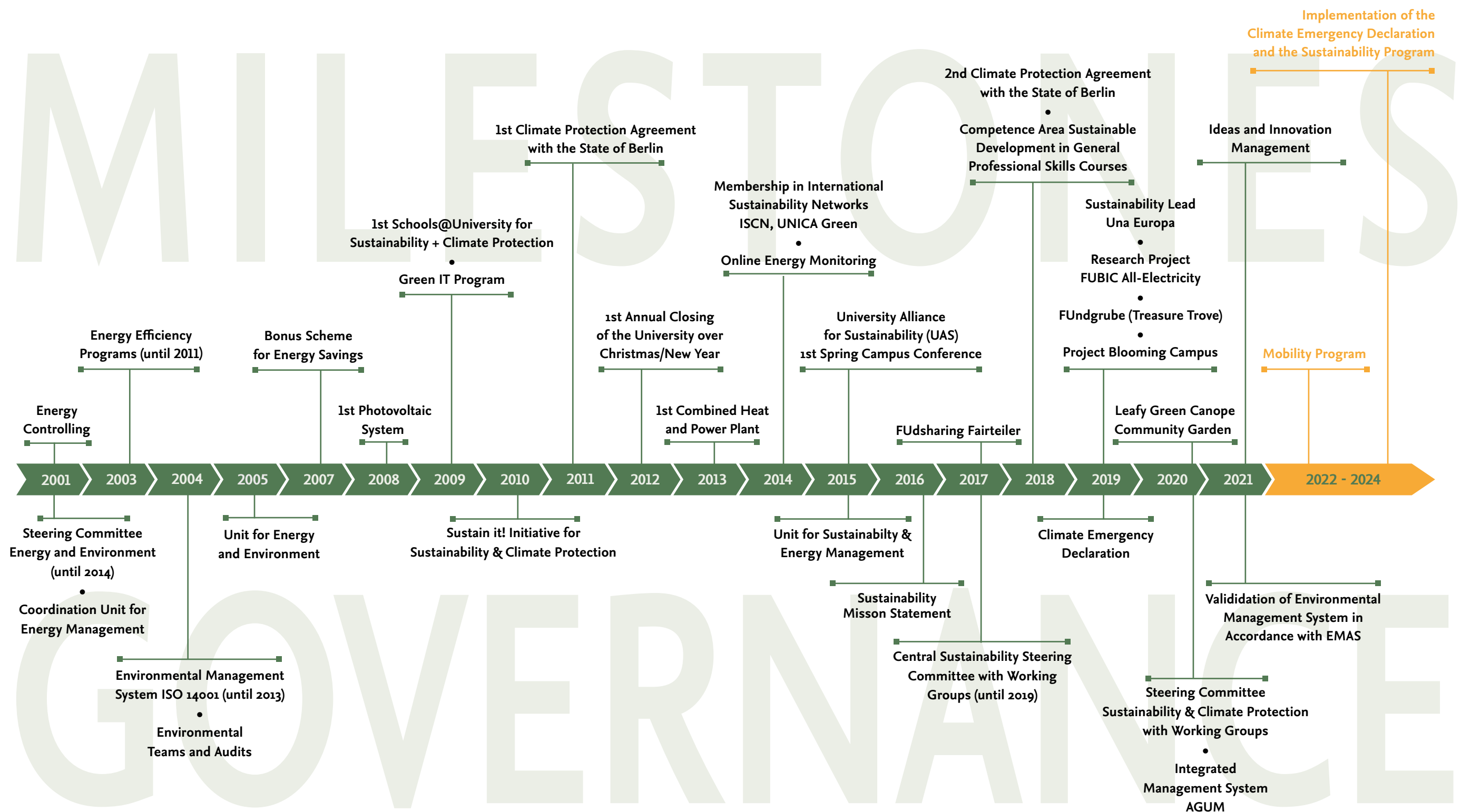




SUS TAIN ABILITY

REPORT
2022



PROFILE

Students and faculty founded Freie Universität Berlin in 1948 in reaction to the persecution of system-critical students at East Berlin's Universität Unter den Linden. The values of freedom and internationality have shaped Freie Universität's development through the present day. Particularly in light of its founding history, the university firmly embraces its continuing social responsibility regarding democracy, equal opportunity, and diversity.

Freie Universität Berlin enshrined its commitment to sustainable development in all areas of higher education in its first Sustainability Mission Statement, published in 2016. This statement also describes the university's responsibility as an institution. It was the first German university to declare a climate emergency in December 2019, committed itself to consider climate protection in all its decisions and plans and to achieve institutional climate neutrality by 2025. Furthermore, the document states that sustainability and climate protection will be addressed in all curricula.

Freie Universität Berlin has been part of the German Universities Excellence Initiative since 2007. Since

2019, the Berlin University Alliance, which includes four Berlin partners – Freie Universität Berlin, Humboldt-Universität zu Berlin, Technische Universität Berlin, and Charité Universitätsmedizin Berlin – has been funded as an excellence cluster resulting from the German federal and national state governments' Excellence Strategy Competition.

The university offers a wide spectrum of subjects, ranging from the natural and life sciences to the social sciences and from the humanities to veterinary medicine. More than 150 study programs are available to around 37,000 students. International collaboration plays a crucial role. In 2019, Freie Universität maintained more than 100 partnerships with scientific institutions and five liaison offices worldwide.

International university networks also play an important initiating and networking role for sustainability. Prominent examples include the University Alliance for Sustainability (founded by Freie Universität Berlin and its strategic partners in 2015) and the European alliance Una Europa (established in 2019).

SUSTAINABILITY REPORT 2022

Freie Universität Berlin



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TOGETHER AND COMMITTED TO A SUSTAINABLE FUTURE

Foreword by Prof. Dr. Günter M. Ziegler, President

Even though the Covid-19 pandemic and the war in Ukraine have taken our full attention in the past months: We are living in a – possibly the most – decisive decade of important decisions about the course of the future for climate protection and sustainable development. Only with a comprehensive transformation that changes our energy supply fundamentally and the way we currently produce and consume will it be possible to ensure that humanity can live on our planet over the long term. This is the key message of many scientific studies that at the same time bring into the political discourse various proposals for solutions to the complex and usually interdependent problem areas.

Modern science is on the one hand often the starting point, but on the other hand has also always been the seismograph for global challenges. This also applies especially the climate and biodiversity crises. Scientific engagement with sustainability and resource themes goes back to the 1960s. The Brundtland Report published in 1987, which still shapes our understanding of sustainable development, and the work of the Intergovernmental Panel on Climate Change (IPCC) stand as symbols for the increasing global importance of scientific expertise and research communication.

The current IPCC Report points out (again) that immediate and consistent action is required to prevent reaching a tipping point in our climate system. At Freie Universität Berlin we have recognized this urgency with our Declaration of Climate Emergency and have made sustainability and climate protection a focus of all areas: research, teaching, administration, and campus management.

Environmental and resource protection have already been fixed parts of the research profile of our university for many decades. We are also working on thoroughly integrating sustainability and climate protection in teaching. In addition, we have been engaging over the past twenty years with the question of how we can contribute to making our own institution

more sustainable. Our sustainability management takes the entire university in its various facets into account by relying on a certified environmental management system. The most important tasks for this are pooled in the Sustainability and Energy Management Unit. Along with a connection at the level of the provost, the Vice President for Research is also responsible for sustainability in research and teaching. Those decisions about the university governance structure have prepared us well for the ambitious tasks that lie before us.

Consistent and successful action requires however more than governance that functions well. Sustainability and climate protection are primarily tasks that concern all areas and the entire community. They have impact on and also challenge each of us.

No matter where you work at Freie Universität Berlin, whether research, learning, teaching, human resources, building management, procurement, or library administration: All of you have your own individual opportunities to support the university on the road to sustainability and climate protection. Use these opportunities, share your ideas, expertise, and engagement. I hope that while learning and working at Freie Universität Berlin, you will see yourself and what you do each day as part of the solution to this great challenge facing our community. Please join with us as we take even bolder steps to move forward.

This report shows everything we have done so far to make progress toward sustainability. It also shows you connections points in future programs where you can become involved and engaged. Universities draw particular strength from innovative ideas and intellectual impulses. I am looking forward to these.

I hope that you enjoy reading – and acting on – this report.

Prof. Dr. Günter M. Ziegler



PERSISTENT, CREATIVE, AND SPECIFIC ACTIONS TO FIGHT THE CLIMATE CRISIS

Foreword from Andreas Wanke,
Director of the Sustainability and Energy Management Unit

With its Declaration of Climate Emergency in December 2019, Freie Universität Berlin took on a leading role in the German university community. In the international context, we are thereby part of a growing movement of over 1,100 universities that have taken a similar step. Knowing that our activities are part of a global endeavor strengthens our motivation to consistently advance our measures. The debate on climate neutrality is also increasingly shaping the discourse in and between German universities.

The Declaration of Climate Emergency provides clarity and reliability. It is and will remain an important foundation of our work in the Sustainability and Energy Management Unit. It also strengthens our basic stance of networking actors in the various areas of our university and to anchor sustainability in its systems and culture. The strategic advantage of sustainability is that it is a topic that attracts interest and attention from almost everywhere in the university.

The willingness and the ability of universities to change is primarily based on the quality of the relevant discourses. These are inspiring but some of them are also controversial and concern small-scale matters. One also must be able to recognize different rationalities. Our many conversations and workshops over the past two years have not only underscored the diversity at our university but have also shown that the climate crisis has shaped a new mindset among many of our conversation partners, one that assigns climate protection a changed and growing role. The transformative steps that lie in front of us cannot succeed without that kind of self-understanding across all divisions.

What have we achieved in the past two years? Since September 2021, Freie Universität Berlin belongs to the small group of EMAS-validated universities and thereby has met an important requirement for a transparent and continuous improvement process. This validation was only possible with intensive participation of a highly diverse group of university divisions. A sustainability-oriented business trip policy with CO₂ pricing and its own climate protection budget is being prepared. The Mission Statement for Teaching and Learning developed in 2020 and 2021 names sustainability specifically as one of key dimensions. The “Blooming Campus” initiative succeeded in quickly inspiring and changing green space management. A new ideas and innovation management system was established successfully. It got off to a promising start with the first call - FUturst - in November 2021 and 28 proposals submitted. We now have the opportunity for new initiatives, narratives, and communities to develop and in the best case “go viral” and spark ideas for new “living labs.” The new Energy Security and Energy Efficiency Working Group opens up the opportunity for the university to continue with renewed strength the successes it has already achieved in energy saving.

This report has more detailed information about these activities. We extend our warm invitation to you to participate. Universities should be a place for the creative and lively exchange of ideas - and also enable their implementation.

We are looking forward to hearing from you.

Andreas Wanke



DEFINING RESPONSIBILITIES
AND ENABLING PARTICIPATION

GOVERNANCE

SUSTAINABILITY MANAGEMENT – KEEPING AN EYE ON THE WHOLE INSTITUTION

Engagement with sustainability and climate protection is anchored deeply in the research and structures of Freie Universität Berlin. Engagement with questions of environmental and resource protection in the context of research goes back to the 1980s. Freie Universität has been conducting active climate protection within its own institutional sphere of responsibility for over two decades. In 2001, it founded an internal energy management program and developed its activities step by step from a certified environmental management system to a holistic sustainability management approach.

