



Leibniz Institute for Information Infrastructure

**ADVANCING SCIENCE**





# FIZ KARLSRUHE

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A large non-academic infrastructure institution in Germany  
and member of the Leibniz Association

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## OUR MISSION

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Our public mission is to provide scientists and researchers all over the globe with scientific information, to develop the appropriate products and services, and to conduct applied research. Accordingly, we are dedicated to strengthening knowledge transfer in Germany and abroad, fostering innovation, and supporting collaboration in science and research.

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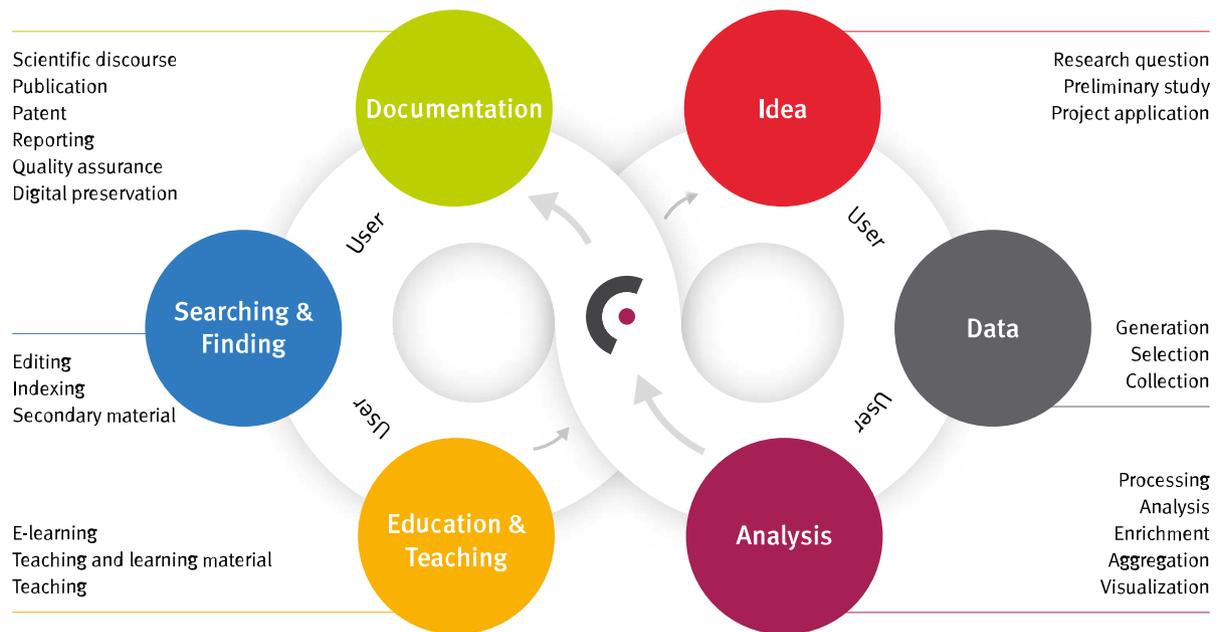
## OUR UNIQUE SELLING POINT

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At the same time, we are a large enterprise of the German Mittelstand. Our products and services gain us significant revenues in the international information market. As an organization with a public mandate, we pride ourselves on our neutrality and reliability. Yet we also boast the professionalism of a service provider that has been successfully competing in international markets for many decades. We see ourselves as a partner for science, economy, and politics.

