

New Year's Address

by the President of the Deutsche Forschungsgemeinschaft

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- Check against delivery! –

Distinguished guests, ladies and gentlemen,

I would like to welcome you most cordially to the DFG's first ever virtual New Year's reception and I wish you, your families and your friends – perhaps with even greater emphasis than usual – the best of health in this New Year, as well as good spirits and an optimistic outlook. After all, a whole new year lies ahead of us, replete with challenges but also offering a varied range of perspectives and prospects that covers the full diversity of human existence in the world today. Part of this multi-faceted diversity is the joy of being together, listening to each other and engaging in reflection together, the pleasure of passionate discussion, making sense of things and elaborating new solutions. It is not least because of this that we have gathered today virtually to celebrate the New Year together.

Science and the humanities, research and technology have the potential to enable countless other simplifications and improvements in our lives. And they can also be the key to our survival in this changing world. Where would we be today without the advances in biomedical research? And to take this idea a step further: where would we be now without the curiosity of those scientists who started doing research into coronaviruses and the mRNA vaccination process many years ago?

Incidentally, the latter has its origins in cancer research – yet another example of how later application contexts of a research project are not necessarily foreseeable at the time of funding. Excellent research such as that pursued by later BioNTech founder Uğur Şahin offers answers to questions that have not yet arisen and in some cases can't even be formulated. As such, it is no coincidence that Şahin's fundamental work on mRNA vaccination was funded by the DFG as

long ago as the mid-2000s in connection with individual projects and Collaborative Research Centres at the University of Mainz.

Each year the DFG funds more than 30,000 basic research projects in all areas of the sciences and humanities: every single one of these projects can potentially become highly significant for society overnight – frequently within a complex societal, biological or technological context and often on a global scale. It might be the emergence, spread and increasing resistance of pathogens and people's susceptibility to them. Or the consequences of climate change – in the area of biology, the Earth system, politics or economics – and the often anthropogenic changes to which our living environment is subject. Or finally issues relating to migration and the scarcity of resources, religious and cultural tensions, political upheaval and armed conflict – right through to the whole kaleidoscope of political and societal challenges resulting from digitalisation. These issues continue to be highly urgent – and we do not yet know which of them will keep us particularly busy in the coming year. Nor do we know which elements of the scientific-technological or social repertoire we will be able to draw on to provide a sustainable response. But thanks to our continuous research funding, we have more than 30,000 good reasons to be optimistic as we look ahead to the future.

Accomplishments such as the development of the corona vaccine depend on how politics and society, science and research funding work together and to what extent all the available dimensions of diversity and combinations of ideas, idea providers and procedures can be activated to create something that is genuinely new. Here we need blue skies research of the greatest possible originality and at the very highest scientific level, effectively supplemented with targeted support of the ideas and findings right through to their practical application. In particular we need to appreciate the accomplishments of all the protagonists within our globally highly renowned academic research system. This includes an appreciation of failure, too. If a researcher sets out on a new path and, in attempting to climb new peaks, fails or makes a mistake that sets them back a long way, this is not a sign of incompetence. On the contrary, it demonstrates pioneering spirit, the joy of innovation and the courage to leave well-beaten paths – even if this involves enormous effort and often loneliness, too. This is why it is particularly deserving of our respect. In the future we should attach greater value to the findings of projects that did not achieve their original goal and put these findings to better use.

Science takes time: it has to be able to pursue circuitous paths, and it is often not until years later that its achievements become apparent – in contexts that are unexpected or indeed unforeseeable. Looking back over last year, we see what it can mean to a field of research to become the

pacemaker for an entire society and for the entire world within a very short period of time – when there is an acute demand for good summaries of previous findings, very swift results from newly launched projects and reliable interpretations of future developments. Research has responded to these expectations in real time and under great pressure, both competently and with a sense of commitment. Researchers, research funders and committees have shown responsibility in fulfilling their role in the context of an increasingly direct relationship between research, society and politics with considerable drive, thereby helping to guide our country through the crisis while at the same time providing key stimuli internationally.

Nonetheless, we're also seeing that where results are produced increasingly quickly and are more and more provisional in nature, there are limits to their usefulness.

High-quality research will continue to take time for reflection and validation. The fact that so much was able to happen so quickly last year was only due to the relevant research questions having already been investigated thoroughly and with the necessary breadth well in advance. Ideally, such knowledge repositories should increasingly be international: the challenges we face today are global, and we need to organise the sciences and humanities globally to be able to deliver effective solutions. This not only concerns common standards for the comparability of methods and results but also the general willingness to share data and analyses and the certainty that this material will be treated with care and trust. The issue here is trust and freedom of thought, the independence of science and the humanities and the unhindered exchange of ideas between researchers. This is why our determined commitment to a global research culture – especially with partners who challenge us – is more important than ever.

The trust earned by science among society at large over the past year presents a great opportunity: it is a gift for an enlightened, knowledge-based society. And it is due in particular to the outstanding commitment demonstrated by individual scientists. This trust is not something that can be taken for granted: it has to be earned anew every day and carries with it immense responsibility. Living up to this trust is first and foremost a question of communication – which must be judicious, prudent and consistently objective. Secondly, it's a matter of allowing multiple voices to be heard, of weighing up findings and arguments within the sciences and humanities themselves. This diversity must be preserved – even when faced with the expectation of unambigu-ousness.

Here again, the pandemic is a prime example of the complexity of research contexts: initial voices from the field of medicine were quickly expanded to include mathematical modelling, successive

input was added from the field of economics, jurisprudential assessments were made of fundamental rights, and a wide variety of issues emerged in the areas of sociology, psychology and pedagogy that continue to occupy us to this day. Flow research was involved in the investigation of aerosol dispersion at an early stage. So instead of demanding often very far-reaching statements from individual scientists, professional communities or interdisciplinary expert committees should be asked to provide more comprehensive assessments. This is why the DFG set out the interplay of these various dimensions early on in its Pandemic Commission.

In order to ensure effective communication between politics and the sciences and humanities in the future, it will be important to gain a better understanding of the different forms of rationality, too. In the political sphere, swift action is required and democratic legitimacy has to be established and majority support sought; by contrast, the sciences and humanities seek insights and pursue truth. These poles cannot be broken down, nor do they have to be; they are an integral part of our society. However, it is important to repeatedly remind ourselves of their existence in joint discourse and to bridge them through close communication and based on far-sighted research policy that enables high-risk research in a positive sense, while recognising the timeframes that such research requires. A research policy that facilitates global coordination and advocates factual orientation in the public sphere. I would like to thank you most sincerely for this political support. It is conducive to a science in the service of people – promoted in its excellence, its independence and its thematic diversity. For me personally, it is particularly satisfying – indeed hugely pleasurable – to be able to continue to actively support this research.

I wish you all a good start to a happy and healthy New Year!

Thank you.