Orientation toward sustainable development was anchored in all divisions of the university already in the Sustainability Mission Statement published in 2016. In late 2019, Freie Universität was the first German university to declare a climate emergency. With this, the university set the goal of taking into account the effects on the climate in all decisions and planning and to achieve climate neutrality by 2025. This goal refers to the greenhouse gas emissions resulting from campus operations and business trips.

Governance

Freie Universität Berlin sees sustainability and climate protection as a task directed at all divisions of the university. The Sustainability and Energy Management Unit has been directly assigned to the Executive Board since 2015. Its activities include a wide range of tasks, the scope of which is based on the Sustainable Development Goals (SDGs) approved by the UN in 2015. The director of the Management Unit is concurrently the Environmental Officer as defined by the European Union's Eco-Management and Audit Scheme (EMAS).

The general responsibility for the university's sustainability management lies with the provost. Additionally, the Vice President for Research is responsible for sustainability in research and teaching. With this governance structure, Freie Universität demonstrates that sustainable development is both a leadership and an integration task and is related to all fields of university activities.



Tasks of the Sustainability and Energy Management Unit

The Sustainability and Energy Management Unit, comprising 13 staff members and five student assistants (as of 2022), covers a wide range of sustainability-related tasks. It is responsible for coordinating the Steering Committee on Sustainability and Climate Protection established in 2020, managing the idea and innovation management system set up in 2021, and coordinating the field of Sustainable Development within the interdisciplinary competence area General Professional Skills Courses (ABV). It also is responsible for the waste, energy, mobility, and environmental management of the university. The unit is also in charge of the development of the integrated management system (AGUM) and the corresponding certification process in accordance with the European Union's Eco-Management and Audit Scheme (EMAS). Moreover, it also represents Freie Universität Berlin in several international sustainability networks.

Despite this pooling of various functions, sustainability management remains a cross-sectional task that can only succeed if as many university members as possible work together. This is one reason why participatory formats, discussion programs, and network activities are indispensable for our university's sustainability efforts.

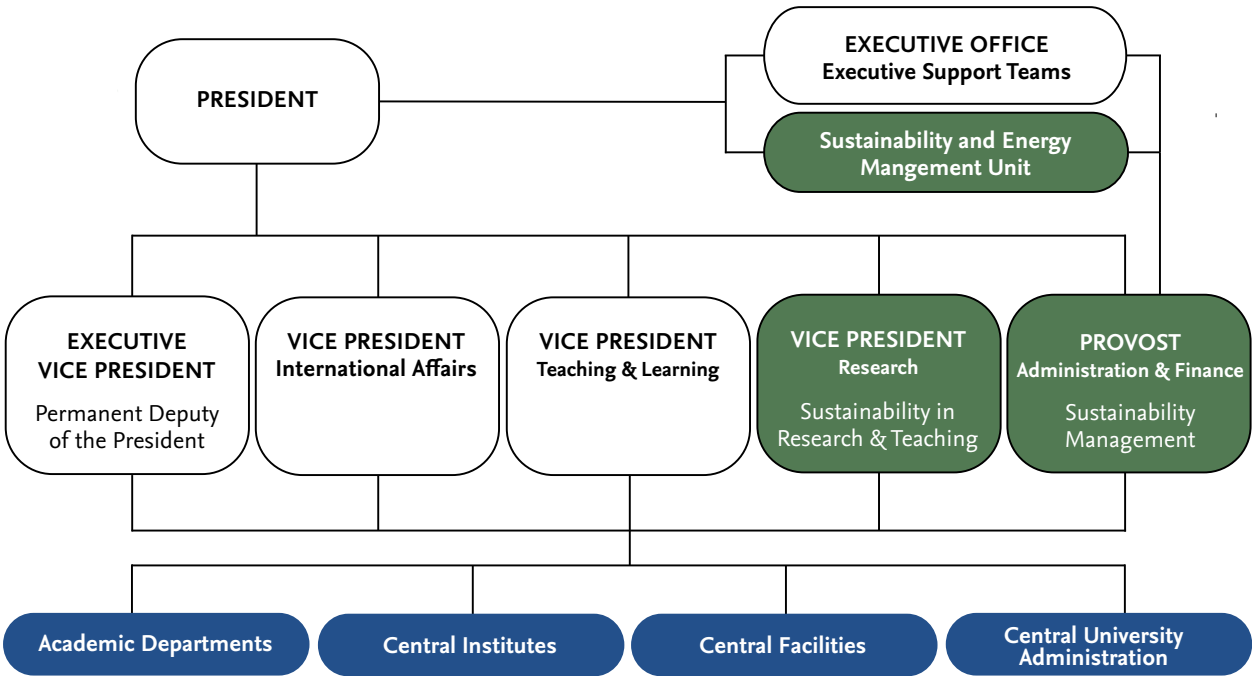
Integrated Management System AGUM and Validation as per EMAS

Freie Universität’s environmental management looks to the Eco-Management and Audit Scheme (EMAS) developed by the European Union. In order to ensure a high degree of transparency, EMAS-registered organizations must publish annual environmental reports. Freie Universität Berlin submitted this report in September 2021.

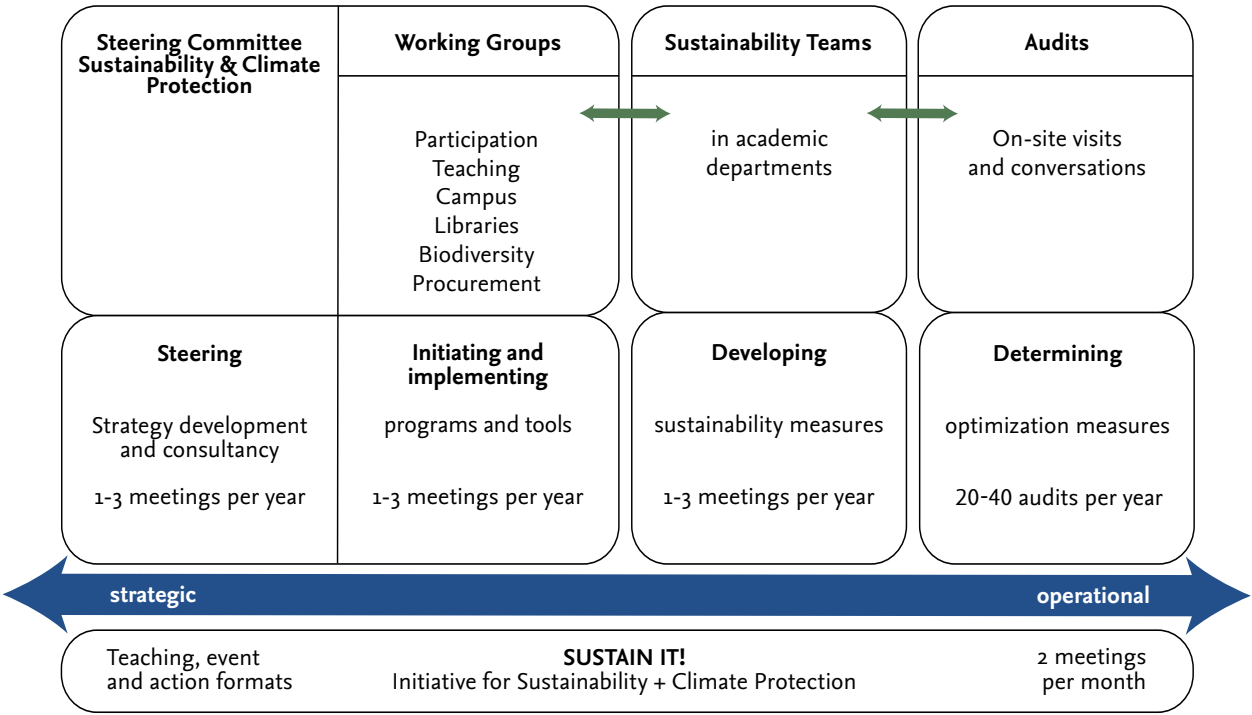
The integrated management system AGUM (work safety, health, and environmental protection management system) is now a solid component of the university’s sustainability management. It merges all information and specifications that are relevant to work safety and environmental protection at Freie Universität and adjusts them to correspond with changing legal requirements. Its primary goal is to make complex legal regulations transparent for those who systematically collaborate with them on a day-to-day basis. AGUM also provides users with specific information and communication tools. Its main target groups include senior management and staff members with special tasks, such as security, first aid, and fire safety representatives.

The system is available to all university members as an information platform on the Intranet. However, AGUM has also partly a binding regulation. To familiarize those who are most affected by AGUM and receive hints for possible adjustments and optimization, the Sustainability and Energy Management Unit regularly offers introductory workshops. The validation as per EMAS is based on the management specifications of the system, such as for regular internal audits, environmental protection programs and management reviews. It is the foundation for continuous improvement processes in all sustainability and environmental protection matters and also ensures that the university is in compliance with the law.

Organizational Chart



Governance- and Participation Structure



Implementing the Declaration of Climate Emergency

Freie Universität became the first German university to declare a climate emergency in December 2019. This declaration addresses seven subgoals, most notably to consider climate protection in all university plans and decisions and to achieve climate neutrality by 2025. The strategic options for implementing the Declaration of Climate Emergency have been continuously discussed in the Sustainability and Climate Protection Steering Committee established in 2020. The Committee, led by the Vice President for Research, met six times during the reporting period 2020/2021. After an initial workshop in January 2020 devoted to the elaboration of the entire range of topics, the Committee has concentrated on identifying measures for reaching climate neutrality.

The strategic options are:

- increasing energy efficiency by a further 10% by 2025;
- higher use of renewables (by installing photovoltaic and thermal solar systems or changing to green district heating and biogas);
- introduction of a business trip policy with required reduction targets and the introduction of a compensation mechanism;
- realization of internal compensation projects (such as the production and sale of biochar as a negative emissions technology);
- introduction of an innovation and ideas management system for promotion of climate protection projects and living labs.

One focus of the work of the steering committee has been the development of a new business trip policy (please see p. 59). The Sustainability and Climate Protection Steering Committee submitted a recommendation paper to the Executive Board in July 2021 and in October 2021 the fundamentals of it were approved.



The University as a Place where Society's Future is Created

Sustainability management at Freie Universität Berlin adheres to a whole institution approach. This means embracing the idea of the university as a place where society's future is created. Important impulses for sustainability-oriented activities can follow from the corresponding integration of various university disciplines and areas.

Living labs are a key instrument for realizing this integration, as they foster systematic collaboration between research, teaching, and campus management. For example, a joint initiative comprising researchers, students, and employees started the Blooming Campus project in 2019 to improve biodiversity on campus, and this project will be further developed in the future.

