

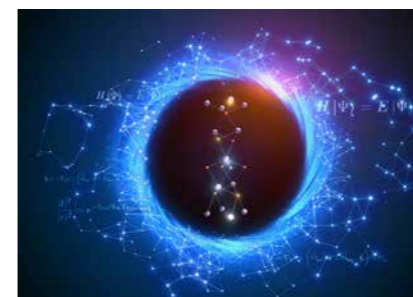


Human-Nature Relationships: Pristine Wilderness and Vital Habitat | Research Security and Academic Freedom: A Question of Balance | Climate Forecasts: When the Wind Changes | Physics: Quantum Design Vision | Literary Prizes: More than Fame and Glory | Research Vessels: The Future Viability | 24th GAIN Annual Conference



Cover: dpa/Zoonar

*Impressive view of the snow-capped Mount Kilimanjaro: Africa's highest mountain offers a large variety of species, allowing researchers to use it as study object in order to gain a better understanding of a complex social-ecological system.*



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Katja Becker

# A Question of Balance

*How is it possible to ensure research security in international scientific cooperation without restricting freedom of research? This was a key topic at a high-level German-American meeting which took place at the end of August at the invitation of the DFG and the German Embassy in Washington. german research documents the DFG President's keynote speech and reports on the round table held in the US capital.*

Science – in particular as a basis for sustainability, openness and prosperity – depends not least on global scientific cooperation. Yet the latter is increasingly facing geopolitical challenges. In these turbulent times beset with crisis, conflict and even war, ensuring research security is becoming ever more important.

Russia's invasion of Ukraine and the systemic rivalry with China are not the only threats here, simply the most visible of a diverse range of risks that also includes disinformation campaigns, sabotage, foreign interference, scientific espionage and attacks on research infrastructure and data.

Against this background, we are currently experiencing fundamental changes worldwide. Facilitating bi- and multilateral research at the highest level between the world's best scientists is still perceived as a confidence-building and epistemically enriching activity. Yet we encounter a more cautious and critical attitude and growing security concerns – sometimes even mistrust. Even tried and tested collaborations are now at times being called into question. Even when working with like-minded countries, we are seeing increasing difficulties, albeit as unintended consequences of more administrative controls or reporting requirements, for example.

Especially considering the pivotal role of research in tackling global challenges, this is in many ways a play with fire.

Worldwide, this situation not only impedes individual researchers from discovering new findings, it also affects the work of research funding organisations.

At a multilateral level, the Global Research Council has been involved with research security for years. However, the increasing politicisation of science has reached the GRC as well, and this year's annual meeting was

almost derailed by calls for a boycott due to current geopolitical tensions.

The global research community is currently unsettled and struggling to find solutions. In essence, we encounter four approaches: raising awareness, defining red-line criteria, establishing advisory institutions/opportunities, and creating comprehensive learning systems. While Australia published guidelines to counter foreign interference at its universities early on, the United Kingdom has established an additional Research Collaboration Advice Team and a security certification programme for incoming researchers in critical disciplines. By contrast, the Canadian government has been blacklisting certain institutions since the beginning of this year, excluding them from any cooperation. In the US the focus is on standardising research security programmes at the national level.

In Europe, the EU has adopted recommendations to define principles for responsible internationalisation, develop national research security strategies and improve information exchange between research organisations and intelligence services. The Netherlands stand out among EU members: here the largest research funding organisation, the university and academy associations and the ministry have jointly developed a security strategy and set up a Research Security Help Desk.

In Germany, too, science organisations and the government have reacted to the highly dynamic geopolitical situation. In its National Security and China Strategies, the German government favours a consistent, responsible de-risking: International cooperation ought to be “as open as possible, as closed as necessary”. In a position paper on research security this spring, the Federal Ministry of Education and Science called for these measures to be enhanced so as to provide effective, risk-appropriate and proportionate protection.



Illustration: David Ausserhofer

At the same time, the Alliance of Science Organisations in Germany developed a broader awareness of increasing security risks within the scientific community, while all Alliance partners have already drawn up tailor-made rules for dealing with their individual research security issues. Our common goal is to significantly reduce risks to national security and the German research system by de-risking international research collaborations. And yet, German universities and research institutions experience increasing pressure to further scrutinise their international collaborations with regard to security-relevant aspects.

In all efforts to increase the security of research and that of researchers in Germany, however, the top priority must clearly be to safeguard academic freedom, which is protected under constitutional law. Considering the mechanisms of the German research system, this means that proven structures and processes of academic self-governance must be preserved and utilised for strategic de-risking. This means that the lead for shaping the

framework conditions for responsible research should remain with the scientific organisations and institutions. The DFG is therefore working with its partners to ensure that decisions on scientific collaborations continue to be made by the scientific community – based on case-by-case assessments.

Particularly when collaborating with researchers in countries whose governments do not share our democratic values and our appreciation of freedom of research, we must take any cases of potential abuse seriously, weigh them against the benefits of collaboration, and make informed, balanced decisions. For this reason, the DFG has published recommendations on dealing with risks in international research cooperation, which offer researchers and reviewers guidance and support – with regard to relevant research topics, but above all with regard to the respective research conditions.

In the years ahead, it will be essential to ensure that the people and institutions responsible for taking these difficult decisions are able to draw on the sound basis of experience and expertise that is required. To achieve this,

we need opportunities and services for effective exchange and targeted advice. I am very pleased that we have a large number of scientific advisory bodies in Germany on whose work we can build. And by “we” in this case I mean both researchers and politicians: when it comes to research security, trust-based dialogue between the research system and political decision-makers is crucial – especially when national security issues are involved.

Last but not least, we want to strengthen the dialogue on strategic de-risking within the scientific communities, especially with our international partners. Maintaining a productive balance between academic freedom and research security will be much more effective if we share similar or the same scientific principles, requirements and goals: if we agree on common value-based guide-

lines founded on the principle of “responsible openness”, and if we harness science diplomacy to build bridges and open windows of opportunity, the benefits of cooperation will outweigh the risks to research and society, even in a changing geopolitical landscape.

This is why it is so crucial for our transatlantic partnership to embrace a shared notion of science diplomacy and research security, one that enables all partners involved to meet on an equal footing – on the basis of democratic values, transparent processes and responsible research. When we develop common standards and best practices, for example by agreeing on security protocols or facilitating secure knowledge transfer, strengthening research security and fostering international cooperation go hand in hand.

## “We Need Safeguarding”

*Washington Round Table: new SECURE centre in the US as a role model for Germany?*

A wealth of expertise was assembled on this Thursday morning of 23 August at the invitation of the DFG and the German Embassy in Washington: more than 20 representatives from Germany and the US came together at the DFG office in the US capital to discuss the topic of research security. It quickly emerged that over and above the key question of striking a balance between security and freedom, the issue at hand was whether a research security centre recently established in the US could also serve as a model for Germany.

The talks were attended by leading representatives of the German and US research communities. In addition to DFG President Katja Becker, they included Vice President Britta Siegmund and Secretary General Heide Ahrens, as well as representatives of the Alliance of Science Organisations in

Germany and the Federal Ministry of Education and Research. They were joined by prominent representatives of the National Science Foundation (NSF), the American Association for the Advancement of Science (AAAS) and the Association of American Universities (AAU), as well as representatives of the White House and the US State Department and Energy Department.

Following on from the DFG President’s keynote address (see our editorial), Rebecca Keiser, who is responsible for Research Security Strategy and Policy at the NSF, made the following appeal: “We need a kind of safeguarding for science: this involves conveying through communication, training and education how to deal with risks in our day-to-day work.”

Keiser’s remarks on the establishment of the SECURE centre (“Safeguarding the Entire Commu-

nity of the U.S. Research Ecosystem”) in the US met with particular interest among German representatives: “With a budget of around 50 million US dollars, the aim is to support the scientific community in the US in safeguarding science over a period of five years. To this end, researchers and their institutions will be provided with tools to enable them to carry out their own risk assessments and also make information available on potential partners, such as whether they have links to military institutions.”

Immediately following the intense debate, in which participants showed “great openness and trust” (Becker), the DFG President outlined what she believed to be a sensible way forward towards establishing a comparable centre in Germany.

In an interview with Research Table, Becker said: “I think it is in-

There is no shortage of fundamental issues to be addressed before these synergies can be achieved. One of them is certainly how research security can be strengthened in practice without hindering or even preventing – research through excessive bureaucracy. Another question certainly is: where and how, on what basis and under what circumstances do we draw the distinction between de-risking and de-coupling? In other words: where and how, on what basis and under what circumstances must we draw red lines, for example when potential partners disregard human rights and restrict freedom of research?

These and other related issues require a sound foundation for information, discussion and decision-making. This makes it even more important to share points

of view, ideas and approaches in a partnership that is grounded in substance and strengthened by personal connection. In this way we can work together to seek out ways and solutions to maintain the right balance between research security and research freedom.

**Professor Dr. Katja Becker**

is President of the Deutsche Forschungsgemeinschaft.

*Slightly adapted version of the keynote speech held on 23 August 2024.*



*Follow-up event: round table participants at the signing of a memorandum of understanding between the DFG and the National Endowment for the Humanities (NDH).  
Illustration: DFG/Maguire*

evitable that we will have to set up an independent, central institution which is available to all stakeholders in the German research system. This should function as an interface between policymakers, state security services, funding agencies, research institutions and ultimately researchers themselves.” Such an institution could issue guidelines and provide up-to-date information to the research community, Becker contin-

ued, thereby enabling German researchers and their institutions to make informed decisions. “As I see it, that would be ideal,” said Becker.

As in her keynote address, Becker warned against focusing excessively on research security internationally: “We’re already seeing that although the only thing we and many others are seeking to achieve is de-risking, de facto de-coupling is starting to occur in some areas.

Given the increasing awareness-raising and heightened complexity, individual researchers are already opting not to collaborate with Chinese partners, for example, and turning to other countries instead. There is a major risk involved here. We must continue to collaborate internationally, which is why we have to take swift and unbureaucratic action to establish a secure legal framework.”

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# The Future Viability of Research Vessels

New concept for funding operating and expedition costs / Introduction with the commissioning of the new FS METEOR in 2026 / DFG to set up Infrastructure Priority Programme



Illustration: U Hamburg /LDF/D. Greening

Mainly deployed in the Atlantic: the research vessel MARIA S. MERIAN.

How do sea ice and ocean currents develop in a changing climate? What are the geological processes that shape the edges of the continental shelves? What does life in the deep sea look like? In order to pursue these and other questions of basic marine research, seven German research vessels take hundreds of researchers to the world's oceans every year. Based on intense consultations with the German federal states and the participating research institutions that operate such vessels, the DFG and the Federal Ministry of Education and Research (BMBF) have now developed a sus-

tainable concept for financing the operating and expedition costs incurred by German research vessels. The new financing model is due to come into force in mid-2026.

