



PID – More than just numbers

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2. DOI and OpenAlex
3. Wikidata
4. GND-ID for Scientists
5. DFG-INST-ID: The German National ROR-Register
6. KF-PRIZE-ID and Open Register for Awards and Prizes (ORAP)



DFG Deutsche
Forschungsgemeinschaft

1. Introduction and Research Question

Germany's largest research funding organisation

annual budget
€3.9 billion

Promotes knowledge-driven research

of the highest quality in all scientific disciplines. Funding of over 30,000 projects per year

Association under private law



Members:

99 leading universities, non-university research institutions, scientific associations and academies

Researchers have majority in decision-making

Research organisations worldwide

participate in DFG-funded projects

Everyone knows the following PIDs and understands their purpose:



DOI (Digital Object Identifier)

A unique, permanent identifier for digital research outputs (like journal articles, datasets, or reports).



ORCID (Open Researcher and Contributor ID)

A unique identifier for individual researchers, used to distinguish their work from others with similar names.



ROR (Research Organization Registry)

A unique identifier for research institutions and organizations, helping to link research outputs and people to their institutional affiliations consistently.

- Less well known: PID as the key to content-rich data collections

This session presents PIDs that provide access to rich data collections:



DOI (Digital Object Identifier)



WIKIDATA-ID for Researchers



GND-ID for Researchers



DFG-INST-ID for research institutions in Germany (as presented in GERiT: German Research Institutions | DFG)



KF-PRIZE-ID (upcoming): ID for scientific prizes and awards hosted by (KFiD) [Commission for Research Information in Germany]



2. DOI and Open Alex

- For a long time, **DOIs** were a natural part of bibliographic databases.
- E.g. the commercial database like **Web of Science** or **SCOPUS** use DOIs to uniquely identify and link articles.
- In recent years, non-commercial alternatives have been developed. The **OpenAlex** initiative is particularly noteworthy in this regard.
- Based on its successor **Microsoft Academic Graph (MAG)** it started in 2021.



- Open Alex includes **250 million scholarly works from 250k sources**, with extra coverage of humanities, non-English languages, and the Global South.
- **New release** will include +100 million additional works with DOIs from DataCite (esp. datasets, preprints, dissertations).
- **Free API** for downloading Meta-Data with open CC0-license (best source for publications abstracts!).
- **Same provider and economic concept as “unpaywall”**: Not for profit, but premium subscription possibility
- **Recently added citation metrics** (FWCI, Citation percentile by year/subfield).

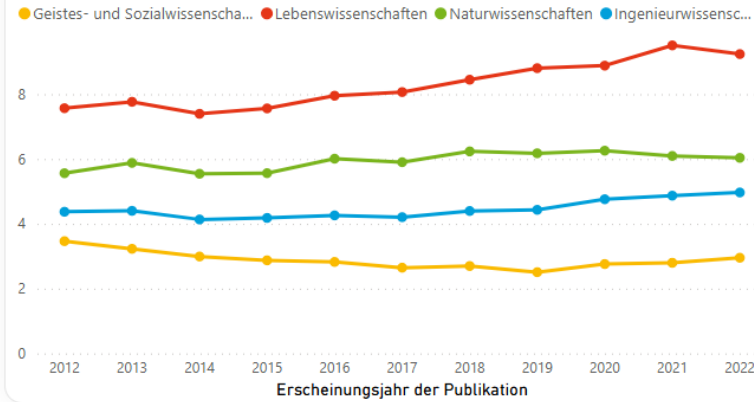


Erscheinungsjahr der Publikation
 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Insgesamt

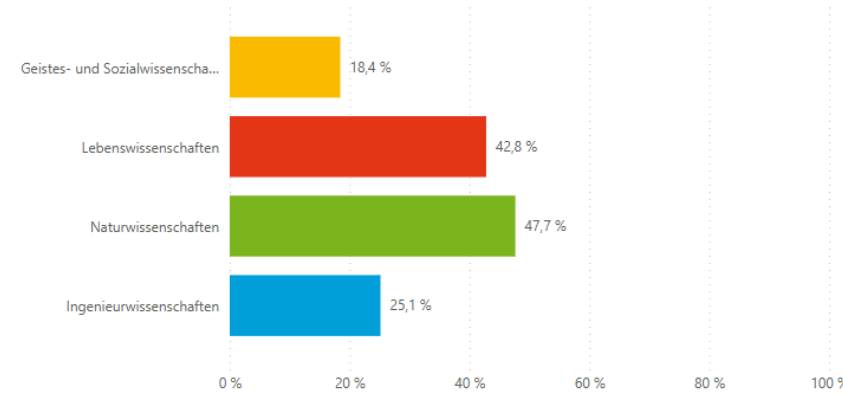
Nach Wissenschaftsbereich

Percentage of publications involving individuals from...