Growing out of a research project in the Department of Earth Sciences, the university has also commissioned a feasibility study about how biological waste of Freie Universität Berlin and the local district can be used to close resource cycles. Carbonization of biological waste produces heat for buildings and biochar that can be used for soil improvement and as an additive to compost. The results of the feasibility study about this negative CO₂ emissions technology was presented to the Sustainability and Climate Protection Steering Committee in August 2020.



OUR UNIVERSITY TAKES THE TOPIC OF SUSTAINABILITY TO ITS HEART

Interview with Prof. Dr. Marianne Braig
Vice President for Research and
Responsible for Sustainability in Research and Teaching

Prof. Braig, when you became Vice President for Research in early 2021, you specifically asked for the responsibility for sustainability in research and teaching. Could you tell us about your reasons for this?

As a researcher I have engaged for many years with sustainability topics, in particular in connection with the question of social inequality in Latin America. In this way it was natural for me to take up this topic in my area of responsibility as Vice President. An important aspect for me was also that this is a highly relevant cross-cutting topic with diverse impulses for integration into the university.

What do you have in mind specifically?

All disciplines of the university contribute their specific scientific findings to the different aspects of sustainability. This report illustrates this in the overview of the anchoring of the Sustainable Development Goals (SDGs) in the various faculties of the university. This range opens up diverse opportunities for cooperation and networking across the faculties on various topics, for example between Earth Sciences, Biology, and Social Sciences. These contribute to the particular richness of a university. At the same time, these opportunities come with challenges. After all, we are all confronted with global problems such as the climate crisis and the biodiversity crisis. As a university, we try to develop approaches to solutions through interdisciplinary cooperation and can hopefully also make a substantial contribution to solutions.

You were not yet a member of the Executive Board at the time of the approval of the Declaration of Climate Emergency in December 2019. How do you evaluate this commitment of Freie Universität Berlin?

The Declaration of Climate Emergency sent a clear message about the urgency of the topic both within and outside of the university, which in retrospect happened early in Germany and also in the international context. Today the topics of climate protection and sustainability are important in all university networks and in our bilateral partnerships. The early timing

was due to both the initiative of students from the Student Plenary in June 2019 and also the pathbreaking preparations of our university. Freie Universität Berlin has had active energy and climate protection management for almost 20 years. This is why new impulses can be linked with substantial experience and expertise. Linking these two elements will be an essential factor in our future activities.

You also chair the Sustainability and Climate Protection Steering Committee that was established in 2020. What were the main results of this committee's work?

This new steering committee has further institutionalized the sustainability management at our university. Until now we have mostly taken up the topic of climate neutrality in the steering committee because this is where we must take actions as quickly as possible. One specific result is a recommendation for a new business trip policy that the Executive Board discussed extensively in October 2021 and recommended that it be developed further.

Dr. Braig, you are not going to run again for the position of Vice President. Are there one or two thoughts that you would like to pass on to your successor?

Two experiences are particularly important for me. First, the pandemic has shown that an international network university like Freie Universität Berlin can link the tasks of internationalization and climate protection. We should build on this experience and develop further our instruments. Second, we introduced climate protection and energy conservation measures at a very early point in time, and thereby are well prepared for delivering what government and society expect from us. It is particularly important for a university that is strong in research to participate in discussions and react productively to the changing conditions of research institutions. In excellent international research and promotion of young researchers – it is in my opinion – important to bring climate protection and mobility together in an intelligent way.



DESIGNING A LIVELY FUTURE

Interview with Sabine Heckmann
Coordinator for Innovation and Ideas Management
Sustainability and Energy Management Unit

Ms. Heckmann, you have been the Coordinator for Innovation and Ideas Management at Freie Universität Berlin since July 2021. What does this role entail?

Innovation and ideas management encompasses the planning and organization of innovation processes related to sustainability. It is already explicitly mentioned in the Declaration of Climate Emergency. In order to reach its goals, the institution must develop change processes. For us, it is an opportunity to build idea communities that develop and implement innovations focused on sustainability in our university and in our networks.

How is sustainable development related to innovation and ideas management?

Universities can play a large social role and give important transformational impulses with respect to sustainable development. Innovation and ideas management aims to change processes, structures, and cultures to contribute to the future viability of the university. In 2021 the first call for proposals was announced under the FUTurist program.

What were the aims and selection criteria of the call for proposals?

The FUTurist program starts with the question of how sustainable development can be implemented at a university. The call for proposals offers all members of the university the opportunity to participate in the change processes for climate protection and sustainable development. The call for proposal supports ideas that can make a direct contribution to the Declaration of Climate Emergency. The projects that are selected receive initial funding of 5,000 euros and are supported by us at the implementation stage. Our goal is to have these ideas within our university catch on and grow.

Which concrete ideas were selected, and why?

Of the 28 applications, 15 made it through the first round because they were well-considered, interesting, and innovative ideas. The eight members of the advisory board then selected nine of these. The projects

address both the institutional and the individual level. They offer new impulses in the areas of mobility, food, and sustainable procurement, health, and energy-efficient behavior. They develop solutions for conserving biological diversity on our campus, for new teaching subjects in economics, and for the design of urban ecosystems. The breadth of their content is thereby quite large, and the FUTurists come from all divisions of the university. They are students, lecturers, professors, and also employees from the administration.

What are the further plans for the call for proposals?

The FUTurists began to develop the implementation of their projects on February 1, 2022. They are networked together and are working out their ideas now. They benefit from the recommendations of the advisory board but also from each other. In networking meetings, they share information, clear up shared questions, or link their activities together. The university community hears about the communication channels of the projects and their effects as part of "Sustainability Days – Make the Future Yourself." At this event, the FUTurists will present their projects and the results achieved so far. Some projects have longer-term goals and will be continued.

What is the plan for further calls for proposals after FUTurist?

Members of the university often have similar ideas about how they can be more sustainable. It would be useful to have a networking platform so that they can know about each other, join together, or help each other. We are working on this with the IT division of the university. In addition to the FUTurist program, there are going to be two further calls for proposals, for living labs and for community engagement.

Where does Freie Universität Berlin see itself in 2025?

I emphasize a whole network approach, so that the university is not only networked internationally, but also increasingly with regional initiatives, the local district, neighbours, and within the city, in order to pool the available resources.



IN THE CONTESTED SPACE BETWEEN ANIMALS, HUMANS, AND THE ENVIRONMENT

The Sustainability Team of the Department of Veterinary Medicine

Dr. Giuliano Mario Corte, Institute of Veterinary Anatomy | **Nora Döscher**, Veterinary Medicine student
Dr. Anika Friese, Institute for Animal Hygiene and Environmental Health | **Hela Lange**, Sustainability and
 Energy Management Unit | **Martin Lippold**, Veterinary Medicine student | **Dr. Tobias Ripp**, Department Library
Karsten Schomaker, Administration Management | **Prof. Dr. Christa Thöne-Reineke**, Institute of Animal Wel-
 fare, Animal Behavior and Laboratory Animal Science | **Janet Weigner**, Institute of Veterinary Anatomy

Anatomy, animal hygiene and environmental health, animal welfare, animal behavior and laboratory animal science, as well as degree programs and departmental administration: these are the themes that shape the work of the Department of Veterinary Medicine every day. The inaugural meeting of the Sustainability Team was held digitally on March 23, 2021, the first anniversary of the start of the Covid-19 lockdown. Taking up the initiatives of Freie Universität Berlin, we are pleased to actively contribute to the design of a process of sustainable development in the Department of Veterinary Medicine. Looking back on previous departmental activities, as well as the approaches of our university as a whole, we quickly came to the conclusion that we will dedicate ourselves over the next two years to the topic of sustainability in the education of our students as well as – given the current circumstances - the further digitalization.

The Teaching Team of the Sustainability Team will anchor the theme of sustainability in the curriculum of the Veterinary Medicine degree program. Nora Döscher (student), Dr. Anika Friese (veterinarian), and Prof. Christa Thöne-Reineke collaborated to develop a required course that will be held for the first time in the 2022 summer semester. Following an introductory session, external experts will speak on and discuss with students specific aspects of the complex subject matter. Among the focus areas:

- Livestock farming in sustainable agriculture: animal welfare and animal protection.
- Circulations in agriculture: soil fertility and cultivated land diversity in the context of livestock farming.
- Economic aspects of livestock farming: indirect subsidies through socializing the costs of keeping livestock.

The course is supplemented by a field trip to an organically operated farm with livestock.

The Digitalization Team led by Dr. Giuliano Mario Corte and Dr. Tobias Ripp tackles strategies for optimizing digital offerings and internal work processes in the Department of Veterinary Medicine. Cross-institute communication platforms should help to op-

timize resource usage, strengthen the networking of the department and to reduce the incidence of physical (internal) mail to as little as necessary. This requires coordinating the infrastructure with the equipment and continuous training of employees in the use of digital tools. The department has already successfully established a resource-saving digital processing of dissertation procedures. Additional research and teaching materials supplement the veterinary medicine department library. They allow flexible learning and working from home including outside of standard opening and business hours and help furthermore to save resources such as paper and energy.

The Department of Veterinary Medicine at Freie Universität Berlin

has a history going back to 1790 when veterinarians were first trained. As one of five German training institutions for veterinary medicine, with its more than 500 employees it is a widely renowned center for the veterinary training, research, and veterinary services. The research focus areas are infectious diseases, resistance research, animal protection, the principles of the 3Rs for avoidance of animal experimentation, and the safe production of high-quality food. The department feels a particular obligation to the One Health concept (the inseparability of the welfare of animals, humans, and the environment). In its teaching and research, it focuses on the following subjects:

- Optimal animal care based on evidence-based veterinary medicine.
- Ensuring the production of high-quality food of animal origin.
- Health and welfare of humans through tests for zoonotic infectious diseases and research on the underlying illness and resistance mechanisms.
- Animal welfare in the contested space between animals, humans, and the environment.



