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ANNUAL REPORT

University of Tübingen

University of Tübingen Annual Report
1 January – 31 December 2023
Published by the University President,
Professor Dr. Dr. h.c. (Dōshisha) Karla Pollmann

Dear readers,

2023 was an exciting and highly successful year for the University of Tübingen. Our many DFG-backed research groups, European Research Council grants, and private sponsorships are a reflection of the outstanding work being conducted across a wide spectrum of academic disciplines at the University. Moreover, as an Excellence University we enjoy generous funding in key research areas. From medical research seeking new antibiotics or treatments for degenerative diseases and various forms of cancer, to physicists probing the nature of neutrinos, to many initiatives striving to conserve resources and protect the environment, our scientists are at the forefront of the quest to know more about the world and to make it a better place.

A key part of that is understanding human beings – their earliest origins, their languages, their literatures, their religions and their economic behavior; Tübingen researchers are at the cutting edge of these fields. This includes examining and seeking answers to immediate issues such as online education and political extremism.

It is the University's task to build – and constantly adapt – an appropriate framework for this remarkable research and the excellent teaching that goes hand-in-hand with it. In 2023, the University provided counseling to a record number of students in the wake of the coronavirus pandemic. We opened a new cancer research building, launched innovative new Master's programs, and implemented workplace and remote-working measures to improve conditions for University employees.

Above all, the University of Tübingen has continued to build on its national and international ties. We are members of the CIVIS University Alliance, The Guild, and the Matariki Network, and we have agreements with some 500 institutions of higher education around the world. This English-language annual report is for our friends and future friends around the world. I wish you pleasure in reading it.

Professor Dr. Dr. h.c. (Dōshisha) Karla Pollmann, President

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Research

High standards

The University has positioned itself favorably for the second round of the Excellence Strategy, submitting plans for a whole series of new Clusters of Excellence which reflect our wide-ranging areas of outstanding core research. The quality of our research is also underlined by the large number of prestigious grants received by Tübingen researchers from the European Research Council. Our academic work can have an impact on environmental, education policy and other public policies – for instance, in findings by the Institute for Research into Right-Wing Extremism founded in 2023.

The University of Tübingen in the Excellence Strategy

First and second funding rounds

The University of Tübingen received renewed Excellence Strategy funding in 2019 following the approval of three Clusters of Excellence – in **Machine Learning**, **Microbiology and Infection Research** and **Oncology, Immunology and Imaging**. Under the Excellence Strategy, the German government provides additional funding of approximately 12 million euros annually for the University to reinforce strategically important research priorities, to strengthen its institutional profile and increase its international competitiveness.

All three existing Clusters will apply for a second phase of funding. In addition, six further Cluster initiatives were invited in February 2024 to submit full proposals. They are: **Human Origins** from palaeoanthropology, **Terra** on interactions between stability and diversity of the geosphere and biosphere, **GreenRobust** from plant biology (jointly with the Universities of Heidelberg and Hohenheim), **The Fe/male Brain** from the neurosciences, **Bionic Intelligence for Health** (with the University of Stuttgart) on the neural and physical intelligence of the human body; and a fundamentally new approach to forms of coexistence, conflict, and cooperation in **Critical Proximities**. In May 2025, the Excellence Commission will decide on which proposals to fund for the following seven years.

Members of the International Advisory Board visiting Tübingen, left to right: Zeblon Vilakazi, Christopher F. Higgins, Pamela Schirmeister, Sijbolt Norda, Janet Hering, Antonio Loprieno and Eva Åkesson

New ideas from the University of Excellence

The **International Advisory Board provides advice on** the planning and implementation of strategy. The Board is made up of internationally respected academics from a variety of disciplines; each member holds a leading position in academia. The Board members met in Tübingen in June 2023 for the interim evaluation of the Excellence Strategy and also advised the new cluster initiatives in the run-up to the submission of full proposals.

2023 was Tübingen's fourth year of funding under the Excellence Strategy. **Strategically important research fields** were strengthened via targeted investments in personnel and equipment. The recruitment of research pioneers brings increased energy to the University's research priorities with new, highly topical subjects.

Another key activity is the **promotion of early-career researchers**. In 2023, 20 new projects and five Innovation Grants for early-career researchers were approved as part of the Excellence funding formats. 25 female researchers (postdocs and assistant professors) received funding via the equal opportunities Athene Program. Excellence monies also funded subject-specific summer and winter schools, as well as workshops.

A call for proposals to the third round of Exploration Funds was made in 2023. The funds are primarily for the humanities and social sciences. Three University of Tübingen projects were approved that have the potential to influence current or foreseeable social debates. The Infrastructures and Global Ordering (IGLO) project approved in the previous round kicked off as planned in January 2023.

The University of Tübingen relies on **international research networks and strategic partnerships** to establish long-term collaborations with other leading research universities worldwide. As part of its membership of The Guild of European Research-Intensive Universities, Tübingen was successful in a joint call for proposals with the African Research Universities Alliance (ARUA), with a positive evaluation for three Clusters of Research Excellence. Tübingen's partnership with the University of Nottingham (UK) was stepped up with the signing of a strategic cooperation agreement in January 2023. Several excellence-funded research projects with the University of North Carolina Chapel Hill, USA, are helping to put this established strategic partnership on an even more solid footing.

Now that the **College of Fellows** is established, the Teach@Tübingen and New Horizons Fellowship funding formats were integrated there in 2023, so that now, along with the Postdoctoral Research Fellowships in Intercultural Studies, the College of Fellows is home to three key funding formats for international researchers and has become the central point of contact for international guests.

The University's **international networking and visibility** are also sustainably promoted through numerous funding formats such as the Research@Tübingen scholarship program, Seedcorn Funds and the alumni work of the Tübingen Research Alumni Center (TRACe). The Global Awareness Education Program offers students the opportunity to acquire intercultural competence and problem-solving skills for the enormous ecological and social challenges of our time using a hybrid and project-based learning approach.

Institute for Right-Wing Extremism Research launched

In March 2023, after a competitive selection process, the University of Tübingen got approval from the state of Baden-Württemberg to found the Research Institute for Right-Wing Extremism. It was formally established in May 2023 within the Faculty of Economics and Social Sciences. The Institute seeks to contribute to the strengthening of democratic society by researching right-wing extremist environments, attitudes and communications. The state provides 1.2 million euros annually for three professorships, while the University sponsors a further professorship for social science research into contemporary anti-Semitism. The Institute's director is the political scientist Dr. Rolf Frankenberger.

The three professors who focus on political science, media studies and education will examine the various facets of right-wing extremism using a broad range of methods – from individual agents, networks, ideologies and attitudes to living environments and communication strategies. Initial research projects have been under way since 2023, for example on local elections and, in collaboration with Professor Olaf Kühne from Urban and Regional Development, on the spatial constructions of extreme right-wing parties.

The Research Institute for Right-Wing Extremism will also provide advice and concrete data to policymakers seeking to combat extremism and to strengthen civil society.

Two Collaborative Research Centers extended

The German Research Foundation (DFG) funds large, interdisciplinary research programs in the form of collaborative research centers. These can run for up to twelve years over three funding phases, and contribute to the development of core research areas. At the University of Tübingen, the collaborative research center Other Aesthetics (CRC 1391) was extended for a second funding phase to 2027. The Threatened Orders (CRC 923) group wound up on June 30, 2023 at the end of the maximum funding period.
The DFG also funds cross-location research programs that are jointly supported by two or three universities as transregional collaborative research centers, or transregios. In this area, the transregio The Skin as Sensor and Initiator of Local and Systemic Immunity (CRC/TRR 156) at the University of Tübingen was extended for a third funding phase until 2027; Cellular Mechanisms of Antibiotic Action and Production (CRC/TRR 261) received a one-year extension to 30 June 2024 for a phase-out. The Platelets – Molecular, Cellular and Systemic Functions under Physiological and Pathological Conditions (CRC/TRR 240) transregio wound up on June 30, 2023.

Collaborative research centers at the University of Tübingen

Title	Spokesperson	Duration
Different Aesthetics (CRC 1391)	Professor Dr. Annette Gerok-Reiter Deutsches Seminar	1 July 2019 – 30 June 2027
Robust Vision — Inference Principles and Neural Mechanisms (CRC 1233)	Professor Dr. Matthias Bethge Werner Reichardt Center for Integrative Neuroscience/Institute of Theoretical Physics	1 Jan. 2017 – 31 Dec. 2024
Molecular Coding of Specificity in Plant Processes (CRC 1101)	Professor Dr. Klaus Harter Center for Plant Molecular Biology	1 April 2014 – 31 Dec. 2025
ResourceCultures: Socio-cultural Dynamics in the Treatment of Resources (CRC 1070)	Professor Dr. Martin Bartelheim Institute of Prehistory and Medieval Archaeology	1 Oct. 2013 – 30 June 2025
Threatened Orders (CRC 923)	Professor Dr. Mischa Meier Institute of Ancient History	1 July 2011 – 30 June 2023

Tübingen participates in these transregional collaborative research centers

Title	Spokesperson	Duration
ANTIBIOTIC CellMAP — Cellular Mechanisms of Antibiotic Action and Production (CRC/TRR 261)	Professor Dr. Heike Brötz-Oesterhelt Interfaculty Institute of Microbiology and Infection Medicine	1 July 2019 – 30 June 2024

	Tübingen spokespersons	
Genetic diversity shaping biotic interactions of plants (PlantMicrobe TRR 356)	Professor Dr. Rosa Lozano-Durán, Professor Dr. Eric Kemen and Professor Dr. Thorsten Nürnberger Center for Plant Molecular Biology	1 Jan. 2023 – 31 Dec. 2026
Mathematics of Many-Body Quantum Systems and Their Collective Phenomena (TRR 352)	Professor Dr. Stefan Teufel Department of Mathematics	1 Jan. 2023 – 31 Dec. 2026
Platelets — Molecular, cellular and systemic functions in health and disease (CRC-Transregio 240)	Professor Dr. Meinrad Gawaz Internal Medicine Department I, Cardiology	1 July 2018 – 30 June 2023
The Skin as a Sensor and Effector Organ Orchestrating Local and Systemic Immune Responses (CRC-Transregio 156)	Professor Dr. Birgit Schittek Department of Dermatology	1 July 2015 – 30 June 2027

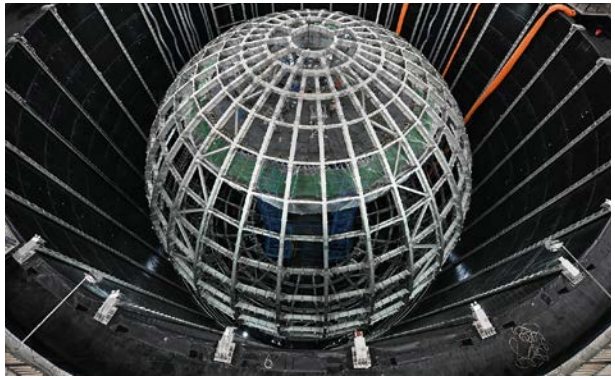
New research units

The DFG also provides funds for research units made up of academics who collaborate on an important joint project. The funding is provided in two phases over a period of eight years. Such research units may provide impetus for the development of new areas of research. 2023 saw the establishment of one new research unit at the University of Tübingen, Precision Neutrino Physics in JUNO. In addition, Tübingen is home to some of the projects in the new research unit FOR 5499: Molecular Solar Energy Management – Chemistry of MOST Systems, which is coordinated by the University of Giessen.

The properties of neutrinos

The new DFG research unit, Precision Neutrino Physics with JUNO (FOR 5519), began work in April 2023. It focuses on investigating the properties of neutrinos; for this, the researchers will analyze data from a neutrino detector in China, known as JUNO (Jiangmen Underground Neutrino Observatory). The speaker for the new research unit is Professor Tobias Lachenmaier from the Tübingen Institute of Physics. The DFG is providing 3.2 million euros over four years.

Neutrinos are electrically neutral, and they are the only particles in the standard model of elementary particles whose mass is not yet precisely known. There are three types of neutrinos, which may have different masses. The researchers aim to find out how these are arranged and to compare them with other known particles. At the same time, they hope to gain new insights into neutrino oscillation – a phenomenon that allows one type of neutrino to transform into another. Neutrinos can penetrate very thick layers of matter,



The heart of the JUNO neutrino observatory in Guangdong Province, southern China

and come from different places. There are cosmic neutrinos from space, neutrinos from the Earth's atmosphere and geoneutrinos from the Earth's interior. The researchers are both seeking to clarify fundamental questions, as well as to use neutrinos as supplementary tools for observing astrophysical phenomena such as supernovas.

German researchers, including those from the University of Tübingen, have made a significant contribution to the development of the JUNO neutrino detector. Following the construction of the international neutrino experiment in an underground laboratory in Guangdong Province in southern China and the optimization of the measurement methods and analysis techniques, data should be available from 2024. The Tübingen researchers are working with their counterparts from the Universities of Mainz, Hamburg and Aachen as well as the Technical University of Munich and the Forschungszentrum Jülich.

Molecular switches for solar energy

Researchers from the University of Tübingen involved in the DFG research unit Molecular Management of Solar Energy – Chemistry of MOST Systems are investigating novel molecular materials for energy storage. The research unit is coordinated by the University of Giessen and will initially be funded for four years with a total of around 4.8 million euros. Professor Ivana Fleischer and Professor Holger Bettinger from the Institute of Organic Chemistry in Tübingen are participating in the unit, which also includes working groups from the Universities of Heidelberg, Frankfurt am Main and Erlangen-Nuremberg as well as the Institute of Materials Science in Barcelona, Spain.

The availability of solar energy for power generation fluctuates greatly both regionally and over time, so storing it remains a major challenge. In the new research unit, scientists are investigating the potential of photoswitchable molecules that can individually manage the conversion, storage and release of solar energy. In such molecular solar thermal storage (MOST) systems, a switchable molecule absorbs light and is converted from a low-energy state to a metastasable high-energy state. To release the stored energy, an external trigger – for example heat, a catalyst, light or an electric field – is applied and the molecule returns to its ground state, converting chemical energy into heat.

The great advantage is that this method achieves energy absorption, storage and release with one and the same molecule. MOST systems must have a high energy storage density and reversibility as well as good stability. The Tübingen research groups are investigating a promising photoswitchable class of molecules and will seek ways to optimize its properties in terms of both energy storage and release.

Tübingen research units

Institute	Title	Speaker
Institute of Physics	Precision Neutrino Physics in JUNO (FOR 5519)	Professor Dr. Tobias Lachenmaier
Institute of Medical Psychology and Behavioral Neurobiology	Information Abstraction During Sleep (FOR 5434)	Professor Dr. Jan Born
Institute for Theoretical Physics	Long-range interacting Quantum Spin systems out of equilibrium: Experiment, Theory and Mathematics (FOR 5413)	Professor Dr. Igor Lesanovsky
Faculty of Catholic Theology, Medieval and Modern Church History	Being Catholic in the German Federal Republic. Semantics, Practices, and Emotions in Western Germany's Society 1965–1989/90 (FOR 2973)	Professor Dr. Andreas Holzem
Faculty of Protestant Theology, Practical Theology	De/Sacralisation of Texts (FOR 2828)	Professor Dr. Birgit Weyel
Interfaculty Institute of Microbiology and Infection Medicine	The Autotrophy-Heterotrophy Switch in Cyanobacteria: Coherent Decision-Making at Multiple Regulatory Layers (FOR 2816)	Professor Dr. Karl Forchhammer
School of Business and Economics	Understanding the Behavior of Multinational Corporations in the Context of International Tax Institutions (FOR 2738)	Professor Dr. Georg Wamser
Department of Psychology	Modal and Amodal Cognition: Functions and Interactions (FOR 2718)	Professor Dr. Barbara Kaup
Center of Neurology and Hertie Institute for Clinical Brain Research	Epileptogenesis of genetic epilepsies (FOR 2715)	Professor Dr. Holger Lerche
Institute of Ancient History	Migration and Mobility in Late Antiquity and Early Middle Ages (FOR 2496)	Professor Dr. Steffen Patzold
Interfaculty Institute of Biochemistry	VIROCARB: Glycans Controlling Non-Enveloped Virus Infections (FOR 2327)	Professor Dr. Thilo Stehle
Senckenberg Center for Human Evolution and Palaeoenvironment and Institute of Linguistics	Words, Bones, Genes, Tools: Tracking Linguistic, Cultural and Biological Trajectories of the Human Past (FOR 2237)	Professor Dr. Katerina Harvati Professor Dr. Gerhard Jäger

European Research Council funding

In 2023, the University of Tübingen garnered three Consolidator Grants, seven Starting Grants and one Synergy Grant from the European Research Council. Outstanding early-career researchers can obtain Starting Grants of usually 1.5 million euros. Top independent researchers are eligible for Consolidator Grants and Advanced Grants of up to 2.5 million over five years – these go to excellent proposals from researchers with a track record of major achievements and successes. The ERC also awards Synergy Grants, which are available for joint projects run by two to four working groups across disciplines and locations. They receive funding of up to 14 million euros for a maximum of six years.

Three Consolidator Grants

Professor **Tobias Kaufmann** from the Department of Psychiatry and Psychotherapy has been awarded an ERC Consolidator Grant for his research project **Modeling and maintaining maternal mental health** (HealthyMom). This neuroscientific research into the plasticity of the brain after the loss of a pregnancy will be funded over a period of five years with a total of around two million euros.

Pregnancy loss is still relatively rarely talked about openly. In Germany, around 15 percent of all recognized pregnancies end in early pregnancy loss and around four out of every 1,000 pregnancies end in stillbirth. The early loss of a child is often a traumatic event for the parents-to-be, and the consequences are often underestimated. Miscarriage and stillbirth significantly increase the mother's risk of mental illness – both immediately, and in later pregnancies.

The female brain is restructured in the course of pregnancy. Kaufmann is investigating the dynamics of these processes and the factors that affect the brain after pregnancy loss. The aim is to understand how mental illnesses can arise in this context and manifest themselves in the women affected. A number of factors are involved – an interplay of genetic, hormonal and socio-structural influences that need to be clarified. To this end, women are accompanied in the weeks following their pregnancy loss and examined several times in order to build up a broad database for analysis.

Tobias Kaufmann

Jakob Macke

Professor **Jakob Macke** of the Tübingen Department of Computer Science received an ERC Consolidator Grant for his project **Using Deep Learning to Understand Computations in Neural Circuits with Connectome-constrained Mechanistic Models** (DeepCoMechTome). He aims to develop novel neural networks at the interface of neuroscience and machine learning. The project will be funded over a period of five years with a total of almost two million euros. The starting point of the project is the brain of the fruit fly Drosophila melanogaster, which has over 100,000 nerve cells with several million connections. It is often used as a model in biology because, despite its small size, it combines capabilities such as high-precision flight control, orientation to landmarks and the lightning-fast reactions of the fruit fly – and all this with an energy efficiency that surpasses any computer. Although researchers have gained access to the circuitry of the Drosophila brain, no models have yet been built

Christoph Stein-Thoeringer

that could perform similar tasks. Using deep learning methods, however, it has been possible to create artificial neural networks that are able to perform very complex calculations. However, such artificial neural networks are far removed from biological neural networks, both in terms of their structure and the way they function. Macke aims to create artificial neural networks that are as close as possible to the structure of the fruit fly's brain and can perform similar tasks. To this end, he will develop and apply new machine learning methods. These will then also be used in neuroscientific research into creatures with more complex brains, such as fish and mammals.

For the project **Leveraging the impact of gut microbes to advance the efficacy of CAR-T cell immunotherapy** (PowerMiT), Professor **Christoph Stein-Thoeringer** from the Department of Internal Medicine I has been awarded an ERC Consolidator Grant. The project to research the influence of the microbiome on the success of CAR-T cell therapies will be funded over a period of five years with a total of around two million euros.
Chimeric antigen receptor T-cell therapy (CAR T-cell therapy) is the latest milestone in the treatment of cancer with immunotherapies, particularly for lymphomas. Using a genetic engineering process, the body's own T cells can be converted into such cells in the laboratory and then transferred back into the human organism. Equipped with these antigen receptors, the T cells are then able to detect and destroy the tumor cells in the body. Despite major treatment successes, almost 60 percent of people who undergo CAR T-cell therapy experience a recurrence of their hematological tumor disease. Stein-Thoeringer seeks to discover why CAR-T cell therapy fails in these cases and whether there are biomarkers that make the response to this treatment predictable even before the CAR-T cells are administered.
Increasing evidence suggests that the gut microbiome plays an important role in immunity and T-cell-directed cancer immunotherapy. Stein-Thoeringer will investigate the connections between the microbiome and the response of cancer to CAR T-cell immunotherapies and what interactions can be found between gut microbes, immune cells and CAR T-cells in patients. His long-term goal is to improve immunotherapies for cancer patients.