Basis: Sachbeihilfe. Publikationen mit DOI, für die die Zahl der Autor*innen vorliegt. Je Publikation werden maximal 100 Autor*innen berücksichtigt.

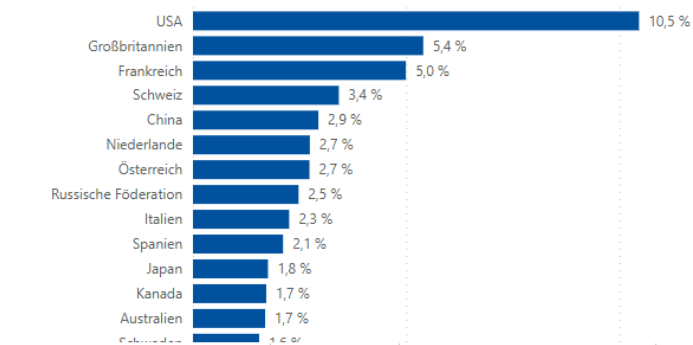
Proportion of publications with international participation



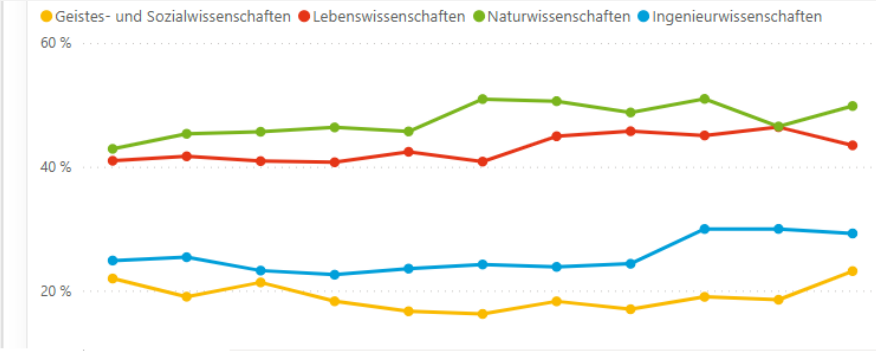
Basis: Sachbeihilfe. Publikationen mit DOI, für die Informationen zum Land der Autor*innen vorliegt.



Percentage of publications involving individuals from...



Development of the proportion of publications with international participation



t

Datenübersicht und Publikationstypen

Open Access

Internationales und Autor*innen

Lizenzen und Verlage

Alle Programme



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3. Wikidata

Developed by Wikimedia Deutschland (launched in 2012):