TEACHING FOR A
SUSTAINABLE WORLD

TEACHING

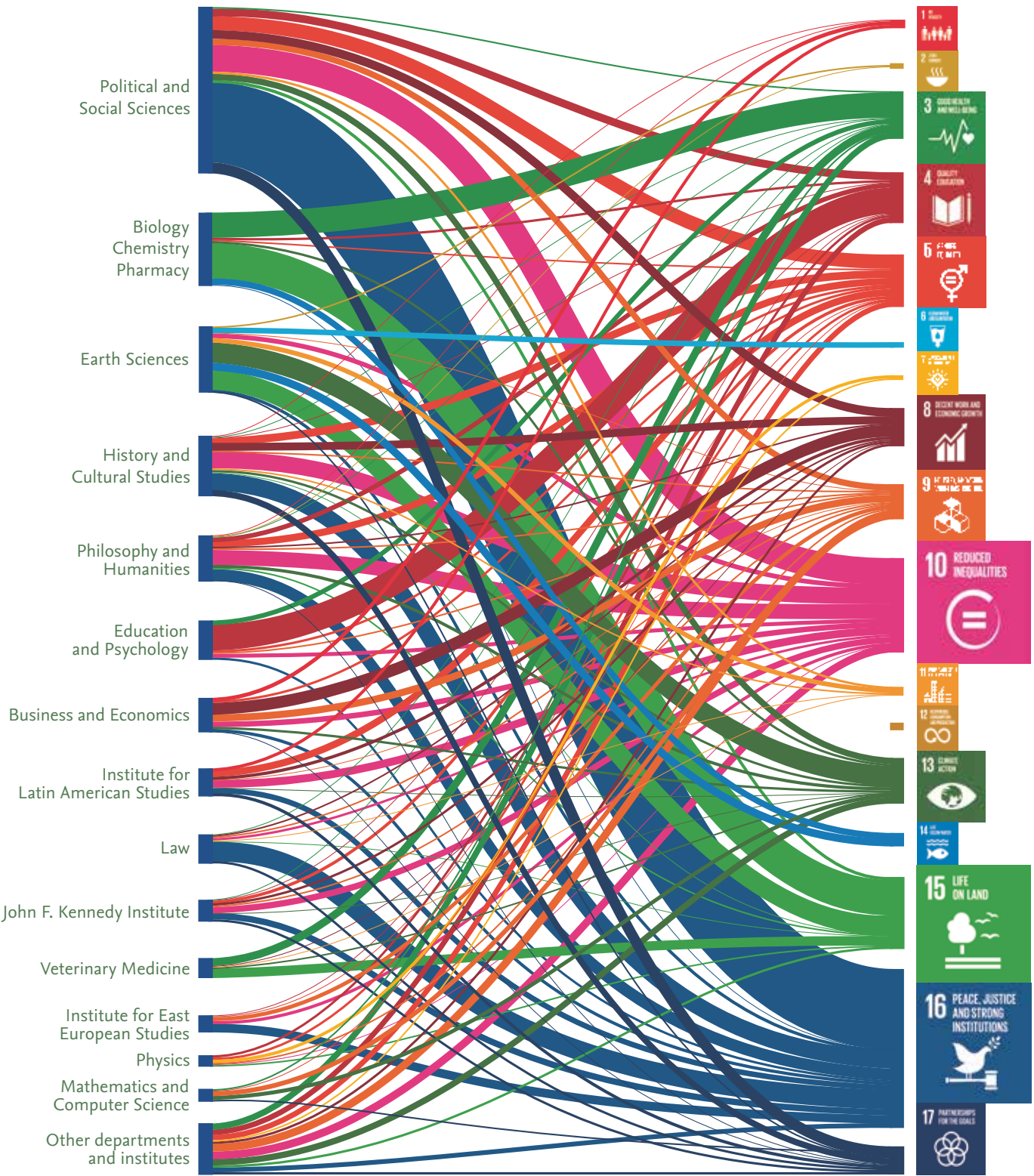
TEACHING AT A GLANCE

Since the 2016 summer semester, the Sustainability and Energy Management Unit has been evaluating all courses, to map how many of them address sustainability. The survey is based on the course titles and descriptions from Freie Universität’s course catalog in combination with criteria for courses related to or focusing on sustainability. The 17 Sustainable Development Goals (SDGs) form the basis of these criteria.

The evaluation of the 2021/22 winter semester shows that 725 (16.1 percent) of the 4,507 surveyed courses relate to sustainability, of which 203 (4.5 percent) focus on sustainability. Compared to the year before, this is a decrease of 4.8 percentage points, but looking at the big picture since 2016, it is an increase of 3.7 percentage points. The decrease from the previous year is due to revised and more restrictive evaluation criteria. As in previous years, the Department of Political and Social Sciences offers by far the highest number of courses related to sustainability, (24 percent), followed by the Department of Biology, Chemistry, and Pharmacy (12 percent). The SDGs 16 (Peace, Justice, Strong Institutions), 10 (Reducing Inequality), and 15 (Life on Land), and 4 (Quality Education) were addressed most often in the university’s courses, similar to previous years. The new feature of this analysis is that up to three SDGs are assigned to each course in order to more adequately capture the content of teaching that addresses multiple goals in an interdisciplinary way.

The sustainable development competence area relies on blended learning

The Sustainability and Energy Management Unit has been coordinating the Sustainable Development Competence Area in the General Professional Skills Courses (ABV) since the 2018/19 winter semester. This area is marked by diverse project seminar offerings and a lecture series tailored for students across all modules. After teaching was largely online from the 2020 summer semester through the 2021 summer semester, in the 2021/2022 winter semester teaching used largely blended and hybrid formats in order to balance between the requirements of public health protection due to Covid-19 and the desire for direct exchanges. The experience with these were largely mixed, also due to a growing “online fatigue” that became tangible over time. For the 2022 summer semester, we are working on creative solutions to allow as much in-person teaching as possible.



COURSES
mapped to Sustainable Development Goals and academic departments

4,507

Courses total
Winter Semester 2021/22

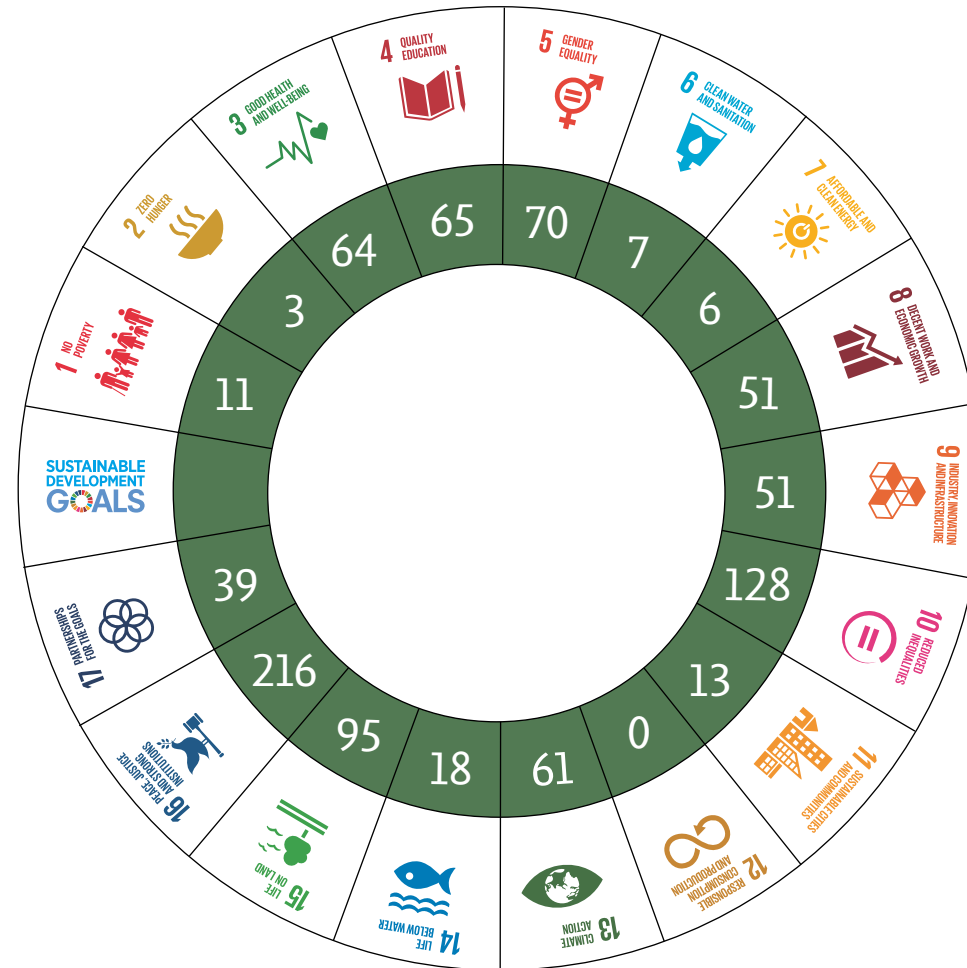
725 | 16 %

thereof Sustainability-
Related Courses

203 | 4.5 %

thereof Sustainability-
Focused Courses

Courses sorted according to
Sustainable Development Goals
In 2021, for the first time up to three Sustainable Development
Goals were assigned to each course.



Courses sorted according
to academic departments

Political and Social Sciences	175
Biology, Chemistry, and Pharmacy	84
History and Cultural Studies	67
Earth Sciences	62
Philosophy and Humanities	53
Education and Psychology	49
All other departments & institutes	235
Total	725

Courses related to sustainability address at
least one of the UN SDGs, while courses with
a focus on sustainability address the SDGs in
a focused or interdisciplinary manner.

Establishing the Module Education for Sustainable Development (ESD)

Freie Universität's degree program in elementary school pedagogy entails a supplemental study area. Within this area, the ESD pilot seminar that had emerged from a collaboration between the Sustainability and Energy Management Unit and the Dahlem School of Education (DSE) is now an officially elective module in the Bachelor's and Master's programs; this change comes into effect in the 2022/2023 winter semester.

ESD Workshop for Lecturers

The program SUPPORT for Teaching of the Dahlem Center for Academic Training (DCAT) has a diverse offering of workshops and courses for lecturers to build their teaching competence. In June 2021, together with Institut Futur, a module was offered for the first time that introduces lecturers to sustainability-oriented university teaching through the concept of ESD. The full-day workshop "Sustainability in My Teaching? Theory and Practice of a Future-Oriented Didactics" took place digitally with 12 participants, and a follow-up is being planned in 2022.

Mission Statement for Teaching and Learning

A diverse set of university divisions and working groups contributed to the Mission Statement for Teaching and Learning of Freie Universität in 2020 and 2021. This took place within the strategic process "Teaching and Learning in 2030. Building the Future Together." The Mission Statement formulated basic goals for university education and serves as an orientation framework for the departments and (de-)central institutes for ongoing implementation and further development of their teaching and learning strategies as well as their course and service offerings.

The cross-cutting theme of sustainability was embedded in the mission statement as one of eight key dimensions of good teaching and learning. Freie Universität thus acknowledges its responsibility for shaping sustainable development and for creating appropriate teaching and learning formats that incorporate different disciplines, methods, and perspectives for all university members. Other mission statement key aspects include academic rigor and research-based teaching, an open space to develop ideas and competencies, interdisciplinary synergies, fostering innovation, internationality, diversity, and digitalization.

QUOTE FROM THE MISSION STATEMENT FOR TEACHING AND LEARNING

Freie Universität Berlin is dedicated to fulfilling its responsibilities in terms of local and global sustainable development. Sustainability is a prominent aspect of learning and teaching at our university as well as life on campus in general.

As an institution that is preparing the policymakers of the future through its degree programs, we incorporate this awareness into our courses by taking into account different disciplines, methods, and perspectives.



Issues related to climate change as well as social and ecological transformation are addressed in courses open to all members of the university.

This means that we offer unique teaching and learning formats that benefit greatly from increased interdisciplinary and transdisciplinary collaboration. Set against this backdrop, teaching and learning take on a particularly important role as a space for experimentation and creation.