Seven new Starting Grants

Before writing was invented, language was not preserved. However, Dr. **Christian Bentz** from the Institute of Linguistics believes that an important component of it – the ability to combine symbols – was well developed. He received a Starting Grant for the project **The Evolution of Visual Information Encoding** (EVINE), which the ERC is funding with around 1.5 million euros over five years. Bentz will investigate whether

Christian Bentz

traces of this ability have been preserved. To do so, he will use statistical methods in quantitative linguistics.
In the Palaeolithic period, humans left Africa and colonized much of the world. The artifacts they left behind provide insight into the world as they understood it. Some of these artifacts bear early examples of visual information coding in the shape of geometric patterns. Very few such findings have been linked with Neanderthals; the first symbols appeared in the Mesolithic period in Africa in connection with today's humans, Homo sapiens.
When Homo sapiens migrated to central Europe in the late Palaeolithic period, they were already using stones, beads, bone fragments and figurines as forms of expression and carriers of information. Examples can be found in ice age art from caves in south-west Germany. Everyday objects were often decorated with geometric symbols. Bentz is seeking to measure the information content of such geometric signs on artifacts, and to prove that these patterns can be clearly distinguished from real writing. He will also try to find out whether there were recognizable transitions in the development of ciphers in the late Palaeolithic period around 35,000 to 15,000 years ago – around 10,000 years before humans invented the first writing.

Katrin Franke

Anna Gumpert

For her project **Tracing Visual Computations from the Retina to Behavior** (Eye to Action) Dr. **Katrin Franke** from the Research Institute of Ophthalmology has been awarded a Starting Grant with higher than usual funding at around 1.8 million euros over five years. She is currently a senior research scientist at Stanford University, USA, and will begin her Tübingen project in 2025.

The human brain is constantly bombarded with visual stimuli. This gigantic amount of information has to be selected and processed. In the retina, the first processing center of the visual system, neural circuits extract numerous features from the environment and form up to 40 channels to the brain. Until now, however, one of the basic principles of vision has remained unclear, namely how the brain processes these multiple channels and identifies relevant information.

Franke will seek answers to the puzzle of what kind of computations the brain performs to enable visually-controlled behavior. More broadly, a deep understanding of the healthy visual system is key to developing new treatment strategies for degenerative diseases of the system. For example, computer chips to restore vision ideally need to restore the physiological neural code. Deciphering this code is one of the research objectives.

Professor **Anna Gumpert**, who specializes in International Economic Relations and European Integration was awarded a Starting Grant for her project **Firm Organization and the Adoption of Information and Communication Technologies** (ORGANDICT). She will investigate the effects of digital technologies on the organizational structure and value chains of medium-sized and large companies in Germany. She will investigate, for example, enterprise resource planning (ERP) systems, which companies can use to compare their stock of raw materials, money and machines with the order situation and their payment obligations. This enables them to better manage their production processes. In the project, comprehensive data sets will be created that link information on German companies' investments in digital technologies with information on their workforce, their global value chains and their innovation activities. The data collection will be more detailed than previous surveys.

With the help of this database, Gumpert and her team will examine how investments in digital technologies affect employees' wages and job profiles. The researchers are also investigating whether decisions in companies are being made in a more decentralized manner, giving employees more autonomy, and whether digital technologies promote the migration of company activities abroad. The aim is to understand the extent to which increasing internationalization increases the effects of digitalization on employees and what consequences that has for research and development in Germany.

Until now, many economic models have used aggregate factors such as companies or private households to make them manageable when analyzing recessions. In his ERC project **Aggregate and Idiosyncratic Risk in Macroeconomics** (AIRMAC), Professor **Ralph Lütticke** from the School of Economics plans to differentiate the models.

Inequality plays a role in private households when occupational groups such as bus drivers are distinguished from bank employees. They have different incomes and are affected differently by a recession. In previous models, the conditions of inequality were depicted inadequately because, for example, households were treated as if they were unaware of the onset of a recession. Lütticke will use new

Ralph Lütticke

Lukas Mager

Christian Schürch

models to illustrate how aggregated risks influence individual decisions.

Lütticke plans to develop the algorithms required for this as a toolbox that is also available to politicians for calculating practical questions relating to monetary or fiscal policy, for example to examine the effects of transfer payments on economic cycles. The new algorithms will seek to give an individual household's view of the economy as a whole – for example to clarify who could become unemployed or whose house prices fluctuate more, and how this influences decisions on the labor or real estate market. In developing the basic methodology with ERC funding, Lütticke uses data from citizens in the USA, one of the most influential economies in the world, as well as from Denmark, where the state collects a large amount of data from citizens.

Dr. **Lukas Mager** from the Department of Medicine was awarded an ERC Starting Grant for his project **Systematic Triangulation of Pathobiont-Host-Interactions** (SOAR). He receives funding of around two million euros over a period of five years to research inflammatory bowel diseases and bowel cancer as influenced by the microbiome.

Chronic intestinal diseases and cancer are often closely linked to genetic factors, but also to a lack of microbe diversity in the gut. The microbiome – the entirety of all microorganisms in our body, plays a key role in this. Certain bacteria, known as pathobionts, can promote the development of diseases or reduce the effectiveness of treatment. To date, little is known about such disease-relevant bacteria and their interaction with genetic risk factors.

With the help of machine learning, Mager seeks to determine the joint occurrence of certain genetic risk factors and pathobionts that promote disease. The long-term goal could be the use of bacteria in the treatment of inflammatory bowel diseases and bowel cancer. Mager is a member of two clusters of excellence in Tübingen, one dealing with microbiome research (Controlling Microbes to Fight Infection – CMFI) and the other with cancer research (Image-Guided and Functionally Instructed Tumor Therapies – iFIT).

Professor **Christian Schürch** from the Institute of Pathology and Neuropathology is finding out how a tumor's immune microenvironment influences the effectiveness of CAR T cells to fight lymphoma in the project **Drivers and Brakes of CAR T Cell Efficacy Determined by the Tumor Immune Microenvironment** (CAR-TIME).

Immunotherapies with genetically modified T cells – called CAR-T cells – are set to play an increasingly important role in the treatment of cancer in the future. For example, the therapy is showing promising results in the most common type of lymphoma, diffuse large B-cell lymphoma. Unfortunately, not all patients benefit from the treatment. It is also costly, and serious side effects may occur. So it is important to find out in advance if the treatment can be effective in order to maximize the success, save valuable time and avoid unnecessary complications.

Christian Schürch and his team hope to solve the mystery of why CAR-T cell therapy is not equally successful in all patients. They are investigating the assumption that the immediate environment of a malignant tumor in patients who respond to CAR-T cell therapy is fundamentally different from that of others in whom the treatment is unsuccessful. By comprehensively analyzing the interaction between the microenvironment and CAR-T cells, Schürch aims to identify new starting points for successful treatment and to develop possible combination immunotherapies.

Maria Spyrou

Carola Lorea

Between 4,000 and 3,000 years ago, major socio-cultural shifts took place among prehistoric human societies, as evidenced by archaeological finds from Europe, the Mideast and Asia. To date, the main drivers of change were thought to be environmental and economic factors, warfare and migration. While there are indications of epidemics in this period, their causes and impact have received limited attention. In her project **Infectious disease outbreaks as contributors to socio-cultural transformations in the 2nd millennium BCE** (PROTOPEST), Dr. **Maria Spyrou** from the Institute of Archaeological Sciences investigates the influence of infectious disease outbreaks on prehistoric societies.

Spyrou's starting point is ancient DNA. Human bones contain both the genetic information of the people themselves and that of all the pathogens they were carrying when they died. By comparing these DNA sequences with information from public databases, Spyrou seeks to identify traces of the pathogens and investigate their genome, evolution and transmission. The project is possible because today's technology allows large amounts of genetic data to be recovered from archaeological remains and analyzed. Spyrou is using material from more than 600 human skeletons, as well as the remains of animals that lived in human settlements and may have served as reservoir hosts for various pathogens.

Spyrou plans to collect archaeological, osteological and genetic data, primarily from the Middle and Late Bronze Age, across a large geographical area from Europe to Asia. She will investigate how pathogens emerged and spread – and how prehistoric communities reacted to them. This will contribute to a comprehensive account of a time in our past when there were barely any written records.

Synergy Grant

Assistant professor **Carola Lorea** from the Institute of Religious Studies at the University of Tübingen is co-initiator of a project on religious and cultural studies research into mantras in South Asia, which is being funded with a Synergy Grant of 9.6 million euros for the entire team over a period of six years. Dr. Borayin Larios from the University of Vienna and Professor Finnian Gerety from Brown University in the USA are involved as cooperation partners in the project **Mantras in Religion, Media and Society in Global Southern Asia** (MANTRAMS).

The term "mantra" comes from the ancient Indian language Sanskrit and refers to a sound, formula or syllable used in certain rituals, healing practices or meditations. Mantras are used by more than 1.5 billion people worldwide. In the project, the researchers want to develop a global history and anthropology of mantras. To this end, the researchers are creating and analyzing extensive digital sound, image and text archives.

Current European Research Council Grants

Synergy Grants

Name	Project	Duration
Professor Dr. Harald Baayen Institute of Linguistics	Subliminal Learning in the Mandarin Lexicon (SUBLIMINAL)	2022 – 2027
Professor Dr. Klaus Corcilius Institute of Philosophy	Text and Idea of Aristotle's Science of Living Things (TIDA)	2022 – 2027
Professor Dr. Katerina Harvati-Papatheodorou Institute of Scientific Archaeology	Our first steps to Europe: Pleistocene *Homo sapiens* dispersals, adaptations and interactions in South-East Europe (FIRSTSTEPS)	2022 – 2027
Professor Dr. Jan Born Institute of Medical Psychology and Behavioral Neurobiology	Sleep Balancing Abstraction and Forgetting of Memory (SleepBalance)	2020 – 2025
Professor Dr. Gerhard Jäger Institute of Linguistics	Cross-Linguistic Statistical Inference Using Hierarchical Bayesian Models (CrossLingference)	2019 – 2024
Professor Dr. Klaus Scheffler Max Planck Institute for Biological Cybernetics/ Radiology	Ultra-Fast, Spread-Spectrum Magnetic Resonance Imaging (SpreadMRI)	2019 – 2024

Consolidator Grants

Name	Project	Duration
Professor Dr. Christoph Stein-Thoeringer Internal Medicine I	Leveraging the Impact of Gut Microbes to Advance the Efficacy of CAR-T Cell Immunotherapy (PowerMiT)	2024 – 2029
Professor Dr. Tobias Kaufmann Psychiatry and Psychotherapy Clinic	Modelling and Maintaining Maternal Mental Health (HealthyMom)	2024 – 2028
Professor Dr. Jakob Macke Department of Informatics	Using Deep Learning to Understand Computations in Neural Circuits with Connectome-constrained Mechanistic Models (DeepCoMechTome)	2023 – 2028
Professor Dr. Rosa Lozano-Durán Center for Plant Molecular Biology	Emerging Multifactorial Complexity at the Geminivirus-host Interface (GemOmics)	2022 – 2027
Dr. Sireen El Zaatari Institute of Scientific Archaeology	Tracing Hominin Occupations of and Migrations through the Levant: Reviving Paleolithic Research in Lebanon (REVIVE)	2021 – 2026
Professor Dr. Claudia Lengerke Department of Medicine, Internal Medicine I – Haematology, Oncology, clinical Immunology and Rheumatology	Targeting Leukaemia by Modulating Hematopoietic Stem Cell Competitiveness (Hemstem)	2021 – 2025

→

Name	Project	Duration
Professor Dr. Michael Butter Institute of English Languages and Literatures	Populism and Conspiracy Theory (PACT)	2020 – 2025
Professor Dr. Markus Siegel Werner Reichardt Center for Integrative Neuroscience/Hertie Institute for Clinical Brain Research	Neuronal Information through Neuronal Interactions (NINI)	2020 – 2025
Professor Dr. Holger Zellentin Institute for the Study of Religion and Jewish Studies	The Qur'an as a Source for Late Antiquity (QaSLA)	2020 – 2025
Professor Dr. Eric Kemen Center for Plant Molecular Biology and Interfaculty Institute of Microbiology and Infection Medicine	Knowledge Based Design of Complex Synthetic Microbial Communities for Plant Protection (DeCoCt)	2019 – 2025

Starting Grants

Name	Project	Duration
Dr. Katrin Franke Research Center for Ophthalmology	Tracing Visual Computations from the Retina to Behavior (Eye to Action)	2025 – 2029
Dr. Christian Bentz Institute of Linguistics	The Evolution of Visual Information Encoding (EVINE)	2024 – 2028
Professor Dr. Ralph Lütticke Political Economy – Macroeconomics	Aggregate and Idiosyncratic Risk in Macroeconomics (AIRMAC)	2024 – 2028
Dr. Lukas Mager Internal Medicine I	Systematic Triangulation of Pathobiont-Host-Interactions (SOAR)	2024 – 2028
Professor Dr. Lisa Maier Institute of Medical Microbiology and Hygiene	Gut Microbiome-mediated Activities of Psychotropic Drugs (gutMAP)	2024 – 2028
Professor Dr. Christian Schürch General and Molecular Pathology and Pathological Anatomy	Drivers and Brakes of CAR T Cell Efficacy Determined by the Tumor Immune Microenvironment (CAR-TIME)	2024 – 2028
Dr. Maria Spyrou Institute of Scientific Archaeology	Infectious Disease Outbreaks as Contributors to Socio-cultural Transformations in the 2nd Millenium BCE (PROTOPEST)	2024 – 2028
Professor Dr. Anna Gumpert Economics - International Economics and European Integration	Firm Organization and the Adoption of Information and Communication Technologies (ORGANDICT)	2023 – 2028
Professor Dr. Philipp Berens Research Center for Ophthalmology	Next Generation Mechanistic Models of Retinal Interneurons (NextMechMod)	2023 – 2027
Professor Dr. Michael Filarsky Interfaculty Institute of Biochemistry	Uncovering the Mechanisms Behind Adaptive Gene Expression Switching in Malaria Parasites (MALSWITCH)	2022 – 2026
Professor Dr. Tobias Hauser General Psychiatry and Psychotherapy	Understanding the Impact of Brain Fluctuations on Decision Making (NeuroFlux)	2022 – 2027

Name	Project	Duration
→ Dr. Judith Feucht Tübingen University Hospitals	Senolytic CAR T Cells as Novel Therapeutic Concept for Solid Tumors and Senescence-associated Diseases (CARsen)	2022 – 2026
Dr. Christoph Ratzke Interfaculty Institute of Microbiology and Infection Medicine	Bugs as Drugs: Understanding Microbial Interaction Networks to Prevent and Treat Infections (BugDrug)	2021 – 2025
Professor Dr. Esther Kühn Hertie Institute for Clinical Brain Research	How Does our Brain Store Bodily Experiences? (BodyMemory)	2021 – 2026
Professor Dr. Jan Christian Jansen Institute of Modern History	Refugees and Revolution in the Atlantic World, 1770s-1820s (AtlanticExiles)	2020 – 2025
Professor Dr. Andreas Geiger Department of Informatics	Learning Generative 3D Scene Models for Training and Validating Intelligent Systems (LEGO-3D)	2020 – 2025
Dr. Christina Schwarz Research Center for Ophthalmology	Exploring Visual Processes with Two-Photon Ophthalmoscopy (TrackCycle.2P)	2020 – 2026
Professor Dr. Zeynep Akata-Schulz Department of Informatics	Deeply Explainable Intelligent Machines (DEXIM)	2019 – 2025
Dr. Marcus Scheele Institute of Physical and Theoretical Chemistry	Coupled Organic Inorganic Nanostructures for Fast, Light-Induced Data Processing (COINFLIP)	2019 – 2024
Professor Dr. Philipp Hennig Department of Informatics	Probabilistic Automated Numerical Analysis in Machine learning and Artificial intelligence (PANAMA)	2018 – 2023
Dr. Radu Iovita Early Prehistory and Quaternary Ecology	A Silk Road in the Palaeolithic: Reconstructing Late Pleistocene Hominin Dispersals and Adaptations in Central Asia (PALAEOSILKROAD)	2017 – 2023

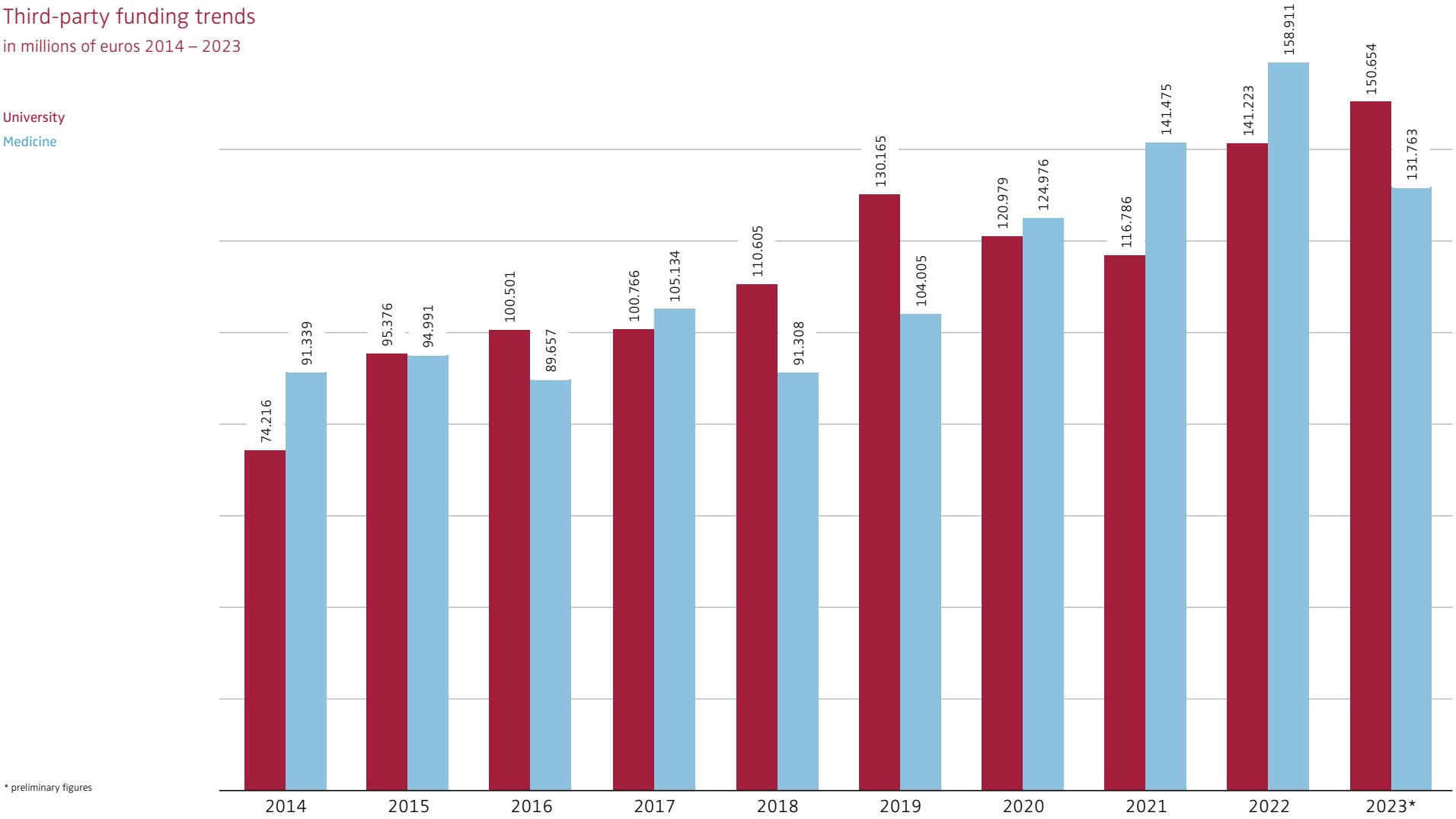
Synergy Grants

Tübingen Research Unit	Project	Duration
Assistant professor Dr. Carola Lorea Institute for the Study of Religions	Mantras in Religion, Media and Society in Global Southern Asia (MANTRAMS) University of Vienna Brown University, USA	2024 – 2030
Professor Dr. Holger Bettinger Institute of Organic Chemistry	Tackling the Cyclacene Challenge (TACY) University of Heidelberg	2023 – 2029
Professor Dr. Martin Giese Werner Reichardt Center for Integrative Neuroscience/Hertie Institute for Clinical Brain Research	How Body Relevance Drives Brain Organization (RELEVANCE)	2020 – 2025
Professor Dr. Ulf Ziemann Hertie Institute for Clinical Brain Research/Neurology	Connecting to the Networks of the Human Brain (ConnectToBrain) Aalto University, Finland	2019 – 2026

