

TU Berlin President Christian Thomsen's 2022 Digital New Year Address

THE SPOKEN WORD TAKES PRECEDENCE.

Dear Members of Technische Universität Berlin,

For the second year in a row, I am speaking to you from the TU Berlin Atrium, my voice echoing again through the empty halls. What seemed strange last year now feels oddly familiar – speaking into a camera lens. For all of us, this feeling has become part of everyday university life. We are coming up on two years of the coronavirus pandemic and the challenges it brings: new ways of working and a lack of regular and spontaneous contact with each other and with TU Berlin. The chance to make direct contact to others, speak to them, take them with us or discuss, interact, and inspire.

Instead, we have gotten to spend more time at home. However, working from home is a personal challenge, either because too many other people are also at home or too few. Or in my case and certainly for many of you as well, there is the added challenge of homeschooling or caring for a close relative or friend. Or perhaps COVID-19 itself, which many of you have had by now. I wish you a speedy recovery and the strength to persevere during this difficult time, which I hope will be over in the foreseeable future.

Our course of action, considered "overly cautious" by some of you, was not always easy; right at the beginning of the pandemic in 2020, I worked with then state secretary Steffen Krach to also develop guidelines for the Berlin State Conference of Rectors and Presidents. While we all would have liked to have the worst behind us after two years, the opposite has happened: driven by the new virus variant, infection numbers are rising in Berlin and Germany to levels previously unimaginable. Thanks to the tireless efforts of many – above all the coordination by our crisis committee under the direction of Vice President for Administration Lars Oeverdieck – TU Berlin has successfully avoided becoming a COVID hotspot. The test center and our vaccination partners have played an important role in this. Thank you to our Event Team for their efforts here.

I would also like to thank you all for understanding most of our decisions and for your cooperation. All of you have contributed to ensuring the situation at the University remains relatively stable.

Despite all our measures, it was not possible to avoid having to adapt teaching and research to the new conditions resulting from the pandemic. Teaching continued to be a challenge during the second pandemic year and a balancing act requiring a great deal from and placing enormous demands on all those involved – we had to embrace changes to procedures, new methods, and unfamiliar situations. I am sincerely grateful for the commitment, dedication, and creativity all the departments, central institutes, units, academic chairs, and faculties have demonstrated on a daily basis to maintain our teaching operations, and particularly to our vice president Hans-Ulrich Heiß for his always prudent assessment of the situation.

Our cooperative effort paid off. We were able to offer nearly all courses – thanks in part to investments in our digital infrastructure, but above all due to our motivated and innovative instructors.

During this period, the Prize for Outstanding Teaching was awarded to Utz von Wagner (Faculty V) and Vera Meyer (Faculty III). Congratulations on this highly deserved recognition of your efforts! Under the direction of Annette Mayer, the Center for Scientific Continuing Education and Cooperation also provided comprehensive support with digitalization via its workshops, advising, recording equipment loans, and "Lunch for good (digital) teaching."

In 2021, successful system accreditation confirmed we aren't alone in believing in the excellence of our degree programs. The accreditation confirms TU Berlin's internal quality assurance for teaching and studying is effective in ensuring we attain our defined learning outcomes and quality standards. This doesn't mean, though, that there isn't room for improvement. Our proposals to the State of Berlin's Quality and Innovation Offensive were approved and we have been granted nearly 6 million euros in funding for 2021-2024. This will be used to implement innovative digital and hybrid teaching, study, and examination formats as well as specific measures to increase study success and improve students' start to their studies. My aim for teaching at TU Berlin has always been to combine the advantages of digital and in-person teaching as best as possible. We are now taking the first steps toward blended learning formats in teaching and learning, something which I believe represents the "new normal" of future university teaching. I very much hope TU Berlin and the new Executive Board continue to pursue this objective, and that the University sets the pace and does not allow itself be driven by the rising competition for students.

Creatively using online and hybrid formats will allow us to teach and study beyond the walls of our own institution. This may sound as much a threat as an opportunity. For example, and I believe this is a great opportunity, we introduced a "learning through research" opportunity with Berlin University Alliance's StuROPx, enabling students to gain insight beyond the university. Further BUA degree programs and certificate programs will follow.

