and Humanities (Wissenschaftsrat) regarding the "Further Development of Scientific Information Infrastructures in Germany until 2020" (Weiterentwicklung der wissenschaftlichen Informationsinfrastrukturen in Deutschland bis 2020) (2012) and the mandate of the Joint Science Conference (Gemeinsame Wissenschaftskonferenz) (2013), RfII aims to analyse implementation deficits and develop proposals for the further development of the scientific system. In doing so RfII will look for synergy with other drivers of change processes such as the Alliance's Priority Initiative "Digital Information".

Considering international perspectives and the efficient use of resources are very important to RfII. It aims to compile recommendations related to structures and processes. This should take into account the demand for long-term reliable, locationindependent and legally, financially and technically secured availability of data, information and inventories of knowledge.

RfII wants to improve the links between science, politics and economy in the area of information infrastructures. In doing so it intends to reflect on the possible measures required for the acceptance and feasibility of significant factors including administrative, political and financial aspects. It wants to prioritise recommendations for feasible measures with a focus on sustainability, but also, where possible, outline longer-term courses of development. As a centre for science, Germany already has access to pioneers in the development of web-based, networked databases of knowledge and content. Such expertise must be built on.

1.3 UNDERSTANDING ACROSS INSTITUTIONS AND DISCIPLINES

In light of the variety of forms of research and requirements, university and non-university research and infrastructure providers, museums, archives and libraries, public funding bodies and people from the general public are represented in RfII. The 24 members represent a wide range of scientific disciplines, forms of research and infrastructure expertise. They bring experience from numerous initiatives, which has been acquired from approaches to digital transformation solutions at national and international level. They are individually appointed by the Joint Science Conference in an honorary capacity. As members of the Council they will act independently of their individual interests and in the interest of the German scientific system as a whole.

Cooperation in RfII therefore requires the synthesis of very different disciplines and institutional perspectives. Agreement on wideranging recommendations resulting from this composition is a prime example of the numerous negotiation processes which must take place given limited resources in many parts of the scientific system.

1.4 COMMUNICATION

RfII acts through publications and organising conferences, workshops and symposia. RfII's publications and information regarding its members, working groups and general working methods have been made available at **[http://www.rfii.de /en/](http://www.rfii.de/en/)**  for the public.

2 WORK PROGRAMME TO 2018

The work of the German Council for Scientific Information Infrastructures is initially funded until October 2018. Working groups and committees have been formed to analyse and compile recommendations regarding various topics in this area in this period, which RfII will publish in a series of reports. The Work Programme will include the following areas:

- a. **STARTING POSITION AND INNOVATION POTENTIAL**
RfII will classify existing initiatives and investigate opportunities for Germany as a centre for science. Monitoring existing areas of action will enable approaches which have already been drafted to be analysed and tracked. In order to communicate to politicians and the public in an understandable format it will additionally create a helpful terminology glossary which will contain both traditional and current concepts.
- b. **INTERNATIONAL DEVELOPMENT**
RfII intends to include international perspectives, to outline opportunities for German players in European and global strategy development, and to support the development and communication of German positions in European and international debates. Opportunities and risks for the German infrastructure system will be jointly evaluated with international partners and the importance for science, economy and the public will be made transparent.
- c. **GOVERNANCE OF THE SCIENTIFIC INFORMATION INFRA-STRUCTURE IN GERMANY**
A transformation strategy must sustainably ensure the momentum of infrastructure development as well as its stability and performance. RfII will examine funding instruments, resource requirements and legal framework conditions with regard to these requirements. Its recommendations will be oriented towards the primacy of the self-organisation of science, however will also state the requirements for supervision by relevant players concerned with science policy. Likewise the balance required between the interests of science, economy and the public will be examined by RfII.

- d. **BUILDING AND FURTHER DEVELOPMENT OF EXPERTISE**
The appreciation and dissemination of information and infrastructure expertise at all organisational levels are part of designing sustainable transformation processes. It will be necessary to provide training in specific methodological skills for the new work and publication formats. An understanding of the proper operation of sustainable information infrastructures needs to be developed at managerial level. RfII shall therefore address questions of cultural change and the development of new occupational profiles in the area of scientific data and information management.

- e. **QUALITY MANAGEMENT**
In the light of rapidly growing volumes, a high degree of heterogeneity and high momentum, quality management of data, information and processes is an urgent concern for scientific work. RfII will look at how to implement the standards and best practices developed by successful initiatives and scientific communities.

3 COUNCIL AND MEMBERS

The German Council for Scientific Information Infrastructures has 24 members and is composed as follows to ensure equal participation:

- 8 representatives of scientific users across a wide range of scientific disciplines;
- 8 representatives of information facilities who cover the entire range of the science system;
- 4 representatives from the Federal and State Governments;
- 4 representatives drawn from the public.

The first 16 representatives are appointed in a procedure similar to the German Council of Science and Humanities. The other 8 representatives are nominated by the Federal and State Government representatives in the Joint Science Conference. All members are appointed by the Chair of the Joint Science Conference for a term of four years.