The background to this new financing structure is that the BMBF is currently building a new research vessel for use in the Atlantic, namely the FS METEOR. It is scheduled to enter service in mid-2026 to replace the old FS METEOR and will be operated by the GEOMAR Helmholtz Centre for Ocean Research Kiel. The BMBF and the state of Schleswig-Holstein are to increase their funding for the operation of the FS ME-

TEOR. Primarily used in the Atlantic, the FS MARIA S. MERIAN and FS METEOR have been financed by the DFG and the BMBF to date. Under the new model, the operating costs of the FS MARIA S. MERIAN are to be financed exclusively by the DFG in future through its central research vessel funding programme.

In connection with the new model, the DFG Senate has also approved the establishment of the new Infrastructure Priority Programme (SPP) "Research Vessels". The SPP will initially receive up to €21.6 million in funding for the first three years. By reorganising the funding of

operating costs, the DFG will be able to offer standardised expedition and analysis funding for the seven German research vessels in the future.

In addition to the FS MARIA S. MERIAN and METEOR, these include the FS SONNE, which is deployed in the Pacific and Indian Oceans, the polar research icebreaker POLARSTERN, and the FS HEINCKE, FS ALKOR and FS ELISABETH MANN BORGESSE, which are deployed in the shelf seas of the North Sea and the Baltic Sea. In future, researchers will be able to plan their projects on the world's oceans more flexibly as well as having the option of organising their expedition and analysis costs more flexibly and independently of the ship being deployed. In addition, it will be made easier for universities to conduct ship expeditions.

"The vessels serve a large number of research communities, especially in the natural and life sciences: they

act as an indispensable platform for addressing a wide range of research questions relating to the oceans and their marginal seas," said DFG Secretary General Dr. Heide Ahrens. "All in all, this restructuring will significantly improve the situation for the research communities that use the ships."

Under the new Infrastructure Priority Programme, researchers can apply for funding for projects in all fields of science requiring offshore research. These include microbiology, plant science and zoology, marine geosciences, physical and chemical oceanography, as well as atmospheric and climate research. On rare occasions, the ships are also used for projects in archaeology or astrophysics.

As Bettina Stark-Watzinger, the former Minister of Research, emphasized in September 2024: "With this substantial funding, we are creating a forward-looking basis for marine, coastal and polar research. There can

be no doubt that the oceans are not only a vital space in economical and biological terms but are also crucial from the perspective of climate and biodiversity. Research can provide answers on how we can protect the oceans and use them sustainably."

A few more steps need to be taken before the new operating and financing model can be launched in summer 2026 – in particular, separate resolutions have to be passed by the participating federal states of Schleswig-Holstein, Mecklenburg-Western Pomerania and Hamburg, as well as the Helmholtz Association and also the University of Hamburg, where the German Research Fleet Coordination Centre is located. The latter is responsible for coordinating the deployment of the FS METEOR, FS MARIA S. MERIAN and FS SONNE, and this will continue to be the case in the future.

[www.dfg.de/en/service/press/press-releases/2024/press-release-no-40](http://www.dfg.de/en/service/press/press-releases/2024/press-release-no-40)



Illustration: GAIN/Barak Shrama

Whether a career leading to a professorship, founding a start-up, or moving into science management or research-based business – around 500 participants attended the **24th GAIN Annual Conference** in San Francisco in August to find out about career paths and options for returning to Germany and to share ideas. This conference is the biggest networking event for researchers in early career phases from Germany working in the Americas and for international postdocs. It is put on annually by the German Academic International Network.



Illustration: DFG/Schaffartzik

Appearance on the international stage: this year's winners of the DFG's Europa Prize – Anna Maria Weiß, Maja Leber, Julius Gutjahr and Ediz Osman (from left) – also presented their projects at the **European Union Contest for Young Scientists (EUCYS)** in Katowice, Poland. Three of the four young researchers were awarded special prizes involving research and observational visits. They previously received awards in the national youth science competition *Jugend forscht*. This year, 146 young people aged between 14 and 20 from almost 40 countries took part in the EUCYS competition.



Rembert Unterstell



Illustration: Serkant Hekimci/Alamy Stock Photo

A hotspot and driver of regional air pollution: the industrial complex in Magnitogorsk ("City on the Magnetic Mountain") in the Southern Urals.

## "Finally Tell Us What We're Breathing!"

"Hazardous air" in the Chelyabinsk region before and after Chernobyl: a case study in environmental history, public and political debates of the past, and the importance of freedom of research here and now. An interview with Russian refugee historian Olga Nikonova and insights into Putin's Russia by Klaus Gestwa, a specialist in Eastern European history.

**E**nvironment, health and toxic living environments. This piece of environmental history initially takes us far away, deep into the Urals, 1,500 kilometres east of Moscow: to the industrial conurbation of Chelyabinsk. But it also takes us to the heart of environmental debates of the (late) Soviet era, drawing on the example of devastating air pollution. It also touches

on the social protest movements of the 1980s, for which Chernobyl acted as a catalyst after 1986. What are the lessons we have learned from this, or are still learning today? We spoke to Olga Nikonova in the Hegelbau at the University of Tübingen.

**german research:** Professor Nikonova, have you settled in well in Tübingen?

**Nikonova:** Yes, I've settled in well and I'm happy to be back in Tübingen. I've known the team here at the department for a long time and very much appreciate the engaging and creative working atmosphere. Tübingen is known as a pleasant university town – a "small city", as Walter Jens called it. That's a stark contrast from the megacity of Chelyabinsk – a

grey industrial city in the Urals, infamous as the "forge of Russia". The two are diametrically opposed, wouldn't you say?

Chelyabinsk is not just the industrial city you describe, it is also home to numerous universities and colleges. I started my history degree during the perestroika era, when international contacts were quickly being established. Tübingen was known as an important centre for research into Eastern Europe. I initially established contact with Professor Dietrich Geyer and joined the CRC "War Experiences" as a project collaborator under Professor Dietrich Beyrau. It was here in Tübingen as a young historian that I learned to work with methodical rigour based on sources – combined with the ethos of engaging in open and critical discussion of research questions.

*You have done extensive research on the environmental history of the Urals. What is the focus of your current DFG project "Hazardous Air"?*

Like the other EnviroHealth projects, it is at the interface between



Graphics: Google Maps (left) / Heiling (right)

Far from Moscow, close to trade routes to Asia: Chelyabinsk Oblast is still one of the most important industrial regions in the Russian Federation.

environmental and health history. My project looks at environmental issues in Chelyabinsk Oblast after 1945, in particular the issue of polluted air. According to the WHO, air pollution caused the death of more than four million people worldwide in 2019. Chelyabinsk Oblast was one of the most important industrial regions of the USSR, and this still applies in today's Russian Federation. In the second half of the 20th century and at the beginning of the 21st century, the region was

among the ten most environmentally polluted areas in Russia.

*Chelyabinsk ranks first in the Russian Federation in terms of the volume of toxic waste it produces and third for air pollution ...*

At that time, the emissions came from iron and steel works, electro-metallurgical factories and chemical plants – a total of 500 plants in the region that were emitting nitrogen oxides, lead and chromium, hydrogen sulphides, sulphur dioxides,

### Profile

Born in 1969, Professor Dr. Olga Nikonova headed the Chair of Russian and International History at the South Ural State University in Chelyabinsk from 2016 to 2022. Her research focuses on the social and cultural history of Russia in the 20th century, environmental history and the history of perestroika. Nikonova left the Russian Federation in 2022; since 2024 she has been working on the project "Hazardous Air: Environment, Health and Politics in the Pollution Hotspot of Chelyabinsk (1945–2021)" in Tübingen. This forms part of the DFG-ANR collaborative project "Environment and Health in the Soviet Union and its Successor States (EnviroHealth)": led by the Eastern Europe and environmental historians Professor Dr. Klaus Gestwa, Tübingen, and



Illustration: DFG/Unterstell

Dr. Marc Elie, Paris, this project focuses on environmental and medical history issues through three individual projects.





## In Support of Refugee Researchers

DFG funding opportunities for integration purposes

The DFG supports researchers who have fled their home countries by making it easier for them to join research projects and apply for funding under the Walter Benjamin Programme. This is another way in which the DFG wishes to emphasise its solidarity with researchers from Ukraine and Russia who have been forced to leave their homes as a result of the Russian attack. Refugee researchers can submit a proposal for their own project to be carried out in Germany under the Walter Benjamin Programme (Walter Benjamin post). The restriction of the target group to the early postdoc phase that otherwise exists under this programme does not apply to refugees.

In addition to applying for funding under the Walter Benjamin Programme, project leaders and universities can submit additional proposals to involve qualified refugees in DFG-funded projects, whether they are doctoral researchers or have already obtained a doctorate. These proposals can be justified based on the fact that individuals are now available for the further development of a project whose involvement can be expected to provide additional stimuli for the project work in question.

For details of funding procedures, see:

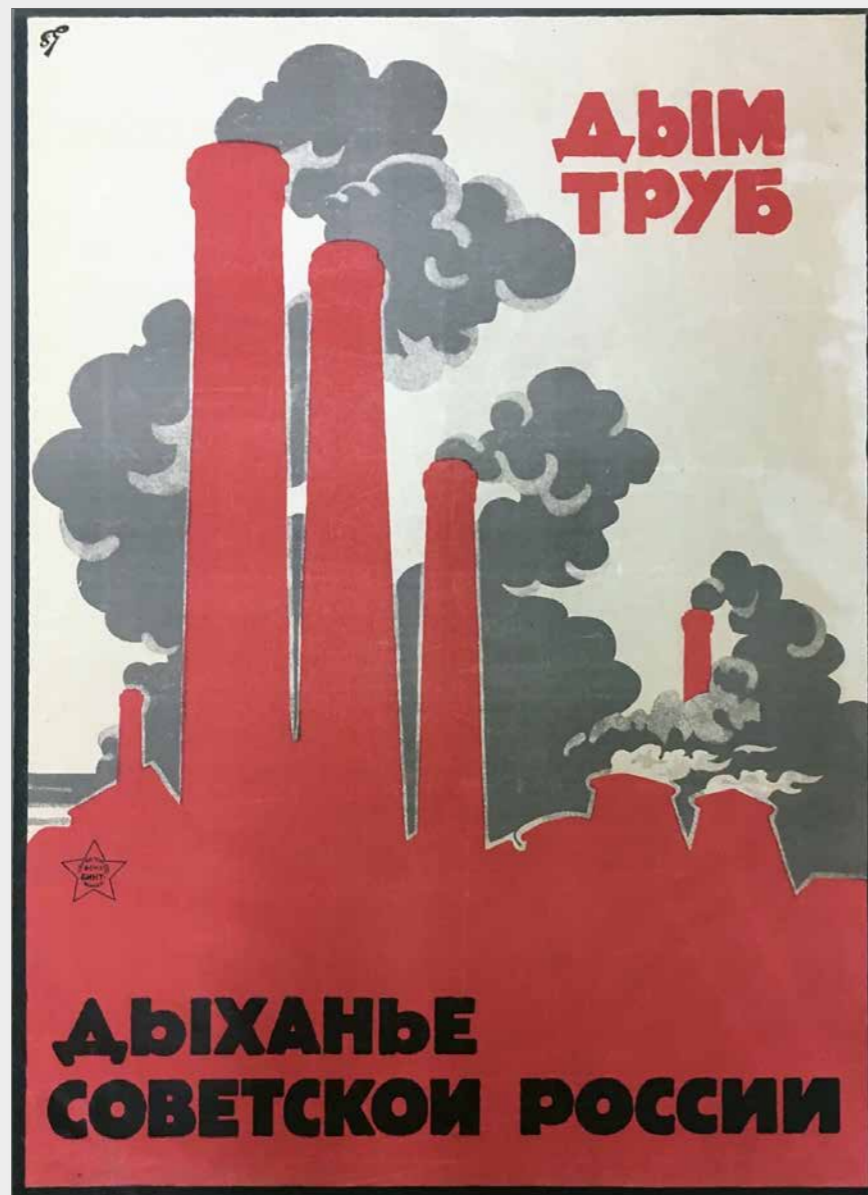
[www.dfg.de/en/research-funding/funding-initiative/refugee-researchers](http://www.dfg.de/en/research-funding/funding-initiative/refugee-researchers)

carbon monoxide and phenols. From the 1950s onwards, according to my sources, Chelyabinsk and other cities recorded increased rates of respiratory, circulatory and nervous system disorders as well as immune system damage.