# ADVANCING SCIENCE

We support the entire scientific value generation process



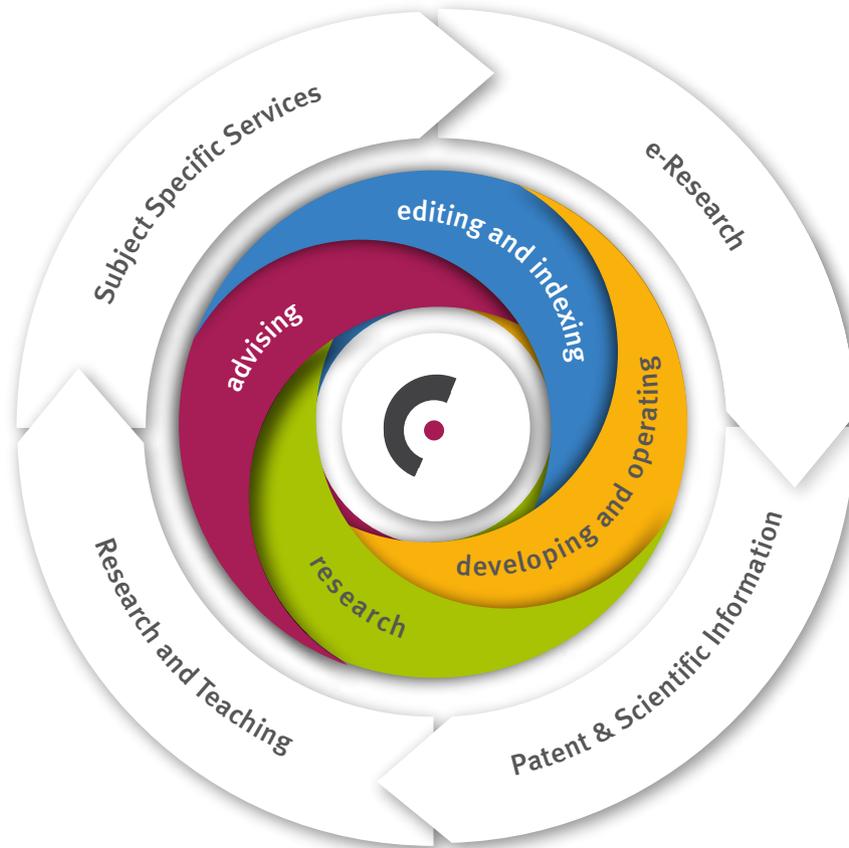
Our strategic goal is to support the entire scientific value generation process, i.e., all steps that involve information and knowledge and in which data are generated – from the idea to the experi-

ment to analysis, aggregation, publication, editing and indexing, post-processing and utilization in teaching and education. In line with this goal is our mission statement “Advancing Science”.



# LEIBNIZ-INSTITUTE FOR INFORMATION INFRASTRUCTURE

We understand “information infrastructure” to mean all content, technology, methods, processes, and associated services needed to generate, share, and preserve knowledge.



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## OUR BUSINESS AREAS, PRODUCTS, AND SERVICES

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### Patent & Scientific Information

deals with analyzing, structuring and indexing of subject-specific information, predominantly from publications in scientific journals and patent specifications. These very heterogeneous, large amounts of data are processed according to standards, quality-assured and continuously updated and made publicly available via specific information services. With new approaches towards and methods of text and data mining (TDM), developed within the framework of accompanying research, we support efficient patent searches and patent analysis.

### Subject-Specific Services

**zbMATH Open** is an information service for mathematics with networked information on mathematical topics, authors, publications, references and software as well as mathematical research data - accessible free of charge as an open access platform since January 2021. With more than 4 million bibliographic references, uninterrupted access to the mathematical research literature since 1868 is guaranteed.

**ICSD** is an information service in the field of crystallography with the world's largest database of fully determined inorganic crystal structures. It contains more than 250,000 crystal structures, recorded since the beginning of X-ray diffraction measurements in 1913. ICSD is the basis for solving complex problems in materials science.

### e-Research

It carries out infrastructure-oriented research projects with two focal points: services for the digital humanities ("e-Humanities") and services for research data management and digital long-term archiving, for example for the German Digital Library or in the field of bibliometrics.

**RADAR** is a cross-disciplinary service for archiving and publishing research data. The repository with a 25-year guarantee for the preservation of published research data is available in three variants.

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## OUR BUSINESS AREAS, PRODUCTS, AND SERVICES

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### Research and Teaching

This program unit comprises two research areas with corresponding professorships at the Karlsruhe Institute of Technology (KIT) within the framework of joint appointments.

In the research unit Information Service Engineering (ISE), models and methods for semantic indexing, aggregation, and networking as well as for retrieval of extensive heterogeneous and distributed data sources are investigated. Statistical and linguistic analysis methods (NLP) as well as machine learning methods in combination with symbolic logic and inference methods are used.

In the Intellectual Property Rights unit (IGR), copyright regulations and reform developments are analyzed and recommendations for digital science are derived from them. In addition, IGR develops copyright and licensing solutions, e.g., for Open Access, Big Data applications, collaborative research tools, or networked teaching formats.