RESEARCHING FOR
A SUSTAINABLE WORLD

RESEARCH

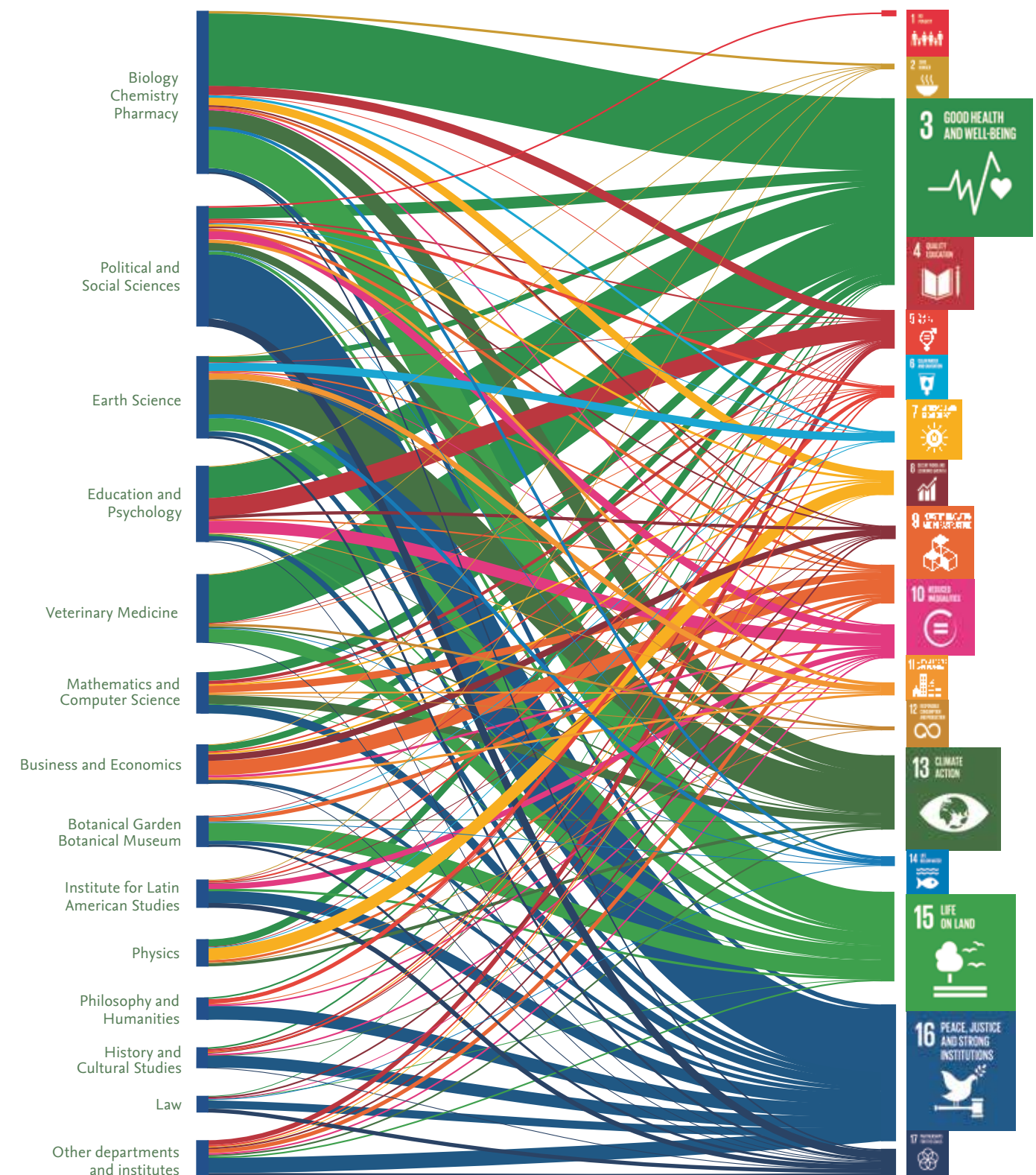
RESEARCH FOR SUSTAINABLE DEVELOPMENT

Freie Universität Berlin has been addressing aspects of sustainable development in its research and teaching for decades. Examples include the Research Centre for Sustainability and Institut Futur, but also biodiversity research or meteorology exemplify respective research activities conducted within the entire university.

In comparison to 2019, the number of sustainability-related third-party funded research projects at Freie Universität Berlin increased. 744 (42 percent) of 1,776 projects in 2021 addressed sustainable development issues. This is a much higher share than in 2019 (37 percent). 12 percent of the projects (217) focused on sustainability. New in this year's analysis is that not only one but up to three SDGs are allocated to each research project, in order to more adequately capture the content of research projects that address multiple goals in an interdisciplinary way.

Sustainability-related research projects increased because of studies investigating the new coronavirus, Covid-19 illnesses, and the consequences of the pandemic for health and society. The Institute of Chemistry and Biology managed to produce materials that destroy the membrane coating of particles of the Covid-19 virus. Researchers at Charité – Universitätsmedizin Berlin, the Max Delbrück Center for Molecular Medicine, and Freie Universität Berlin addressed the subject of lung damage caused by Covid-19 illness. A team at the Berlin University Alliance consisting of researchers from the Max Planck Society, Freie Universität Berlin, Humboldt-Universität, Technische Universität Berlin and Charité investigated the psychological effects on Berliners of the pandemic-related restrictions in the project CovSocial. Researchers of the German Institute for Economic Research and Freie Universität Berlin analyzed changes toward gender roles during pandemic-related closures of schools and day care centers.

Taken as a whole, all disciplines contributed to research on sustainable development, yet four departments emerged with respective focus areas: Biology, Chemistry and Pharmacy; Political and Social Sciences; Education and Psychology, and Veterinary Medicine. Of the 17 UN SDGs, research projects most often addressed the goal of Health. Peace, Justice and Strong Institutions, Life on Land, and Climate Action also received above average representation.



RESEARCH PROJECTS
mapped to Sustainable Development Goals and academic departments

BIODIVERSITY FOCUS

The 117 research projects dealing with SDG 15, Life on Land, constitute a focus of research at Freie Universität Berlin. 43 of them address the topic in a focused and interdisciplinary manner. Scientists in these projects are affiliated mostly with the Department of Biology, Chemistry, and Pharmacy and the Botanical Garden.

Construction activities also reflect the focus on the topic of biodiversity. A new biodiversity science building is under construction at Königin-Luise-Str. 28-30 in Dahlem under the leadership of the Leibniz Institute for Freshwater Ecology and Inland Fisheries (IGB) and Freie Universität. The researchers of Freie Universität are focusing on biodiversity on land while the IGB researchers focus on biodiversity in water.

Further research activities in the field of biodiversity include the following projects and alliances:

The Berlin-Brandenburg Institute for Biodiversity Research (BBIB) is a consortium of university and non-university institutions conducting research on biodiversity. The BBIB center is located on the Berlin-Dahlem campus and is under the management of the Institute of Biology at Freie Universität. The overarching goal is to build bridges among the disciplines, spatial scales and biological systems that are usually considered in isolation in biodiversity research.

The EU Horizon 2020 project Marine Coastal Ecosystems Biodiversity and Services in a Changing World (MaCoBioS) of the Department of Earth Sciences aims to develop efficient and integrated management as well as conservation strategies for European marine coastal ecosystems in the face of climate change. To this end, a multidisciplinary team of experts is researching the effects of climate change on the most important ecosystems such as seagrass beds, coral reefs, mangroves, coral and calcareous bioconcretion communities, salt, marshes, and seaweed forests.

At the Department of Veterinary Medicine, researchers are investigating endangered penguins in the project African Penguins and the Blue Economy: Building a Foundation to Prevent Extinction. The animals, which are native to South Africa and Namibia, serve as bioindicators for the state of the ecosystems. The project optimizes protection measures actively involving interest groups in identifying the factors responsible for population declines. In addition, it provides key data and models to help develop strategies and monitoring tools as early warning systems.

Researchers in the Department of Political and Social Sciences are investigating global and cultural value conflicts in wildlife perceptions. Concern for endangered species has increased over the past decades around the world. Conflicts concerning the protection and consumption of animals articulate three core domains of today's anthropological research: the study of moral economies, globalization processes, and human-animal-relationships. The project Affective Trades – Global Values Conflicts and Humans' Perceptions of Wildlife investigates these three themes taking the moral economy as the central dimension.

1,776

Research Projects
Total 2021

744 | 42 %

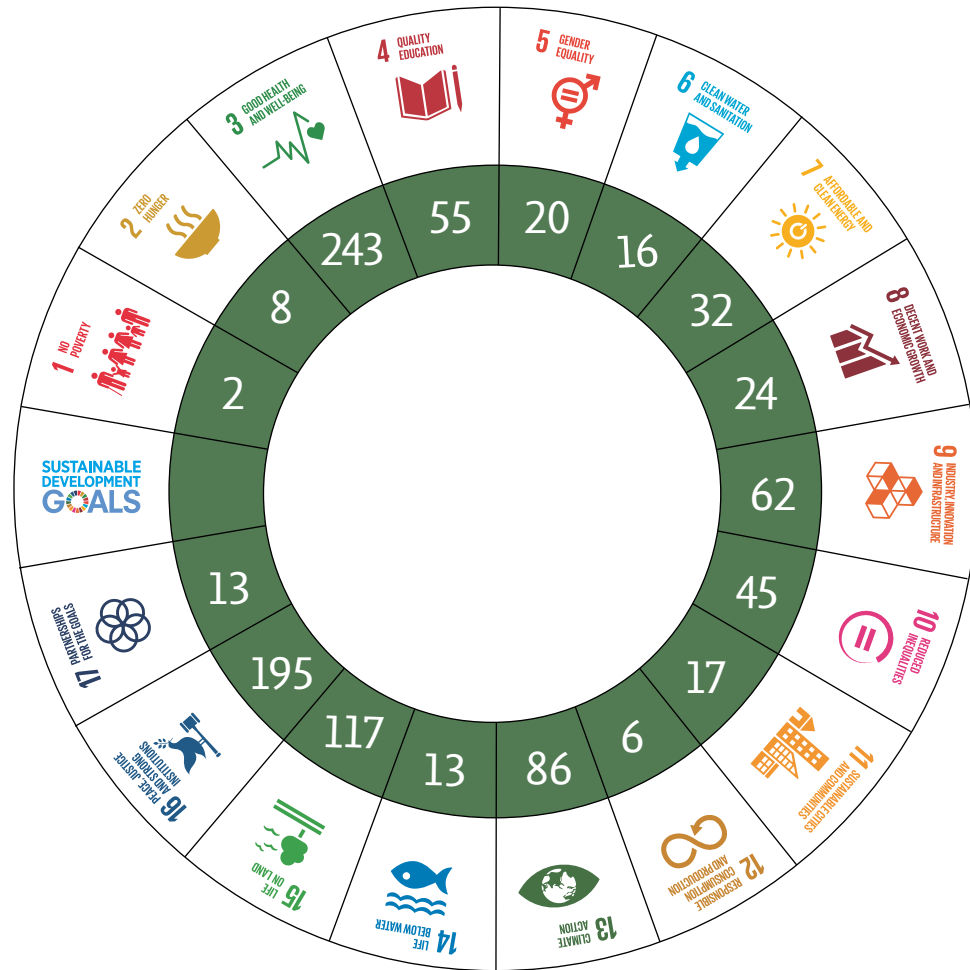
thereof Sustainability-
Related Research Projects

217 | 12 %

thereof Sustainability-
Focused Research Projects

Research Projects sorted according to Sustainable Development Goals

In 2021, for the first time up to three Sustainable Development Goals were assigned to each project.