*Is it true to say that it wasn't until after the Chernobyl nuclear disaster that these issues came to be debated in public?*

That's an important point. You're right, it all started with Chernobyl in 1986 – a turning point during

*"The smoke from the chimneys is the breath of Soviet Russia" – a poster from the 1920s. Rapid industrial development was seen as a powerful modernisation agent in the "building of socialism". Health and environmental protection were not issues in day-to-day life at the time.*



the perestroika years. After that the focus in the Urals was on the Mayak Chemical Combine – the Soviet Union's first nuclear reactor, built in 1948. Its operation resulted in huge quantities of radioactive substances being released into the environment, and a serious accident occurred in 1957. What very few people are aware of even today is that the Mayak accident is actually considered the third most serious nuclear accident of all time after Chernobyl and Fukushima. But



The header of an archive document that offers insights into the beginnings of the environmental movement in the Chelyabinsk region: on 10 March 1988, the secretary of the regional committee submitted a 20-page report to the Central Committee of the CPSU in Moscow on "Trends in the development of social organisations in the Chelyabinsk region". The message: the wave of environmental protest had reached the remote Ural provinces.

before Chernobyl, accidents and environmental crimes of this kind were kept top secret.

*On the subject of disasters: what do you think it does to people when they're exposed to environmental toxins day after day?*

They have a constant sense of being powerless, threatened and angry. Anyone looking out of the window in the morning in Chelyabinsk sees a grey dome of smog over the entire city. And this anger has spilled over into protest on occasions, such as in 2015, when people put up resistance to the construction of the Tominskij mine.

*How was environmental protest expressed during the perestroika years?* I can illustrate this with a report that the local party secretary wrote to the Central Committee of the CPSU in Moscow in March 1988. It's a twenty-page document describing the environmental hard-

ships and the discussions going on in the oblast, including the appeals that the protesters put up on posters, which say it all: "Finally tell us what we're breathing!", for instance. The local party leadership said it was "in urgent need of bringing about a genuine improvement in the state of the air and water basins". The report indicated that the wave of the first environmental protests had reached the provinces deep in the Urals.

*Without going into detail here: what happened next in terms of the environmental movement?*

Environmental activists fought for "nuclear safety" at local and regional level, and the term "ecological disaster" became common currency in the media. Environmental movements became a catalyst for the process of democratisation. Based on a political-ecological approach, I show how authoritarian structures were transformed.

*What is the significance of the concept of "political ecology" in terms of your specific research?*

My approach is primarily actor-oriented: in other words, I try and understand the motives, objectives and arguments of the various subgroups involved – whether media editors, party officials, doctors, residents or environmental activists. It is only by looking at things from different angles that can we get the full picture.

*What is the role of the term "ecological disaster" in the various environmental narratives?*

The notion of the "ecological disaster" was both a slogan and an agenda aimed at gaining political leverage for actors. It is a term that was taken from Chernobyl and applied to other environmental catastrophes, with the focus shifting to different dimensions including air pollution, pollutants, disease rates, medical shortages, and indeed the



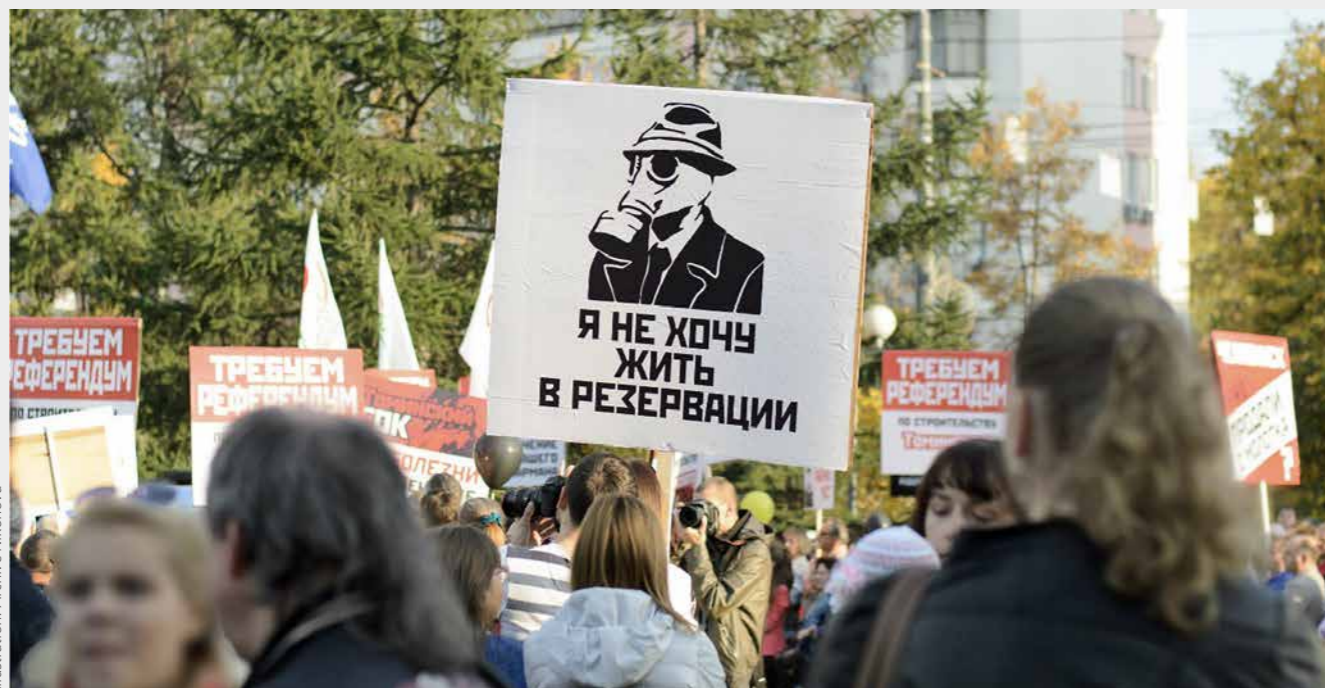


Illustration: Archive Nikonova

"I don't want to live in a reservation" – graphic street protest in September 2015 against the construction of the Tominskij mining facility.

healthcare system as a whole. Politicians tried to get the region recognised as an "ecological disaster territory" in order to get financial support from Moscow.

*What historical sources do you have access to? The Russian archives are no longer accessible.*

I work with previously researched archive materials from party, municipal and regional administrations, local and regional media, and also ego-documents such as the memories of environmental activists, or transcripts of radio broadcasts, for example. And then there are internet sources, too, of course.

*You lost your professorship in Chelyabinsk in 2022. Why?*

I lost my professorship, with a team of about 25 people, because I refused to write propagandistic texts about "fascist Ukraine". I clearly stated that I was a scholar and that I would like to continue to fulfil

my research and teaching obligations. But my academic freedom was increasingly restricted. At some point there were no longer any boundaries between scholarship and propaganda. The topics available for study became increasingly restricted, too. Funds for projects, conferences and library resources were cut. The Centre for Cultural History of which I was a member for almost twenty years embraced the study of history in a way that was geared towards contemporary approaches and paradigms, attaching importance to cooperation and dialogue.

*From your perspective as a historian, what constitutes freedom of research?*

As I see it, knowledge sharing and knowledge transfer are paramount. Progress in research is impossible without scholarly discussion and academic dialogue. The history of science and scholarship show that new insights have always emerged

from dialogue. And tolerance is needed to provide space for alternative interpretations of historical topics. Not repression, but discussion – that's the most important thing for me. Research is impossible without it!

*What topics would you like to pursue after your DFG project comes to an end?*

I'd like to continue working in the area of environmental history but this time turn my attention to Central Asia. The archives there are open and accessible. I'd like to understand the role of complex environmental issues in Central Asia in the process of state formation in the post-Soviet space. That's an interesting and multifaceted area to look into – not least in view of the differing border contexts in the history of this region.

*Thank you very much for this interview!*

**Interview: Dr. Rembert Unterstell,**  
Managing Editor of *german research*.

## Russian Federation

# "The scope has become increasingly restricted"

*Higher education institutions, the repression of science and historical propaganda – insights by Klaus Gestwa, Director of the Tübingen Institute of Eastern European History.*

Hundreds of thousands of intellectuals have left the country since 24 February 2022, including researchers, journalists and IT specialists. Entire departments have collapsed at leading, internationally networked research institutes in Moscow and St. Petersburg; university teaching has been depleted. Most of the historians I know personally who stand for high-quality research have now left Russia. The Putinist regime is making examples of them to create a climate of fear. The shocking event for historians in 2020 was the conviction – fabricated based on outrageous pretexts – of Karelian historian and human rights activist Yuri Alekseevich Dmitriev, who was sentenced to 15 years in a penal colony.

Repression and propaganda are based on "laws of history" that dictate how topics of the past are to be treated. This applies particularly to the "Great Patriotic War", i.e. the Second World War. The Putin Constitution enacted in 2020 prohibits denial of "the pivotal role of the Soviet Union in the victory over Nazi Germany". It requires the "defenders of the fatherland" to be honoured and encourages state authorities to ensure "protection of the historical truth". As such, any focus on inglorious aspects can have criminal consequences. The violent annexation of Crimea in 2014 and the "special

military operation" in Ukraine are interpreted as a continuation of the Second World War. The scope for critical study and debate has become increasingly restricted. History teaching at schools and universities is determined by curricula on "Russia's DNA". Under Putin, a repressive regime of remembrance, also enforced through the legal system, serves to elevate Russia as a unique civilisation and propagate

ing humiliated by the "collective West". According to this propaganda, Ukraine is a threatening anti-Russian project being pursued by the West – a distorted image that is having an impact.

In addition, there is the ideology of Eurasism, which was originally formulated as early as the 1920s and has since been revived. Here, Russia is seen as the hegemonic



Illustration: DFG / Unterstell

a pronounced "anti-Western extremism" (Valeri Garbusov).