### National Research Data Infrastructure (NFDI)

The NFDI is intended to systematically open up, sustainably secure, and make usable the data resources of science and research. FIZ Karlsruhe participates in the NFDI consortia across all areas – for example, in NFDI<sub>4</sub>Culture, NFDI<sub>4</sub>Chem, NFDI<sub>4</sub>DataScience, NFDI-MatWerk, and in the Mathematical Research Data Initiative MaRDI. During the development and founding stage of the NFDI, FIZ Karlsruhe, together with the Karlsruhe Institute of Technology (KIT), was temporarily the supporting institution of the NFDI Directorate.





# OUR CORE ACTIVITIES

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The skills on which our business areas, products, and services are based

## EDITING AND INDEXING

We edit and index data and documents so that the information they contain can be searched and used in a targeted manner. The focus is on patent information and mathematics.

## DEVELOPING AND OPERATING

We develop innovative information services operated within a secure, powerful, and highly available IT infrastructure. One example from the field of research data management is RADAR (Research Data Repository), a cross-disciplinary service for the publication and archival storage of research data.

## RESEARCH

We conduct research in order to be able to maintain the high quality of our products and services, to fulfill our tasks in line with our customers' requirements, and to continue to successfully position ourselves in an international environment. A typical research question reads: How can the rapidly growing volumes of unstructured data and information be processed and edited in such a way that new insights and innovation can be derived from them?

## ADVISING

We advise politicians on all questions regarding the information infrastructure, and our customers and users on the products and services of FIZ Karlsruhe.

# FACTS AND FIGURES 2021

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**300**  
EMPLOYEES

**73,7%**  
SELF-FINANCING RATE

## ANNUAL BUDGET

**51,1** million  
euro

## PRESIDENT & CEO

Sabine Brünger-Weilandt

## COMPANY'S HEADQUARTERS

Eggenstein-Leopoldshafen,  
Campus Nord of KIT – Karlsruhe  
Institute of Technology, Germany;  
further business location: Berlin,  
Germany.

Headquarters of our subsidiary  
FIZ Inc.: Princeton (USA)

## SHAREHOLDERS

German Federal Government  
Federal State of Baden-Württemberg  
Deutsche Mathematiker-Vereinigung e. V. (DMV)  
Deutsche Physikalische Gesellschaft e. V. (DPG)  
Fraunhofer-Gesellschaft zur Förderung der  
angewandten Forschung e. V. (FhG)  
Gesellschaft für Informatik e. V. (GI)  
Max-Planck-Gesellschaft zur Förderung der  
Wissenschaften e. V. (MPG)  
Verein Deutscher Ingenieure e. V. (VDI)



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# OUR VALUES

Responsibility, Integrity, Quality,  
Respect and Openness

# RESPONSIBILITY DETERMINES OUR ACTIONS BOTH WITHIN AND OUTSIDE OF OUR ORGANIZATION



In making our decisions, we carefully weigh opportunities against risks.

We treat all business-critical matters and information confidentially, taking technical and organizational security into account.

We are committed to equal opportunities and actively support the further development of our employees as well as work-life balance and safe working environments.

We treat the environment and its resources with care.

# INTEGRITY

## INTEGRITY ENSURES OUR CREDIBILITY BOTH WITHIN AND OUTSIDE OF OUR OR- GANIZATION

As an institute with a public mission we are committed to neutrality.

We follow the rules of good scientific practice.

We apply the Public Corporate Governance Codex of the Federal Republic of Germany and the Federal State of Baden-Württemberg.



# QUALITY PLAYS AN ESSENTIAL ROLE IN OUR WORK

Quality determines the value of our services and their acceptance by our users.

We see quality management and quality assurance as a continuous, institute-wide task.



**RESPECT**  
MEANS FOR US  
MUTUAL RESPECT  
AND TRUST,  
FAIRNESS AND  
RECOGNITION

We meet our partners and users at eye level.

We cultivate a corporate culture that respects and values people in all their diversity.

We strictly reject any form of discrimination in language and action.

# OPENNESS

WE ARE OPEN  
TO NEW IDEAS  
AND TO THOSE WHO  
CONTRIBUTE THEM



We create trust and reliability through transparency.

Together, we strive for improvement and give ourselves the freedom to develop further.

We work on our own responsibility and deal constructively with mistakes.



**ADVANCING  
SCIENCE**