Third-party funding

Third-party funding trends

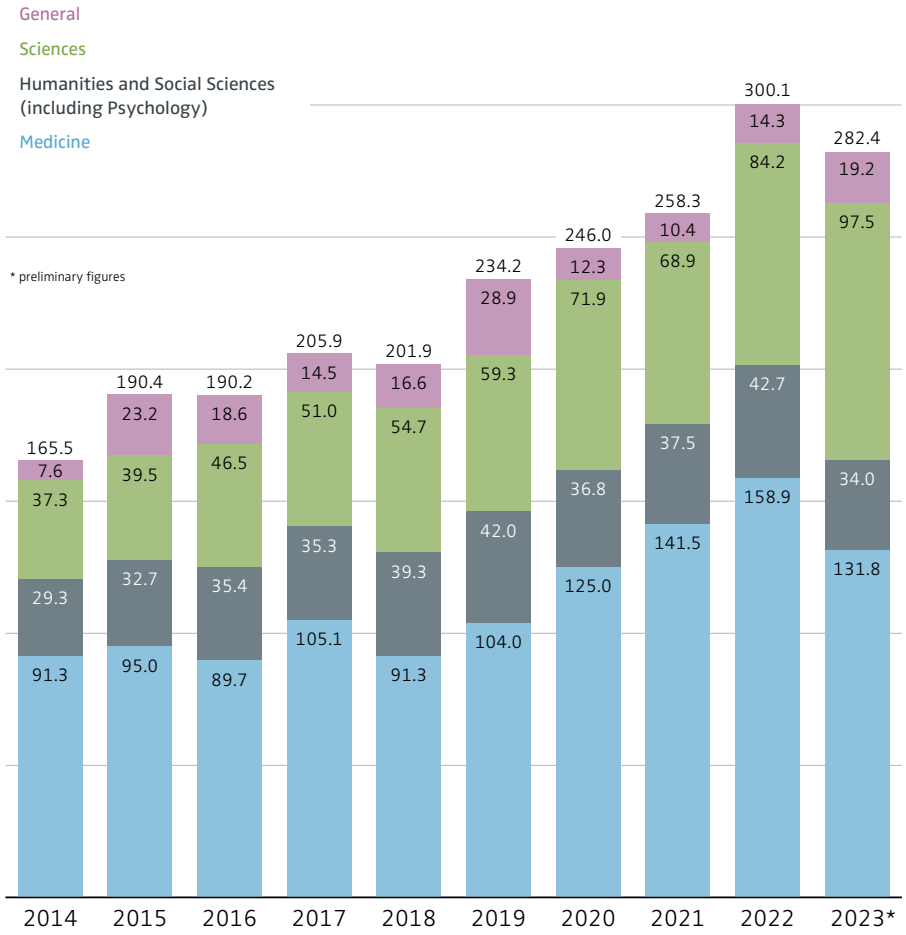
in millions of euros 2014 – 2023



* preliminary figures

Third-party funding in the Sciences, Humanities and Medicine, and general income

in millions of euros, 2014 – 2023



Sources of third-party funding

in millions of euros 2014 – 2023

2023:

German Research Foundation (DFG): 103.5 m euros

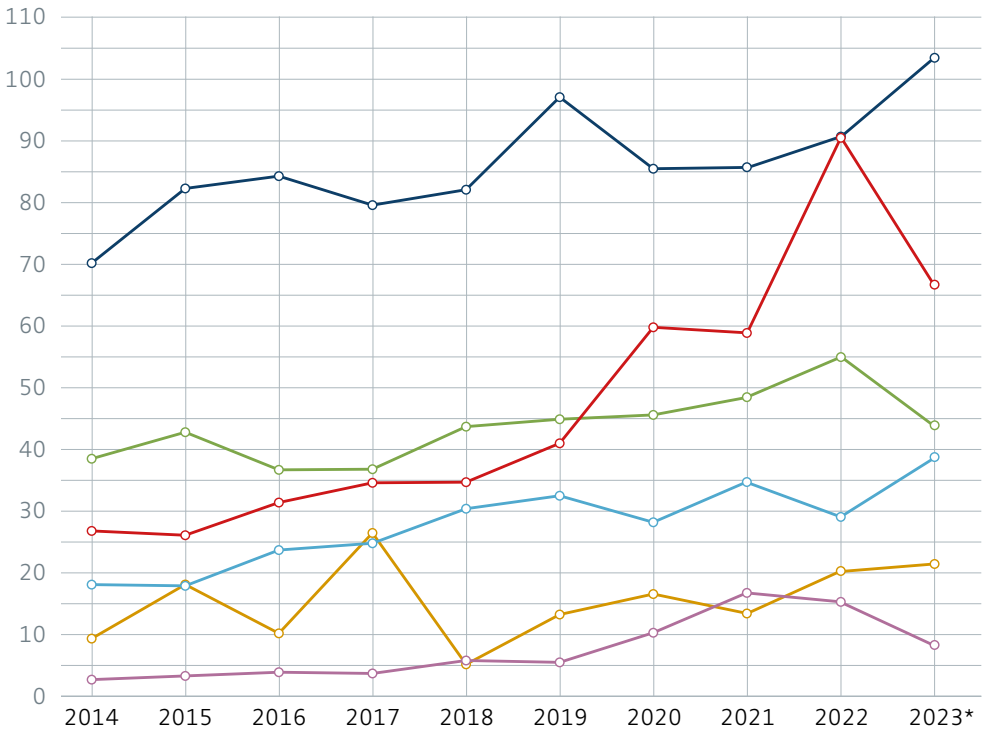
German Government: 66.7 m euros

Foundations, endowments etc.: 43.9 m euros

Business: 38.7 m euros

EU: 21.4 m euros

State of Baden-Württemberg: 8.2 m euros



News from the world of research

Far left: the Hohle Fels cave
Left: A newly-found fragment fits with a piece found 20 years ago to form a cave lion or cave bear.

+ + + Ice Age figurine takes a new shape + + + Quaternary archaeologist Professor Nicholas Conard and his team working in the Hohle Fels World Heritage cave unearthed a new fragment of an ivory figurine that fits perfectly with a fragment found more than 20 years ago. For two decades, the latter was thought to be the head of a horse; but re-connected with the newly-found piece, it now appears the animal more likely represents a cave lion or cave bear. The Prehistoric Museum Blaubeuren presented the 35,000-year-old fragment to the public as its 2023 Find of the Year.

+ + + On the nose – a new class of antibiotic + + + A team from the Department of Microbiology found that even in healthy people, the mucous membranes of the nose and skin may be home to Staphylococcus epidermidis, a type of bacteria that produces a previously unknown natural antibiotic. Dr. Bernhard Krismer, Professor Andreas Peschel and Professor Heike Brötz-Oesterhelt, working with Professor Stephanie Grond of the Chemistry Department, found that chemically, it is a new class of antibiotic. They named it epifadin. It is not only effective against bacteria that compete with it locally but also counters bacteria, for example from the intestine, and proved particularly effective against Staphylococcus aureus, a hospital germ that is particularly dangerous in antibiotic-resistant form (MRSA). Epifadin is unstable and only active as an antibiotic for a few hours. Testing will be needed to see if epifadin or similar substances are suitable for use in treating infections.

+ + + Women help the dynamics on supervisory boards + + + Having at least one woman on a company's supervisory board boosts the attendance rate, and having two or more women on the board is furthermore associated with greater profitability, according to a study by economist Professor Kerstin Pull and her team that used data from listed companies in Germany. They found that while a single woman on the supervisory board often tends to be perceived by male colleagues more as a representative of her gender and less as an expert, with multiple women there is a discussion of a wider variety of perspectives and alternatives, and better decision-making. The study indicates companies miss out on opportunities if they appoint women to their management and supervisory bodies only occasionally instead of systematically.

+ + + Toxicity of drugs influenced by water acidity + + + The toxicity of chemicals in lakes and rivers may vary by several orders of magnitude depending on the water's acidity according to a study by ecotoxicologist Professor Heinz Köhler. The vast part of many drugs is

Electron microscope image of the epifadin-producing bacterial strain of Staphylococcus epidermidis

The ceiling of the temple at Esna was covered in centuries of soot and dust. After cleaning, figures such as these – Orion, Sothis and Anukis – came to light. Above them is the goddess Nut, who swallows the sun in the evening.

excreted and enters the aquatic environment via wastewater. The painkillers diclofenac and ibuprofen, the cholesterol-lowering agent clofibric acid and beta-blocker metoprolol are ionizable molecules – that is, they can come in neutral or electrically charged form – depending on the acidity of the water they are in. Working with the German environment agency, Köhler's team developed a model to reliably predict the toxicity of ionizable chemicals in water of varying pH levels. Köhler investigated the effect of 24 substances, mostly used as medicines, on fish embryo development. The study showed the drugs to be far more toxic in their uncharged state than in their ionized form. These findings will help predict the toxicity of ionizable chemicals, with the results considered when drugs are registered and authorized. In a prompt response, the European Commission reduced the limit for the drug ibuprofen in the European Union's environmental quality standard.

+ + + Restoration completed of Ancient Egyptian temple ceiling + + + The historic Temple of Esna has colorful ceiling reliefs showing gods, mythological figures and representations of the sun, moon, signs of the zodiac, and various astronomical constellations. The restoration of these was completed in 2023 in a joint project between the Egyptian Ministry of Tourism and Antiquities and the University of Tübingen. During the restoration, almost 200 previously unknown inscriptions came to light, helping archaeologists to identify many depictions for the first time. The ceiling is divided into seven thematic sections, including the daily course of the sun, the phases of the moon, the different hours of the night and New Year's Day. The temple is in Esna, 60 kilometers south of Luxor in Egypt. Only the vestibule (called the pronaos) remains, but it is complete. At 37 meters long, 20 meters wide and 15 meters high, the sandstone structure was built onto the front of the temple under the Roman Emperor Claudius (41–54 AD).

+ + + Brain signal for speech sounds measured prior to utterance + + + Using imaging magnetoencephalography, neuroscientist Professor Markus Siegel found that it is possible to predict which of two fixed sounds test subjects would utter some seconds before they did so. Siegel and his team non-invasively recorded the brain activity of test subjects while they performed the task of imagining or uttering one of two vowels aloud, and then subjected the data to a highly developed statistical pattern analysis. It was irrelevant whether the test subjects later spoke the vowel out loud or merely imagined it – which relates to the phenomenon of the inner voice. The study provides fundamental insights into the neuronal processes that underlie the production of language – an essential human ability that can be impaired in various diseases.

Promoting academic careers

Three Baden-Württemberg Foundation projects

The Baden-Württemberg Foundation is funding three new research projects in Tübingen as part of its Elite Program. Dr. Silvia Rita Amicone from Archaeometry, Dr. Helena Atteneder from Media Studies and Dr. Denise Steiner from Pharmacy will each receive a total of up to 150,000 euros for up to three years. The program supports outstanding early-career researchers in their post-doctoral phase.

Ceramic production and the emergence of cities

Silvia Rita Amicone's project explores what new technologies and social changes drove the transition to urban societies in Etruria and how the first Etruscan culture emerged in the late 10th to mid-7th century BCE. She is focusing on pottery production in the main settlements in central Italy in the early first century BCE, combining archaeometric investigations with systematic geological surveys of the area around the sites to identify the raw materials available to potters in that era. She will focus on technological changes that emerged between the end of the Early Iron Age and the beginning of the Orientalizing period, from the late 8th to early 6th century BCE. These include the use of potters' wheels and new firing technologies that allowed the production of red ceramic coatings and the black pottery known as bucchero.

Merging the media and mobility infrastructure

In her project, Helena Atteneder examines the mobility and media practices of individuals who regularly use public transport. Central aspects are the interactions between the mobility infrastructure, the options offered by media and media technologies, and the effects of non-human influences such as algorithms. Atteneder will explore how users experience and reflect on these interactions and what scope for action arises. She will use data from the urban centers of Vienna (Austria), Milton Keynes (UK) and Shanghai (China), which already rely on "smart" technologies but differ significantly in terms of size, socio-cultural and political factors. The survey combines computer-assisted methods, observational studies and qualitative guided interviews.

Melt-in-the-mouth medications

Many active pharmaceutical ingredients are poorly soluble in water and are not readily available in the body when swallowed. For this reason, fatty carrier systems, such as lipid nanosuspensions and emulsions, are often used for these lipophilic substances. When packaged in conventional tablets or capsules, however, they are difficult to swallow whole, especially for children and the elderly. In her project, Denise Steiner is exploring how lipophilic ingredients can be packaged into orodispersible or "melting" tablets, which disintegrate directly in the mouth within three minutes and are therefore easier to take. Steiner is using spray-drying to produce powders from lipid nanosuspensions and emulsions containing active ingredients; this is an intermediate stage in the production of orodispersible tablets. She is investigating the temperature load on the solid lipid nanoparticles during drying, and the stability of the active ingredient in powder form during storage. Finally, melting tablets will be produced from the powders containing both active ingredients and lipids.

RISC program funds four unconventional Tübingen projects

The RISC program run by the Baden-Württemberg Ministry of Science, Research and the Arts provides up to 100,000 euros of seed capital for up to two years to enable postdocs and early-career researchers to pursue unconventional new ideas. Half of the budget is provided by the Ministry and the other half by the University of Tübingen Excellence Strategy funds. Four Tübingen researchers were selected for the 2023-24 period.

Assistant Professor Riccarda Flemmer, Political Science

Project: Do the rights of nature have transformative potential? The struggle for alternatives to destructive anthropocentric development

Should nature be granted its own rights to existence and development? Inspired by the human-nature relationships of indigenous peoples, acknowledgement of the rights of nature has led to the recognition of rivers, mountains and forests as living beings. Flemmer's project explores this new way of thinking and how rights of nature have the ability to transform the asymmetrical relationships between humans and nature to create legal and institutional models for more sustainable and equitable development.

Dr. Ramona-Elena Irimia, Evolution and Ecology

Project: HERBARIOMICS – Tracking genetic changes in the spread of a typical invasive plant through museum genomics

Japanese knotweed is spreading invasively around the world. In her project, Irimia will use historical DNA from plants in herbariums to reconstruct the invasion dynamics of this species in Europe and the USA and to understand the

underlying eco-evolutionary changes and their role in the invasion process. She combines novel and proven approaches such as next generation sequencing, museum genomics and bioinformatics.

Dr. Khaled Selim, Microbiology and Infection Medicine
Project: Research into the functioning of the carbon concentration mechanism in cyanobacteria with the aim of increasing the photosynthetic performance of plants
Cyanobacteria carry out photosynthesis particularly efficiently by pre-fixing carbon dioxide, which is converted into organic substances with the help of solar energy, and increasing its concentration in the cell. Selim plans to investigate these mechanisms in more detail in his project using biochemical and structural biological approaches. The long-term goal is to genetically integrate the structures for CO_2 pre-fixation from cyanobacteria into the chloroplasts of plants and thus increase the photosynthetic performance of crops such as rice, wheat, potatoes or soybeans.

Dr. Giacomo Brusco, Political Economy – Public Finance
Project: The Incidence of Tax Evasion: Experimental Evidence from Italy

Portrait: Giacomo Brusco

Who profits from tax evasion, and how is that profit divided up? Dr. Giacomo Brusco's RISC-funded project seeks to gather empirical evidence in value-added tax evasion, a difficult-to-quantify and under-researched field of economics. Many economists have investigated the general distributional effects of taxes, yet there is little evidence on how this incidence relates to tax evasion. "People tend to have a moral judgement of evasion. We're trying to abstract away from that," says Brusco. He designs survey experiments which will yield reliable data on the incidence of value added tax evasion.

Brusco and his team are studying how the financial gains of VAT evasion are split between consumers and producers.

Giacomo Brusco

Trained interviewers ask for offers in different sales situations and give randomized hints about the preferred payment method (debit card or cash). All data is anonymized. "We spent a lot of time getting ethics approval for this experiment, because at the end of the day, we are dealing with something not legal, and we are asking people about it," says Brusco.

Using a statistical design and a large sample, Brusco will draw conclusions about how much of the evaded tax is passed on to consumers based on the observed price differences between the payment methods. It is a complex undertaking. "If you're an empirical economist, usually the first thing you get is the data and then you start working on it; with experiments, everything is flipped on its head. All the work is beforehand, and then, at the end, you get the data," Brusco explains.

Brusco hopes his results will lead to more effective and fairer tax enforcement. VAT schemes have been adopted in more than 130 countries around the world and raise, on average, more than 20% of total government revenue. According to estimates by the European Commission, the VAT gap was responsible for some €130 billion in lost revenue in 2021 in the EU alone. Understanding how the profit from VAT evasion is distributed thus plays a crucial role in determining who bears the burden of value added taxes. "Knowing who benefits from the evasion helps you to more intelligently design tax enforcement," Brusco emphasizes.

Research training groups in Tübingen

The German Research Foundation (DFG) establishes research training groups to qualify doctoral candidates within a structured program. The programs each have a common theme and are often interdisciplinary in nature. Research training groups are intended to help doctoral students achieve academic independence at an early stage and prepare them for careers in research. The groups receive DFG funding for a maximum of nine years.

The existing research training group, **cGMP: From the bedside to the laboratory bench** (GRK 2381) at the Interfaculty Institute for Biochemistry was extended for four and a half years in 2023.

Title	Speaker	Duration
Non-canonical G protein signaling pathways: Mechanisms, functions, consequences (GRK 2816)	Professor Dr. Dr. Bernd Nürnberg Experimental and Clinical Pharmacology and Toxicology	1 Oct. 2022 – 30 Sept. 2027
Women's mental health across the reproductive years (GRK 2804)	Professor Dr. Birgit Derntl General Psychiatry and Psychotherapy	1 Jan. 2023 – 31 Dec. 2027
Research training group Stuttgart – Tübingen Intraoperative multi-sensor tissue identification in oncology (GRK 2543)	Professor Dr. Oliver Sawodny University of Stuttgart	1 Jan. 2020 – 31 Dec. 2024
	Professor Dr. Arnulf Stenzl University of Tübingen Medicine	
cGMP: From the bedside to the laboratory bench (GRK 2381)	Professor Dr. Robert Feil Interfaculty Institute of Biochemistry	1 July 2019 – 30 June 2028
MOMbrane: The multifaceted functions and dynamics of the mitochondrial outer membrane (GRK 2364)	Professor Dr. Doron Rapaport Interfaculty Institute of Biochemistry	1 April 2018 – 30 March 2027
Research training group Mannheim – Freiburg – Heidelberg – Koblenz – Landau – Tübingen Statistical Modeling in Psychology (SMiP) (GRK 2277)	Professor Dr. Thorsten Meiser University of Mannheim	1 Oct. 2017 – 30 Sept. 2026
	Professor Dr. Mandy Hütter Professor Dr. Rolf Ulrich University of Tübingen Science	
Research training group Frankfurt – Tübingen Doing Transitions – The Formation of Transitions over the Life Course (GRK 2105)	Professor Dr. Andreas Walther University of Frankfurt am Main	1 Jan. 2017 – 31 Dec. 2025
	Professor Dr. Barbara Stauber University of Tübingen Economics and Social Sciences	

2023 Doctorates

Faculty	Doctorates completed in winter semester 2022/23 and summer semester 2023	
	female	male
Protestant Theology	3	2
Catholic Theology	3	3
Law	10	12
Medicine	204	129
Humanities	24	26
Economics and Social Sciences	20	28
Science	99	115
Center for Islamic Theology	1	3
Total	364	318
	682	

As of: 13 February 2024

Habilitations completed in 2023

Faculty	Habilitations	
	female	male
Protestant Theology	1	
Catholic Theology		1
Medicine	17	19
Humanities	3	5
Economics and Social Sciences	1	
Science	1	7
Total	23	32
	55	

As of: 13 February 2024

Breakthrough prizes

On the trail of mutations that increase Parkinson's risk

Professor Thomas Gasser, Medical Director of Neurology at the Tübingen University Hospitals, received a 2024 Breakthrough Prize in Life Sciences jointly with Dr. Ellen Sidransky and Dr. Andrew Singleton, who both work in the USA. The prize is endowed with three million US dollars and went to the three researchers for the discovery of genetic risk factors for Parkinson's disease. At least 200,000 people in Germany are affected by this as-yet incurable nerve disease.