There is also widespread denunciation of both colleagues and students at universities. The omnipresent misinformation, distortion of facts and propaganda formulas gives rise to a sharply defined friend-foe mindset. Among other things, Putin instils a sense of encirclement, drawing on the dazzling, confrontational concept of "geopolitics" to unite Russian society, which he claims is constantly be-

power of Eurasia. This abandonment of the West and simultaneous "turn to the East", associated with neo-imperial ambitions, has also had an impact on research – with consequences: Russian research has not only lost its freedoms but its international networks, too. Politically motivated isolation is forcing Russian scholars to establish new collaborations with partner institutions in states that have little to offer in terms of scholarship but are agreeable to the Kremlin.

**Protocol: RU**



# When the Wind Changes

When it comes to expanding wind energy and using it as efficiently as possible, the following question arises: How are wind speeds likely to change in the future due to climate change? And which locations are best suited in the long term for constructing wind turbines and wind farms? Forecasts are difficult, but they are possible thanks to climate models and the use of machine learning.

*Wind farm at Hauke-Haien-Koog near the North Sea dike in North Frisia, Schleswig-Holstein.*



How we generate electricity is a significant factor regarding CO<sub>2</sub> emissions into the atmosphere, so it is crucial in determining how the climate will change in the future. For this reason, one key strategy for mitigating climate change is the switch from fossil fuels to renewable energy sources such as wind: No CO<sub>2</sub> is emitted into the atmosphere when electricity is generated from renewable sources, and expanding the use of such sources helps phase out the CO<sub>2</sub>-intensive generation of electric power from fossil fuels.

The debate on where wind turbines or entire wind farms should or should not be built is highly politicised, making scientifically reliable forecasts even more important: how much electricity will a wind turbine generate over its lifetime if it is placed at a certain site? In other words: how lucrative is the location?

Natural fluctuations in climate – known in the technical jargon as climate variability – are a key element of such forecasts. What is more, wind conditions are likely to change even more over the decades to come, depending on numerous factors such as the amount of CO<sub>2</sub> in the atmosphere and the rise in temperature. In short: a lot depends on climate change and how well we humans succeed in mitigating it.

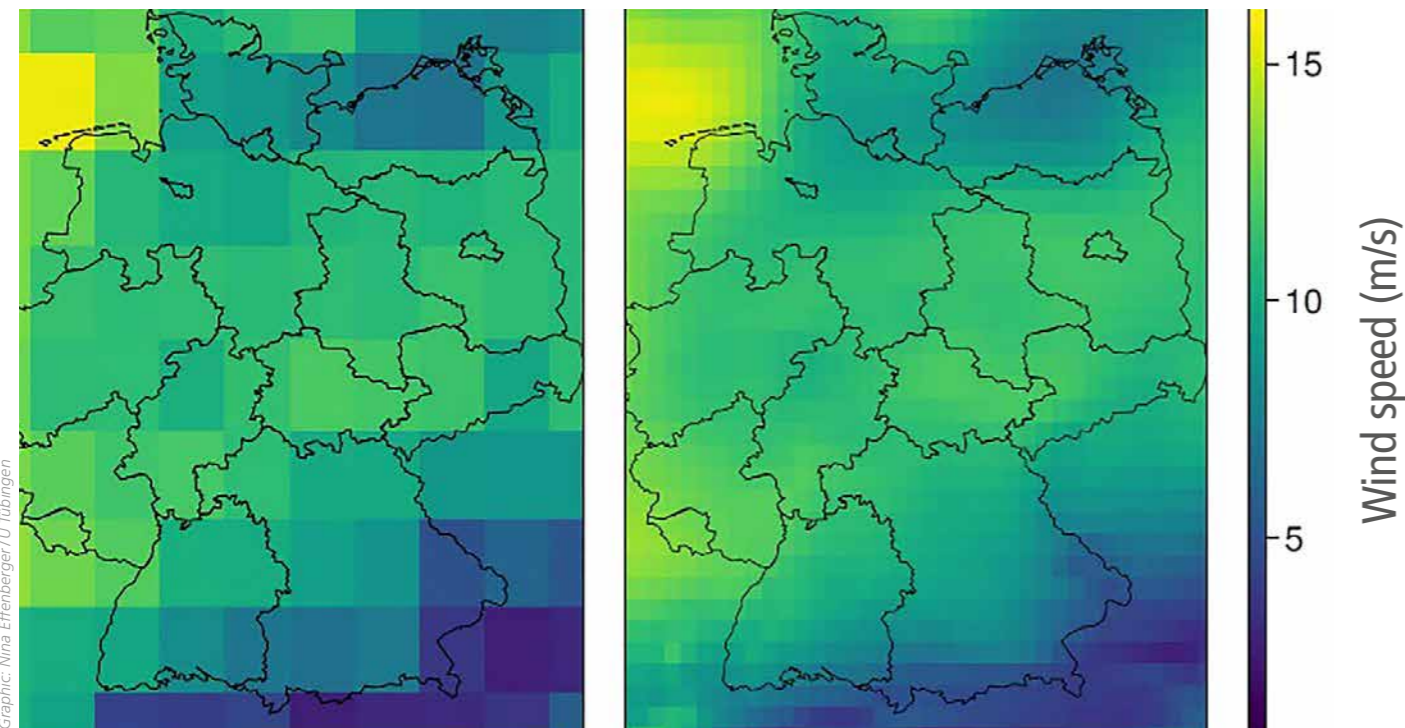
To grasp the complexity involved here, there is one thing science needs more than anything else: data. Measuring stations distributed all over the world and operated by meteorological services, record temperature, precipitation and wind strength, while satellites in space provide data on such things as greenhouse gases in the atmosphere, sea levels and ocean currents. In addition, historical data provides insights into past developments. But

how can such huge amounts of data be analysed? This is where machine learning plays a key role: unlike humans, the algorithms used in machine learning can handle very large amounts of data and detect patterns in it. This makes algorithms a useful tool for scientists as they seek to better understand climate change and its local effects.

So how can we predict how much electricity a wind turbine will generate at a specific location over the course of its lifetime? A turbine usually operates for around twenty to thirty years. When these years are over, it makes sense to construct a new turbine at the same place. This makes climate predictions over periods of several decades crucial.

The data used by the Tübingen research group “Machine Learning in Sustainable Energy Systems” is drawn from physical climate models. These computer-based climate mod-

*The data from global climate models have a very low resolution (left) – too low to enable site-specific wind power forecasts. Machine learning can be used to increase the resolution (right).*



Graphic: Nina Effenberger / U Tübingen



Illustration: Patrick Gerstorfer / U Tübingen

*The Tübingen-based researchers are working on predictions of wind speed and the resulting power generation potential that are as precise as possible.*

els can be thought of as a long-range weather forecast that also takes human behaviour into account. Will forests be cleared or preserved? Will we continue to use gas and coal, or will there be more widespread utilisation of renewables? All these factors accelerate or slow down climate change – but none of them can be predicted precisely. For this reason, climate models are used to simulate potential scenarios of human behaviour, giving rise to a finite number of different climate projections. However, since these modelling periods are long and computing resources are limited, climate projections are much less detailed than weather forecasts. Two data points in a climate prediction may often be more than 100 kilometres apart – and anyone who has ever driven from Stuttgart to the Swa-

bian Jura knows the difference such a distance can make: the city might be virtually windless, but you could have a brisk wind blowing in your face in the low mountain range of the Swabian Jura. When it comes to making forecasts for individual wind turbines or wind farms, the low data resolution of climate projections is unsuitable. The Tübingen research group pursues a solution based on machine learning. The machine learning model then aims to refine the climate model predictions, putting the algorithms to work on both physical information and new data. One example of data that is helpful in making such forecasts is the elevation of the Earth’s surface: the model knows where the Swabian Jura is located so it can learn how this is linked to the wind there. Using this approach, the researchers

have already succeeded in forecasting wind speeds for any point in Germany over the coming years and decades.

However, not all factors can be modelled – not even with machine learning. The results still contain uncertainties and their accuracy is limited. Some uncertainties cannot be reduced, such as how we humans will behave in the future, while other uncertainties can be minimised depending on the data available.

There is a more general challenge involved here: since machine learning methods are data-driven, their quality depends on the data used. For example, the Tübingen research group reduce the uncertainty of their forecasts if they had sufficient data on actual wind





Illustration: Eila Schmid/U Tübingen

Machine learning tends to be regarded as an abstract science. For this reason, the Tübingen research group created the art exhibit “IN-ML-OUT”, providing hands-on insight into the potential of machine learning in connection with wind power.

speeds at individual wind turbines or wind farms and how much electricity the latter generate in the given conditions. The problem is that the data is privately owned: it belongs to companies, and they won't release it. For forecasts of any kind to achieve their full potential, a long-term solution needs to be found here, possibly including political intervention.

In order to draw attention to the potential of machine learning in connection with sustainable energy generation and highlight the relevance of inaccessible data, the research group has recently been doing more to raise awareness of the issue. For this purpose, doctoral researcher Nina Effenberger – who is writing her dissertation on

“Wind power forecasting in connection with climate change” – and group leader Nicole Ludwig joined forces with students at Stuttgart State Academy of Art and Design and a communication expert at the Tübingen-based RHET AI Center (Centre for Rhetorical Science Communication Research on Artificial Intelligence).

The result of their collaboration is a three-part art exhibit that was set up at various venues in Baden-Württemberg from May 2023 to January 2024. This included a two-month stint as part of an exhibition at Stadtmuseum Tübingen entitled “Cyber and City – Artificial Intelligence Moves Tübingen” – whose initiators were the winners of this year's Communicator Award. Entitled “IN-ML-OUT”, the exhibit

conveys to visitors the idea of climate as a chaotic system, illustrating that machine learning is capable of recognising patterns even in chaotic information, and ultimately demonstrating the potential of renewable energies worldwide when it comes to achieving a sustainable supply of energy. Using hands-on elements such as regulators that can be used to amplify currents or time axes that can be used to access forecasts, visitors are motivated not just to view the exhibit but also to interact with it, thereby promoting their curiosity and encouraging them to ask questions.

For the two researchers, this project meant they had to repeatedly leave their desks to engage in dialogue about their work with all kinds of people outside the scien-



Illustration: Arne Sanwald

Water mixed with glittering powder swirls around behind a Plexiglas screen: the eye-catching first part of the art exhibit “IN-ML-OUT” illustrates climate as a chaotic system.

tific community. The exhibit has also given rise to contacts with policymakers who are involved with energy issues. In this way, the two researchers hope that, at least to some extent, they can raise public awareness of the potential of machine learning when it comes to securing a more sustainable future.

Since it will probably be a while before the issue of data access finds its way onto the political agenda, the researchers are currently working on reducing the remaining uncertainty in their models without data from the energy companies. Their goal is to provide even more accurate forecasts of wind speeds in the future, and use these to determine how much electricity a wind turbine could generate at a specific location.