Our teaching will also profit from our European university network ENHANCE and its partner universities in Aachen, Gothenburg, Milan, Trondheim, Valencia, and Warsaw. Our then vice president, Angela Ittel, who is now president of TU Braunschweig, played an important role in the foundation of this alliance. Next winter semester, ENHANCE will offer several valuable international learning opportunities in the form of summer schools, joint degree programs, and microcredentials. These will be dedicated to key areas of focus such as sustainable entrepreneurship, cooperation with civil society, and climate action. I have always firmly believed that we need to think about teaching beyond our traditional borders in order to best prepare our students for their future careers. As such, I am particularly pleased that ENHANCE will add to the international character of our teaching at TU Berlin.

International exchange is a particularly important topic, I believe, because it has been hit especially hard by the pandemic. Under the direction of Ulrike Hillemann-Delaney, International Affairs has succeeded in maintaining student mobility, at least in a basic form. International research cooperation work also successfully transitioned to the digital world. I especially want to mention our cooperation through BUA with excellent universities such as the University of Oxford and the National University of Singapore as well as TU Berlin's own cooperation with partners in the Global South, which are of personal importance. TU Berlin played a leading role both in establishing one of the DAAD's four global centers dedicated to *Health and Pandemic Prevention* as well as one of its four centers dedicated to *Climate and Environment*.

However, we have also been able to effect change at home on campus in the last 12 months, ensuring our excellent study conditions long term. The University Library initially extended its opening hours till midnight Monday to Saturday in 2021 and has since made this permanent.

The Academic Advising Service has not only expanded its advising services but is available both in person as well as digitally. A spotlight was shone on all our degree programs, including in a podcast, which has been widely accessed by students.

Nevertheless, we are all aware that the last months have been difficult for many students and staff and presented tremendous practical and mental hurdles. Studying is more than listening to lectures, going to seminars, and leafing through books. Extending academic education to include a new personal stage of life, including all the social skills, experiences and adventures that go with it, is an essential part of the study experience. The lack of in-person opportunities for four semesters has made this difficult. In addition, the pandemic has caused many to worry about their livelihoods and contributed to an increased feeling of loneliness.

As president, it was particularly important to me to regularly expand and sustain our advising structures, something we have achieved under the dedicated leadership of Baris Ünal. Continuing into the second year of the pandemic, Psychological Counseling received a growing number of inquiries and was witness to the urgency felt by many students and instructors. We quickly provided additional funds and the waiting time for an appointment has returned to the usual 3-4 weeks. We are currently determining how to maintain these successes in Psychological Counseling long term. The Executive Board also provided one-off additional funds to our advising services for students with a chronic illness or disability.

The central Family Services Office recorded 870 advising sessions in 2021 across all TU Berlin status groups. Most of these were with teaching and research staff about planning parental leave within the scope of their contract period. Twice a year the office organizes a lunch talk for this target group titled "Between Diapers and Science" together with the Center for Junior Scholars. Through its flexible childcare offer for all status groups, the Family Services Office has made a contribution to enabling mothers and fathers to combine their studies/work with raising a child. In the future, the Family Service Office will be taking up the topic of caring for a loved one. I would like to express my gratitude to Katja Müller, head of the service, and for our wonderful collaboration over the past years.

Combining studying or working with raising a child is an important issue and one that leads me to the topic of equality of opportunity.

The #ichbinHanna debate about ending fixed-term contracts financed by budget funds has raised an important issue for research and teaching staff. The debate surrounding Section 110 of the new Berlin Higher Education Act will be a public one and I very much hope that research assistants will not only be discussed in terms of the risk of their being employed on permanent contracts. Instead, the debate must be held at structural level and examine whether more funds will be provided, from whatever sources, or whether doctoral and postdoc positions will be reduced, or a combination of both. We will need to discuss, develop, and adopt plans for the best approach for our University.

Gender equality, equality of opportunity, and above all the advancement of women and diversity among our non-professorial academic staff will also be impacted. The introduction of permanent research positions will cement the ratio of women to men for decades, reducing the DFG's cascade model to an absurdity.

Our Main Women's Representative, Antje Bahnik, and our Equality and Diversity unit led by Jana Huber are making key contributions to these issues. I would like to draw special attention to the DiGiTal joint project, which TU Berlin will implement in a second funding period together with 13 other Berlin universities, thus strengthening support for women in digitalization research.