In Parkinson's disease, specific nerve cells die, leading to a lack of dopamine, which causes a range of movement disorders. In the advanced stages of the disease some patients also develop dementia. In the 2000s, Thomas Gasser and his colleagues discovered that certain genetic mutations increase the risk of Parkinson's disease, and some mutations even inevitably trigger the disease. The jury awarded the Breakthrough Prize in Life Sciences on the grounds that these findings have broadened our understanding of the molecular mechanisms of Parkinson's disease and paved the way for studies investigating new treatments.

The mutations affect the genes LRRK2 and GBA1, which each contain the blueprint for a specific enzyme. Gasser and his colleagues are preparing a clinical trial aimed at patients with Parkinson's disease and a GBA1 mutation, which leads to particularly severe forms of Parkinson's disease.

Transformative contributions to differential geometry

The 2024 Breakthrough Prize in Mathematics was awarded to Professor Simon Brendle from Columbia University, who is associated with the University of Tübingen as a visiting researcher and as an alumnus. The three million US dollar prize is awarded to him for his transformative contributions to differential geometry, including sharp geometric inequalities, many results on Ricci flow and mean curvature flow, and the Lawson conjecture on minimal tori in the three-dimensional sphere. At age 19, Brendle completed his doctorate under Tübingen's Professor Gerhard Huisken; the two continue to cooperate closely.

The Breakthrough Prizes are a set of international awards bestowed in recognition of scientific advances in the categories Life Sciences, Mathematics, and Fundamental Physics. The Breakthrough Prize was founded in 2012 by the US entrepreneurs Sergey Brin, Priscilla Chan and Mark Zuckerberg, Julia and Yuri Milner, and Anne Wojcicki.

Thomas Gasser (left), Simon Brendle (right)

Sponsorship

Profile Highlights

Foundations shine a light on the University's profile with their many forms of support. They promote key fields of research, support studies and teaching; some sponsor individuals or an entire institute. Overall, their commitment reflects many important scientific and academic contributions to current social developments; topics include artificial intelligence and neuroscience, as well as digitalization and sustainability.

Extensive funding from the Hertie Foundation

New institute connects artificial intelligence and neuromedicine

In a joint project with the University of Tübingen, the Hertie Foundation is providing ten million euros to fund a new institute, the Hertie Institute for AI in Brain Health. Founded in February 2023, it is the first institute in Germany to conduct research into the prevention and early diagnosis of diseases of the nervous system using artificial intelligence. The aim is to make the latest AI advances available to patients quickly and safely. Professor Philipp Berens is the founding director. Berens conducts research in the field of data science at the University of Tübingen and is also co-spokesperson of the Cluster of Excellence Machine Learning: New Perspectives for Science.

The new institute will build on the latest findings in the field of machine learning and artificial intelligence and use them to gain a better understanding of the nervous system. With the help of complex data sets collected in everyday clinical practice, new methods will be developed to detect diseases of the nervous system earlier, to predict disease progression and to apply treatments more effectively. The Hertie AI institute will explore methodological innovations that meet the special requirements placed on clinically applied artificial intelligence methods: accuracy, robustness and traceability. The new institute has clinical partners at the Faculty of Medicine, particularly in neurology and ophthalmology.

The Hertie Foundation is funding the project for an initial period of five years. It is the Foundation's second investment in a new large-scale project in Tübingen since the Hertie Institute for Clinical Brain Research was founded in 2001. The Hertie Institute for AI in Brain Health will benefit from the vast expertise in the fields of neuroscience, neuromedicine and artificial intelligence in Tübingen. Additionally, the institute will be integrated into the Cyber Valley artificial intelligence research consortium.

The non-profit Hertie Foundation focuses its support on research in two vital areas: understanding the brain, and strengthening democracy. The Foundation was established in 1974 and is now one of the largest independent foundations in Germany. "Hertie" is derived from the name of Hermann Tietz, the 19th century co-founder of the Hertie department store group.

Endowed professorships

Field	Name	Sponsor
Faculty of Law		
Law of Artificial Intelligence	Professor Dr. Michèle Finck, LL. M.	Carl Zeiss Foundation
Faculty of Humanities		
Modern Taiwan Studies	Professor Dr. Yuchin Tseng	Education Ministry of the Republic of China (Taiwan)
Faculty of Economics and Social Sciences		
Financial Literacy and Economic Didactics	Professor Dr. Taiga Brahm	Dieter von Holtzbrinck Foundation
Educational Effectiveness/Educational Trajectories	Professor Dr. Richard Göllner	Hector Foundation
Ethics of Globalisation	Professor Dr. Claus Dierksmeier	Karl Schlecht Foundation
Faculty of Medicine		
Preclinical Imaging of the Immune System	Professor Dr. Bettina Weigelin	Adolf Leuze Foundation
Functional and Metabolic Brain Imaging	Professor Dr. Kristina Herfert	Carl Zeiss Foundation
Transfusion Medicine	Professor Dr. Tamam Bakchoul	DRK-Blutspendedienst, Baden-Württemberg-Hessen gGmbH
Molecular Mechanisms in Age-related Macular Degeneration	Professor Dr. Simon Clark	Helmut Ecker Foundation
Neurodegenerative Diseases	Professor Dr. Thomas Gasser	Hertie Foundation
Computational Sensomotorics	Professor Dr. Martin Giese	Hertie Foundation
Cell Biological Foundations of Neurological Diseases	Professor Dr. Matthias Jucker	Hertie Foundation
Functional Neurogenetics	Professor Dr. Philipp Kahle	Hertie Foundation
Translational Imaging of Cortical Microstructure (funding for equipment)	Professor Dr. Esther Kühn	Hertie Foundation
Neurology/ Epileptology	Professor Dr. Holger Lerche	Hertie Foundation
Clinical Neurogenetics	Professor Dr. Ludger Schöls	Hertie Foundation
Ubiquitin Signaling in Cancer	Professor Dr. Nikita Popov	Ludwig Hiermaier Foundation
Complementary Medical Procedures	Professor Dr. Holger Cramer	Robert Bosch Foundation
Clinical Pharmacology	Professor Dr. Matthias Schwab	Robert Bosch Foundation
Molecular Diabetology	Professor Dr. Cora Weigert	Sanofi-Aventis Deutschland GmbH
Occupational and Social Medicine	Professor Dr. Monika Rieger	Südwestmetall Employers' Federation
Preclinical Imaging and Imaging Technology	Professor Dr. Bernd Pichler	Werner Siemens Foundation
Faculty of Science		
Continual Learning and Multimodal Datastreams	Professor Dr. Gerard Pons-Moll	Carl Zeiss Foundation
Machine Learning	Professor Dr. Matthias Hein	Robert Bosch GmbH
Didactics of Informatics (Tübingen School of Education)	Professor Dr. Jan-Philipp Burde	Vector Foundation
Carl Friedrich von Weizsäcker Center		
Philosophy and History of Science	Professor Dr. Reinhard Kahle	Carl Friedrich von Weizsäcker Endowed Professorship, Udo Keller Foundation Forum Humanum

The University Prize

Award for Hector Foundation II

The University of Tübingen presented its 2023 University Prize to the Hector Foundation II in recognition of the Foundation's long-standing commitment to promoting research. University president, Professor Karla Pollmann, presented the award to the patrons, Dr. h. c. Hans-Werner Hector and Josephine Hector at the *dies universitatis* in October 2023. The Hector Foundation II has sponsored the Hector Research Institute of Education Sciences and Psychology (HIB) since its inception in 2014, and also research at the Children's Academies, as well as the European Laboratory for Learning and Intelligent Systems (ELLIS) Institute.

Former University president, Professor Bernd Engler, gave the opening address, while the current president, Professor Karla Pollmann, praised the Hector Foundation II for identifying key future issues and for providing generous financial support, thereby making an important contribution to the development of the University.

The Hector Foundation II funded the start-up phase of the HIB with 7.5 million euros and pledged a further 19 million euros for the period 2021-2030. At the HIB, around 80 researchers investigate the quality of education services and processes. In addition, the foundation is funding research to accompany the Hector Children's Academies, where gifted children of elementary school age have been able to seek support since 2010. Today, students can take advantage of a total of 68 Children's Academies, sponsored by the Baden-Württemberg Ministry of Culture.

President Karla Pollmann (right) presents the University Prize to longstanding sponsors Josephine and Hans-Werner Hector.

In 2022, the Hector Foundation II donated still further funding for the recruitment of top researchers in the field of artificial intelligence. Its funding of 100 million euros enabled the establishment of the ELLIS Institute in Tübingen, which aims to further develop artificial intelligence based on European values. It is the first of its kind and is set to become part of a European-wide network of ELLIS Institutes across Europe.

The Hector Foundation II was established in Weinheim in 2008 by Dr. h. c. Hans-Werner Hector and Josephine Hector. It is part of the H.-W. & J. Hector Stiftung, which has been in existence since 1995.

Udo Keller Foundation sponsors Forum Scientiarum

The Forum Scientiarum is an overarching cooperation between the humanities and the technical and science disciplines at the University of Tübingen. It has three independent pillars: the Leibniz Kolleg, the Tübingen Forum for Academic Cultures (TFW) and the Carl Friedrich von Weizsäcker Center (CFvW Center). The aim is to promote dialogue through academic, teaching and mentoring programs.

The CFvW Center reflects upon academic research from an interdisciplinary and theoretical perspective. It is dedicated in particular to questions of responsible research with regard to current social challenges. It is also a home for cutting-edge research – for example, the ERC project *Text and Idea of Aristotle's Science of Living Things*, headed by Professor Klaus Corcilius from the Institute of Philosophy.

Founded in 2022, the TFW organizes interdisciplinary conversations for students and doctoral candidates. The theme of the 2022/23 Studienkolleg was Varieties of the Infinite; in 2023/24, the theme was Chance and Necessity. In February 2023, the Leibniz Kolleg celebrated its 75th anniversary, during which Professor Barbara Hahn from Vanderbilt University, USA, gave the first Hannah Arendt Lecture.

The Forum Scientiarum is supported by the Udo Keller Foundation – Forum Humanum. Established in 2000, the foundation promotes dialogue between the sciences and the humanities.

Dr. K. H. Eberle Foundation sponsors digital teaching projects

The Dr. Eberle Center for Digital Skills at the University of Tübingen awarded prizes for digital teaching projects in Tübingen for the third year. Four projects from the fields of geography, ethics, Old French, and hybrid teaching formats each received up to 10,000 euros to implement their ideas. A new round of the Digital Teaching and Learning Materials funding format was made possible by money from the Dr. K. H. Eberle Foundation. The prizes were presented in the University Library at the end of September 2023. The new modules will be made public via the Baden-Württemberg Universities' central repository for Open Educational Resources.

The award-winning **Open Educational Resources (OER)** projects:

Integration of high-quality measuring instruments into geography studies | A team led by Dr. Andreas Braun from the Institute of Geography develops tutorials, videos and documentation for a wide range of measuring devices and methods, such as GPS surveying and the collection of climate and environmental data. The materials may also be used in other disciplines.

Debating planetary ethics – a podcast on the planetary boundaries | Dr. Simon Meisch from the International Center for Ethics in the Sciences and Humanities runs a podcast in collaboration with Dr. Jeremy Schmidt of Durham University as a module in the field of ethics, focusing on the 2009 concept of planetary boundaries. Each episode deals with one of the nine boundaries, such as climate change or ocean acidification.

Old French learning module for students, teachers and researchers in medieval studies | Alexandra Becker from the Institute of German Language and Literature and Assistant Professor Carlotta Posth from the University of Würzburg are working on an Old French learning module that offers insight into the basic structures of the language and its literary and linguistic history.

Hybrid teaching formats | Kurt Schneider and Heike Schulz from the Center for Media Competence and Dr. Andrea Fausel and Esther Fink from the University Teacher Training Office jointly developed a module to help implement hybrid teaching formats. It offers teachers practical materials in German and English with step-by-step instructions.

The Prize for Digital Teaching Projects, funded by the Dr. K. H. Eberle Foundation, is presented to the Hybrid Teaching Formats project team (from left) Theodor Sproll, Andrea Fausel, Heike Schulz, Esther Fink, Oliver Lichtwald and Kurt Schneider by President Karla Pollmann (at right).

Wide-ranging support from the Vector Foundation

Resource-conserving processes project

The Vector Foundation's **STEM for the Environment** program backs research training units investigating scientific questions and new technologies that contribute to greater sustainability. STEM stands for Science, Technology, Engineering and Mathematics. A project led by research training group leader Dr. Manfred Manssen from the Tübingen Institute of Inorganic Chemistry was selected for funding in 2023. Manssen will receive a total of one million euros over four years for research into the resource-saving production of chemicals. Manssen and his team are developing processes and procedures for new ways of synthesizing chemical compounds. They seek to use materials that meet high ecological and economic requirements. In particular, they are researching the interactions of various metals with small molecules such as hydrogen, carbon dioxide, and nitrogen.

Classroom for teaching-degree students

The Vector Foundation is also involved in the training of teachers in STEM subjects, which pose particular challenges regarding teaching practice. November 2023 saw the opening of a Vector-sponsored STEM classroom for training purposes on Tübingen's Morgenstelle campus. The room is equipped like a traditional science classroom, including a fume cupboard for working with harmful chemicals, as well as technical instruments and materials for school experiments. The room is coordinated by the didactics offices for Physics, Mathematics, Biology, Chemistry, and Science and Technology. The STEM classroom is used by aspiring teachers to test and reflect on the practical aspects of didactics in their subjects. It is also used for didactic and education research, for school students' laboratory days, and for the further training of teachers already working in schools.

The Vector Foundation was established in 2011 by the founders of Vector Informatik GmbH, Eberhard Hinderer, Martin Litschel, and Dr. Helmut Schelling. The foundation supports research and education projects – particularly in science, technology and mathematics – in the state of Baden-Württemberg.

Top left:
Manfred Manssen researches new synthesis routes in chemistry in the interests of sustainable development.

Top right:
High schools students working on experiments in the STEM classroom

Volkswagen Foundation programs

Momentum funding for new professors

The Volkswagen Foundation's Momentum funding line is aimed at academics from all disciplines in the first three to five years of a full professorship. The funding, of up to 800,000 euros over four years, is intended to open up scope for new thinking in research and teaching.

Across Germany, the Volkswagen Foundation approved just 13 applications in the Momentum funding line in 2023 – three of which went to the University of Tübingen:

Andreas Geiger investigates problems of artificial intelligence, particularly at the interface of computer vision, machine learning and robotics. His Momentum project, *Accelerating research through learning-based scientific document analysis*, receives 786,000 euros.

Alexander Weber's Momentum project, *InnatelyHuman – Omics bio-informatics and human immune cell precursor manipulation for greater relevance of human-focused research in innate immunity*, aims to achieve greater transferability of immune system research results from animal experiments and cell cultures to humans. It receives funding of 799,000 euros.

Sigrid G. Köhler seeks to break new ground in literary historiography and methodology with her Momentum project, *Globality and diversity as guiding categories in modern German literary studies*, which is funded with 735,000 euros.

The works of 18th century literature generally taken into account in research and taught in class comprise only ten to fifteen percent of the literature produced in that period, according to Sigrid G. Köhler. She is seeking to widen that basis. Many non-canonized texts must be tracked down via archives and electronic databases.

Sigrid Köhler is currently working on a collection of material on the history of slavery, starting with the first modern English-language novel by Aphra Behn and a tragedy by Voltaire. But many of the texts are by relatively unknown authors. Köhler wants to make them accessible in order to describe the links between German literature and contemporary transatlantic cultural history.

Literature and literary history store and convey cultural knowledge and generate collective narratives that shape the past and present and have an impact on the future. "Our self-perception as a society is changing as a result of migration, globality and diversity," Köhler says.

Top right:
Sigrid G. Köhler is re-examining the literature of the colonial period to reveal historical knowledge of slavery; she is seeking to trace the history of many debates still active today.

Köhler seeks to explore what knowledge 18th and 19th century literature had of diversity and globality. "In the 18th century, even if you did not know people living under oppression or people from distant countries, you were still able to find out," says Köhler. Some texts more or less describe value chains, explicitly establishing the connection between the authors' own consumer behavior and the exploitation and oppression in other parts of the world. "18th century journal readers knew where tobacco and coffee came from or under what conditions tea and sugar were produced," Köhler says. She hopes to reveal the genealogies leading to today's social debates. Her work includes collaboration with German Studies departments in Togo, Namibia, South Africa and the USA.

Christoph Ratzke

Promoting early-career researchers

Funding for pioneering projects

In its **Pioneering Projects – Explorations of the Unknown Unknown** program, the Volkswagen Foundation supports work by researchers from all disciplines who seek to break new ground. The visionary projects in basic research should have high potential and, if successful, provide new impetus to research – however, it is taken into account that such risky projects may also fail. The funding is approved for a three-year period.

In December 2023, Dr. **Christoph Ratzke** from the Interfaculty Institute of Microbiology and Infection Medicine received approval for 570,000 euros of funding for his microbiology project.

Ratzke is a researcher who likes to leave the beaten track. This is why his latest project to better characterize microbial communities from environmental samples fits in well with the Volkswagen Foundation's Pioneer Projects program. Ratzke's project is *The unknown majority – what role do 'unculturable' microbes play in microbial communities?*

"Microbes are everywhere, there are thousands of different species in just one spoonful of soil. However, we can only cultivate and examine one to ten percent of them in the laboratory," says Ratzke. He is seeking a more comprehensive picture of the overall microbial community. He is particularly interested in samples from the ocean or fresh water, where it is suspected there are many undiscovered bacterial species.

Ratzke does not try to isolate the microbes completely, because it is likely that many of those that do not grow easily in the laboratory need a partner. He therefore plans to develop a culture system in which different microbial species are physically separated from each other, but remain accessible for the exchange of substances, for example. The funding will enable him to hire a postdoc and equipment for the automated sorting of microbes.

Ratzke is interested in the entire biodiversity of natural microbial communities and the conditions under which they remain stable. He believes his method will be applicable to microbial communities from ecosystems of all kinds. "Bacteria and fungi master many different metabolic pathways and produce a wide variety of substances that can be useful for humans, for example as antibiotics," he says. "There is huge potential in these previously unexplored species." Ratzke is confident: "I don't see my research work as risky in that sense. I see it more as open-ended," he says.

Dr. Layla Drwesh and Dr. Sören Kirchgässner each received a 2023 **Elisabeth and Franz Knoop Foundation Prize for Biochemistry.** The prize was established in 2015 by the Foundation jointly with the Interfaculty Institute of Biochemistry. It is awarded every two years to young scientists for outstanding work in medicine-oriented biochemistry and is endowed with 5,000 euros.