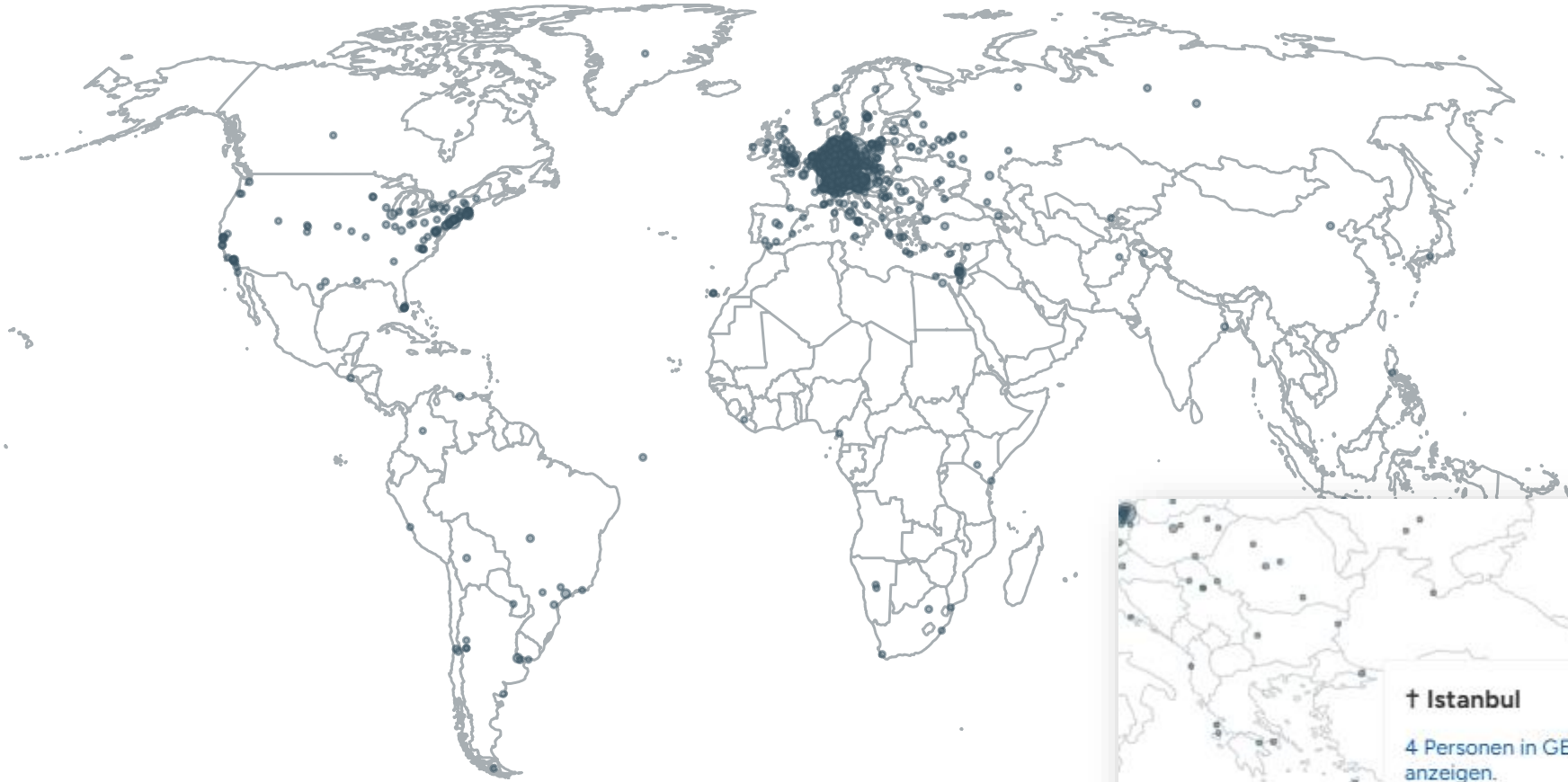
- A **free, open, and collaborative** knowledge base that stores structured data used across Wikimedia projects (like Wikipedia).
- It provides **unique identifiers (Q-numbers)** for **concepts, people, places**, and more — enabling consistent data linking.
- **Researchers, developers, and institutions use it** to connect and enrich datasets and improve data interoperability.
- **Number of people covered:** ~ 12.6 million (1.2 million with “occupation scientist” (thereof 64 percent living), 1,9 million with ORCID)



DFG database published in 2020: „**GEPRIS Historisch**“ (GEPRIS historical) (GH). It makes approx. **50,000 grant applications** from more than **13,000 scientists**, submitted to the DFG **between 1921 and 1945**, searchable.

- 8,000 of 13,000 scientists matched with Wikidata in the beginning.
- Around 3,000 new persons and their Ids (GEPRIS Historisch person ID) were added to Wikidata as a “data donation”.
- As a result, data for ~83 percent of all “GH” persons are now also available on Wikidata.
- Corresponding data retrievals can be continuously updated.





Base: Records of place of death for 6.534 persons

Datenbasis und Quelle: Deutsche Forschungsgemeinschaft. (2025). GEPRI Historisch - Wissenschaftlicher [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14849869>. Stand: 24.09.2025