In the area of diversity, work is being done to implement the new Section 5b of the Berlin State Higher Education Act "University of diversity". As a part of this, larger structural questions must be addressed, such as "What does diversity governance require to systematically address and reduce structural discrimination?". I wish every success to all those involved and encourage them to keep an open mind during the discussions.

Equality of opportunity also plays an important role in our professorial appointments, as these shape the medium-term future of TU Berlin. 20 new professors took up their posts at TU Berlin in 2021, among them 11 women, making up 55 percent. A further 22 professors, including 8 women, accepted new appointments at TU Berlin in 2021. Together, women account for an outstanding 43 percent of new appointments. So things do change when you make an effort. Our experience has also shown, though, that failure to continue our efforts can immediately lead to a sharp decrease in the number of women professors. I personally would like to see TU Berlin support gender equality, equal opportunities, and diversity to an even greater extent.

Every appointment is an opportunity to shape TU Berlin's subject profile but also its opportunities for cooperation. We currently offer a wonderful breadth of topics and can look back on many successes.

TU Berlin's research strength was not dampened during the second year of the pandemic. Our researchers and support staff made impressive achievements despite the many hurdles and stressors – at TU level, in partnership with other Berlin universities and within the Excellence Strategy as well as with other universities and countries. Allow me to take a moment to highlight a few successes:

The Berlin University Alliance received 5 million euros from federal and state funds, which TU Berlin has administered, for 100 scientific projects, structures, and services. An Einstein Research Unit dedicated to quantum computing has commenced work while another ERU has taken up research on the climate and water. The BUA's Grand Challenges are complex issues of societal importance pursued jointly by all the partners. The first Grand Challenge was Social Cohesion and the second Global Health. The topic of the third Grand Challenge will be developed in an "idea lab," a transdisciplinary process with strategic international partners and representatives from politics, business, and organized civil society, NGOs, and Berlin youth. I look forward to seeing which topic emerges from this innovative process. The extent of TU Berlin's involvement and contribution depends on your widespread dedication and commitment.

Since its founding, the Einstein Center Digital Future or ECDF, has been an important initiator of digital research and structural developments at TU Berlin. More than 40 researchers have taken up interdisciplinary work since the ECDF was established, 10 of whom are being made permanent at the Berlin universities. Many thanks to Odej Kao, who has served as director and led the center's scientific development. Thank you also, Odej, for your many years of service as Chief Information Officer of TU Berlin.

There are also other events worth noting: Two Section 91b buildings are being constructed, one of which celebrated its topping out ceremony in August 2021, the IMOS building spearheaded by Volker Mehrmann. The other, the SiM building, initiated by Roland Lauster, broke ground in July 2021 and should be completed in 2023.

In December, it was announced that the new AI beacon project BIFOLD will be permanently funded by the federal and state governments. A joint university central institute is currently being established.

Faculty V has announced that a second ERC Advanced Grant has now been awarded to Professor Christian Oliver Paschereit and that "eHaul," a major project in the field of e-

mobility/sustainable goods transport, will be funded with a total of 6.5 million euros and led by Junior Professor Stefanie Marker. I would like to draw special attention to Kai Nagel, whose research on simulating virus spread has been tremendously successful and discussed widely in the media. Martin Kriegel in Faculty III has also intensively researched virus spread, focusing on calculating and simulating virus spread indoors. Faculty VI's collaborative research center "Re-Figuration of Rooms," under the direction of Martina Löw, has entered a second funding period. TR154, with participation from Faculty II, was recently positively evaluated and H2Mare, which focuses on hydrogen production on the high seas, received 2.48 million euros financing. My congratulations to Peter Strasser.

As president, I have always found it important to incorporate our social responsibility as a university into the topics we take up as well as our structures. As a university, we have succeeded in drawing national and international attention to some key innovative issues we are pursuing with passion and enthusiasm, and which are also of personal importance to me. Sustainability and climate change are central issues of the coming years. There will hardly be anything more important to our society as a whole. It is therefore no surprise, how many different people inside and outside of TU Berlin are dedicated and successfully contributing to this topic.

The Einstein Climate Change Center will bring together partners from Berlin and Brandenburg to apply interdisciplinary and transdisciplinary thinking to climate research and adopt a more solutions-oriented approach. In 2022 the proposal for the entire center will be submitted – we will require all hands on deck to produce a successful concept. This opportunity is too good and the topic too important to fail to establish a hub for climate change here in Berlin and Brandenburg. The efforts to establish the ECCC are accompanied by a two-million-euro grant by the Berlin Senate to the Climate Change Center Berlin Brandenburg for 2022 and 2023.