Layla Drwesh, a member of staff at the Hertie Institute for Clinical Brain Research, was honored for her University of Tübingen-supervised thesis, *Biogenesis of mitochondrial signal-anchored proteins*. She investigated the production of certain proteins in the cell which, when given a signal, are sent to the outer membrane envelope of the mitochondria and anchored there. Disorders of these processes are associated with several diseases, for example of the brain and muscles.

Sören Kirchgässner from the Interfaculty Institute of Biochemistry received the prize for his doctorate, in which he developed a synthetic amino acid. This is incorporated into proteins by the cell instead of lysine, but cannot be modified by cell enzymes in the same way as lysine. It can be used in research into certain cancerous changes in cells and in viral infections. The new amino acid, its synthesis and possible applications have been patented.

Award winner Briana N. Doering (center, right) next to (from left) Nicholas Conard from the Institute of Prehistory, the Dean of Science Thilo Stehle, Britt Starkovich from the Institute of Scientific Archaeology and (from right) Corinna Patroi and Hannah Moosherr from the sponsors, Romina Mineralbrunnen GmbH

The prize commemorates the lifetime achievements of Professor Franz Knoop, who was Professor of Physiological Chemistry and director of the Physiological Chemistry Institute at the University of Tübingen from 1928 to 1946.

The 2023 **Tübingen Early Prehistory and Quaternary Ecology Prize** was presented to Briana N. Doering of Wyoming University in January. In her outstanding doctoral thesis, she conducted research into the migration of the Dene/Athabascan and advanced a new theory on why these people left their homeland in Alaska and Yukon around 1,500 years ago and migrated to the American Southwest. Doering challenged the conventional wisdom that this language group left their homeland because of a volcanic eruption, proposing instead a gradual process of social factors such as population growth. To test her thesis, she excavated four archaeological sites with five time components, located near the then-active volcano. She examined tool manufacture and the selection of raw materials used by the people, as well as data on the diet and use of the landscape at the time. Doering's findings suggest that the Dene/Athabascan were already on the move in the centuries before the volcanic eruption. Stone tools became more specialized, people made more intensive use of upland and lowland resources and relied increasingly on fishing. The annual Early Prehistory and Quaternary Ecology Prize has been awarded annually for 26 years. It comes with 5,000 euros in prize money, sponsored by mineral water producer EiszeitQuell.

The University of Tübingen raised 192 **Deutschlandstipendium scholarships** for the 2023/24 academic year. The students thus sponsored receive 300 euros per month, half of which is provided by private donations and half by the German government. With this commitment, the sponsors seek to ensure that particularly high-achieving and socially committed students can realize their potential. Key sponsors include the Universitätsbund Tübingen e. V., Amazon Deutschland Services, the TL Foundation, the Vector Foundation, and Santander Universitäten Deutschland. Many alumni and regional businesses in this way also lend a helping hand to promising students.

The Stuttgart-based **Karl and Anna Buck Foundation** promotes research in Chemistry at the University of Tübingen – most recently the project 3D-printed PEEK microreactors for the synthesis of radiopharmaceuticals Florian Menzel, a doctoral researcher in the reseach group of Dr. Jochen Neumaier at the Institute of Organic Chemistry. The project was selected in 2021 to receive 120,000 euros over a period of three years. The Karl and Anna Buck Foundation, based in Stuttgart, has been promoting scientific research since 2000. It was established by Karl Buck, founder of the Buck Chemie chemicals company.

Partnerships

At every Level

Regional, national, international: the University is committed to its many opportunities for cooperation, whether in research, in teaching, or in ongoing development. For example, Tübingen researchers are involved in new joint projects researching the early effects of human colonization on the environment, driving forward clinical cancer research to provide effective treatments, and probing the potential of digital education.

New Leibniz ScienceCampus studying caves as archives of the past

October 2023 saw the official launch of the Leibniz Association ScienceCampus in Tübingen to research caves for traces left by humans in past ecosystems. ScienceCampuses bring together institutions and universities to work regionally in a specific field, with the aim of increasing the research location's global visibility and strengthening its research profile. The researchers, mainly from the Senckenberg Centre for Human Evolution and Palaeoenvironment, the University of Tübingen and the Tübingen Max Planck Institute of Biology are working together under the title GeoGenomic Archaeology Campus Tübingen (GACT). The Leibniz Association will provide one million euros annually over four years.

Caves have always been a habitat for many species – from microbes to large mammals – and were probably the first ecosystems to be profoundly altered by human activity. Traces of such life have in some cases been preserved by the sheltered conditions within the cave and form a kind of archive. Where finds have lain undisturbed this can offer researchers the opportunity to study the legacy of humans in connection with their activities on site. ScienceCampus researchers will also develop new molecular, computer-aided, geochemical and geoarchaeological methods for analyzing sediment sequences from caves.

One of the caves under investigation is the UNESCO site Hohle Fels in the Swabian Jura mountains. This cave provides an ideal platform to study the interactions between humans and other living creatures from the last ice age until today. The aim of the GeoGenomic Archaeology Campus is to pool the strengths of the disciplines of geosciences, genomics, archaeology, and biology – all fields in which Tübingen has many years of expertise.

Excavations at the Hohle Fels site in southern Germany: layers of sediment yield clues to the cave's earlier inhabitants.

National Center for Tumor Diseases gets SouthWest affiliation

In February 2023, cancer research facilities at the Universities of Tübingen, Stuttgart and Ulm became part of the National Center for Tumor Diseases (NCT); they are jointly known as NCT-SouthWest. The NCT, which now embraces six regional sites, is a long-term cooperation between the German Cancer Research Center, university medical centers and other research partners in Germany. The NCT will receive annual funding of 98 million euros from the German Ministry of Education and Research.

The overarching goal of the NCT is to support clinical cancer research in Germany, provide more patients with faster access to innovative cancer treatments and improve their prognosis and quality of life. To do this it will be increasing the number of clinical trials in oncology. It will fund the transfer of treatments developed at university hospitals and oncology centers of excellence into the clinical trial phase, with a key focus on the concept of involving patients in a research partnership. Involving patients in clinical research is a new approach strategically, and in this form is an innovation in German cancer research.

NCT-SouthWest is pioneering targeted molecular therapies to tackle the many, often elusive, forms of cancer. New therapeutics from the Tübingen Centre for Academic Drug Discovery and Development (TüCAD2), in combination with new imaging techniques and immunotherapies, will be transferred to the clinical testing phase via the NCT.

The main site in Tübingen brings great strengths in the field of clinical cancer research to the partner site NCT-SouthWest. The Excellence University of Tübingen and the internationally renowned Tübingen University Hospitals are home to Germany's only cluster of excellence in cancer research, *Image-guided and Functionally Instructed Tumor Therapies*. The Tübingen-Stuttgart and Ulm Oncology centers of excellence have been working together successfully for many years, for example in conducting clinical trials and establishing the network of Centers for Personalized Medicine.

Nationwide networking in digital education

In February 2023, Germany's federal Ministry of Education and Research (BMBF) established a networking and transfer office to support competence in the use of electronic and online resources in schools. With federal funding for three years, the transnational network **lernen:digital** has twelve locations throughout Germany employing 60 specialists. The Tübingen Center for Digital Education and other partners at the University of Tübingen play an active part, which includes communicating the findings of research in the field.

The competence center at the University of Tübingen deals with science, technology and mathematics subjects. The aim is to develop innovative and effective methods that professionalize teachers in the field of electronic and internet tools and support the digital transformation in schools. The federal networking and transfer office will support the competence centers in their work and encourage networking and the pooling of results for transfer into the practice of education.

The lernen:digital network seeks optimal ways of integrating electronic devices into teaching to maximize learning outcomes and help teachers make better use of lesson time.

Key research partners in Germany

Associated institutes

SHEP – Senckenberg Center for Human Evolution and Palaeoenvironment

Institute for Applied Economic Research

NMI – Natural and Medical Sciences Institute

Global Ethics Institute

Further important partners

Bernstein Network for Computational Neuroscience (Freiburg)

DKTK – German Consortium for Translational Cancer Research

Dr. Margarete Fischer-Bosch Institute for Clinical Pharmacology (Stuttgart)

DZD – German Center for Diabetes Research

DZIF – German Center for Infection Research

DZNE – German Center for Neurodegenerative Diseases (Helmholtz Association)

DZPG – German Center for Psychological Health (in planning)

F.A.T.K. – Institute for Work, Technology and Culture) (Tübingen)

Research Center Jülich, member of the Helmholtz Association

Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB, Stuttgart)

Friedrich Miescher Laboratory, Max Planck Society (Tübingen)

Heidelberg Academy of Sciences and Humanities

Helmholtz Centre for Environmental Research (Leipzig-Halle)

Hertie Institute for Clinical Brain Research (Tübingen)

University of Applied Forest Sciences Rottenburg

IDGL – Institute of Danube Swabian History and Regional Studies (Tübingen)

IWM Knowledge Media Research Center (Leibniz Association)

MFO Oberwolfach Mathematics Research Institute, member of the Leibniz Association

Max Planck Institute for Biology (Tübingen)

Max Planck Institute for Biological Cybernetics (Tübingen)

Max Planck Institute for Intelligent Systems (Stuttgart/Tübingen)

Senckenberg Nature Research Society (Frankfurt am Main)

State Seminary for Didactics and Teacher Training (Tübingen)

University of Hohenheim – Center for Nutritional Medicine (ZEM) Tübingen – Hohenheim

University of Stuttgart – Inter-university Center for Medical Technology (IZST)

Werner Siemens Foundation

Panel discussion at the opening of the Center for Francophone Worlds

Dynamic development of CIVIS

National funding from the German Academic Exchange Service

For its role in the European University Alliance CIVIS, the University of Tübingen received around 725,000 euros in additional national funding for a period of four years for structure-building measures from the German Academic Exchange Service (DAAD) in January 2023.

CIVIS brings together the University of Tübingen with ten other European universities for a range of activities including developing joint teaching programs and opening up research opportunities. CIVIS members also work closely with strategic partners in Africa. The aim of CIVIS is to tackle the major social challenges of the 21st century, to provide relevant teaching and research and to act responsibly and sustainably with a view to the future.

Nationally, the DAAD promotes networking between universities, helps to reduce bureaucratic hurdles and boosts the visibility of German universities in European networks. In Tübingen, the funding is primarily used for structural measures to integrate joint study and teaching programs long-term and boost cooperation within the framework of CIVIS.

Tübingen presidency and CIVIS Days

As holder of the rotating CIVIS presidency from April 2023, University of Tübingen President Professor Karla Pollmann focused on sustainability, and hosted the annual conference of member universities in May 2023. It was attended by more than 200 academics, students and employees from all European CIVIS partners.

The theme – sustainably connected universities – not only emphasized sustainability in theory but also in practice, for example in the provision of food. Research papers from the CIVIS hubs presented the academic strengths that characterize the eleven member universities. With speeches, workshops, panel discussions and debates, these public sessions covered a wide range of topics, from the future of health and housing to the problems of the Anthropocene.

Center for Francophone Worlds launched

The University of Tübingen opened its new Center for Francophone Worlds (ZFW) in June 2023. The Center, which is supported with Excellence Strategy funds, will network and promote multidisciplinary research, teaching and international cooperation with the French-speaking world.

The Center brings together disciplines that conduct research on Francophonie and French culture in its global diversity. The aim is to increase mobility and exchange to strengthen ties with the wide range of Francophone research in Africa, Europe and North America at all levels.

Members of the new center come from a wide range of disciplines, from tropical medicine and biology to political science, law, history and Romance Language studies. Numerous individual and institutional contacts already exist with Francophone areas, and, as a member of the European University Alliance CIVIS, the University of Tübingen already has close links with the Université Aix-Marseille, the Université Libre de Bruxelles and the Université de Lausanne.

Strategic partnership with the University of Nottingham

Professor Shearer West, President of the University of Nottingham, and Professor Karla Pollmann, President of the University of Tübingen, signed a strategic partnership in January 2023. The agreement confirms joint investment in research, teaching and innovation, with each institution contributing equal amounts for start-up funding and jointly funded scholarships.

The two universities have been cooperating in teaching since 2017 and there are now three joint Master's degree programs: in Economics, in European Management, and in European Economics. Students spend two semesters in Tübingen and two semesters in Nottingham. Tuition fees at the University of Nottingham are waived.

The strategic partnership was launched at a workshop in May 2020, when researchers from both institutions identified a variety of topics in which collaboration could lead to synergies. These include quantum physics, mathematics, and research into gravitational waves, molecular biology, magnetic resonance imaging, food security and agriculture, the humanities and social sciences.

Bottom:
Vice-Chancellor Shearer West of the University of Nottingham (left) and University of Tübingen President Karla Pollmann at the signing of the institutions' partnership agreement.

Tübingen Center for Japanese Studies in Kyoto celebrates 30th anniversary

Established in 1993, the Tübingen Center for Japanese Studies is a University of Tübingen external institution; it was the first of its kind established by a German university. In collaboration with Kyoto's prestigious Dōshisha University, the center serves the Department of Japanese Studies both as a training center for Tübingen students and as a base for research activities throughout Japan. Today, as part of the four-year Bachelor's degree course in Japanese Studies, 24 students go to Japan every year to complete their integrated year abroad there.

To mark the 30th anniversary of the Tübingen Center for Japanese Studies, Professor Karla Pollmann, President of the University of Tübingen, was awarded an honorary doctorate from Dōshisha University in Kyoto in October 2023. In her address, the President emphasized the great value of studying in the country for students and researchers of Japanese Studies, and she praised the longstanding cooperation with Dōshisha University.

Top:
Karla Pollmann (front, center) receives an honorary doctorate from Japan's Dōshisha University.

Academic ties with Brazil

Double doctorate with the University of São Paulo

Professor Carlos Gilberto Carlotti, Rector of the University of São Paulo, and Professor Karla Pollmann, President of the University of Tübingen, signed a further cooperation agreement at the beginning of September 2023. The new agreement includes the exchange and joint supervision of doctoral students, allowing successful graduates to receive a doctorate from both universities.

The Baden-Württemberg Center for Brazil and Latin America organized the visit to the University of Tübingen, where representatives of the University of São Paulo learned about the University's excellence and internationalization strategy and the work of the Center. At the Tübingen University Hospitals, they met Professor Marcos Tatagiba, Medical Director of Neurosurgery, who comes from Brazil.

The University of São Paulo is the only Brazilian university to be ranked among the top 100 in the world in the QS World University Ranking 2024; it came second in the THE Latin America University Ranking 2023. It has 70 active agreements with German institutions, including many with the University of Tübingen.

Building on solid foundations: President Karla Pollmann and Carlos Gilberto Carlotti, University of São Paulo Rector, signed an agreement expanding longstanding cooperation.

CAPES Chair Program: First visiting professorship

Hermílio Santos, Professor of the Graduate Program in Social Sciences at the Pontifical Catholic University of Rio Grande do Sul in Brazil, became the first visiting professor in the Tübingen CAPES Chair Program in March 2023. The Tübingen CAPES Chair arose from a partnership between the Brazilian higher education funding agency CAPES and the University of Tübingen, where it is supported by the Baden-Württemberg Brazil and Latin America Center and the Interdisciplinary Centre for Global South Studies.

Santos researches an extremely wide range of social phenomena and environments, and translates some of the results of his research into documentary films, with his latest, *Herdeiras* or "Descendants," telling the story of three generations of black women whose lives were marked by exploitation and slave labor. The film was also the subject of seminars and lectures that Santos held at the University of Tübingen between April and July 2023.

Teaching and Organization

Fresh Energy

Students continued to flock to the University of Tübingen in record numbers in 2023. Yet the after-effects of the COVID-19 pandemic were still being felt. Many students needed advice on how to get back into normal university life. Internationally, we have launched new dual degree courses in Egypt and in Gabon, Africa.

On the administrative stage, the University Board of Trustees held its 100th meeting in autumn 2023, a reminder of the important role it has played in University management since its founding in 2000. There were leadership changes at the Faculty of the Humanities and the University Library. The University is placing a renewed focus on the wellbeing of its employees; the President is using new forms of internal communication to address the concerns of employees and of students.

Enrollments at historical high

The year saw 4,641 people graduate from the University, 63 percent of them women. More people were studying at the University of Tübingen in winter semester 2023/24 than ever before. As of mid-November 2023, a total of 28,619 students were enrolled, a new record and an increase of 0.9 percent on the previous year. The number of first-time and newly enrolled students climbed to 5,332, an increase of 5.9 percent. The proportion of female students overall rose to a high of 59.6 percent. The record number of students poses major challenges for the University and the city of Tübingen, particularly in terms of housing and childcare. The University management is advocating for a rapid increase in student housing and in childcare places for students with children.

Student numbers at a glance

Enrollments	Total	Female students		International students	
Winter semester 2023-24	28,619	17,047	59.6 %	4,298	15.0 %
New enrollments	5,332	3,309	62.1 %		

By faculty or institution	Winter semester 2023-24
Protestant Theology	413
Catholic Theology	141
Law	2,119
Medicine	4,920
Humanities	7,111
Economics and Social Sciences	4,966
Science	8,776
Islamic Theology	137
Leibniz Kolleg	54

Increased need for counseling

The demand for advice on all aspects of studying was very high in 2023 and continued to be strongly influenced by the consequences of the coronavirus pandemic. In 2023, more than a quarter of students took advantage of the University's academic advisory and other counseling services. Orientation events for first-semester students were popular, attracting more than 2,400 participants. For many new students, this was their first personal contact with the University, as there were few such events on campus during the pandemic.

A record number of students also attended semester planning events. First-semester students sought to address uncertainties and orientation challenges at the start of their studies, including questions about scheduling and how to deal with timetable clashes. Students in higher semesters had questions about how best to plan and complete their studies. Advice on changing subjects was also more frequently sought than in the past.

In recent years, more and more students have sought help in dealing with mental stress and illness. And increased numbers have taken part in workshops on topics such as procrastination and exam anxiety. Along with general help, these events gave students the opportunity to try out new methods as part of a group and to exchange ideas among themselves.

Innovative new degree programs

The University's Vice-President for International Strategy and Diversity Monique Scheer (left) and the President of the American University in Cairo Ahmed Dallal at the signing in Cairo

Joint degree with the American University in Cairo

The University of Tübingen and the American University in Cairo (AUC) in Egypt established their first international degree program with a jointly awarded degree certificate in November 2023. The partners have been cooperating on the Master's degree program CMEPS – Comparative & Middle East Politics and Society since 2013, with ten places at each location. The new joint course now contributes to the further internationalization of the University in research and teaching. Unlike the previous double degree, joint degrees requires closer cooperation and coordination in the design and implementation of the degree program.

The program was initially funded by the German Academic Exchange Service for four years and has also been supported by the state of Baden-Württemberg since 2014. The CMEPS Master's degree is now one of the most sought-after training programs in this field worldwide.

Infection Biology Master's degree in Gabon

Lab work in Lambaréné: The new Tübingen Master's program in Infection Biology is conducted at the medical research center in Gabon.

The new Master's degree program in Infection Biology and Control at the Centre de Recherches Médicales de Lambaréné (CERMEL) in Gabon, Africa, is primarily aimed at West and Central African students. It is organized by the Faculty of Medicine at the University of Tübingen; its director is Professor Steffen Borrmann of the Institute of Tropical Medicine. The program was launched in winter semester 2023/24 and runs four semesters. The teaching in Lambaréné, which is organized in block modules, is carried out by lecturers from the University of Tübingen or external lecturers. The program is supplemented by online teaching. Every two years, 20 new students can start the English-language Master's degree program. Within two years, students are taught theoretical and practical knowledge of the most important infectious diseases, including the basics of molecular and cell biology, genetics, immunology and statistics.

The program is part of the CAIDERA project (Central African Infectious Disease and Epidemics Research Alliance) funded by the German Federal Foreign Office. It is hoped that the program will receive a positive evaluation on conclusion of its first round in 2025 and be extended until 2030.

The Leibniz Kolleg marks 75 years

The Leibniz Kolleg at the University of Tübingen celebrated its 75th anniversary in 2023 – an event whose attendees included a former student from the Kolleg's very first year. When it was founded in 1948, the institution was intended to impart an understanding of democracy to young Germans and, after the war years, provide orientation in choosing a course of study. These goals are still foremost today under its current academic director, Ursula Konnertz.