But by combining climate models, machine learning and suitable data it is possible to do much more than just forecast wind speeds and wind power. Other areas such as agricul-

ture and urban planning could benefit in the future, too – very similar algorithms could be used to address a host of other issues concerning the local impact of climate change.



Illustration: private

#### Nina Effenberger

is doing her doctorate on the subject of “Wind power forecasting in the face of climate change” at the Cluster of Excellence “Machine Learning: New Perspectives for Science” at the University of Tübingen.



Illustration: Eila Schmid/U Tübingen

#### Dr. Nicole Ludwig

is head of the research group “Machine Learning in Sustainable Energy Systems” at the Cluster of Excellence “Machine Learning” at the University of Tübingen.



Illustration: Eila Schmid/U Tübingen

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<https://uni-tuebingen.de/en/research/core-research/cluster-of-excellence-machine-learning/research/research/cluster-research-groups/research-groups/ml-in-sustainable-energy-systems>





María Eugenia Degano, Neema Robert Kinabo, Thomas Müller and Katrin Böhning-Gaese

# Pristine Wilderness and Vital Habitat

Ecologists and social scientists are investigating how the social-ecological system functions at Mount Kilimanjaro. The focus is on relations between human beings and the natural environment: these are decoded in new, interlinked ways based on field observations, household surveys and social media data.

*Kibo, the summit of the world's highest free-standing mountain: Mount Kilimanjaro offers great biological diversity and vital ecosystem benefits.*





*Interview with a smallholder. But the research also involves interviews with tourists. Interviewees demonstrate starkly differing perceptions of the qualities of Mountain Kilimanjaro as a natural landscape and as a living environment.*

Mount Kilimanjaro is not only Africa's highest mountain, attracting thousands of tourists every year who attempt to climb it in the pursuit of its fascinating natural diversity. In addition to this – and primarily – it provides vital living resources for hundreds of thousands of Tanzanian smallholders, its southern slopes being home to numerous tree nurseries, coffee estates and sugar cane plantations. In addition to these cultivated areas, the mountain is the source of many rivers that provide water for domestic use and irrigation as well as for generating electric power. It also contributes significantly to the regional climate in north-eastern Tanzania.

Yet here as elsewhere all over the world, population growth and

the increasing per capita demand for natural resources are subjecting the natural environment to mounting pressure. The result is a loss of biodiversity (including species diversity) and ecosystem services which is in turn impacting significantly on human well-being. The global challenge arising from this situation is to identify and foster sustainable relationships between humans and the natural environment.

As the world's highest free-standing mountain and unique in its diversity of types of ecosystem, Kilimanjaro is home to both a large variety of species of flora and fauna and a wide range of different social groups. The already large population of Kilimanjaro is growing rapidly, however, and its ecosystems are under severe threat from land

use and climate change. This makes it an exceptionally good model system for exploring sustainable relationships between humans and nature.

Overcoming these challenges of global magnitude requires social-ecological expertise that is capable of explaining the key components involved in the diverse relationships between nature and humans – such as the complex drivers accelerating species loss, the use of land around Mount Kilimanjaro, how biodiversity relates to the ecosystem services available, the demand for ecosystem services among various stakeholders, and the link between ecosystem services and human well-being. In the DFG Research Unit “The Role of Nature for Human Well-Being in the Kilimanjaro Social-Ecological

System”, we bring natural scientists and social scientists together and adopt a systemic approach to investigate the essential components of the system and how these interrelate.

In order to trace these reciprocal mechanisms, the research teams make use of various methods of data collection in conducting their social-ecological research on Mount Kilimanjaro, ranging from ecological field research in individual habitats to household surveys in the villages and collecting data from social media. For example, several individual projects have involved conducting a large-scale social survey to identify the multifaceted values attributed to the natural environment of Mount Kilimanjaro. More than 600 people took part, including farmers, conservationists and representatives of the national park and NGOs, as well as tourists from all over the world who had travelled to climb Kibo, Mount Kilimanjaro's highest peak.

One key concern here is to explore new links between ecological and social data so as to understand where and how people on Kilimanjaro perceive ecosystem benefits in the mountain's various habitats. For this purpose, the researchers also collected publicly accessible posts on Twitter (now X) about how tourists experienced the natural world so as to analyse how they perceive the region's non-material ecosystem. This involved a particular focus on the specific terms and wording used by individuals to describe the nature on Kilimanjaro.

One non-material ecosystem benefit identified was that people felt a sense of achievement, for example, frequently expressed in phrases such as “I did it” or “a feel-

ing of invincibility”. The researchers also observed the ecosystem benefit of a “life-changing perspective” – involving deep reflection triggered by nature that potentially inspires people to change their lives: one tourist reported that as a result of their experience on Mount Kilimanjaro they moved from the city to the mountains.

All in all, tourists were found to benefit from 15 non-material ecosystem benefits gained from living nature such as birds and mammals, as well as from geological and hydrological phenomena such as cliffs and waterfalls. The team detected significant variations in how tourists perceived the natural world and the non-material benefits it offers, with

*Installation of camera traps in the montane rainforest around Kilimanjaro.*







Illustration: Neema Robert Kinabo

Species-rich and still pristine rainforest, dominated by *Ocotea usambarensis* – which is now under threat of deforestation in the humid mountain forests of East Africa.

fewer ecosystem services perceived at mid-altitude, where biodiversity is the highest, for example.

It seems that tourists' engagement with biodiversity might be influenced by their intention to climb the summit, so it is on the summit that the perception of non-material ecosystem benefits is especially intense, generated primarily by abiotic (non-living) natural components such as glaciers and sunrises. If the aim is to foster a sense of connection between tourists and the natural world so as to encourage environmentally conscious behaviour, one approach would be to promote their appreciation of other ways of experiencing nature – in addition to summit ascents – such as hikes with a focus on learning about nature.

Another research method used to link ecological and social data was to record and analyse the acoustic output of a landscape. Sound recordings were played to tourists and locals in order to evaluate their perception of Mount Kilimanjaro soundscapes. The research team collected sound data from 13 ecosystems, including both natural and human-influenced habitats at altitudes ranging from 700 to 4,500 metres above sea level.

Seven striking soundscapes were identified from among these recordings: two were then played to each participant, and they had to choose one. They were then asked to associate their choice with a particular statement relating to non-material ecosystem benefits, such as “it makes

me feel at peace” or “it connects me with my home and/or culture”.

The results suggest that the recordings had a more soothing and relaxing effect on tourists, while locals tended to attribute cultural significance to the soundscapes. The latter also emphasised the value of protecting the natural environment and preserving it as a heritage for the next generation. One preliminary conclusion that emerges here is that the local population attribute more ecosystem benefits to natural sounds originating from mountain forests, while tourists attach greater importance to natural sounds emanating from so-called grassland ecosystems. There are considerable differences in how the surveyed groups perceive the qualities of natural landscapes and habitats: it will be important to

appreciate these differing perceptions more in future so as to go further in addressing them when developing nature conservation strategies.

With their focus on relations between humans and nature at Mount

Kilimanjaro, these studies aim to promote a better understanding of how different stakeholders perceive and benefit from the natural environment in their own specific way. We hope that by conducting this

kind of interdisciplinary research in future, it will be possible to identify ways of promoting sustainability in social-ecological systems, thereby helping to reverse the alarming decline in biodiversity.



**Maria Eugenia Degano**  
is a doctoral researcher and project team member.



**Professor Dr. Thomas Müller**  
is a project leader.



**Neema Robert Kinabo**  
is a doctoral researcher and project team member.



**Professor Dr. Katrin Böhning-Gaese**  
is the spokesperson of the Research Unit “The Role of Nature for Human Well-Being in the Kilimanjaro Social-Ecological System”.

Background to the topic:



Friederike Bauer, Katrin Böhning-Gaese: *Vom Verschwinden der Arten. Der Kampf um die Zukunft der Menschheit.* Klett-Cotta, 256 pages, €22.-.

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Tobias Meng

# Quantum Design Vision

Understanding, creating and controlling: quantum technologies are one of the areas where physicists are using these principles to venture into new dimensions. In pushing quantum technologies to new horizons, topological quantum materials might prove especially helpful. They hold great promises to make sensitive quantum effects more stable, and thus suitable for practical applications – not just in the much-debated field of quantum computing.

If the past is any guide to the future, technical revolutions will continue to make our lives easier. Among the leading contenders are quantum technologies: this collective term refers to all technologies in which quantum physics, the science of how the world behaves on the smallest scales, plays a crucial role. Possible applications include extremely sensitive sensors for medical devices, new and particularly secure forms of data transmission, and revolutionary high-speed quantum computers. Though the potential of quantum technologies is enormous, it is not yet possible to say which of these visions will reach market readiness first, and which might end up not leading to actual new devices.

But why are quantum technologies coming into the spotlight right now? To answer this question, it makes sense to first outline the conditions in which quantum physics is important at all. Among other things, this field of science describes the behaviour of atoms and molecules. Atoms are the basic building blocks of matter, and molecules are groups of atoms. Since everything in our world is made up of these building blocks, you might say that quantum physics has always been everywhere. This is of course correct, but one important factor has changed over the past

few decades. A combination of curiosity, strokes of genius – some of them Nobel Prize-winning – and detailed research has now enabled us not only to understand the tiniest components of our world, but also to control them increasingly more effectively – at least in the lab. As a result, these small components can now be put to good use by exploiting their intricate quantum behaviour in applications. This fuels the hope that quantum physics will soon be used for revolutionary applications also on a larger scale.