Further brief climate and sustainability highlights include TU Berlin's success in the EU Green Deal project. TU Berlin will receive roughly 2 million euros external funding thanks to the efforts of the Center for Technology and Society (ZTG). These funds will make a significant contribution to the work of the Climate Change Center. The ZTG is an example of how good networking can lead to acquiring significantly more research funding.

Sustainability also has a clear, practical impact on TU Berlin. This past year we adopted a climate agreement with the State of Berlin, committing ourselves to a comprehensive catalog of measures aimed at reducing direct and indirect carbon emissions to an initial 25 percent by 2030. This will need to be implemented by future Executive Boards. TU Berlin now has the opportunity to show that its stance on sustainability is not just an empty promise.

Public interest in climate issues is also high. For the fifth time, the ZTG, the academic chair led by our valued colleague and vice president Ulf Schrader, and students from Fridays for Future organized a climate lecture series this semester attracting hundreds of interested students and guests.

I would also like to mention the first Sustainability Report published by the Council for Sustainable Development in October 2020. We can be proud of what we have accomplished for climate protection and sustainability thus far and I am happy that I have been able to actively support this issue during my time as president. At the same time, we must be aware that the climate crisis requires quicker action. TU Berlin must pick up the pace if it wants to make a meaningful contribution to mitigating and adapting to climate change.

A further topic of importance to me and one which I have intensively pursued in the last years under the leadership of Vice President Christine Ahrend is transdisciplinarity. Science alone is no longer sufficient to effect change. Knowledge exchange and researching with society have grown into a significant future area of focus within science policy and research funding.

2021 saw the start of new pilot projects: The project "Mall anders" as well as various discussion events during Science Week have strengthened exchange between society and science. Transfer and transdisciplinarity also include the Digital Forum Citizen Science, held in May 2021, the adoption of a transfer strategy, as well as the establishment of the Science and Society Section. The University's successes enable it to achieve recognition as a pioneer in different areas of participative research with society.

Another topic TU Berlin will be pursuing in the coming years is teacher education. The University can soon expect to receive nearly 1.5 million euros from Berlin's special program "Beste (Lehrkräfte-)Bildung für Berlin." Just under half of the funds to be made permanent are financing the newly established professorship for Education in the Digital World at the Institute of Education. In addition, TU Berlin is the only Berlin university involved in two interdisciplinary research projects through the nationwide initiative for high-quality teacher training.

Education is not limited to traditional teaching for students and teacher education. Another key pillar is continuing education and support for our staff.

As the central point of contact for doctoral candidates and postdocs from all disciplines, the Center for Junior Scholars has worked with the faculties to further implement the action plan of the Strategy for the Advancement of Junior Scholars. Their successful outcomes will soon be presented to the Academic Senate.

These include the addition of an English-language funding line to the ProFiL program, allowing 54 female researchers to be accepted, 26 with an international background. BUA also implemented the Graduate Studies Support Program for junior researchers, which encompasses key components such as a welcome retreat, good academic practice, academic writing, and mental health. The Cooperation Center for Science and the World of Work has taken up a new area of support for young talents, "studying without an *Abitur*."

Under the leadership of Bettina Satory, the Career Service acquired funding for 150 Deutschlandstipendium scholarships in 2020/21 and 131 the following year. It bears mentioning that the Digital Media & Technology Student Initiative raised funds for one Deutschlandstipendium each at TU and FU Berlin. I would like to extend my gratitude to all the donors who made the scholarships possible and for their understanding regarding the impacts and additional strain of the current global situation and that at TU Berlin.

Certainly, a key topic of focus for many in the past months has been the University's administration. It was obvious that there had been shortcomings here in recent years, which I recognized too late and which were acted upon too late. As the backbone of the University, the administration began to flounder, at the latest when the many additional burdens were piled on. We should have identified and addressed these difficulties earlier on, long before staff were stretched to their limits and it became difficult, if not impossible in some cases, to fulfill our duties in research and teaching.

We are now on the path to recovery, thanks to the dedication of our staff, for which I am very thankful, and the external support guiding us through this process of re-orientation. We used new ideas and an external agency to recruit new employees and initiate the reorganization of the teams. A former member of Human Resources, Heike Gempf, has returned and is providing her experience and skills. Employees who had previously left us have re-applied. We have succeeded in nearly completing the backlog of hire requests from last year.