The Leibniz Kolleg program is a preparatory year. Annually, around 53 students can complete a course of general studies focusing on responsibility, democracy, critical thinking and sustainability.

The Leibniz Kolleg has been supported by the Udo Keller Foundation since 2016 and is part of the Forum Scientiarum. Scholarships for tuition fees are financed by alumni for some of the fellows. The Tübingen Hannah Arendt Lecture was established to mark the 75th anniversary of the Leibniz Kolleg.

The Leibniz Kolleg in Tübingen

University Prizes

Teaching Prize for Physics didactics professor

The University of Tübingen's 2023 Teaching Prize went to Professor Jan-Philipp Burde, who teaches the Didactics of Physics. He developed and implemented a teaching concept for student teachers of physics in which he combines science, didactics and teaching practice. It is designed to optimally prepare students for their important social role as teachers. In 2023, the prize was endowed with 5,000 euros. Burde has also set up a physics café where students can work on exercise sheets and qualitative thinking tasks together in an informal atmosphere and turn to experienced tutors if they have any questions. He also developed the new online platform, Physik-verstehen! (Understand Physics!), where students can independently check and improve their performance.

An honorable mention went to the designers of the exhibition Cyber and the City – Artificial Intelligence Moves Tübingen at the Tübingen City Museum (February - October 2023) for this innovative way of involving students. Professor Ulrike von Luxburg from the Department of Computer Science, Professor Thomas Thiemeyer and Tim Schaffarczik from the Institute of Historical and Cultural Anthropology and Guido Szymanska from the Tübingen City Museum worked with around 40 Master's students to create the exhibition.

Jan-Philipp Burde receives the University's Teaching Prize from Karin Amos, the Vice-President of Student Affairs and Studies.

Left to right: Katharina Fuchslocher, Laura Mirjam Sturtz and Elisa Belén Kugelmeier López are the Tübingen initiators of the Learning Journey project, which was awarded the 2023 special prize.

Learning Journey – Experience School project receives Student Commitment Prize

The 2023 University of Tübingen prize for outstanding student commitment went to the student initiators of the Learning Journey – Experience School! project. The learning journey is an interdisciplinary event format for students, which focuses on a ten to twelve-day trip to six or seven German schools employing unusual methods or concepts. The learning journey is organized by students.

The jury praised the extraordinary commitment shown by the student initiators Katharina Fuchslocher, a Master of Education student in German and French, Elisa Belén Kugelmeier López on the Master's degree course in School Research and School Development, and Laura Mirjam Sturtz on the Master's degree program in Education Research and Psychology. The jury found the event format to be particularly innovative and of lasting impact in terms of interdisciplinary exchange and practical insights into schools. The special prize for student commitment in 2023 is endowed with 1,000 euros.

The student group Liberation Theology Network Tübingen received an honorable mention and a special prize of 300 euros for initiating an interreligious and inter-faculty dialogue. The group was founded in the winter semester of 2020/21 and consists mainly of students of Catholic and of Protestant theology. One of its main events was the *Liberating Theologies in the Here and Now* study day in January 2023.

Christine von Weizsäcker at the 2023 Sustainability Lecture

Award-winning works on sustainability

Six graduates received sustainability prizes from the University of Tübingen on November 23, 2023. Since 2011, the Sustainability Prize has been awarded to outstanding theses at Bachelor's and Master's level that are dedicated to a topic of sustainable development. The prize is endowed with 300 euros for Bachelor's theses and 500 euros for Master's theses.

Mareike Andert from Political Science, Jana Mayer from Environmental Sciences, and Leonie Sohr from Philosophy and Ethics received the prize for their Bachelor's theses. The prize-winning Master's theses were written by Niklas Best from Geoecology, Carina Haller from International Economics, and Jonas Mertens from Molecular Medicine. With the prize, the University creates incentives for academic research into sustainable development and promotes its relevance for society.

The award ceremony features the Sustainability Lecture, given in 2023 by biologist and environmental activist Christine von Weizsäcker. In her speech, she made it clear that the biodiversity crisis in particular is often neglected in the current sustainability discourse.

Although von Weizsäcker described the 1992 United Nations Convention on Biological Diversity as the pinnacle of multilateral agreements, she also identified setbacks and challenges. Global status reports show that the loss of biodiversity is still increasing dramatically today, and although key drivers have been identified, they have by no means been halted. But the biodiversity crisis is just one of many other crises, she said.

Among other things, von Weizsäcker focused on poverty, hunger, wars, climate change and the power of corporations and the super-rich. In the search for responses to these crises, we encounter weak legal systems, growing insecurity, polarization, deeply indebted states and rich countries that do not adapt their lifestyles. For von Weizsäcker, the solutions lie in rich countries taking genuine responsibility, for example through strong supply chain laws. She hopes that the world of research will respond to the multiple crises with systemic, multidimensional, participatory approaches.

Funding for international mobility

Support from the German Academic Exchange Service

Following the pandemic years of 2020 and 2021, the upswing in international mobility for the University of Tübingen continued in the statistics of the German Academic Exchange Service (DAAD) for 2022. Total DAAD funding amounted to around 7.394 million euros, more than one million euros higher than the 2021 figure of 6.348 million.

In the European University Networks program line, the University will receive an additional 175,000 euros per year from the DAAD for its participation in the CIVIS university alliance (see p. 47) in the second funding phase which runs until 2026.

Baden-Württemberg Foundation funds exchange projects

The Baden-Württemberg Foundation has been funding exchange programs between Baden-Württemberg universities and their non-European partner institutions since 2001. The scholarships are open both to students from partner institutions abroad who come to Tübingen, and to Tübingen students seeking to study outside Germany. In 2023, 60 students who came to Tübingen and 64 Tübingen students who went abroad received scholarships totaling 323,450 euros. In addition, the Foundation provided an emergency fund of 15,000 euros to support three students forced to flee the war in Ukraine.

Baden-Württemberg Stipendium grants include the regional development policy (REK) program, introduced in 2017. With this measure, the Foundation supports exchanges with partner institutions in Africa, the Caribbean and the Pacific. In 2023, 15 doctoral students from countries including Senegal, Ivory Coast, Ethiopia, Togo and Nigeria were sponsored with a total of 74,700 euros. The program is now well established at the University of Tübingen and serves to initiate, maintain, and promote relationships with institutions primarily in Africa.

A further Baden-Württemberg Stipendium program is BWS plus, which supports new and innovative cooperation projects between universities worldwide. In 2023, two projects were funded at the University of Tübingen. They are the Religious Education Teachers Training Project: Internationalizing, Learning and Mentoring in cooperation with the United Kingdom, Bosnia and Herzegovina; and TüExTLV – an exchange program in the life sciences between the Universities of Tübingen and of Tel Aviv.

Center left:
Jonas Mertens, Carina Haller und Niklas Best (left to right) receive Sustainability Prizes for their Master's theses from Diana Grundmann, Coordinator of the Competence Center for Sustainable Development.

Bottom left:
The winners for Bachelor's theses (left to right) Mareike Andert, Jana Mayer and Leonie Sohr with Diana Grundmann

Our partners around the world

The University of Tübingen enjoys many close ties and exchange relationships with institutions of higher education worldwide. On the map, all cities outside Europe with one or more partner institutions are marked with a dot. Including faculty agreements, the University of Tübingen has official links with around 260 universities.

In Asia, the University of Tübingen maintains two branches, the Tübingen Center for Japanese Studies at Dōshisha University in Kyoto and the Tübingen Center for Korean Studies at Korea University in Seoul. Within the framework of the Erasmus program, it cooperates with some 400 universities inside and outside of Europe on the basis of more than 900 Erasmus contracts. Faculties at the University maintain some 120 agreements with institutions across Europe and farther afield. The University has six partners in the Matariki network. A total of eleven universities are members in the European University Alliance CIVIS, which was co-founded by the University of Tübingen.

Following the end of travel restrictions due to the coronavirus pandemic, exchange numbers have stabilized. In 2023, around 1,200 students went abroad via the University's programs. In return, the University of Tübingen welcomed more than 800 exchange students from abroad.

University of Tübingen branches

Tübingen Center for Japanese Studies,
Dôshisha University - **KYOTO**
Tübingen Center for Korean Studies,
Korea University - **SEOUL**

North America

Canada

University of Alberta - **EDMONTON, ALBERTA**
McMaster University - **HAMILTON, ONTARIO**
Ontario Colleges and Universities - **ONTARIO**
Université Laval - **QUÉBEC, QUÉBEC**
Mount Allison University - **SACKVILLE, NEW BRUNSWICK**

United States of America

University of Alaska - **FAIRBANKS, AK**
Northern Arizona University - **FLAGSTAFF, AZ**
California State Universities - **CA**
University of California San Diego - **SAN DIEGO, CA**
University of Denver - **DENVER, CO**
Connecticut State Universities and Colleges - **CT**
Yale University - **NEW HAVEN, CT**
Georgetown University - **WASHINGTON, D.C.**
University of Hawai'i at Mānoa - **HONOLULU, HI**
Butler University - **INDIANAPOLIS, IN**
Valparaiso University - **VALPARAISO, IN**
Bellarmine University - **LOUISVILLE, KY**
University of Massachusetts - **BOSTON, AMHERST, MA**
Boston College - **BOSTON, MA**
Tufts University - **MEDFORD, MA**
Washington College - **CHESTERTOWN, MD**
University of Maryland - **COLLEGE PARK, MD**
University of Michigan - **ANN ARBOR, MI**
Western Michigan University - **KALAMAZOO, MI**
University of Missouri - **COLUMBIA, MO**
Washington University - **ST. LOUIS, MO**
Montana State University - **BOZEMAN, MT**
North Carolina State Universities - **NC**
University of North Carolina at Chapel Hill - **CHAPEL HILL, NC**
Princeton Theological Seminary - **PRINCETON, NJ**
Hobart and William Smith Colleges - **GENEVA, NY**
State University of New York - **STONY BROOK, NY**
Oregon University System - **OR**
Reed College - **PORTLAND, OR**
Temple University - **PHILADELPHIA, PA**
College of Charleston - **CHARLESTON, SC**
University of Tennessee - **KNOXVILLE, TN**
Rhodes College - **MEMPHIS, TN**
University of North Texas - **DENTON, TX**
University of Washington - **SEATTLE, WA**

Latin America

Argentina

Pontificia Universidad Católica Argentina - **BUENOS AIRES**
Universidad Nacional de Cordoba - **CORDOBA**

Brazil

Univates em Lajeado - **LAJEADO**
Universidade Federal Fluminense - **NITEROI**
Universidade Federal do Rio Grande do Sul - **PORTO ALEGRE**
P.U.C. do Rio Grande do Sul - **PORTO ALEGRE**
Universidade Federal de Pernambuco - **RECIFE**
USP Campus Universitario Ribeirão Preto - **RIBEIRÃO PRETO**
Universidade de Santa Cruz do Sul - **SANTA CRUZ**
Universidade Federal de Santa Maria - **SANTA MARIA**
Universidade de São Paulo - **SÃO PAULO**

Chile

Pontificia Universidad Católica de Chile - **SANTIAGO**
Universidad de Chile - **SANTIAGO**

Ecuador

Universidad San Francisco de Quito - **QUITO**

Colombia

Universidad de los Andes - **BOGOTÁ**
Universidad Icesi - **CALI**

Mexico

Universidad Iberoamericana - **CIUDAD DE MEXICO**
El Colegio de México - **CIUDAD DE MEXICO**
Universidad Nacional Autónoma de México - **CIUDAD DE MÉXICO**
Universidad de Guadalajara - **GUADALAJARA**
Universidad de Guanajuato - **GUANAJUATO**
Universidad de Monterrey - **MONTERREY**
Universidad de las Américas - **PUEBLA**
Benemérita Universidad Autónoma de Puebla - **PUEBLA**

Peru

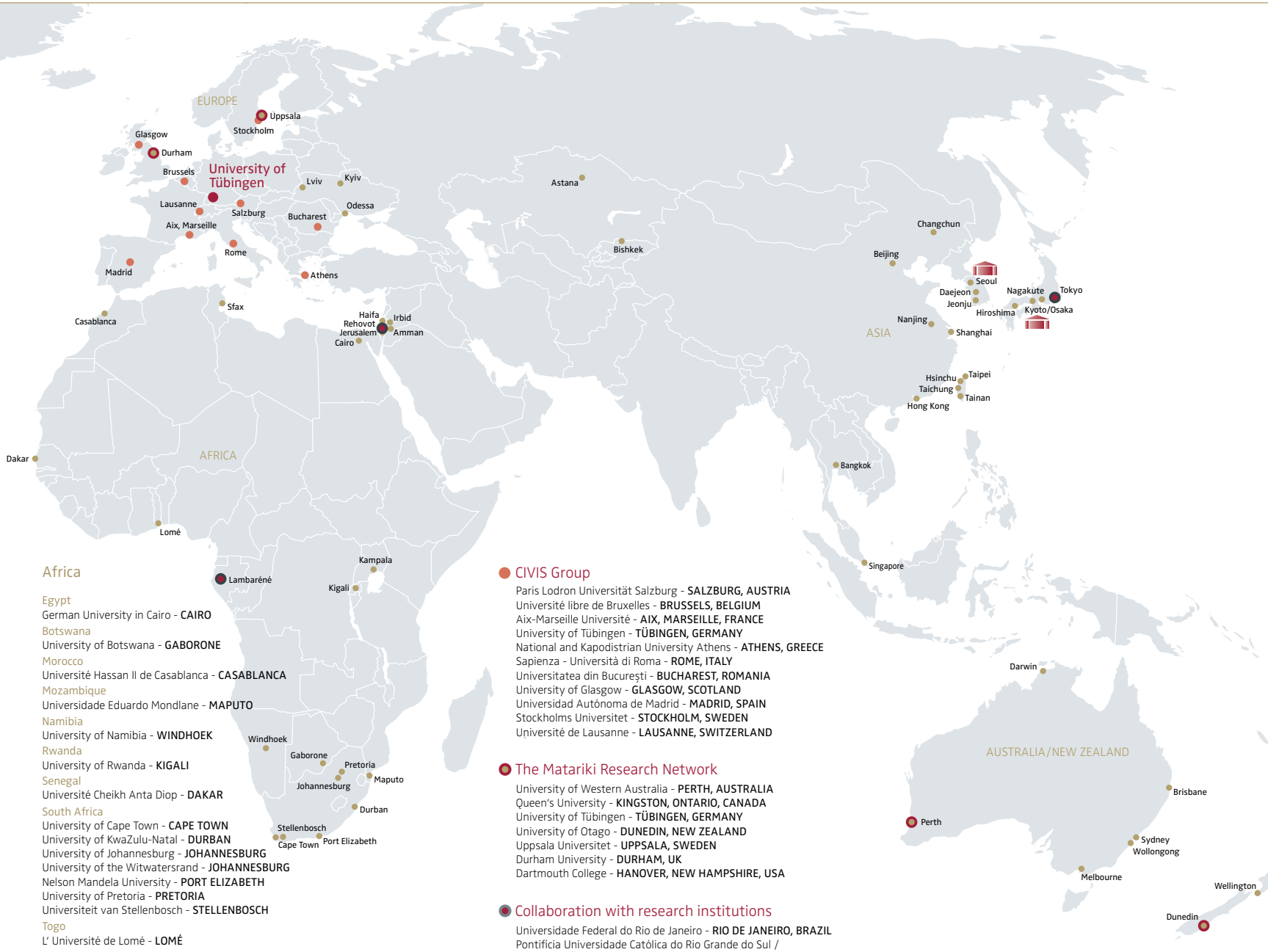
Pontificia Universidad Católica del Perú - **LIMA**
Universidad San Ignacio de Loyola (USIL) - **LIMA**

Uruguay

Universidad de Montevideo - **MONTEVIDEO**

Venezuela

Universidad de los Andes - **MÉRIDA**



Africa

Egypt
German University in Cairo - **CAIRO**
Botswana
University of Botswana - **GABORONE**
Morocco
Université Hassan II de Casablanca - **CASABLANCA**
Mozambique
Universidade Eduardo Mondlane - **MAPUTO**
Namibia
University of Namibia - **WINDHOEK**
Rwanda
University of Rwanda - **KIGALI**
Senegal
Université Cheikh Anta Diop - **DAKAR**
South Africa
University of Cape Town - **CAPE TOWN**
University of KwaZulu-Natal - **DURBAN**
University of Johannesburg - **JOHANNESBURG**
University of the Witwatersrand - **JOHANNESBURG**
Nelson Mandela University - **PORT ELIZABETH**
University of Pretoria - **PRETORIA**
Universiteit van Stellenbosch - **STELLENBOSCH**
Togo
L' Université de Lomé - **LOMÉ**
Tunisia
Université de Sfax - **SFAX**
Uganda
Makerere University - **KAMPALA**

CIVIS Group

Paris Lodron Universität Salzburg - **SALZBURG, AUSTRIA**
Université libre de Bruxelles - **BRUSSELS, BELGIUM**
Aix-Marseille Université - **AIX, MARSEILLE, FRANCE**
University of Tübingen - **TÜBINGEN, GERMANY**
National and Kapodistrian University Athens - **ATHENS, GREECE**
Sapienza - Università di Roma - **ROME, ITALY**
Universitatea din Bucureşti - **BUCHAREST, ROMANIA**
University of Glasgow - **GLASGOW, SCOTLAND**
Universidad Autónoma de Madrid - **MADRID, SPAIN**
Stockholms Universitet - **STOCKHOLM, SWEDEN**
Université de Lausanne - **LAUSANNE, SWITZERLAND**

The Matariki Research Network

University of Western Australia - **PERTH, AUSTRALIA**
Queen's University - **KINGSTON, ONTARIO, CANADA**
University of Tübingen - **TÜBINGEN, GERMANY**
University of Otago - **DUNEDIN, NEW ZEALAND**
Uppsala Universitet - **UPPSALA, SWEDEN**
Durham University - **DURHAM, UK**
Dartmouth College - **HANOVER, NEW HAMPSHIRE, USA**

Collaboration with research institutions

Universidade Federal do Rio de Janeiro - **RIO DE JANEIRO, BRAZIL**
Pontifícia Universidade Católica do Rio Grande do Sul / Research Station Pró Mata - **SÃO FRANCISCO DE PAULA, BRAZIL**
CERMEL - **LAMBARÉNÉ, GABON**
Weizmann Institute of Science - **REHOVOT, ISRAEL**
Riken Institute - **TOKYO, JAPAN**

Ukraine
Taras Shevchenko National University of Kyiv - **KYIV**
Ivan Franko National University of Lviv - **LVIV**
Odesa I. I. Mechnikov National University - **ODESSA**

Asia

China
Renmin University of China - **BEIJING**
Peking University - **BEIJING**
Jilin University - **CHANGCHUN**
Nanjing University - **NANJING**
Fudan University - **SHANGHAI**
Tongji University - **SHANGHAI**
City University of Hong Kong - **HONG KONG**
University of Hong Kong - **HONG KONG**
Israel
University of Haifa - **HAIFA**
Hebrew University of Jerusalem - **JERUSALEM**
Japan
Hiroshima University - **HIROSHIMA**
Dōshisha University - **KYOTO**
Ritsumeikan University - **KYOTO**
Aichi Prefectural University - **NAGAKUTE**
Kansai Gaidai University - **OSAKA**
Chuo University - **TOKYO**
Rikkyo University - **TOKYO**
Sophia University - **TOKYO**
Waseda University - **TOKYO**
Jordan
University of Jordan - **AMMAN**
Yarmouk University - **IRBID**
Kazakhstan
Nazarbayev University - **ASTANA**
Kyrgyzstan
American University of Central Asia - **BISHKEK**
Singapore
National University of Singapore - **SINGAPORE**
Singapore Management University - **SINGAPORE**
South Korea
Chungnam National University - **DAEJEON**
Chonbuk National University - **JEONJU**
EWHA Womans University - **SEOUL**
Hanyang University - **SEOUL**
Korea University - **SEOUL**
Kyung Hee University - **SEOUL**
Seoul National University - **SEOUL**
Sogang University - **SEOUL**
Sookmyung Women's University - **SEOUL**
Sungkyunkwan University - **SEOUL**
Yonsei University - **SEOUL**
Taiwan
National Tsing Hua University - **HSINCHU**
National Chung Hsing University - **TAICHUNG**
National Cheng Kung University - **TAINAN**
National Chengchi University - **TAIPEI**
National Taiwan University - **TAIPEI**
Thailand
Chulalongkorn University - **BANGKOK**
Mahidol University - **BANGKOK**

Oceania

Australia
Griffith University - **BRISBANE**
University of Queensland - **BRISBANE**
Charles Darwin University - **DARWIN**
Monash University - **MELBOURNE**
University of New South Wales - **SYDNEY**
University of Technology Sydney - **SYDNEY**
University of Wollongong - **WOLLONGONG**
New Zealand
Victoria University of Wellington - **WELLINGTON**

University leadership

Karin Amos reelected

Professor Karin Amos was reelected to the position of Vice-President for Students, Learning and Teaching by the University Senate in June 2023. Amos, a professor of General Education, has held the post since 2013. She studied English and History. After working in Oakland, California; Vienna; and Frankfurt am Main, she was appointed to her current professorship at the University of Tübingen in 2006.