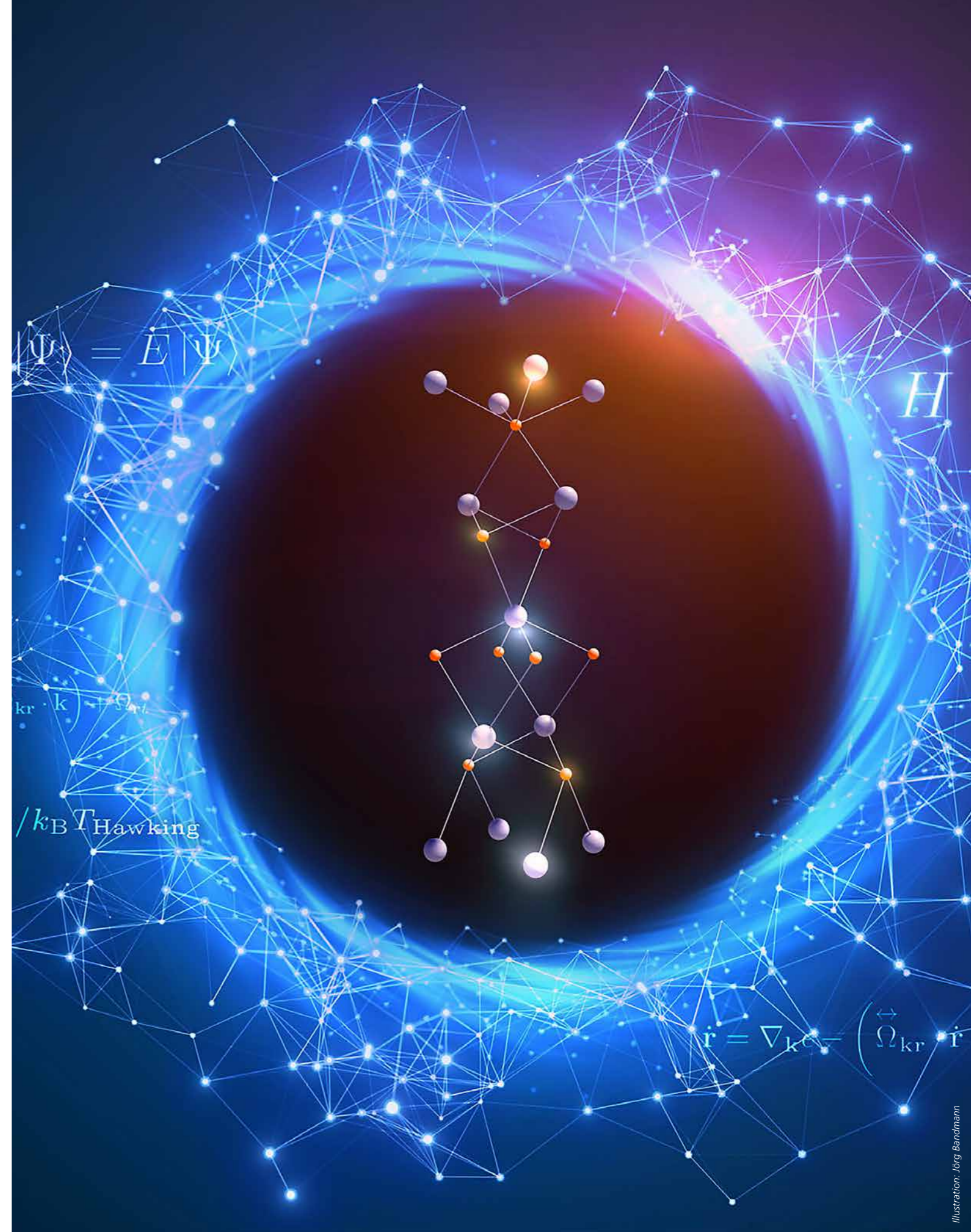
The primary focus here is not on making technical components such as computer chips even smaller: after all, even though the structures on such chips are already incredibly small, they often function in a similar way to conventional electrical components. Instead, the revolutionary potential of quantum technologies lies in the exploitation of processes and effects that are fundamentally different – namely those of quantum physics. Day-to-day language has no equivalents for concepts such as “quantum coherence”, the harmonious interplay between quantum particles, or “quantum superposition”. We will look at these in more detail shortly. Like other groundbreaking tools, these quantum physical phenomena open up unprecedented possibilities.

Some prototypes of quantum technologies are already being built and researched in the laboratory, but researchers often come up against the same problem: quantum states and phenomena are highly sensitive to disturbances. This means that quantum physics is often hard to use in practice. One key objective is therefore to make quantum effects more stable and thus more suitable for practical application.

In our Research Unit “Quantum Design”, we are focusing on a Nobel prize-winning concept, namely that of topological quantum materials. Topology is actually a branch of mathematics that deals with particularly robust phenomena. We apply the principles of topology to materials with the aim of making the elusive quantum effects more robust. The DFG is supporting our research under the Emmy Noether Programme – named after the outstanding German mathematician Emmy Noether (1882–1935).

The research team has three equally important objectives: to achieve the best possible understanding of the relevant quantum effects, to deliberately create these

*The aim of “Quantum Design” is to create quantum states in materials in such a way that they can be used in applications.*





effects, and to gain precise control over them. To make things more concrete, let us look at the example of quantum computing to discuss how the three-pronged approach of understanding, creating and controlling could advance the development of quantum technologies.

Smartphones and computers have to be increasingly powerful, but up to now the only way of achieving this has been to have each new generation of computer chips process the good old bits and bytes a little faster than the previous one. Bits are the smallest units of data storage, representing either zero or one, while bytes are groups of eight bits. Physicists are now planning a real computer revolution in which information is processed in a completely different way: the basis for this will be storing and processing data with devices using revolutionary quantum phenomena.

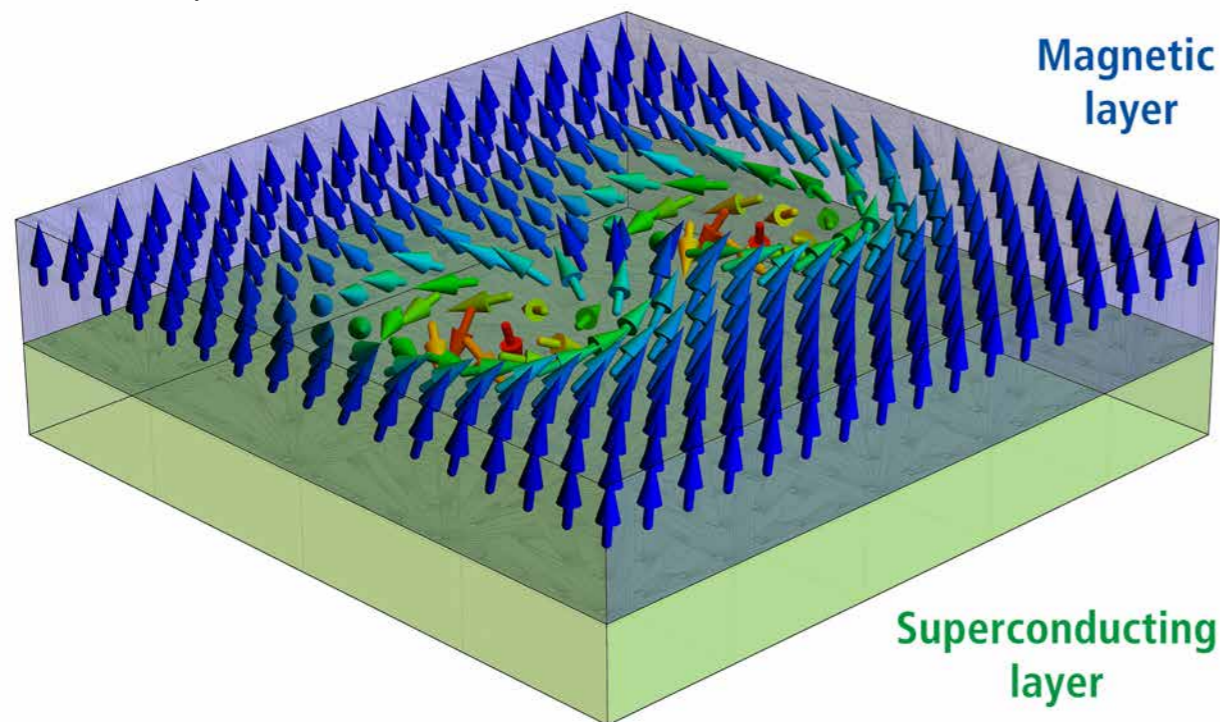
Since conventional computers store all information as zeros and ones, we might think of a hard drive as a sequence of black and white memory cells: black for zero and white for one. Figuratively speaking, the aim is to replace the conventional black and white bits with coloured quantum bits – or qubits. A qubit can be either red, blue or green, or else it can be many colours at the same time, like a rainbow. This is called quantum superposition. As with the transition from black-and-white to colour television, this would enable computers to enter completely new dimensions.

Unfortunately, the existing quantum computer prototypes are still too forgetful to bring about a revolution – a phenomenon we call “decoherence”. In simple terms, this means the qubits lose their colour pattern so quickly that the information initially stored in them can

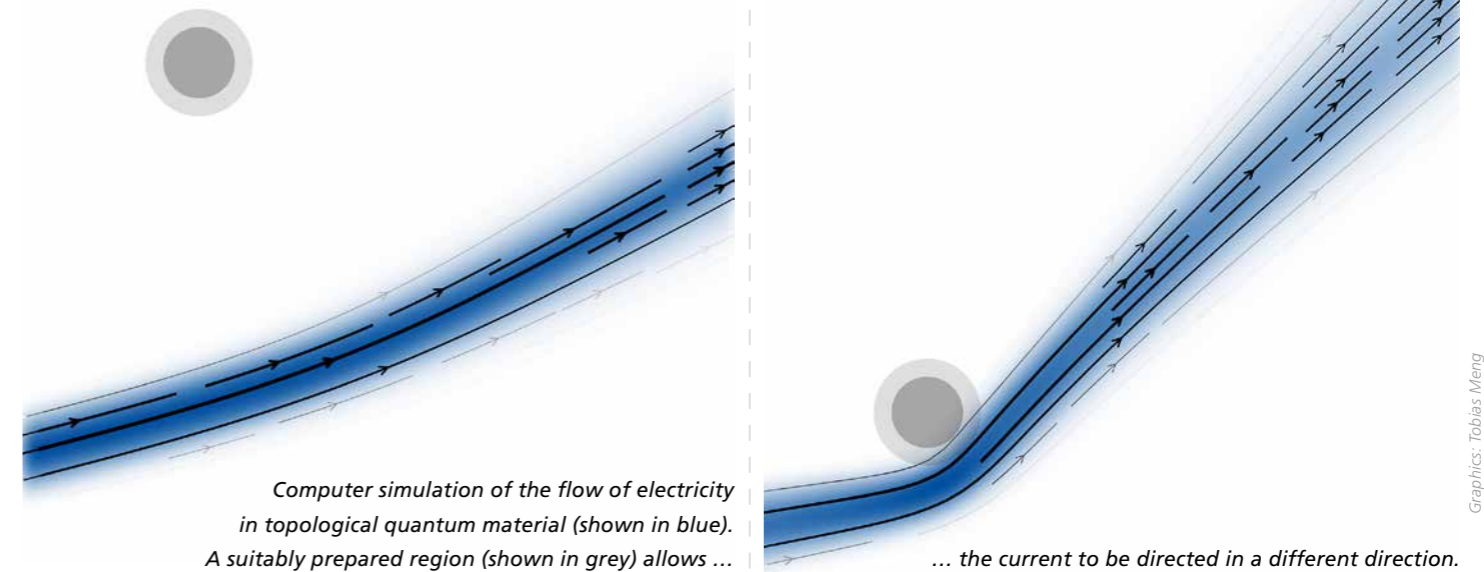
no longer be used properly. This is where topological physics comes into play. Guided by the principles of topology, the science of particularly robust phenomena, we want prevent quantum computers from forgetting. The hope is that topology could indeed help protect the sensitive quantum states.

For this to work, the desired quantum effects first have to be understood as precisely as possible. Take the example of topological superconductivity, a phenomenon that is particularly promising for stabilizing topological quantum computers. In short, a topological superconductor is material that both exhibits a particularly stable quantum state and can conduct electricity without loss of energy, meaning without unwanted heating of the cables and components. The team is using a combination of computer simulations and analytical calculations to investigate how to best

*Material consisting of a superconducting layer (green) and a magnetic layer (blue). By means of magnetisation – shown here in the form of arrows – it is possible to create a so-called topological qubit. The construction of such magnet-superconductor sandwiches is the subject of current research.*



Graphic: Tobias Meng



*Computer simulation of the flow of electricity in topological quantum material (shown in blue). A suitably prepared region (shown in grey) allows ...*

*... the current to be directed in a different direction.*

Graphics: Tobias Meng

realize these materials, for example by exploring how they react to changes in external conditions.