Our next steps will be to use our software more efficiently. In the mid-term this will make it easier for staff to make full use of the advantages of the digital world and not lose time or energy as a result of media disruptions. This will also lead to improvements where the work of

the various departments and units at the University meet. I am certain that this positive approach will be continued in the coming years.

Along with Human Resources, Campus Management's nerves were also stretched. Following the IT security incident on 30 April and the Log4j gap on 10 December 2021, all of Campus Management's efforts were spent solving the resulting issues. An incident of this magnitude was also a first for us. We are still dealing with the fallout of the IT attack. As the Executive Board we have grown together with you through this crisis. Of course, we did not always make the perfect or right decision, but we have always tried to act in the best interest of all TU Berlin members.

In the last months we have systematically increased our IT security. An attack comparable to that of 30 April 2021 will not impact us to nearly the same extent. This is evident by the zero-day attack, which has not caused us any damage. I recommend requesting further resources for managing and shaping our IT structures during the negotiations on the university agreements. Given that TU Berlin wants to drive forward the topic of digitalization in all areas, it is also essential to set up structures that are more reliable.

A further area that has caused concern regarding the University and its ability to act and attract professors is the construction and management of buildings. The refurbishment report we commissioned has been available to the Senate since 2018 with the commitment of the then governing mayor. The coronavirus pandemic has put a spoke in the wheels of the Senate and TU Berlin for now. It is now necessary to negotiate with the new Senate to ensure that the measures in the coalition agreement on university building renovation are implemented.

Similar to the situation in the personnel department, TU Berlin suffers from an ongoing and crippling lack of staff in the building department. We have taken numerous steps to find a remedy: early reappointments and thus temporary double appointments in key positions, intensifying our recruitment measures, increasing the attractiveness of our positions through additional qualification offers and bonuses as well as headhunting for skilled workers. The situation remains difficult; skilled workers are needed everywhere and the job market in Berlin is highly competitive.

We as a university will only be successful long term if we succeed in organizing our internal structures in such a way that our jobs reflect the desires and needs of jobseekers and that the climate is one staff enjoy. However, it is also clear that, as one colleague told me, and I quote "TU Berlin was not selected a University of Excellence on account of hiring staff efficiently or being able to send emails." This means that issues other than administration will remain important in the future.

A further key issue is the university culture, which impacts staff in all areas.

Universities are places where people with different backgrounds and aims come together. This is a strength we as TU Berlin have, but it is also a challenge. We must engage with each other with openness and mutual appreciation to ensure that as many ideas, perceptions and wishes as possible are heard. An open university culture based on trust embraces unconventional approaches to solving problems and affirms a secure feeling of connection and appreciation for each individual. In this vein, we have increased our efforts in the past months to address internal communication and introduced new formats. This includes my bulletin, the "A Cuppa with the President" meetings, the TU forum, and the successful Zukunftskongress.

"A Cuppa with the President" in particular, for which I have had or scheduled 40 appointments, brought me closer to you and allowed me a better understanding of your experiences. I very much regret that I did not make use of this format of meeting and discussing with you much

earlier. Thank you to the head of the Office of Communication, Stefanie Terp, for her ideas here and of course, in all matters of public relations.

This is my eighth and last new year's address. I have always enjoyed this reflection and I think it is important to take time to do so. I am proud of your many successes but also of that what we have shaped as Executive Board.

Beginning 1 April 2022, Geraldine Rauch will be steering our university as the newly elected president, introducing new issues and, I very much hope, continuing existing ones. I wish her and her team much success and all the best. I have always enjoyed my work at TU Berlin and with all of you and I fondly look back on this time. I hope Ms. Rauch feels at home here as I have.

I would like to thank my colleagues in the Executive Board vice presidents Christine Ahrend, Hans-Ulrich Heiß, Angel Ittel, Ulf Schrader, Ulrike Gutheil, Mathias Neukirchen, and Lars Oeverdieck for their longstanding, close, and wonderful collaboration.

On behalf of the Executive Board and the University, I would like to send you our very best wishes, wherever you are working. I wish you all great success in your personal and professional endeavors and thank you for these wonderful years. Please stay healthy and continue your commitment to TU Berlin.