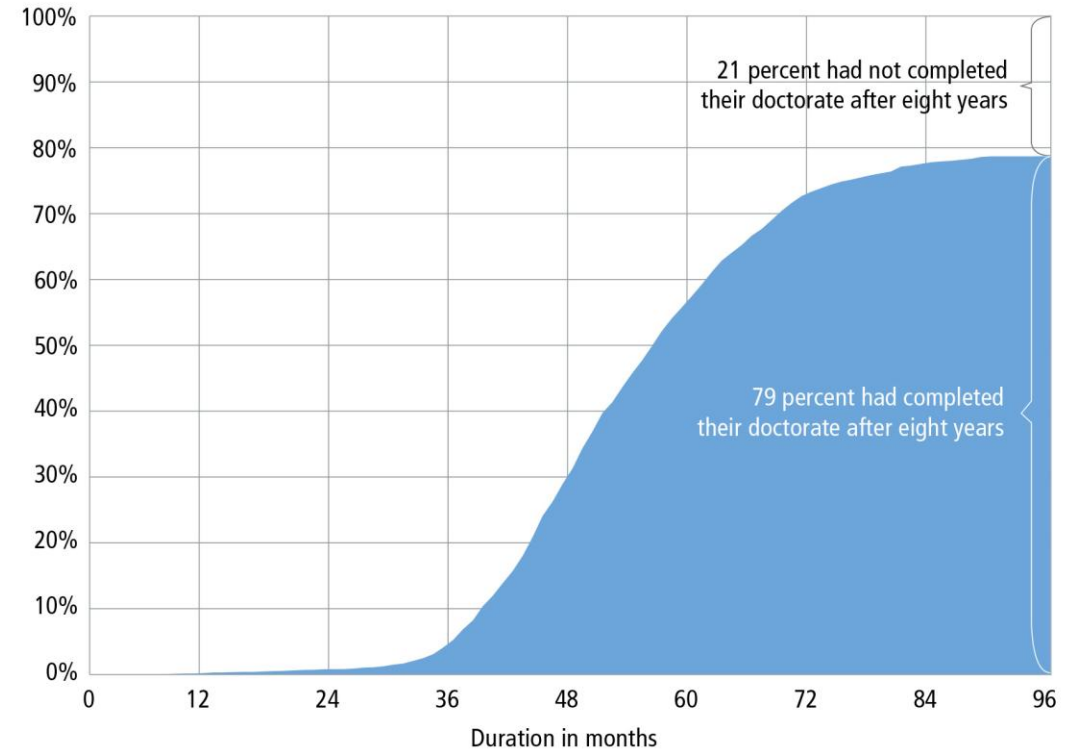
4. GND-ID for Scientists

- **The Gemeinsame Normdatei** (Integrated Authority File) is an international authority file for organizing personal names and others (e.g. Otto Hahn: 118544853).
- The GND is managed by the **German National Library** (Deutsche Nationalbibliothek).
- **It focuses on the German-speaking world**; internationally comparable services exist in the form of VIAF and ISNI.
- As of 2024, nearly **6.5 million individuals and nearly 600,000 organizations** had been recorded at GND.



- Since 1998, the DNB has been collecting all printed and/or electronic dissertations and postdoctoral theses submitted in Germany and linking them to the GND.
- So, the GND ID makes it possible for researchers to determine when and on what topic they obtained their doctorate.
- We used this data to determine whether and in what time frame DFG-funded young scientists achieved the desired goal of a doctorate (DFG 2021).

Cumulative share of completed doctorates by duration of doctorate (2012 cohort)



Data basis and source:

Annual survey of Coordinated Programmes in 2018 and dissertations in the DNB (status: 2020).