“The composition of the Council reflects our conception that the future of scientific information infrastructures is a joint task of the providing institutions, the scientific users, the funders and related national and international stakeholders.”

- Joint Science Conference, November 2013 -

3.1 REPRESENTATIVES OF SCIENTIFIC USERS

Professor LARS BERNARD ↗

TU Dresden – Department of Geosciences

Professor FRIEDERIKE FLESS ↗

DAI - German Archaeological Institute and Freie Universität Berlin

Professor FRANK OLIVER GLÖCKNER ↗

Max Planck Institut for Marine Microbiology and Jacobs University Bremen

Professor STEFAN LIEBIG ↗

Bielefeld University – Department of Sociology

Professor WOLFGANG MARQUARDT ↗

Forschungszentrum Jülich

Professor OTTO RIENHOFF ↗

University of Göttingen – Department of Medical Informatics

Professor JOACHIM WAMBSGANß ↗

Centre for Astronomy of Heidelberg University (ZAH)

Professor DORIS WEDLICH ↗

KIT- Karlsruhe Institute of Technology – Division I: Biology, Chemistry and Process Engineering

3.2 REPRESENTATIVES OF INFORMATION FACILITIES

SABINE BRÜNGER-WEILANDT ↗

FIZ Karlsruhe – Leibniz Institute of Information Infrastructure

Professor THOMAS BÜRGER ↗

Saxon State and University Library Dresden (SLUB)

Professor PETRA GEHRING ↗

TU Darmstadt – Department of History and Social Sciences

Dr GREGOR HAGEDORN ↗

Museum für Naturkunde – Leibniz Institute of Evolution and Biodiversity Science

Professor MICHAEL JÄCKEL ↗

Trier University

Dr MARGIT KSOLL-MARCON ↗

The Archives of the Bavarian State

Professor KLAUS TOCHTERMANN ↗

German National Library of Economics and Kiel University

Professor RAMIN YAHYAPOUR ↗

GWDG – IT in science and University of Göttingen

3.3 REPRESENTATIVES FROM THE FEDERAL AND STATE GOVERNMENTS

RÜDIGER EICHEL ↗

Ministry of Science and Culture of Lower Saxony

Dr THOMAS GRÜNEWALD ↗

Ministry of Education, Science and Research of Northrhine-Westphalia

Dr STEFAN LUTHER ↗

Federal Ministry of Education and Research

Dr DIETRICH NELLE ↗

Federal Ministry of Education and Research

3.4 REPRESENTATIVES OF THE PUBLIC

Dr habil. REINHARD BREUER ↗

Science Journalist

Dr h.c. ALBRECHT HAUFF ↗

Georg Thieme KG

Dr SIMONE REHM ↗

TRUMPF GmbH & Co. KG

ANDREA VOßHOFF ↗

BFDI – German Federal Data Protection Authority

3.5 CHAIRPERSONS

The members of the Council elect a Chair and a Deputy Chair on a simple majority basis from the representatives of scientific users and the representatives of providers of information infrastructure respectively. The Chair and the Deputy Chair represent the Council externally. Their term of office is two years.

Professor OTTO RIENHOFF ↗

Chair

SABINE BRÜNGER-WEILANDT ↗

Deputy Chair

4 HEAD OFFICE

Administrative support for the German Council for Scientific Information Infrastructures is provided by a Head Office financed jointly by the Federal Government and Federal States of Germany. The Council's Head Office was established as a project at the University of Göttingen on 1 November 2014 (project lead: Professor Norbert Lossau) after a competitive process.

Dr BARBARA EBERT ↗

Director

STEPHANIE HAGEMANN-WILHOLT ↗

ILJA KALININ ↗

Dr SVEN RANK ↗

Scientific Officers

SARAH BARUFFALDI ↗

Team Assistant

5 KEY TERMS

RfII will include a glossary with each publication that explains the terms used. The following definitions represent a sample of such terms found in the comprehensive specialist glossary currently being worked on.

RESEARCH DATA

Research data is data which is generated in the course of scientific projects, for example as a result of digitalisation, original research, experiments, tests/readings, surveys and interviews, recording signal currents and electronic process data, and likewise data which serves a possible evidential role for scientific projects through selection, preparation, collection and storage.

RESEARCH INFRASTRUCTURES

Research infrastructures are scientific infrastructures which serve research (systems, resources, facilities and services). These include a) large apparatus and instruments for research purposes, b) knowledge resources such as (digital or non-digital) collections, archives, libraries and databases, c) technical information and communications infrastructures such as computers, computer networks (GRID, Cloud), software and connections and d) any other systems, resources, facilities or solutions providing a service to scientific research in a comparable function.

INFORMATION INFRASTRUCTURES

Information infrastructures comprise technically and organisationally networked services and facilities for working with data, information and inventories of knowledge significant to science. The focus here is on the digital nature of the data. Information infrastructures primarily serve the purposes of research and have enabling functions. The performance of digital information infrastructures depend significantly upon staff training, technical features, user-friendly access methods, international standards and tools, and the quality of the customised services.

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