In her previous term as Vice-President, she oversaw a wide range of projects, including the conversion of teacher training courses to the Bachelor's/Master's system, the establishment of the Tübingen School of Education and the phasing-in of online teaching. The latter was significantly accelerated during the coronavirus pandemic. Amos plans to integrate diversity and inclusion more strongly into the University's routine processes. She will also promote collaboration between faculties and students, setting up a new committee to involve students more closely in the development of learning and teaching, and to optimize communication flows.

Left: Vice-President Karin Amos

Top, left to right: Vice-President Karin Amos, Vice-President Peter Grathwohl, President Karla Pollmann, Executive Vice-President Andreas Rothfuss and Vice-President Monique Scheer

The President's Office

President
Professor Dr. Dr. h.c. (Dōshisha) Karla Pollmann,
Classics and Divinity

Executive Vice-President
Dr. Andreas Rothfuss

Vice-President for Students, Learning and Teaching
Professor Dr. Karin Amos,
Institute of Education

Vice-President for Research and Innovation
Professor Dr. Peter Grathwohl,
Applied Geoscience

Vice-President for International Affairs and Diversity
Professor Dr. Monique Scheer,
Institute of Historical and Cultural Anthropology

Board of Trustees' 100th meeting

At the University Board anniversary, left to right: Andreas Rothfuss, Christiane Neumann, Lena Ganschow, Ernst Hafen, Bernhard Sibold, Peter Grathwohl, Oliver Kohlbacher, Heinrich Bülthoff, Karla Pollmann, Ingrid Hamm, Jacob Bühler, Karin Amos and Irmgard Männlein-Robert

The University of Tübingen's Board of Trustees met for the 100th time in September 2023. Since 2000, the Board has provided advice and oversight to all branches of the University on strategic issues. The Board is made up of seven external and four internal members and has been chaired since 2018 by Bernhard Sibold, the former president of the Deutsche Bundesbank's head office in Baden-Württemberg.

University councils were introduced in almost all German states from 1998 onwards following changes to higher education law. Board members – usually appointed externally from business, politics, culture, or other research institutions – bring an outside perspective to the strategic development of the University. In the state of Baden-Württemberg, they also approve the budget and development plans, and play a major role in the election of the University's senior management.

Over two decades, the Tübingen University Board has provided important impetus for the University's growth. For example, it helped shape the University's Excellence Strategy and oversaw numerous reforms as well as advising the University on many important issues, including internationalization, the founding of the Teacher Training Center, the Center for Islamic Theology, and Cyber Valley.

Key topics in 2023 included the student housing shortage, construction planning, and the University's building renovation backlog. A growing issue in the coming years will be the shortage of skilled workers, which the Board and the University plan to tackle in collaboration with the regional economy.

The science journalist and TV presenter Lena Ganschow attended the anniversary meeting as a guest, ahead of formally joining the Board in December 2023. She replaced Christiane Neumann, former executive director of the Leibniz Association, whose term of office had ended after nine years. Ganschow studied Biology in Tübingen and Boston and wrote her thesis under the Nobel Laureate, Professor Christiane Nüsslein-Volhard, at the Max Planck Institute for Developmental Biology. During her studies, she decided to dedicate herself fully to the communication of scientific and academic topics via the media.

Lena Ganschow

Key posts filled

University Board of Trustees

External members

Chairman
Bernhard Sibold | formerly Deutsche Bundesbank, Stuttgart

Dr. Dr. Saskia Biskup | CeGaT GmbH, Tübingen

Dr. Michael Bolle | Carl Zeiss Foundation

Professor Dr. Heinrich Bülthoff | formerly Max Planck Institute for Biological Cybernetics

Lena Ganschow | SWR, Baden-Baden

Professor Dr. Ernst Hafen | formerly ETH Zurich

Dr. Ingrid Hamm | Ingrid Hamm Consultants GmbH, Stuttgart

University members

Deputy chair
Professor Dr. Oliver Kohlbacher | Department of Informatics

Jacob Bühler | student

Professor Dr. Irmgard Männlein-Robert | Institute of Philology

Professor Dr. Heike Oberlin | Institute of Asian and Oriental Studies

Co-Deans Dietmar Till and Angelika Zirker now head the Faculty of the Humanities.

Regine Tobias

Co-leadership duo elected at Humanities Faculty

In a first for the state of Baden-Württemberg, the Tübingen University Faculty of Humanities chose two people to fill the post of Dean jointly for five years. Professor Angelika Zirker of the Institute of English Language and Literature and Professor Dietmar Till from the Institute of Rhetoric were elected co-Deans by the Faculty Council in September 2023. They succeed Professor Jürgen Leonhardt, who stepped down on September 30 after 13 years in office. The dual leadership arrangement required the prior approval of the University Council and Senate, as well as the Baden-Württemberg Ministry of Science, Research and the Arts.

The Faculty of Humanities comprises 36 disciplines, from archaeology, art history, Asian and Oriental studies, music, religious studies, history and linguistics to rhetoric and media studies.

Angelika Zirker studied English, German and Romance languages and literature at the University of Saarland. She received her doctorate from the University of Tübingen, and then completed her habilitation thesis on Shakespeare and John Donne. She held interim professorships at Berlin's Free University and the Humboldt University before returning to Tübingen to take up the Chair of English Literatures and Cultures. She heads a sub-project in the collaborative research center Different Aesthetics.

Dietmar Till studied General Rhetoric, Modern German Literature and Philosophy at the University of Tübingen and then completed his doctorate in General Rhetoric. He conducted research on empathy at the Free University of Berlin as part of the Languages of Emotion excellence cluster and wrote his habilitation thesis at the University of Göttingen. A visit-

ing professorship took him to the University of Washington in Seattle. He has been a professor of General Rhetoric at the University of Tübingen since 2011.

New director for University Library

The new head of the Tübingen University Library, Regine Tobias, took up her post in January 2024, succeeding Dr. Marianne Dörr, who had held the position since 2008. Regine Tobias brings 25 years of experience in academic management at research institutions and in digital research and teaching services for academic libraries. She sees the further transition of libraries into the digital age as the biggest task for the coming years.

Regine Tobias was born in Schwäbisch Gmünd and studied Economics at the University of Tübingen from 1988 to 1995. She trained as an academic librarian at the University of Marburg. She came to Tübingen from the Karlsruhe Institute of Technology (KIT). She is a long-standing spokesperson for the national working group on research information and systems run by the Deutsche Initiative für Netzwerkinformationen (German Initative for Network Information).

Professors at the University of Tübingen in 2023

Updated: 1 December 2023

Faculty or institution	Full professors			Assistant professors			Total
	Male	Female	Faculty total	Male	Female	Faculty total	University total
Protestant Theology	11	3	14				14
Catholic Theology	9	3	12	1		1	13
Center for Islamic Theology	4	2	6				6
Law	18	4	22				22
Medicine	94	29	123	3	1	4	127
Humanities	49	40	89	5	11	16	105
Economics and Social Sciences	48	15	63	6	8	14	77
Science	129	37	166	9	8	17	183
Knowledge Media Research Center (IWM)	3	3	6				6
Central institutions	2	2	4				4
Total	367	138	505	24	28	52	557

Reaching out to University members

The President introduces new forms of discussion

University president Professor Karla Pollmann introduced new formats for internal communication with employees and students in her first year in office. One of them was the "Meeting with the President" initiative, enabling employees and students to register for a direct exchange with her in 15-minute video conferences. Following two successful rounds, this format is set to continue. Among the topics discussed by the participants were questions about the development of open access, event organization, climate neutrality, recruitment procedures, and further support services for lecturers.

President Pollmann also seeks a public dialogue with various groups and institutions at the University. The first round of discussion was with two Student Council representatives in February 2023. The event was made available to members of the University and on social media.

The interactive University general assemblies are another innovation. They are usually held twice a year and may be attended in person or online. In 2023, the focus was on the University's financial situation and the current application phase in the German government's Excellence Strategy.

In addition, President Pollmann uses email circulars to address employees and students directly, including at the start of the semester, regarding the University's performance at various stages of the Excellence Strategy, on sustainability and on dealing with generative artificial intelligence. The messages, news, and anonymized results of the various communication activities may be found on the website "In exchange with the president" on the University intranet (https://uni-tuebingen.de/en/250231).

Survey on remote working

Since the COVID-19 pandemic, working from home has become part of everyday life for many of the 8,113 employees at the University of Tübingen. In a survey, employees were able to comment on the extent to which they work from home and what their experience has been. More than 1,800 employees took part in the online survey, which was conducted by the Center for Evaluation and Quality Management in early summer 2023.

The responses revealed that up to 80 percent of employees in the central administration work remotely for part of the week. In the faculties, that number was slightly higher, at 85 percent. The experiences of employees who do sometimes work from home are largely positive. 85 percent said that remote working makes it easier to balance work and family life. However, 29 percent of respondents had the impression that the boundaries between work and leisure time become blurred when they are working from home.

Of those with management responsibility, 80 percent said they were in favor of their team members sometimes working remotely, and rated both the completion of work tasks (79 percent) and the accessibility of their team (78 percent) as good. In the open comments, the mixture of time spent at the University and time spent working from home was cited as ideal. When working from home, employees saw communication within the team as a challenge, for example in maintaining contacts, informal exchanges and coordinating appointments.

Top:
Employees can take twenty minutes away from their desks to exercise and stretch stiff muscles.

Left:
President Karla Pollmann (right) speaking with Jacob Bühler and Pauline Menge of the student council, and moderator Oliver Häussler (from left)

Scheduled exercise break within working hours

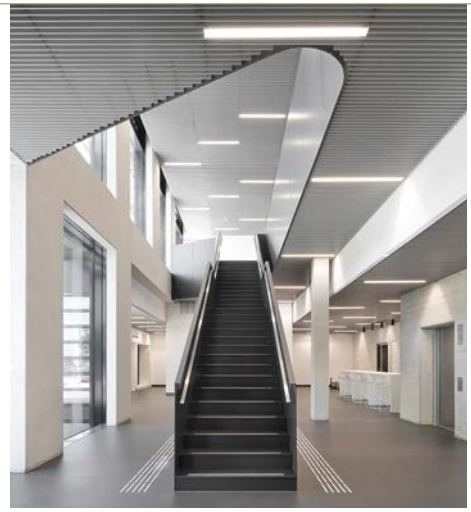
The University's occupational health management is committed to creating health-promoting structures and services for all University employees. One very popular service offered at the University of Tübingen for fourteen years now is the Pausenexpress, a 15-minute exercise break. Employees can take part once a week during working hours. In 2023, 62 groups were formed for this purpose.

The Pausenexpress is conducted in small groups directly at the workplace. Qualified teachers guide the group through exercises for mobilization, strengthening, stretching and relaxation. The exercises focus in particular on the shoulder, neck and back area in order to counteract sedentary office work and the associated complaints.

What employees say:

"I'm learning to pay more attention to myself when working, to get up and move from time to time, and to include a relaxation exercise."

"I don't do regular sports and find the exercise break at work helpful, a great service. After the Pausenexpress, I can concentrate on my work again."



Above: Views of the new M3 Research Center for Malignome, Metabolome and Microbiome. Scientists at the center will take a new, holistic approach to medical research.

Building for the University

The keys to the new **M3 Research Center for Malignome, Metabolome and Microbiome** were handed over to the University of Tübingen in July 2023. The term malignome refers to a malignant tumor; the metabolome is the entirety of a cell's metabolic products; the microbiome stands for the entirety of all microorganisms that colonize the human body. The investigation of these interconnected systems will lead to new ideas for the treatment of tumors. Experts from cancer research are joined at the center by specialists from disciplines such as infection and diabetes research, bioinformatics, systems biology and pharmacology.

The center is located close to the Neuroscience research buildings and the University Hospitals. The new building has some 4,500 square meters of floor space on five levels. A total of 18 research groups from different disciplines can use the space for flexible laboratories and offices. Communication zones are designed to facilitate interdisciplinary exchange between the 250 or so scientists working there.

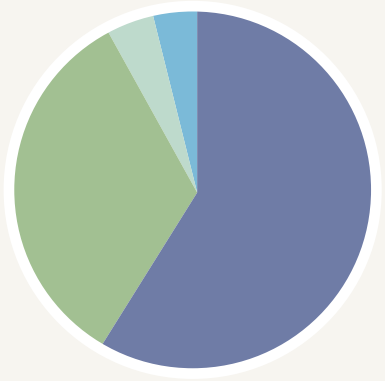
In the construction of the M3 Research Center, recycled concrete was used almost exclusively in the shell to conserve resources. The new building is highly energy efficient. There is a photovoltaic system on the roof and on parts of the façade with an area of around 500 square meters and a total output of 77 kilowatts peak.

Due to its supra-regional importance, the new research building was financed with around 21 million euros of federal funding. Half of the remaining building costs were covered by the Tübingen Medical Faculty and half by construction funds from the state of Baden-Württemberg. The federal and state governments have jointly invested around 45 million euros in the new building.

University budget

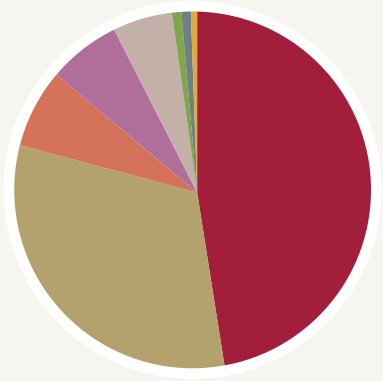
University budget excluding Medicine

Revenue 2023 (457 m euros)*



- State subsidy
  269.8 m euros (59%)
- Third-party funding
  150.7 m euros (33%)
- Baden-Württemberg Economics Ministry allocated funding
  19 m euros (4.2%)
- Other income
  17.5 m euros (3.8%)

Expenditure 2023 (441.9 million euros)*

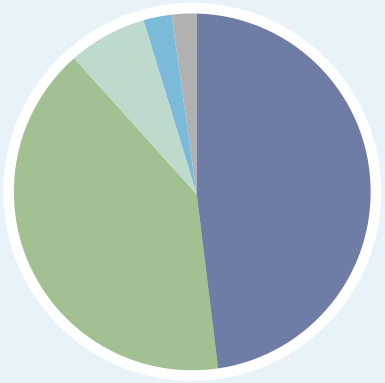


- Staff
  211.1 m euros (47.8%)
- Third-party funding
  139.1 m euros (31.5%)
- Operating buildings
  30.9 m euros (7%)
- Teaching and research (incl. University Library and IT Center)
  28.8 m euros (6.5%)
- Baden-Württemberg Economics Ministry funding
  22.7 m euros (5.1%)
- Building works
  4.1 m euros (0.9 %)
- Initial set-ups
  3.5 m euros (0.8%)
- Other
  1.7 m euros (0.4%)

Faculty of Medicine

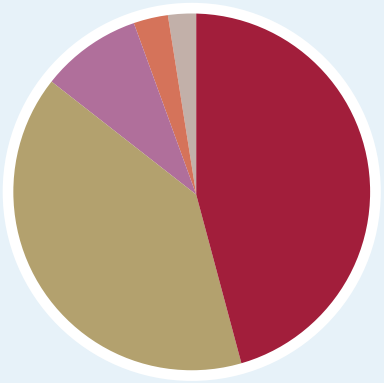
* preliminary figures

Revenue 2023 (309.8 million euros)*



- State funding
  149.1 m euros
- Third-party funding
  125.0 m euros
- Other income
  21.1 m euros
- State funding for investments
  7.8 m euros
- Income from DFG projects and other programs
  6.8 m euros

Expenditure 2023 (323.7 million euros)*



- Staff and operating costs
  148.5 m euros
- Third-party funding
  129.0 m euros
- Other
  28.5 m euros
- Investments via third-party funding
  10.0 m euros
- Investments via state funding
  7.8 m euros


SCIENCE &
INNOVATION
DAYS2023
Resilienz.
Gemeinsam arbeiten wir dran.
8.–11. November

Celebrating Knowledge

Stimulating Exchange

The year was a full one, with a series of anniversaries, awards and exhibitions, as well as numerous prominent speakers, including in the tried-and-tested formats of the Media Lectureship and the Writers' Lectureship. The latest Science & Innovation Days drew many interested members of the public to engage with the University. Running over several days, the event explored the overarching theme of resilience.

Science & Innovation Days – What is resilience?

From November 8 to 11, Tübingen's Science & Innovation Days invited Tübingen locals to participate, discuss and explore the work of researchers at the University. The four-day festival focused on resilience, a key concept in a time of crisis and transformation. The aim was not only to convey the latest findings to all those who were interested, but above all to enter into a dialogue on the topic of resilience with people from the town and region.

The University of Tübingen organized the fair in cooperation with the Tübingen Max Planck Institutes, the Leibniz Institute for Knowledge Media, the Global Ethics Institute, Tübingen's public utility companies and other partners from civil society. Around 3,000 people attended events which took place in more than 50 formats including lectures, workshops, panel discussions, laboratory tours and the Science Fair. Over 100 researchers were involved in the Science & Innovation Days program at 17 locations across Tübingen.

The official kick-off was a fishbowl discussion focusing on right-wing extremism as a danger to democracy. Speakers included Dr. Marco Krüger from the International Center for Ethics in the Sciences and Humanities at the University of Tübingen and Mathieu Coquelin from the government-sponsored body on countering extremism, *Fachstelle Extremismusdistanzierung*. The debate focused on how to promote a constructive culture of science-based discussion in the face of conspiracy theories and the rise of right-wing extremism.

The comedy show *How resilient is Schrödinger's cat?* with Bernd Kohlhepp and Tübingen physics professor Sebastian Slama was a crowd-pleaser, as was the fishbowl discussion *What does a resilient environment cost us?* on the third

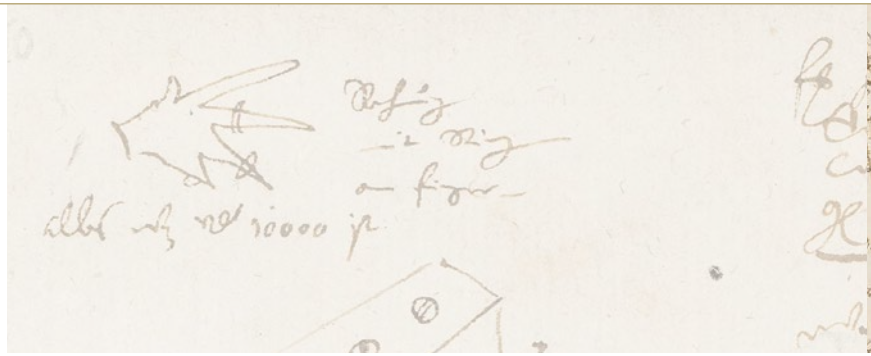
evening of the festival, which brought together transformation researcher Professor Maja Göpel from Leuphana University Lüneburg in discussion with environmental researchers Professor Kira Rehfeld and Professor Christiane Zarfl, as well as bioethicist Professor Thomas Potthast, all from the University of Tübingen.