5. DFG-INST-ID / GERiT

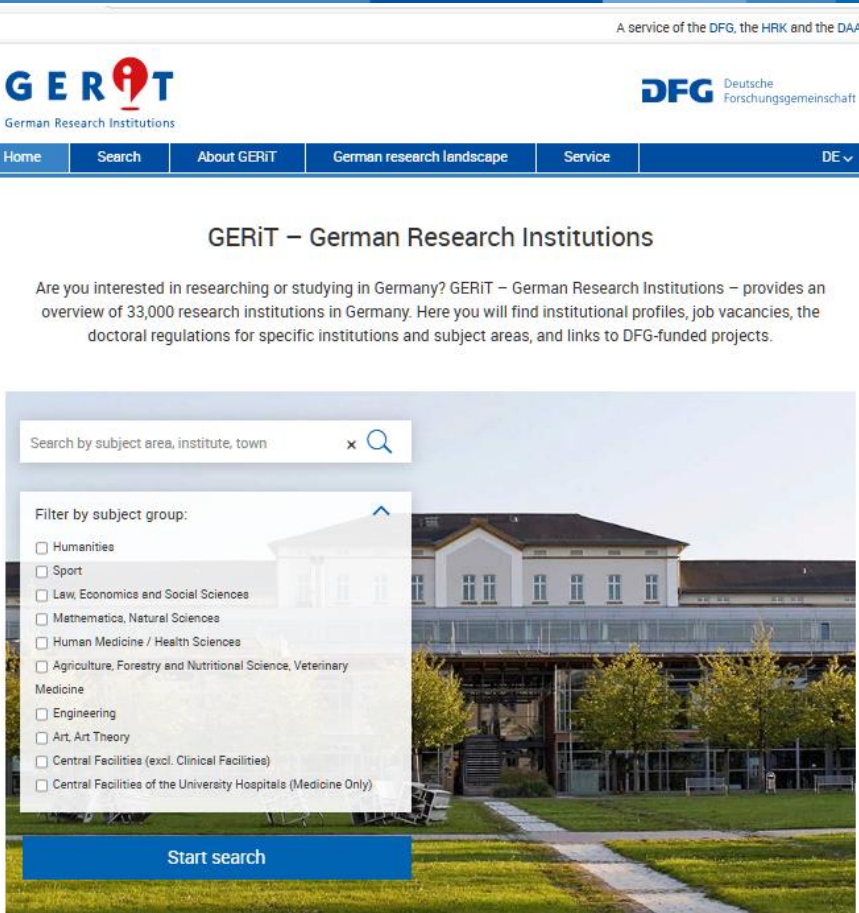
Some facts

- The bilingual system records around 33,000 entities (mainly institutes at universities).
- Entities are classified according to subject area.
- A link to the homepage of each entity is provided.
- The system displays the organizational structure of each institution (up to five levels).

Data sources

- Main source: DFG's application processing.
- Supplementary sources:
 - regular Internet searches
 - direct reports from institutions registered in GERiT.

<https://www.gerit.org/en>



A service of the DFG, the HRK and the DAAD

GERiT
German Research Institutions

DFG Deutsche Forschungsgemeinschaft

Home Search About GERiT German research landscape Service DE ↓

GERiT – German Research Institutions

Are you interested in researching or studying in Germany? GERiT – German Research Institutions – provides an overview of 33,000 research institutions in Germany. Here you will find institutional profiles, job vacancies, the doctoral regulations for specific institutions and subject areas, and links to DFG-funded projects.

Search by subject area, institute, town

Filter by subject group:

- Humanities
- Sport
- Law, Economics and Social Sciences
- Mathematics, Natural Sciences
- Human Medicine / Health Sciences
- Agriculture, Forestry and Nutritional Science, Veterinary Medicine
- Engineering
- Art, Art Theory
- Central Facilities (excl. Clinical Facilities)
- Central Facilities of the University Hospitals (Medicine Only)

Start search

Picture credit: Department of Mechanical Engineering and Environmental Engineering at the University of Applied Sciences Amberg-Weiden
Thomas Kniess (Wikimedia Commons) CC BY-SA 3.0

About GERiT

GERiT is an information portal on German research institutions provided by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) in partnership with the German Academic Exchange Service (DAAD) and the German Rectors' Conference (HRK). GERiT is aimed at students and researchers in Germany and abroad. [Read more >](#)



DFG Deutsche
Forschungsgemeinschaft

6. KF-PRIZE-ID and Open Register for Awards & Prizes

The KFiD

- is an **expert body representing key actors of the German science system**,
- is **responsible for the advancement of the KDSF Standard for Research Information** (Kerndatensatz Forschung / Core Dataset Research),
- **develops registries** to facilitate institutional research information management.



Kommission für
Forschungsinformationen
in Deutschland



The KFiD

- **develops its own PID** primarily for objects for which such IDs do yet not exist.
- Special attention should be paid to a **PID for scientific prizes and awards**.
- Based on a survey in Wikidata and various other sources, an **initial inventory of approx. 6,000 awards** was developed.
- **Extensive quality assurance measures** were carried out for 2,000 of these, and a rich set of metadata was collected.
- The data will be published soon as “**Open Register for Scientific Prizes and Awards**” (ORAP).



The ORAP

- provides a continuously updated list of scientific prizes and awards with various metadata like
 - Awarding organization
 - Eligibility
 - Nomination procedure
 - Early Career Researchers [Y|N]
 - Endowment of a prize
 - Subject of the award (research; teaching; transfer; other)
 - URL
- The term “open” expresses the intention to further develop the register in close cooperation with the (initially German) information systems community.
- It has already benefited from the data of two pilot users (German universities) and
- will offer an API for CRIS Integration.



Source: DALL-E

Wikidata

- was the **main source of ORAP**,
- **benefits from the collective intelligence** of its users,
- **is continuously updated** with data on new and changing prices,
- will also be **permanently linked to ORAP** via data export
 - in particular, the KF-PRIZE-ID is exported to Wikidata so that the information accessed there can be continuously compared with the inventory.