In our quest for understanding materials and their quantum properties, we are also working closely with experimental colleagues and materials scientists to understand which existing materials might be best suited to building a quantum computer. Theoretical predictions can guide our colleagues' experiments in the right direction, while the measurements they carry out on real materials help our team improve the theoretical models. After all, it is only through teamwork and collaboration that theoretical dreams, thoughts and ideas can be turned into reality.

The second step is to reliably create the specific desired quantum states. Here, researchers often face the challenge that a theoretically predicted phenomenon does not “simply happen” in any of the known materials. One idea behind “quantum design” is therefore to combine several known materials in a kind of quantum construction kit in such a way that the desired effect is reliably produced. In order to achieve topological superconductivity,

we for example propose to assemble sandwich structures made of normal superconductors and magnetic materials. The exact “recipe” for these magnet-superconductor sandwiches is the one of the subjects of current research. Another topic of investigation is how the sandwiches can be made to store information in the form of topologically robust qubits.

If we are to create a real-life technical application, it must also be possible to control the desired quantum effects – this is the third step. “Control” could for example mean that it must be possible to switch the quantum effects on and off, or at least influence them in certain regions of a sample. Of course, the sensitive quantum states must be maintained throughout the entire process. We can for example attempt to control the qubits for a topological quantum computer by means of electric currents and perform quantum calculations. As our research shows, this is only possible using very special versions of the sandwich structures mentioned above, however.

Since each of these goals is key to advancing quantum technolo-

gies, we believe that it is best to approach the three dimensions of understanding, creating and controlling on equal footing. And although we are always motivated by thinking about potential long-term applications, creating quantum states in materials is fundamental science that merely lays the groundwork for much longer-term developments. Controlling the quantum world remains a major challenge – and along the way, researchers repeatedly hit upon unexpected insights that create space for new ideas.



Illustration: Tobias Ritz

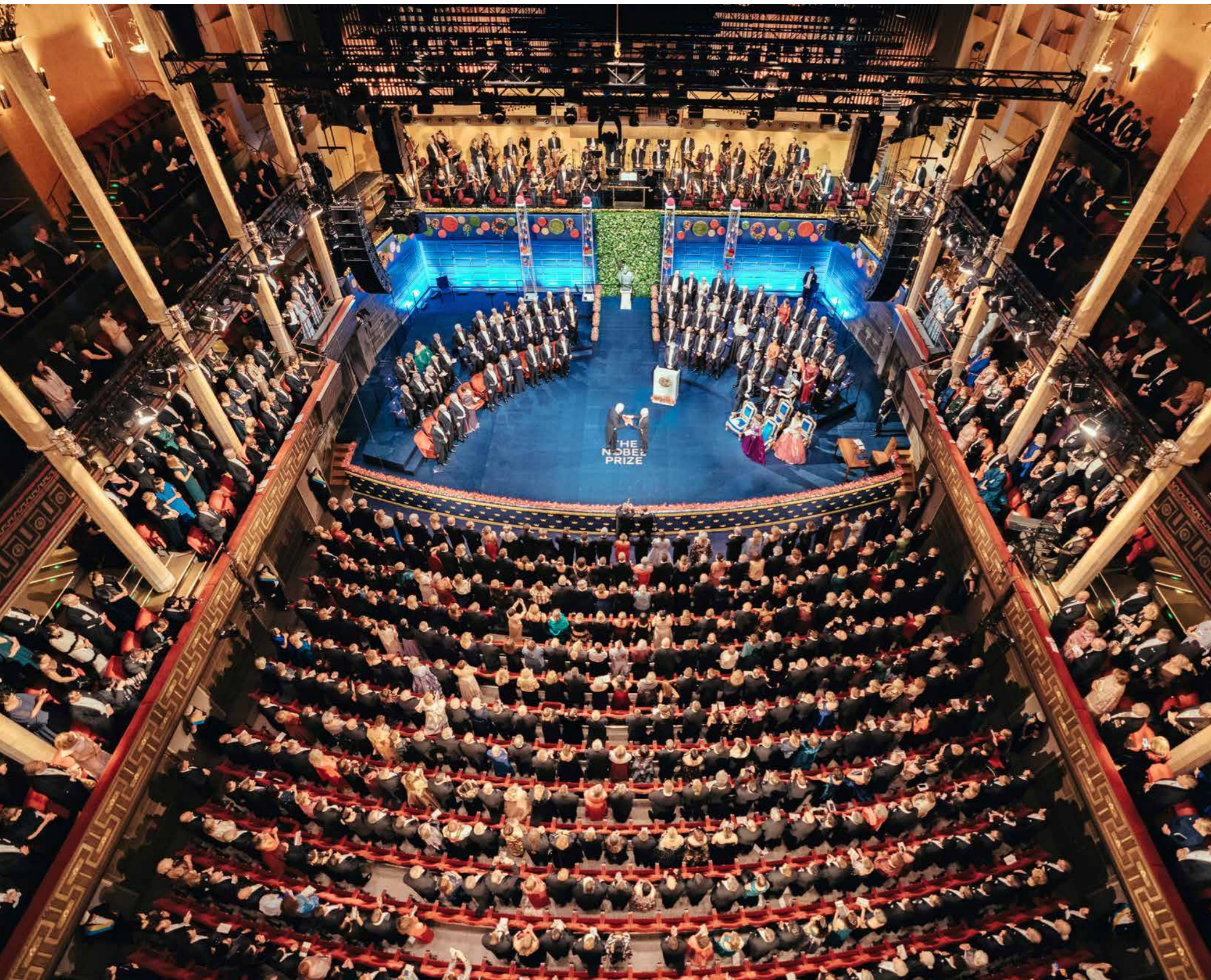
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[https://tu-dresden.de/mn/physik/itp/ftp/die-professur/beschaefigte/quantum-design?set\\_language=en](https://tu-dresden.de/mn/physik/itp/ftp/die-professur/beschaefigte/quantum-design?set_language=en)







Alexandra Pontzen, Dennis Borghardt and Sarah Maaß

# More than Fame and Glory

About 1000 literary prizes are awarded in Germany – are these too many? For the first time, a literary research project is indexing the diverse award practice of the last thirty years. Thus, the project is revealing how these awards reflect, negotiate and constitute literary and socio-political values.

Reading generates images in people's minds and takes them into another world – yet reading itself is not a powerful image. Advocating reading and increasing literature's public visibility are therefore key tasks of the *German Book Prize* founded in 2005. Kim de l'Horizon used this stage offered to literature for a spectacular head shave in 2022, intended as a gesture of solidarity with Iranian women. The media images are now iconic.

This media-effective staging, but also earlier scandals at award ceremonies and debates about controversial awards – including the awarding of the *Nobel Prize in Literature* to Peter Handke in 2019 and Annie Ernaux in 2022 – indicate that literary awards are more significant than initially assumed. Awards are not mere instruments of assuring literary quality, promoting authors and providing orientation in the literary field; they create,

regulate and negotiate values that reflect developments within literature and society. This explains the large number of about 1000 prizes that are regularly awarded in Germany and their diverse functions.

The large number of prizes is often deemed to be “inflationary” in feuilleton and literary criticism, and is accused of devaluing the practice of awarding literary prizes as a whole. Rather than honouring literary quality, prizes are seen as competing for public and media attention, but above all for market share. On the one hand, critical statements regarding the “flood of prizes” are based on quantitative assessments – without differentiating between prize types. On the other hand, they are based on outdated ideas about the functions of literary awards in general.

A closer look, however, reveals that there is no such thing as “the literary award”. Given the broad range of prizes, criticism runs the risk of ignoring the inherent diversity of literary awards. The significance of a considerable number of small prizes

*The Nobel Prize in Literature is awarded to Annie Ernaux at a ceremony in the Stockholm Concert Hall in December 2022.*





Illustration: Lars von Törne

During the awarding gala of the Max and Moritz Prize. The prize is awarded to the best German-language comic artists and outstanding comics in various categories. On the day of the gala, the prize also celebrates itself.

is thus neglected – for instance as actors in regional cultural policy or as instruments for promoting and financially supporting emerging writers or for promoting reading skills and literary education. Literary awards are therefore a highly complex phenomenon; different facets of the literary field and economy become evident, because not every prize aims for the same outcome.

The awarding modes since 1990 indicate that the procedures and organisation of literary prizes are extremely diverse; it is therefore implausible to assume the same function for all the awards. Eligibility requirements restrict entries to certain groups of persons – for example defined by their profession (prizes are awarded not only to writers, but also to publishers, critics, illustra-

tors, translators and bloggers), their gender, their place of residence or their place of origin. Prizes differ in terms of eligible genres, jury composition, entry guidelines of competitive prizes, award ceremony, amount and nature of their reward – and they cooperate with various non-literary bodies such as schools, companies, associations, political or civil society institutions.

This structural diversity reveals much more than what meets the eye – especially the prizes' programmatic dimensions or missions. If a prize restricts entry for example exclusively to female writers, people with a so-called migration background, prison inmates or people with intellectual disabilities, then it also advocates socio-cultural values alongside or rather *through* literature. Three quarters of the

prizes recorded between 1990 and 2019 have such value-related programmes and are therefore – apart from celebrating literary achievement – dedicated to non-literary objectives: social, economic, (regionally) political, moral, religious, ecological and/or historical intentions that are to be implemented and dignified qua literature.

The specific prize profiles reflect the singularity of each individual literary award and the diversity of the award landscape, which appeals to various target groups, promotes ever different genres, distinguishes individual texts from lifetime achievements and includes a wide variety of award procedures - from the festival to the book fair to the ritualised and festive ceremony. Some prizes address specific literary and socio-political values and link

them to specific places, people, traditions or regions, as does the *Heinrich Böll Stiftung Baden-Württemberg Political Crime Prize*. In addition to new prizes that seek to promote values such as inclusion or ecology and combine them with literature, there are numerous literary awards that advocate history and tradition – however, these concepts are interpreted in different ways.

As demonstrated by awarding the German Book Prize to Kim de l'Horizon, the awards' profiles and adjudications are linked to current social debates and address literature as a relevant parameter within transformation processes of the present. Some prizes, such as the WORTMELDUNGEN-Ulrike Crespo Literary Prize, the Crespo Foundation's Literary Award for Critical Short

*Texts* or the *Günther Anders-Prize for Critical Thinking*, explicitly appoint this socio-cultural dimension in their respective title and mission statement. Others leave their measures of value rather vague and thus retain the possibility of applying different values to each presentation.

