

Fraunhofer Open Access Strategy 2020

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Outstanding research and the realization of innovations in industry and everyday life are the foundation of the Fraunhofer-Gesellschaft's work. Producing research of consistently excellent quality is therefore firmly anchored in the organization's guiding principles and an essential requirement for all Fraunhofer Institutes. In order to promote innovation, it is required that research findings are shared as directly as possible and with a minimum of delay. When publishing the results of its research, Fraunhofer therefore unreservedly pursues the principle of open access.

Open access implies granting free and long-term access to scientific findings and scientific literature. A distinction is made between the gold road to open access, where research papers are first published in recognized, peer-reviewed open access journals, and the green road to open access, where papers are archived free of charge in an institutional or specialized repository either at the same time as or subsequently to their initial publication in one of the traditional media. The common feature of both roads to open access is that texts and objects can be freely accessed in digital format.

In line with the wider concept of open science, Fraunhofer's Open Access Strategy pursues and promotes the goal of making science and its results more easily accessible to a greater number of people. While doing so, strict attention is paid to respecting the researchers' scientific and legal interests, protecting personal data, and complying with obligations toward third parties, such as customers and collaborating partners.

Objectives

■ Social responsibility – Science as public property

As a publicly funded organization, Fraunhofer has a duty to facilitate the free and immediate access to its research findings (including the data on which these findings are based), and in this way inform the general public about the results of its research activities. For this reason, wherever possible, all Fraunhofer research papers shall be published via the gold or green road of open access.

■ Creating value through knowledge transfer

The publication of research papers is an important element in Fraunhofer's strategy for transferring knowledge and technology to society at large and to potential customers and collaborating partners. The best possible access must be provided to the results of research performed at Fraunhofer, so that they are immediately available for re-use in

follow-up research projects. Another advantage of open access publishing is that it permits the use of innovative methods of analysis or evaluation. The sharing of scientific knowledge through cross-linked, digital resources enables the development of new research approaches and innovations, and promotes faster and more immediate communication and exchange of experience within the scientific community.

■ Reproducible results

Reproducibility is one of the fundamental principles of scientific practice, because it ensures that experimental results can be duplicated and verified. Open access to published papers promotes transparency in research and enables research results to be verified more quickly and easily, especially if the underlying data is also made available at the same time.

■ Greater efficiency

Open access publishing enables information to be spread more promptly and efficiently to all interested parties in the research market. By providing timely access to scientific papers, new findings can be disseminated more rapidly, leading to shorter innovation cycles. Another advantage of Fraunhofer's open access strategy is that the publication of scientific work and research findings on an open platform enables the organization's industrial and business partners to easily identify the most suitable partners for their future research projects.

■ Optimized costs

As part of our open access activities, we are in the process of developing cost-transparent models in collaboration with the relevant scientific publishing houses.

■ Political framework

Fraunhofer's strategy is aligned with the open access policies promulgated by the EU and by the German national and regional governments, and complies with the recommendations of the German and European research funding agencies. On a national and European level, open access publishing is seen as a topic of public interest, and hence the Fraunhofer Open Access Strategy will help to bring about a cultural change in the scientific practice and conduct of the scientific community.

The goal for 2020 is to ensure that **at least one half of all scientific papers issued in a year** are published open access, with at least one third of these via the gold road where papers are first published in an open access journal. Targeted measures are also being implemented to encourage the simultaneous publication of underlying and related research data on an open access platform, wherever possible.

Planned Activities

- Fraunhofer's open access repository (»Fraunhofer-ePrints«) will be amended by an open research data repository (»Fraunhofer-Fordatis«), and the two resources will be linked in a single, integrated infrastructure.
- To operate such resources successfully, standards must be defined and consistently applied. Our researchers are therefore given wide-ranging support and advice on all aspects of open access publishing, by all affected and responsible parties in the institutes. The support provided at institute level includes to inform and to give advice to all stakeholders about the options available for open access publishing, with the aim of increasing the number of open access publications and of open access research data sets.
- Suitable measures are being set up to promote the transition to gold open access, e.g. installing a publication fund. An integrated structure for managing license-fees and publication costs is being established to assure a high level of cost transparency.
- Fraunhofer is also active on the national and international stage as a proponent and activist of open access.

General conditions

Fraunhofer's Open Access Strategy does not impose any restrictions on individual researchers to their scientific freedom.

The interests of researchers, collaborators and customers are entirely respected. Compliance with data protection and copyright laws is ensured as a matter of course, as are the rules of good scientific practice.

Open access in no way compromises the high quality of research papers published by Fraunhofer scientists, and takes into account the differences between publishing practices in different areas of research.