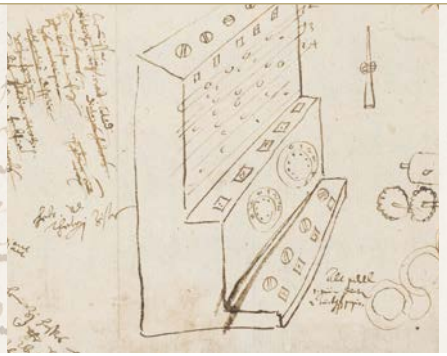
Two further entertainment programs were the science salon, a modern reinterpretation of the salon culture of yesteryear, with five short presentations on the topic of resilience, ranging from archaeology to computer science. As in previous years, the Science Notes were also part of the program, this time on the topic *Tübingen 2050 – What will our future look like?*

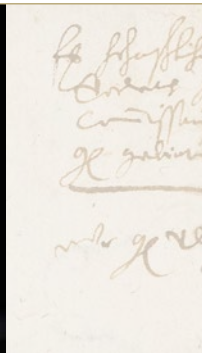
University of the future symposium

Immediately following the Science & Innovation Days, the President of the University of Tübingen hosted a symposium on the development of research, teaching, university architecture, and knowledge transfer. More than 40 experts from Germany and abroad accepted the invitation of President Karla Pollmann and joined Tübingen academics, researchers and students to discuss the future of higher education. Particular attention was paid to the opportunities and challenges posed by advancing digitalization, the importance of geopolitical changes for open global academic exchange, and the need for new methods to educate future-proof global citizens and leaders.

Scenes from the Science & Innovation Days including main events in the rooms of the Museum Society – on the right Karla Pollmann, President of the University, giving her welcoming address







Three Anniversaries

Wilhelm Schickard invented the calculator 400 years ago

The polymath and University of Tübingen professor Wilhelm Schickard invented a calculating machine in 1623 – a date which may be considered the beginning of computer science. Schickard defined calculation rules and applied them in an automated process. Better-performing machines were not built until the 18th century. The University of Tübingen celebrated the anniversary on September 14, when the University and the German Finance Ministry jointly presented a new 20-euro collector's coin and a special 85-cent stamp in honor of Wilhelm Schickard and his invention.

A letter from Schickard to the astronomer Johannes Kepler dated September 20, 1623, documents the invention of the first mechanical calculating machine: "I recently tried to do mechanically what you did mathematically and constructed a machine consisting of eleven complete and six mutilated cogs." Schickard sketched the blueprint of his invention with fine lines – 22 years earlier than Blaise Pascal presented his calculating machine. The construction could operate with a maximum of six-digit numbers in all basic arithmetic operations: addition, subtraction, multiplication and division. Above all, however, it succeeded in automatically transferring the tens, with the last digit jumping from 9 to 0. Schickard was now able to calculate the movements of celestial bodies more easily and quickly than by hand. The Tübingen calculating machine was closely linked to the rise of the natural sciences at the beginning of the 17th century and the work of the astronomers Tycho Brahe, Galileo Galilei and Johannes Kepler.

Schickard was first appointed Professor of Hebrew and other biblical languages at the University of Tübingen in 1619, and then Professor of Astronomy, Mathematics and Geodesy in 1631.

Schickard died of the plague in 1635, along with his entire family. Knowledge of the calculating machine and of his model was lost in the turmoil of the Thirty Years' War. Only after the Second World War was the machine reconstructed from Schickard's rediscovered sketches. It was presented to the public in 1960.

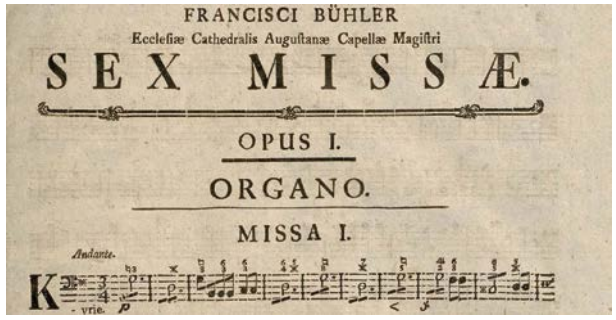
Above: Replica of Wilhelm Schickard's calculating machine with his technical sketch on the left

Institute of Musicology centenary

The University of Tübingen received its first Music Director in 1817, to mark the 300th anniversary of the Reformation. Friedrich Silcher was the first to be appointed to this position. In addition to directing the music at the University and Tübingen's St George's Collegiate Church, his duties also included teaching music at the University's Protestant and Catholic seminaries. From the very beginning, the music directors delivered lectures in music history.

On April 23, 1923, the Württemberg Ministry of Church and Education approved an expansion of the Music Institute to include Musicology. From the very beginning, it was based in the Pfleghof, a building dating back to 1492.

The institute covers the entire history of European and European-influenced music – from antiquity to the present day. Research topics range from medieval music through Handel, Schubert and Mahler, to contemporary music, including popular music, and from instrumentology and performance practice to digital musicology and gender studies.



Top left: Dating back to 1492, the Pfleghof is the home of musicology in Tübingen

Bottom left: Sex Missae – sheet music

Right: Camerata Vocalis with Philipp Amelung (front), 2022

50 years of Camerata Vocalis

The University chamber choir Camerata Vocalis celebrated its half-century in 2023. It was founded in 1973 by the then University Music Director Alexander Šumski and has been conducted by University Music Director Philipp Amelung since 2011. Students and alumni act as musical ambassadors for Tübingen and the University with an *a cappella* repertoire. The choir has made numerous CDs and radio shows; concert tours have taken the choir to Canada, Brazil, Israel, Greece, Ireland

and many African countries. An exhibition on the history of the Camerata Vocalis in the Pfleghofsaal opened the celebrations on July 9, 2023, with a concert honoring Šumski, who passed away in 2022; President Professor Karla Pollmann, herself a member of the choir from 1981 to 1983, gave a welcome address. The choir sang works by Nikolaus Betscher as well as choral music from Gabon, Malawi and South Africa.

Special guest speakers

Luisa Neubauer at the Media Lectureship

Luisa Neubauer opened the 18th Media Lectureship with a speech entitled 'Tell it like it is.' Germany's best-known climate activist began by asking her audience to put aside any judgments about her for the next hour and to engage with her line of thought. She offered an unorthodox view of the climate debate – and the conclusion that decades of political discussions, media coverage and scientific findings have not been able to slow down global warming.

Luisa Neubauer is a climate activist, author and speaker. She helped set up Fridays for Future in Germany and frequently speaks with the media and politicians. Time magazine named Neubauer one of the most important newcomers in 2022, and she received the University of Tübingen Institute of Rhetoric's Speech of the Year award that year for her address to Germany's Green Party conference.

The Tübingen Media Lectureship is a cooperation between the University of Tübingen, the Institute for Media Studies and SWR Radio Studio Tübingen.

Luisa Neubauer, Tübingen's Media Lecturer for 2023, convinces the audience to think again about where humans stand in relation to the world's climate.

Writers' Lectureship with Christian Baron and Édouard Louis

The lectures for the 36th Tübingen Writers' Lectureship were given by Christian Baron and Édouard Louis in November 2023. Both authors draw deeply on their own personal and family history, offering an at times painfully clear-eyed view of their troubled childhoods and adolescence.

Baron, born in 1985 in Kaiserslautern, studied German, sociology and political science and works as a journalist and author. He lives in Berlin. His début *Ein Mann seiner Klasse* (2020) was described by the Rhein Zeitung as the "book of the hour" because it transformed "real life […] into true literature." In 2022 came the publication of *Schön ist die Nacht*, a "brilliant proletarian tale," according to the Süddeutsche Zeitung.

Édouard Louis was born Eddy Bellegueule in Hallencourt in 1992; he studied philosophy and sociology and lives as a writer in Paris. His first novel *The End of Eddy* (2014), made Louis one of the best-known contemporary French authors. Other acclaimed works include *A Woman's Battles and Transformations* (2021), and *Change* (2022).

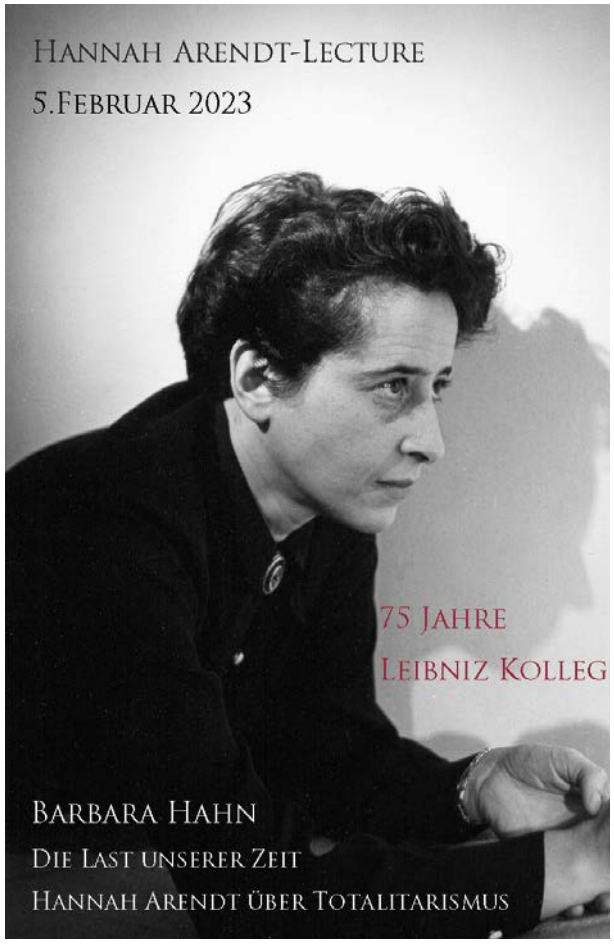
The Tübingen Writers' Lectureship is a project of the Würth Foundation and is supported by the Adolf Würth GmbH & Co. KG. It has been organized at the University of Tübingen since 1996, under the direction of Professor Dorothee Kimmich since 2005. Once a year, authors are invited to give public lectures and offer workshops for students.

The 2023 Writers' Lectureship speakers, Christian Baron (top) and Édouard Louis

Inaugural Hannah Arendt lecture

Since its foundation in 1948, students at the University of Tübingen's Leibniz Kolleg have completed a one-year interdisciplinary orientation course. To mark the 75th anniversary of the Leibniz Kolleg, academic director Ursula Konnertz and her team launched Tübingen's annual Hannah Arendt Lecture in 2023. The lecture commemorates the German-Jewish philosopher, who fled Germany under the Nazis, and the lectures she gave at the Leibniz Kolleg in the 1950s on the origins of totalitarianism. The first Hannah Arendt Lecture was held in February 2023 by Professor Barbara Hahn from Vanderbilt University, USA, with the title *The Burden of Our Time. Hannah Arendt on Totalitarianism.*

The annual lecture is intended to familiarize young students and a wider audience in particular with Arendt's conceptual world and to help incorporate it into today's theory formation in the humanities and social sciences.



University prizes

Lucas Prize for Judaic Studies expert Peter Ochs

Peter Ochs, Professor Emeritus of Judaic Studies at the University of Virginia, was awarded the University of Tübingen's **Dr. Leopold Lucas Prize**. The Faculty of Protestant Theology honored his achievements in the dialogue between Judaism, Christianity and Islam. Peter Ochs was instrumental in developing and disseminating the "scriptural reasoning" method, which aims to mediate between members of Christianity, Judaism and Islam through joint reading and discussion of their respective holy scriptures and to motivate them to act together. Dialogical interpretation of the holy scriptures endeavors to promote understanding and acceptance of different religious traditions, which for Ochs represents the basis of interreligious reconciliation.

The prize, which at 50,000 euros is the University's most highly-endowed award, recognizes outstanding achievements in the fields of theology, intellectual history, historical research and philosophy. In particular, its objective is to honor individuals who have rendered outstanding services to spreading the idea of tolerance. The Dr. Leopold Lucas Prize was founded in 1972 by Consul General Franz D. Lucas, Honorary Senator of the University of Tübingen, on the 100th anniversary of the birth of his father, the Jewish scholar and rabbi Dr. Leopold Lucas, who was killed in the Theresienstadt concentration camp in 1943.

The **Dr. Leopold Lucas Prize for early-career researchers** was awarded to Dr. Johanna Jebe for her doctoral thesis on Carolingian manuscripts from St. Gallen and Fulda, in which she drew a new, fascinatingly multifaceted picture of monasticism and the Carolingian renewal movement in the 8th and 9th centuries. The prize for early-career researchers is endowed with 20,000 euros.

The 2023 Dr. Leopold Lucas Prize: Early-career prizewinner Johanna Jebe and winner Peter Ochs

Tübingen Prize for Science Communication goes to Rita Triebskorn

In May 2023, Professor of Biology Rita Triebskorn was awarded the **Tübingen Prize for Science Communication**. She received the 10,000-euro prize for her many years of commitment to communicating her research findings to the general public. The jury said Rita Triebskorn had worked steadily and tenaciously over the past ten years to raise awareness of her central research topic, the ecological protection of water from pollutants and microplastics. Triebskorn's work demonstrates the central importance of science in understanding and visualizing the fundamental and vital relationships in our environment, in a way that is comprehensible to a broad public.

Rita Triebskorn studied at the University of Heidelberg and gained her doctorate in zoology there in 1990. Subsequently she worked as a researcher in Switzerland and then at the University of Hohenheim. Since 1995 she has been working in the field of applied environmental protection at the University of Tübingen in the Animal Physiological Ecology research group. She was appointed extraordinary professor in 2006.

Auguste Schulz, a doctoral student in the field of machine learning in science, received the **early-career researchers award**, which is endowed with 5,000 euros, for her activities in teaching about artificial intelligence (AI) and machine learning. This included setting up a local group in Tübingen for the nationwide initiative to raise awareness of AI in education, *KI macht Schule*, which targets middle and high

school students and their teachers. Schulz planned and organized visits by AI researchers to schools as well as school excursions to the University of Tübingen's AI campus.

The Tübingen Prize for Science Communication was awarded for the first time in 2021. It aims to motivate researchers at the University of Tübingen to enter into a dialogue with society about the methods and results of their research.

The Tübingen Prize for Science Communication went to Rita Triebskorn (left) and the early-career researcher's prize to Auguste Schulz

Hans Bausch Media Prize for work on the relationship between media and artificial intelligence

For his work on the potential for the media to become dependent on artificial intelligence and digital platform companies, the journalist, communications researcher and doctoral student at the Oxford Internet Institute Felix M. Simon received the **Hans Bausch Media Prize** from the regional public broadcaster Südwestrundfunk (SWR) in May 2023. The prize is awarded in close cooperation with the Institute for Media Studies at the University of Tübingen and is endowed with 5,000 euros. In his prize-winning article *Uneasy Bedfellows: AI in the News, Platform Companies and the Issue of Journalistic Autonomy*, which was published in the journal Digital Journalism in 2022, Simon argues that, despite all the advantages, the introduction of artificial intelligence in journalism harbors the risk that the media will become even more dependent on large platform companies such as Microsoft, Google and Amazon.

Simon illustrates how artificial intelligence is also gaining relevance in journalism and how new infrastructural dependencies can arise as a result. He describes the danger of a creeping infiltration of the autonomy of the media if they align themselves even more closely with the values and logic of platform companies. Simon also points out that an expansion of the power of such companies through artificial intelligence in journalism could lead to a further weakening of the role of media houses as important democratic gatekeepers of public opinion.

The Hans Bausch Media Prize jury emphasized Simon's analytical acuity and great expertise. His article makes it clear that the development and spread of artificial intelligence is redistributing social power.

SWR's non-profit Hans Bausch Media Prize Foundation serves to promote science, research and innovation in the media sector. The prize of the same name is awarded annually for academic work in the field of media research.

SWR director Kai Gniffke (left) with Felix M. Simon, the winner of the Hans Bausch Media Prize

Selected exhibitions

Saxophones from the Klangkörper musical instrument collection, which can be seen in the Foyer of the Pfleghof

Unbounded Anatomy exhibition reflects on Nazi tyranny

Under National Socialism, the anatomy department at the University of Tübingen profited from working with deceased persons whose bodies had been transferred to medicine without their previous consent. The exhibition *Entgrenzte Anatomie. Eine Tübinger Wissenschaft und der Nationalsozialismus* (Unbounded Anatomy. A Tübingen science and National Socialism) uses objects, documents and interviews to explore the history of the discipline of anatomy before, during and after the Nazi regime. The exhibition was created in a collaboration between students of history and medicine in three teaching research projects, the Institute of Ethics and the History of Medicine, the *Gräberfeld X* (Cemetery X) project, the Institute of Clinical Anatomy and Cell Analysis, and the University of Tübingen Museum MUT. Open from April 17, 2023, the exhibition has been extended to September 30, 2024.

During the Nazi era, researchers in anatomy without hesitation used the bodies of executed Nazi victims and others who had been excluded from the *Volksgemeinschaft* (national community) for their research and teaching. Medicine in Tübingen also benefited from the radicalization of Nazi justice and persecution policies, which increasingly affected people from Eastern Europe. The concept of the exhibition was based on the questions of how anatomy worked before 1933, who the people were whose bodies ended up in the Tübingen Anatomy Department in this system of injustice, and when the critical examination of the misconduct of the discipline itself began. The exhibition presents its answers at the historical site of the events at the time, in the old Anatomy building.

Historical instrument collection on permanent display

To mark the centenary of the Institute of Musicology, the permanent exhibition *Klangkörper* was opened in the Tübingen Pfleghof in cooperation with the University of Tübingen Museum MUT in November 2023. The University of Tübingen is home to the most extensive collection of historical wind instruments at a German university. These include flutes, clarinets, oboes, saxophones, bassoons and brass instruments, but also some rarities such as ophicleide, heckelphone and tárogató. The exhibition shows the development of wind instrument making from the end of the 18th century to the early 20th century.

One highlight is the clarinet once owned by the virtuoso Johann Simon Hermstedt (1778-1846), for whom the composer Louis Spohr (1784-1859) composed four clarinet concertos, among other works. It is on permanent loan to the collection from the clarinetist Sabine Meyer.

View of the Ammer valley

Cyber and the City – Artificial Intelligence Moves Tübingen

Tübingen is a significant location for the research and development of artificial intelligence (AI). In an exhibition which ran from February 11, 2023 to January 2024, the University and the city took up the topic in a special exhibition in the City Museum. It provided an overview of the developments, debates, protests, players and opponents regarding the future topic of artificial intelligence using the example of Tübingen. Twelve students of Historical and Cultural Anthropology and 20 students of the Master's program in Machine Learning were involved under the supervision of Professor Ulrike von Luxburg from the Department of Computer Science, Professor Thomas Thiemeyer and Tim Schaffarczik, both from the Ludwig Uhland Institute for Historical and Cultural Anthropology. Together with Guido Szymanska from the City Museum, they developed and produced the exhibition over the course of three semesters.

The exhibition set out the facts and developments and offered a space for debate on the use and misuse of the new technologies. Hands-on displays showed visitors how machine learning works and how it can be applied. The interdisciplinary team from *Cyber and the City* received the Communicator Prize 2024 from the German Research Foundation and the Stifterverband for the concept and implementation of the exhibition.

Early Bronze Age gold from the Ammer Valley

In the exhibition Gold in the Ammer Valley – The End of the Stone Age in the Tübingen Area, the University of Tübingen Museum MUT at Hohentübingen Castle presented the most spectacular archaeological finds from the Tübingen region in recent years. The exhibition outlined the path from the first settled farming communities in southwest Germany to the beginning of metal use in Central Europe. It was created in cooperation between the Institute of Prehistory, Early History and Medieval Archaeology at the University of Tübingen and the State Office for the Preservation of Monuments at the Stuttgart Regional Council. It was open from September 22, 2023 to January 14, 2024. One of the most sensational finds was a small gold ring, which was recovered in late 2020 during archaeological research excavations in an Early Bronze Age grave near Ammerbuch-Reusten and is considered the oldest precious metal find in southwest Germany.

The gold ring from Ammerbuch-Reusten weighs just 0.6 grams. Below it is a Linear Pottery storage vessel from Ulm-Eggingen and calcite beads from the grave of a woman from Ammerbuch-Pfäffingen.

Imprint

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