- **Wikidata entries on historical research** personalities often refer to academic awards they have received, but also to their honorary memberships in academic academies.
- With the help of the before mentioned PID-concordance we were able **to retrieve data on prizes and academy memberships** documented there for the scientists documented in “GEPRIS Historisch” (GEPRIS Historical).
- We used this data to construct **a typology of laureates**.



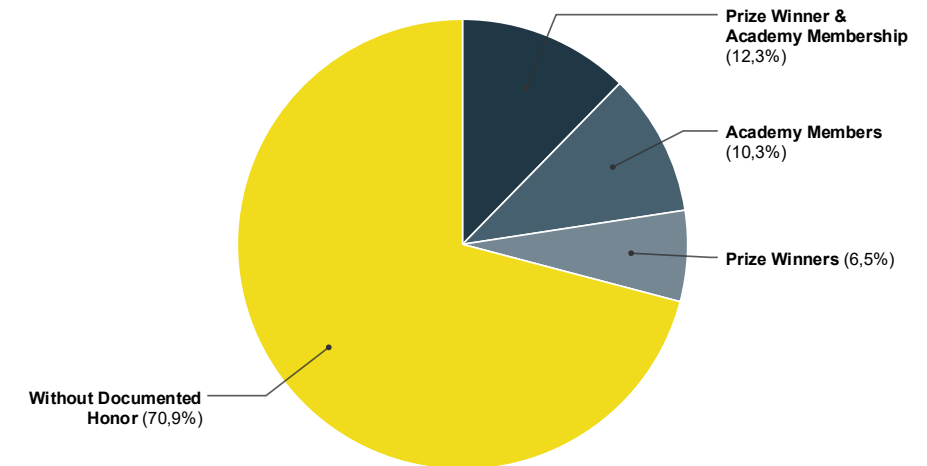
Selected Findings

- For ~ 2,300 individuals prizes and memberships could be verified
- ~ 2,300 awards with ~ 560 different prizes
- ~ 3,400 memberships in academies (~1,800 individ.)

During the Third Reich, Jewish scientists and those with dissenting political views were expelled by the Nazis

- The adjacent graph illustrates that this was associated with a significant loss of outstanding scientists:
- ~ 30 percent of all displaced scholars were award winners and/or academy members (for comparison: the total share is ~ 17 percent)
- Interesting fact: Türkiye under Atatürk was a first “save harbor” for many scholars (see Kubaseck & Christopher 2008)

Laureates among Displaced Scholars



N = 536 Vertriebene Antragssteller*Innen.

Datenbasis und Quelle: Deutsche Forschungsgemeinschaft. (2025). GEPRIS Historisch - Wissenschaftlicher Analysedatensatz mit Skripts und Datenhandbuch [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14849869>. Stand: 24.09.2025



PID have an increasing additional value of provider of meta-data for the research entities they identify (e.g. publications, scientists, prizes, research performing organizations).

Some of the local IDs (GND, GERiT) are only recently discovered as valuable sources for “research on research”.

New PID are emerging, that can be valuable above the national context in future (ORAP).

Wikidata is an especially valuable Hub for PID and data source on its own.

Future work: Linking DFG’s internal PIDs with open PID to improve research transparency and evaluation.

Deutsche Forschungsgemeinschaft. (2021). Alles hat ein Ende ... oder? Abgeschlossene und nicht abgeschlossene Promotionen in DFG-geförderten Verbänden (1.2).

Zenodo. <https://doi.org/10.5281/zenodo.5520850>

Heidler, R., & Güdler, J. (2024). Is It Really Him/Her?: Challenges and Solutions in the Unambiguous Identification of Historical Researchers. National Library of Technology.

<https://doi.org/10.48813/KENR-DE87>

Heidler, R., & Güdler, J. (2025, forthcoming). *GEPRIS Historisch – A new portal for research of government-funded science from the Weimar Republic to the Second World War*. In S. Große-Wilde, E. Kölmel, & V. Yurdakul (Eds.), *Science and the State: Governmental Research in War and Peace during the Twentieth Century*. Bielefeld University Press / Transcript.

Kubaseck, C., Seufert, G. (Hrsg.), 2008: *Deutsche Wissenschaftler im türkischen Exil: Die Wissenschaftsmigration in die Türkei 1933–1945*.



More information: www.dfg.de/en

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