Often, literary awards – especially small niche and newly launched prizes – claim to negotiate current social issues and discourses. The *German Prize for Nature Writing*, launched in 2017, for example, is a prize that not only advocates a recently emerging genre in the German-speaking world, but also responds to the urgency surrounding ecological crises and debates. The prize's renowned awarding institutions – the publishing house Matthes & Seitz in Berlin and the German Environment Agency – represent an

astonishing combination of the literary world and politics. The prize substantively draws on aspects from the Environmental Humanities, which emphasise the interweaving of nature and culture and reflect human ways of perceiving nature. Due to this topicality public appeal is generated; older and smaller prizes that cite more traditional concepts of environmental protection and nature conservation did not achieve this. Examples include the *Christian-Wagner-Prize* or the *Environmental Book of the Year*.

The *b.bobs 59 Literary Prize for People with Disabilities*, one of four German writing competitions for people with intellectual or learning disabilities, also indicates that prizes are perceived as means of intervention. The target group and references to political agendas, such

Action with enormous media resonance: Kim de l'Horizon, gender-fluid winner of the German Book Prize 2022, shaves their hair during the award ceremony at the Frankfurt Book Fair – in solidarity with the women protesting in Iran.



Illustration: dpa/Ronald Wittek



as the UN Convention on the Rights of Persons with Disabilities, as well as the cooperation with disabled care institutions identify these and similar competitions as instruments of inclusion, normalisation, empowerment or enhancing visibility of a marginalised group. However, they also reproduce the exclusion of writers with disabilities in parallel sectors and special institutions.

In addition to these progressive tendencies, about 270 literary awards are concerned with aspects of history and tradition. Remember-

ing and preserving, commemoration and updating are recurring intentions in dealing with linguistic tradition, reappraisal of the past or the formation of identity. It is noteworthy that the prizes not only valorise historical events and occurrences, but also people (especially writers), history of language and dialect. The *Erich-Maria-Remarque Peace Prize* for instance endeavours to keep reminding us of the importance of peace, while the *Eichendorff-Literary Prize* aims to promote reconciliation between Central and Eastern Eu-

rope after the Second World War, and the *Erich-Loest-Prize* highlights the social and local political merits of its namesake.

Whereas the programme for the *Friedrich Schiedel Literary Prize* emphasises that language and literature serve to form a shared German identity, prizes such as *De Gnitze Griffel* (a dialect competition) or the *Sebastian Blau Prize for Swabian Dialect* refer precisely to the particularity of regions, regional linguistic history and thus regional identity. Their emphatic focus on historical

The “poeta laureatus”, a poet crowned with laurels, is a venerable concept. This image shows the glorious baroque poet Georg Philipp Harsdörffer being honoured. Portrayal, handed down as an epigram, from 1657.

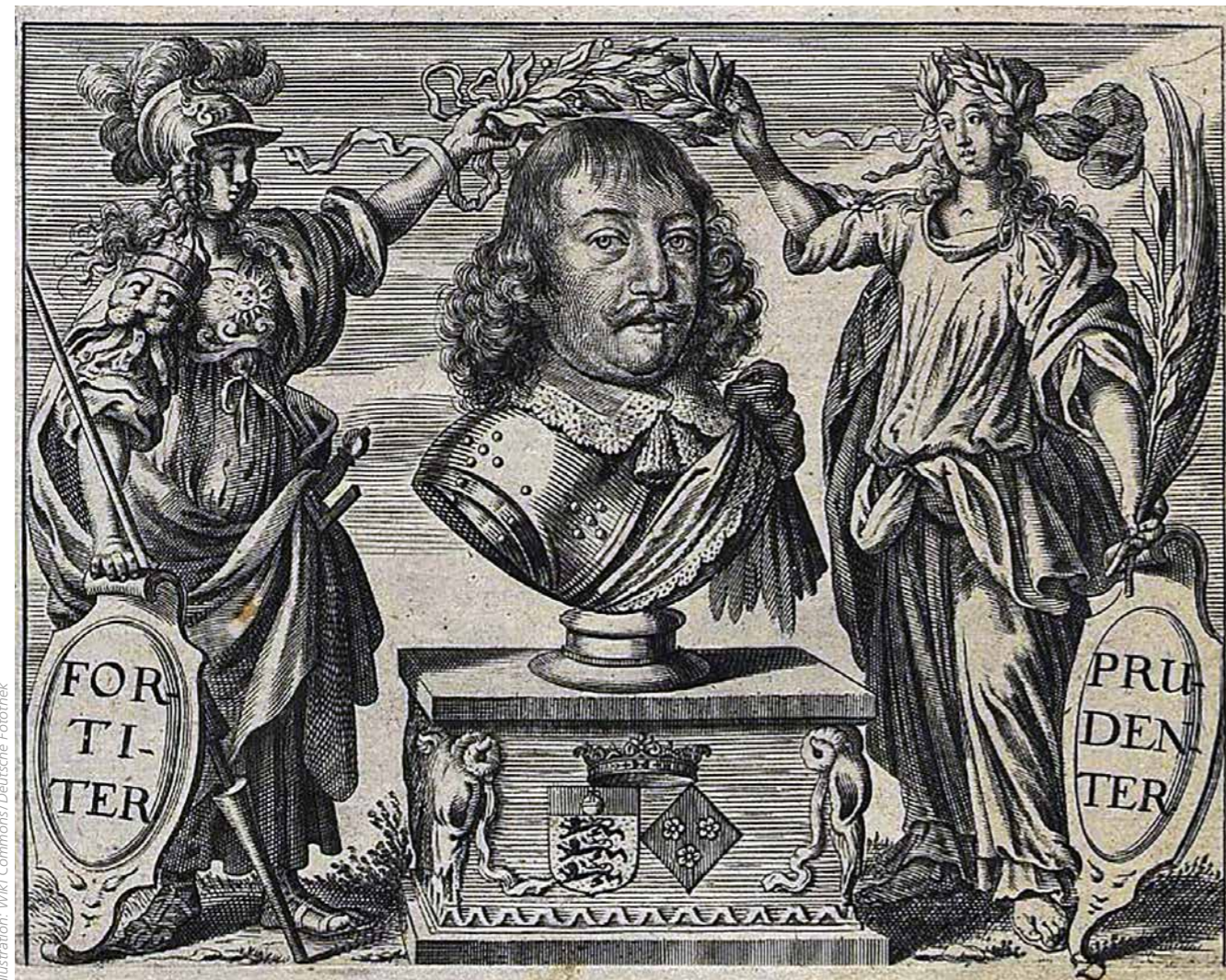
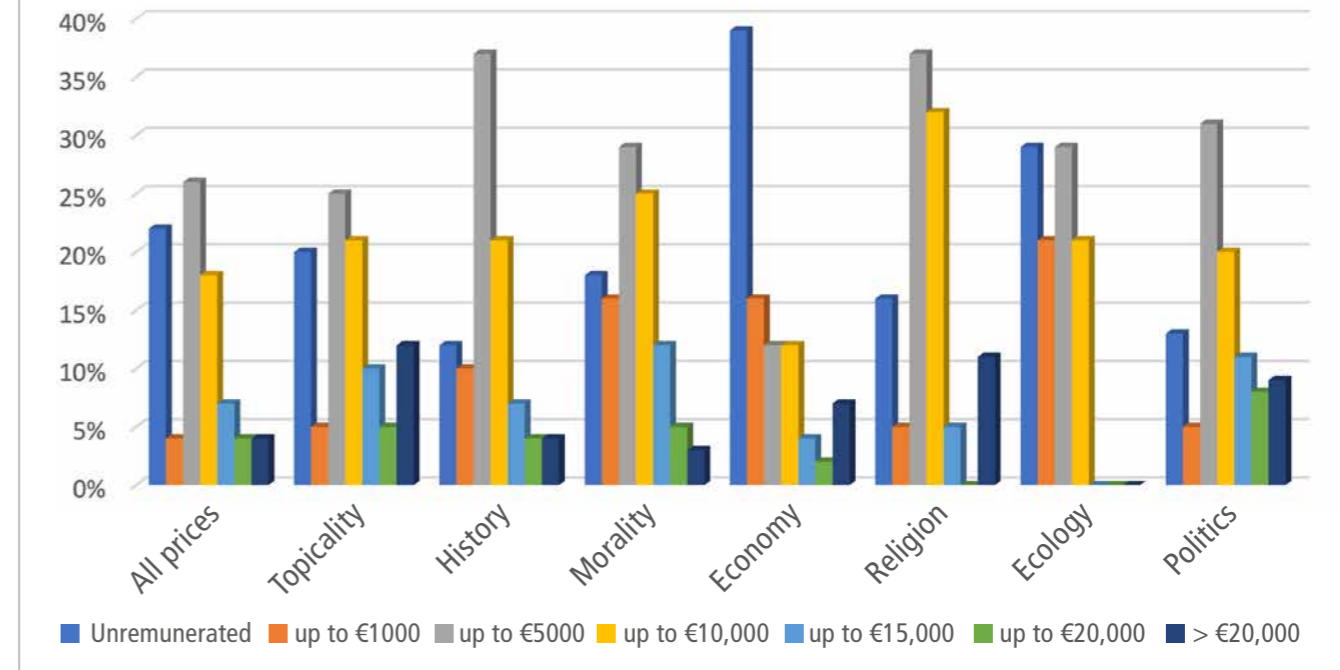


Illustration: Wiki Commons/Deutsche Fotothek

## Remuneration of prizes with socio-cultural objectives



Graphic: AG Pontzen

Prizes relating to non-literary values are remunerated on an above average basis: relevance to the present, the power of discourse or an orientation toward religious values are of particular significance.

entities and values shows that these prizes are not only directed at literary historiography, but also co-constitute sociocultural continuities.

The large number of literary awards in Germany is less an indication of their struggle for the scarce resource of public attention. Rather, this number is a sign of diversity. It indicates that and shows how these prizes negotiate sociocultural values and social expectations of literature by assembling aesthetic literary values (such as beauty, originality, innovation) and social or political values (such as diversity, ecology, peace). The field of German literary awards has become richer, more dynamic, more reader-oriented and more international since 1990; it strengthens regionalism and at the same time is open to foreign-

language authors and supranational European values including democracy, peace and tolerance. It is tending toward the use of competitive formats in the context of festivals or fairs rather than the traditional, arcane expert decision that generally prevails e.g. at the *Georg-Büchner-*

*Prize* or the *Nobel Prize in Literature*. It is open to formats of public roundtable discussions, performances and audience participation – and testifies to the desire to (once again) make literature and reading a more social, public and dialogue-oriented cultural practice.



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Illustrations: Karin Bemeburg

“Science – and me?!”: the opening series in Gera, Brandenburg an der Havel and Zwickau in spring 2024 gave rise to lively discussions about science and its role in relation to the individual and society as a whole. Organised jointly by the DFG, the German Rectors' Conference, the Berlin-Brandenburg Academy of Sciences and Humanities and the Union of the German Academies of Sciences and Humanities, further Citizens' Dialogue events were held in Wetzlar (our photos) and Recklinghausen after the summer break, both attracting good levels of attendance. The organisers were positively surprised, repeatedly impressed and sometimes even moved by the discussions, and they are now looking at how to make the dialogue events a permanent fixture.