Research Projects sorted according to academic departments

Biology, Chemistry, and Pharmacy	162
Political and Social Sciences	103
Education and Psychology	82
Veterinary Medicine	78
Earth Sciences	65
Mathematics and Computer Science	48
All other departments & institutes	206
Total	744

Research projects related to sustainability address at least one of the UN SDGs, while research projects with a focus on sustainability address the SDGs in a focused or interdisciplinary manner.



SOIL AS THE KEY TO UNDERSTANDING ANTHROPOGENIC INFLUENCES

Interview with Prof. Dr. Matthias Rillig
Institute of Biology / Ecology of Plants

Prof. Rillig, you are the director of the Berlin-Brandenburg Institute for Biodiversity Research (BBIB) and head of numerous research projects on the subject. What role does biodiversity research play for Freie Universität Berlin?

I think that Freie Universität has decided to take on a leading role here. You can see that in investments in the university's buildings, such as the new biodiversity science building under construction. You can see it in the professorships that have been increasingly established in this area of research and, last but not least, this is also reflected by our leadership of the BBIB, the Berlin-Brandenburg Institute for Biodiversity Research.

Your research focuses on the biodiversity of the soil. How did you become interested in this?

It has been a bit of a strategy, as I have been considering in which area there are a lot of unknown aspects. And secondly, soil is simply amazingly interesting. It is one of the most species-rich habitats of all. One quarter of all known species live there. Under one square meter of healthy soil up live to 1.5 kilograms of organisms, including roundworms, springtails, insect larvae and a variety of microorganisms, including bacteria, protists, and fungi. They consume and convert live and dead animal and plant material into nutrients that become the basis for growth and new life. Without soil organisms, no plants could grow, and no people could live.

Given these challenges, why does global research not focus more on soil ecology?

Soil biodiversity is not so easy to convey. It is not cuddly, it is not attractive, it is actually inaccessible to all our senses, and almost everything is microscopic. It is much easier to make an emotional connection with and therefore generate interest in other biodiversity topics, such as mammals or birds. Meanwhile, however, concern about soils has indeed been growing, and I notice that in my own family as well, for example with the issue of plastics in soils.

In which specific areas does your current research focus?

At the moment, our main interest is in the impact of global change. We understand global change as a multidimensional problem that includes not only anthropogenic climate change, but also pollution, invasive species, nitrogen from the atmosphere, and microplastics. Climate change is only a very small part of it, and it is our job to figure out what happens when all these factors interact. That is difficult, because usually we only look at one or two factors and not ten. How to bring this complex set of facts together, and how to methodologically implement it and to study how biodiversity responds to it: Understanding that is a major challenge.

Is biodiversity research now indispensably linked to global change?

Not necessarily. But the reality is that there is no such thing as a pristine ecosystem, not even on an island in the middle of nowhere, that is just a fantasy. Microplastics are raining out of the atmosphere everywhere, and CO₂ concentrations are elevated everywhere in the atmosphere. That is why it is important to look at biodiversity itself, to try to understand how it is created, how it functions, how do species interact to generate ecosystem processes, how can they be protected, and how can you restore biodiversity. Ultimately, global change will always play a role. We cannot afford to ignore it.

Where do you see potential for biodiversity research at Freie Universität Berlin in the future?

Above all, we want to further expand biodiversity as a cross-cutting topic, since many other disciplines are involved. Statistics and big data are major topics, but also socioeconomic factors or policy aspects. We want to increase cooperation in the future, for example with the Research Center for Sustainability (FFN). And then we have a lot of open spaces and buildings at the university. We could think about how to store carbon in the soil or on the roofs. I see enormous potential in that for a climate-friendly university.



UNDERSTANDING, LINKING, AND NETWORKING

Biodiversity Research at the Botanic Garden

Prof. Dr. Thomas Borsch
Director of the Botanic Garden Berlin

The Botanic Garden Berlin with its unique garden and greenhouse facilities, educational offerings and the Botanical Museum is widely known as a place of education and recreation. Far less present in the public eye is the role of the Botanic Garden as a hub of international biodiversity research. It forms the largest university natural history research collection in Germany, with around four million specimens in the herbarium, almost 20,000 species in the garden and the greenhouses, with the Dahlem Seed Bank and the DNA Bank. What makes the Botanic Garden special is that it links all of these resources digitally and makes them publicly available, since new insights are created by linking data.

The acceleration of species extinction is one of the most pressing challenges of our time. In order to counteract this, the endangered species must be known and their functions in the ecosystem must be understood. At the Botanic Garden, the evolution and diversity of species are studied primarily based on the collections. This is the prerequisite for developing strategies for their conservation. The methods of modern evolutionary biology and DNA sequencing now enable new insights into the relationships and delimitation of species. With the help of the methods of integrative taxonomy, which use information from various sources and datasets, researchers are gaining new knowledge that form the basis for the scientifically correct description and naming of species. In the process, they discover numerous new species every year.

Over the next ten years, the Botanic Garden plans to digitize all four million specimens in the Berlin herbarium and make them publicly accessible via international data infrastructures. So far, around 20 percent of the herbarium specimens are available digitally. The dried and pressed plants have been collected over three centuries and serve as indispensable ref-

erence objects for recording biodiversity. Thousands of new specimens are added each year. The goal is to understand how biodiversity is changing and why, both in Earth's history and currently. By 2030, the goal is to create a networked botany data infrastructure that connects objects and data, images, and research results across institutions.

In addition to the global approach, the Botanical Garden also supports the specific protection of species. The nationwide wild plant conservation project WIPs-DE II, funded by the German Federal Agency for Nature Conservation with funds from the German Federal Ministry for the Environment, collects the seeds of endangered species and stores them in four regional seed banks. These can be made available for reintroductions and for population support of endangered species in the wild as well as for research projects.

The Botanic Garden records the endangerment status of rare and endangered species in Red Lists and participates in projects for the protection of endangered species and habitats. In the next ten years, a monitoring system is to be established which will make visible systematically the creeping and invisible loss of diversity in order to derive specific recommendations for practical action.

The future focus will be on the strategic expansion of existing international networks. Additional partners will be acquired in Europe, the Mediterranean region and the Caucasus, and other regions to enable a complete inventory of the flora of Europe and neighboring areas with the Euro + Med Plantbase. In line with activities ranging from the local to the international level, the mission statement of the Botanic Garden is: The Botanic Garden – International Knowledge Hub for Botany. Rooted in Berlin, connected with the world.



TRANSFER FOR KNOWLEDGE
FOR SUSTAINABLE DEVELOPMENT

DIALOGUE

IN EXCHANGE WITH SOCIETY

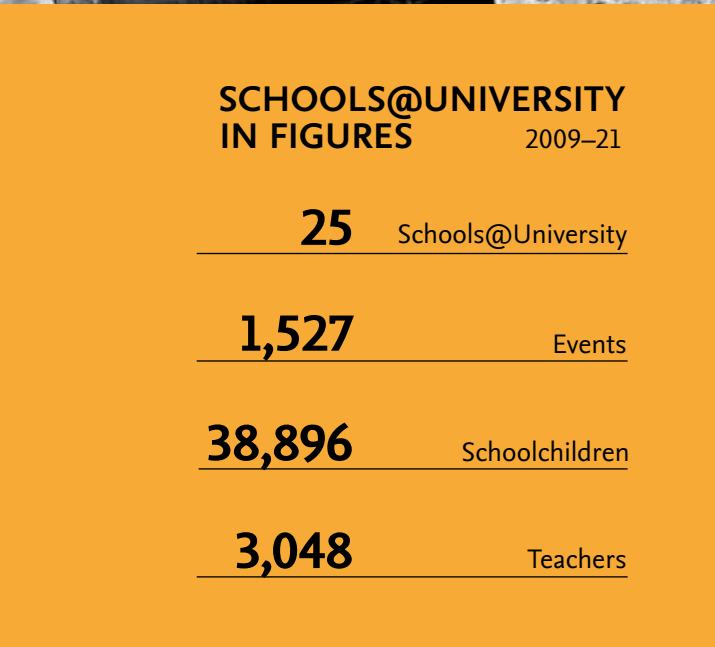
Freie Universität Berlin aims to foster exchange with a range of societal stakeholders to help transfer knowledge and insights from research, teaching, and management to the public. This mutual dialogue creates diverse opportunities for anchoring the cross-cutting issue of sustainable development in society.

Educational Format: Schools@University for Sustainability + Climate Protection

The Schools@University for Sustainability + Climate Protection was developed in 2006 as part of an international research project as a topic-focused transformative educational format. Each year, approximately 3,000 schoolchildren from 100 Berlin schools, accompanied by up to 300 teachers, take part in one of the 160 hands-on workshops. The program offers two accompanying training sessions per year that provide practical experiences for teachers. This enables teachers as well as their schoolchildren a better understanding of what is meant by the abstract concept of sustainable development.

The hands-on workshops of Schools@University convey in an age-appropriate manner the social, cultural, economic, and ecological aspects of sustainable development. Together, the participants work out solutions for their everyday (school) life. In addition to the participatory programs, Schools@University offers continuing education to teachers. The diversity of content and methods of the workshops and continuing education classes is due to the 100 didactically experienced speakers from science, business, cultural and environmental organizations. The ESD format Schools@University is highly regarded in the Berlin educational and school landscape. This is not only reflected in the positive evaluation, but also in the consistently remarkably high attendance rates.

In 2020 and 2021, the pandemic required the Schools@University organization team to be very flexible in its planning, organization, and implementation. Despite the difficult pandemic conditions, the organization team was able to conduct three comprehensive hands-on programs and four continuing education classes for teachers. In accordance with the Covid-19 regulations, the organizational team changed the programs at short notice from a face-to-face event to one that was mostly online. In 2020 and 2021, the workshops took place in person at the university, online, at green outdoor learning locations, at decentralized venues such as the Technical Museum, and directly at individual schools.





The Leafy Green Canopy (Blätterlaube)

The Leafy Green Canopy is the newest project of the Sustain it! Initiative. Together with the Blooming Campus initiative, it has created an organic community garden close to nature with around 20 students, employees, and residents at the corner of Otto-von-Simson Strasse and Thielallee. The Leafy Green Canopy provides raised beds with vegetables, herbs, and dye plants, a deadwood corner that serves as a shelter for many animal species, a butterfly spiral, nesting aids for birds, bats, and wild bees, a compost heap, and a pond. Workshops, advanced training courses, working meetings and seminars are offered under the slogan “Teaching, Learning, Researching, and Gardening under the Leafy Green Canopy.” The garden serves as a green classroom for the Schools@University Sustainability + Climate Protection, as a continuing education venue for the Coordination Office for Nature, Environment, and Sustainability Education (NUN), and as an open-air seminar room for courses offered by the Sustainable Development Competence Area in the General Professional Skills Course Program (ABV).

The aim of the Sustain it! initiative is to create critical and open dialogue and experimentation spaces for ideas and measures to shape sustainable development at the university. This includes the annual University Days for Sustainability & Climate Protection which had to be cancelled in 2020 and 2021 due to Covid-19, several organic community gardens (UniGardening), a fair sharing station (FUDsharing) for rescued food and further sharing projects. With these formats, Sustain it! provides students, employees, and local residents opportunities for dialogue and experimentation to make the importance of sustainable development tangible and accessible. Sustain it! regularly organizes inter- and transdisciplinary seminars, project courses, and lecture series conducted with partners within and outside the university.

In 2020, the initiative celebrated its tenth anniversary with a publication. It includes a review of the activities and contributors since its founding. In the first ten years, 180 hands-on and creative workshops, university days, and action days were conducted with 350 contributors, reaching about 48,500 students.



From the Campus to the Market

The transfer of scientific knowledge to society is a central commitment of Freie Universität Berlin. With the service institution Profund Innovation, the university supports innovations and business start-ups. It helps students, researchers, and alumni to develop application ideas from their research and to integrate them into society.

The Berlin University Alliance has since 2019 pooled the expertise of three internationally renowned universities that are strong in research: Technische Universität Berlin, Humboldt-Universität zu Berlin, and Freie Universität Berlin, as well as the medical faculty of Charité – Universitätsmedizin Berlin. The aim is to find solutions together for managing social challenges of global importance. In 2020, the Alliance supported the merger of the leading German start-up services of the three constituent universities into a new network structure, Science & Start-Ups.

In 2021, Science & Start-Ups raised about 11 million euros in third-party funding. This allowed the division to expand greatly its support for start-ups and to launch new programs. New areas were added such as the Berliner Start-Up Fellowship with its focus on sustainable cities and future health. In the area of sustainable cities, it supports innovative technical solutions in the areas of sustainability, digitalization, green energy, mobility, and construction. In the last two years, Profund Innovation supported mostly ideas with a sustainable approach, like the Berliner Start-Up Fellowship, the Exist Start-up Fellowship, and the Exist Research Transfer programs. The start-up Carbon Instead, for example investigates how pyrochar can be purified and optimized for use in the construction industry. The aim is to bind environmentally damaging carbon into building material for the long term, instead of just releasing it into the atmosphere when construction materials are incinerated or rot in landfills.

Digital Health was a focus of the start-up companies from Freie Universität Berlin in the past two years of the pandemic. Some aim at a democratization of the health care sector by making medical content and consultation more easily accessible and reach more people, while others focus on saving resources in general. Mio Health is a personalized digital health coach that guides patients with cardiac disease on their way to a healthier lifestyle. The neurodermatitis app NIA aims to improve well-being and offer advice on neurodermatitis. Maila Health is developing a digital health assistant for persons who are pregnant and those who have just given birth, and the app YouCan! is a service to accompany therapy for youth with cancer. StemGel enables, for the first time the non-destructive extraction of stem cells.



Dialogue in pandemic times

Due to the Covid-19 pandemic in the past two years, many of the transfer activities of the university did not take place at all or took place in a limited form. This included the University Days for Sustainability and Climate Protection, the Long Night of the Sciences, or the hands-on experimental laboratory NatLab. The FUDsharing program that rescues and redistributes food remained closed. All offerings are planned again for 2022. Within the program of the Open Lecture Hall, courses were held for all interested persons, in digital form during the pandemic. In the 2019/2020 winter semester, the event series “Art and Environment: Spaces, Places, Systems” also addressed aspects of climate and sustainability. In the 2020/2021 winter semester, the topic of “IT Security in the Contested Space between Science, Politics, and Society” was on the program.



CONNECTING A SUSTAINABLE URBAN SOCIETY WITH THE UNIVERSITY

Interview with Judith Hübner
Research Associate at the Coordination Office for Nature,
Environment and Sustainability Education (NUN)
in Steglitz-Zehlendorf

Ms. Hübner, since 2019 Freie Universität has had a Coordination Office for Nature, Environment, and Sustainability Education – NUN for short. What are its tasks?

We want to make nature, environmental, and sustainability education more accessible to everyone in the district and expand existing educational offerings as well as add new formats. To achieve this, we offer a variety of continuing and advanced education courses for schools, daycare centers, and associations, as well as for interested educational stakeholders. Here we teach how experiencing nature and understanding sustainable development can be integrated into one's own educational work in terms of practice, content, and methodology. We arrange educational offerings targeted to specific groups or expert speakers, inform about current funding opportunities, and recommend topic-related green learning places. Since many institutions, especially in the field of informal education, sometimes have to work under precarious conditions and with poor equipment, we are also strongly committed to public relations. By making more people aware of the conditions on the ground, we want to ensure improved framework conditions that in the long term will make good education possible for all.

What is the importance of networking?

Good education can only succeed together with the educational stakeholders in the district. Creating a network with them is therefore one focus of our work. Many people are not even aware of the rich variety of offerings and places of learning in our district, even though some of them have been around for decades. That is why we are using a comprehensive online platform to make the offerings in the district more visible. We offer, for example, an educational map of the district or portraits of speakers and the current events, dates, and news in the district and in Berlin. In order to connect the institutions in the district with each other, we plan and organize events and projects in cooperation with our advisory board, such as our annual NUN Education Forum. About 100 people from all educational sectors come together there.

What is the task of the advisory board and who are its members?

We called the advisory board together right when we started our work. About twenty key players demonstrate the entire spectrum of the district's educational landscape. We discuss together which measures, formats, and topics we wish to advance. We invited district politicians to our Nature and Education by Bike Tour in 2021 and visited various learning spaces in Steglitz-Zehlendorf by bicycle together. With such formats, we aim to sensitize politicians to the relevance of the topic.

In 2021, you presented the mission statement for a vibrant, diverse, and sustainable educational landscape in Steglitz-Zehlendorf to politicians in the district.

For us, it was important from the beginning that we first agree on a common educational understanding of our work in the advisory board. For this purpose, we have intensively exchanged ideas from 2019 to 2021 and jointly developed our mission statement. The mission statement is also an opportunity for us to enter into dialogue with as many stakeholders in the district as possible. We are currently talking with employees of Freie Universität and discussing how we can cooperate more closely in teaching.

Why is the NUN Coordination Office located at Freie Universität?

Freie Universität Berlin is an important part of the district. As a team, we have been involved in transformative education for many years. The coordination office offers us the opportunity to think even more strongly about our campus, the district, the city, global challenges, and sustainable education. Thus, as a coordinating body, we are committed to a thriving district. That is why, for example, we organize tours of the university grounds with district politicians and encourage them to extend our ecological mowing concepts and wild flowering areas to the district. Another example is the opportunity for schoolchildren to gain practical experience in transformative educational formats such as FREI DAY or the Schools@University for Sustainability + Climate Protection. Our goal is for urban society and Freie Universität to mutually benefit from each other in a positive symbiosis.

*Interview conducted by Bettina Tacke,
Sustainability and Energy Management Unit*



SUSTAINABLE CAMPUS TOUR: DISCOVERING SUSTAINABILITY ACTIVITIES AND ACTORS

Interview with Janet Wagner
Philological Library, Office of News and Public Affairs,
Sustainability

Ms. Wagner, you developed the idea of a Sustainable Campus Tour. How did you come up with the idea?

I work in the Philological Library, but I study part-time at the University for Sustainable Development in Eberswalde for a master's degree in Education-Sustainability-Transformation. In addition to the modules, we complete a practical project throughout our studies. Ideally, it should be realized at our employer and have a connection to sustainability and education. From the libraries of Freie Universität, there was the idea of a sustainability teaching path as part of a workshop with the topic of sustainability in the library system, which I liked. While reading the sustainability report, I came across the Sustainable Campus Tour in the goals for 2022, and it excited me right away. From that, the tour came about as a collaboration with the Sustainability and Energy Management Unit.

What does the Sustainable Campus Tour involve?

The idea behind it is to make the university's numerous sustainability initiatives and projects more visible. Our goal was to develop an appealing communication format that connects the places and projects and presents them in an interesting way. The Sustainable Campus Tour is an audio tour to sixteen locations on the Dahlem campus. It presents initiatives, projects, or structures in the area of sustainability at Freie Universität. The audios can be heard in German and English. The tour is implemented as a web app and, in addition to the content, offers concrete recommendations for action in everyday life. The tour has the advantage that it is focused, informative, can be experienced in real life, and encourages people to participate. And it vividly shows the areas in which the university is involved.

Could you give three examples that are featured in the tour to give people a taste?

Energy generation is an important topic: Where does the electricity come from and what energy sources are used to heat the buildings? The app also discusses how renewable energy sources are being expanded at Freie Universität, particularly with regard to solar installations. Equally important are the topics of health and exercise. What can students and university staff do for themselves to lead a healthy life? Getting plenty of exercise is an important aspect. For this, the

Philological Library offers the bicycle ergometer. I am also particularly pleased that one of fifteen library locations is presented in the tour. Finally, the initiatives on biodiversity are a highlight: be it the community garden Leafy Green Canopy or the initiative Blooming Campus and Sustain it! with its many activities.

What does the tour offer besides the audios?

First of all, the exploration with the cell phone offers a lot of basic information. You are on site and listen to something about a topic or a project. But it was important to us that there is also information about where you can specifically participate and who you can contact about it. There are also concrete recommendations for action in everyday life. Photos and films supplement the audios with visual impressions. We also work with interactive elements in the app such as questions, quizzes, and puzzles in order to make the topic of sustainability more vivid and to increase interest in taking part. The background here is the 17 Sustainable Development Goals of the 2030 Agenda and the teaching and learning approach of Education for Sustainable Development. The basic idea is to use the stations on the tour to translate the goals into concrete incentives for everyday action and to impart the ability to act. If this succeeds, it will also contribute to a concrete goal of the university: making sustainability-related projects at Freie Universität Berlin visible and interconnected.

Can you give an outlook for the future?

The tour will start in the 2022 summer semester. We will then also think about marketing and communication, because as many people as possible should know that this tour exists. A lot of heart and soul, time and ideas have gone into the tour, so we want to keep it up to date. We want to expand it, to include new topics, projects, and initiatives, especially to the other two locations in Düppel and Lankwitz. Another important approach is to tackle local networking with the Steglitz-Zehlendorf district in the future. There are already great collaborations with the district office and Profund Innovation, which supports startups with a sustainability focus. The tour should therefore be expandable. This was considered from the very beginning.

*Interview conducted by Bettina Tacke,
Sustainability and Energy Management Unit*

DESIGNING OUR UNIVERSITY
SUSTAINABLY

CAMPUS

SUSTAINABILITY ON CAMPUS

Energy efficiency

Freie Universität Berlin can look back on a long and intensive engagement with the issue of climate protection. With a bundle of different measures and incentives, it has succeeded in reducing campus-related electricity and heat consumption by a total of almost 27 percent between 2001 and 2019. Adjusted for the increase in floor space, the reduction was even 29 percent. In the pandemic years of 2020 and 2021, energy use decreased by another 4.7 percent (2021), having an overall decrease of 30 percent since 2001. On an floor space-adjusted basis, it is actually a 34 percent reduction.

However, there is a caveat to this decline in terms of its durability given the special conditions during the pandemic. A significant role in the decrease was played by the energy controlling system established as early as 2001 in conjunction with annual energy efficiency programs (2003-2011) and the premium system for energy savings, which has enabled the university's departments to generate additional revenue with energy savings since 2007. In addition, Freie Universität has four combined heat and power plants in operation with a total capacity of 715 kWel and 9 photovoltaic systems with a capacity of 657 kW. The measures outlined have also paid off for the university budget. Without them, the university's 2021 energy costs of 12.8 million euros would have been 6.12 million euros higher in total.

Energy consumption and CO₂ emissions in 2020 and 2021

Energy consumption decreased by a total of 8.4 percent in the first pandemic year of 2020 compared to the previous year. Electricity consumption fell by 12.7 percent, a greater reduction than for heat consumption, which recorded a 6.2 percent decrease. In contrast, business travel and paper consumption declined very sharply in 2020. The university's paper consumption in the first year of the corona pandemic was 45 percent lower than the previous year (2019). The number of business trips (968) decreased by over 80 percent in 2020 compared to the previous year (5,014). CO₂ emissions associated with business travel actually fell by 86 percent.

In 2021, energy consumption increased by 4.1 percent compared with the previous year. However, it is still 4.7 percent lower than consumption in 2019. Electricity consumption increased by 4.0 percent in 2021 compared with 2020, while heat consumption increased by 4.1 percent. This increase in consumption is largely due to increased ventilation requirements during the Covid-19 pandemic and the associated increase in transmission heat losses. After a return to predominantly physical presence following the management of the Corona pandemic, it will be important to closely analyze consumption patterns in university buildings and consistently eliminate pandemic-related increases in consumption.

Greenhouse gas emissions

If one includes the fact that Freie Universität has been using CO₂-free electricity since 2010 as part of the electricity tender coordinated by the state of Berlin, the reduction in carbon dioxide emissions between 2000/01 and 2021 amounts to 89 percent. An important contribution to this was also the reduction in heat consumption by around 38 percent. However, it must also be taken into account that the methodology for calculating specific CO₂ emissions in district heating was changed in 2020. This has led to a reduction in the CO₂ factor of around two thirds compared with the previous year.

The climate neutrality goal outlined in the December 2019 Climate Emergency Declaration includes campus-related emissions from energy consumption and the vehicle fleet (Scope 1 and 2 according to the GHG Protocol), as well as emissions resulting from business travel and paper consumption as part of indirect emissions (Scope 3 according to the GHG Protocol). The table below shows the baseline GHG emissions for 2018/19. Around two-thirds are attributable to campus-related emissions, of which the natural gas-based heat supply takes the main share. Business travel accounts for about one-third of the emissions. The CO₂ factors used are either taken from data sources of the Federal Environment Agency (business trips, heating oil, vehicle fleet, paper) or from the information provided by the energy suppliers (district heating, natural gas, electricity), which in turn are taken from the corresponding supply contracts or the specifications of the State of Berlin.

Carbon Dioxide Emissions 2018/19 (Baseline)

	Scopes 1 + 2***						Scope 3 ***			Total in t
	District Heating in t	Natural Gas in t	Heating Oil in t	Elec- tricity in t	Fleet* in t	Campus in t	Business Travel Flights** in t	Business Travel Train, Bus, Car in t	Paper in t	
CO ₂ emissions according to supplier information/electricity supply contract	2,063	5,101	80	0	190	7,433	3,798	190	71	11,492
in percent (campus only)	27.7 %	68.6 %	1.1 %	0.0 %	2.6 %	100.0 %				
in percent	17.9 %	44.4 %	0.7 %	0.0 %	1.7 %	64.7 %	33.0 %	1.7 %	0.6 %	100.0 %

* approx. 680,000 km/a (2016/17)
** flights accounted for by the travel cost center, excluding student mobility. Business trips, vehicle fleet and heating oil according to CO₂ values of the Federal Environment Agency. District heating, natural gas and electricity according to CO₂ values equivalent to provider information & power supply contract. For district heating, the CO₂ factors applicable by the energy supplier from 2020 were used as a basis.
*** According to Greenhouse Gas (GHG) Protocol

- 30.0 %
- 34.0 %

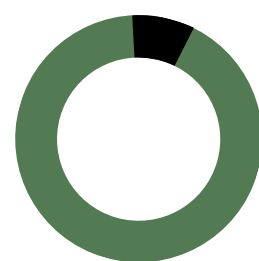
Reduction in
energy consumption
between 2001–2021
Energy consumption total*



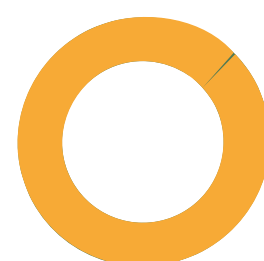
District Heating
- 33.0 %
- 35.6 %



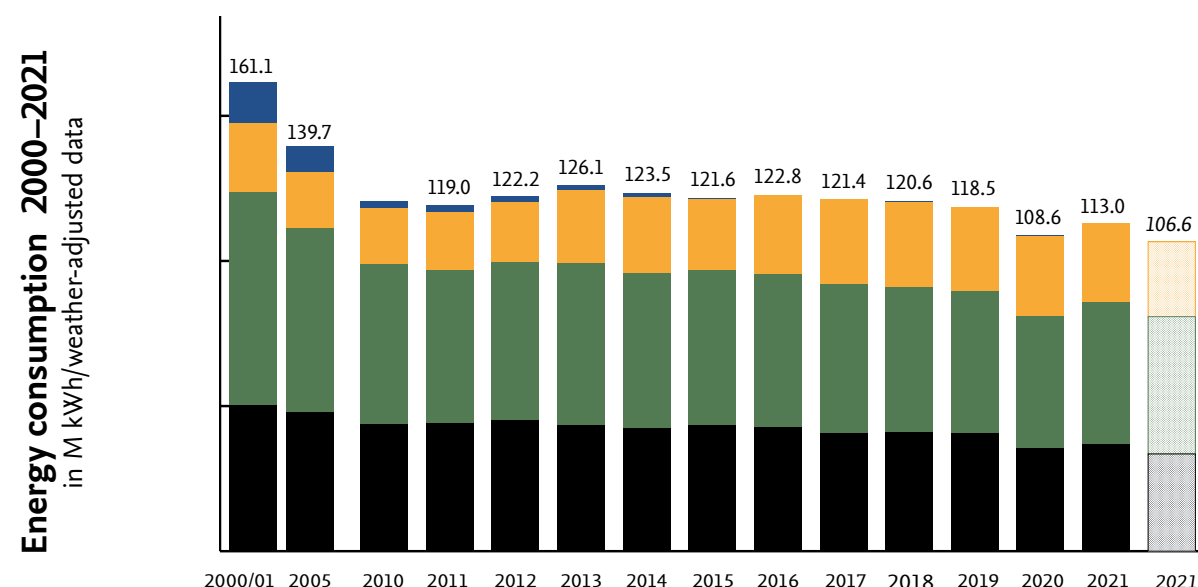
Electricity
- 26.8 %
- 33.4 %



Natural Gas
+ 13.7 %
+ 8.4 %



Heating Oil
- 99.9 %



Electricity District Heating Natural Gas Heating Oil

*The energy use includes the energy consumption of canteens and cafeterias of the Studierendenwerk Berlin. Italics: excluding increase in floor space

-88.5 %

Reduction in CO₂ emissions
2000/01 to 2021
including increase in floor space

Reduction in heat consumption
2000/01 to 2021
including increase in floor space

-37.7 %

6,121,000 €

Avoided costs
due to the reduction of energy
consumption 2021 compared to 2000/01
excluding increase in floor space

Aggregate avoided costs
due to the reduction of energy consumption
2003–2021 excluding increase in floor space

64,513,000 €

9

Photovoltaic systems
with a capacity of

657 kWp

4

Combined heat
and power plants
with a capacity of

715 kWel

Business travel & greenhouse gases

Flight-related emissions from business travel averaged about 4,000 tons of CO₂ in 2018/19, calculated using CO₂ factors published by the German Federal Environmental Agency. This represents just over one-third of the university’s CO₂ emissions recorded to date. It should be noted, however, that this total does not yet include some travel, such as certain travel by guests of the university. Student mobility, which, however, does not count as business travel, was also not recorded.

The balance of official travel in the pre-pandemic years of 2018 and 2019 is as follows:

- In 2018/19, business travel resulted in an average of approximately 4,000 tons of CO₂ annually. Of this, 95% (3,788 tons) was attributable to air travel and 5% (190 tons) to rail, bus, and car travel.
- An average of 5,275 business trips or 10,550 individual trips were registered each year. Of these, 51% were by air, 44% by rail and 5% by bus and car.
- Two-thirds of air travel took place in Europe, accounting for 20% of flight-related CO₂ emissions.
- Intercontinental flights accounted for the majority of flight-related CO₂ emissions at 80%, although only one-third of air travel fell into this category.
- An average of 6.85 million euros was spent on business travel across the university in 2018/19. Of this, 75% came from third-party funding. Only 25% was funded from the university budget.

In 2020, the number of business trips decreased by over 80 percent compared to 2019 due to the pandemic. The associated CO₂ emissions fell by 86 percent.

Outlines of a new business travel policy

For effective international collaborations, it is desirable that research visits and face-to-face encounters remain a high priority after the corona pandemic. Furthermore, it remains the goal of Freie Universität to provide students, scholars, and other employees with the opportunity for a formative experience in an international context. At the same time, the climate crisis is forcing all scientific institutions, which are among the most socially visible generators of international mobility, to take a critical look at their previous cooperation and travel practices. This includes the question of how physical mobility can be reduced while maintaining or even improving scientific excellence and the quality of international collaboration.

The Sustainability and Climate Protection Steering Committee adopted a recommendation paper for a new business travel policy in July 2021, the outlines of which were forwarded for further elaboration by the Executive Board in October 2021. This was combined by the Executive Board with a mandate to the Sustainability and Energy Management Unit to discuss the new business travel policy with all Dean’s Offices and departments. The discussion took place on 19 occasions between November 2021 and March 2022, with the new policy to be adopted in 2022. The new business travel policy contains the following starting points:

- Establishing permanent transparency of flight-related CO₂ emissions for university members and regular evaluation of the implementation processes.
- Establishment of incentives, rules, and options for the increased use of environmentally friendly means of mobility.
- Expand and promote virtual communication formats and related service and training offerings.
- Establishment of a monetary model to compensate for unavoidable mobility and a climate protection fund to promote internal FU climate protection and sustainability projects.
- Establishment of a reduction target for business travel-related CO₂ emissions.

Blooming Campus Initiative

In 2019, the Blooming Campus Initiative was founded to bring the topic of biodiversity more into focus in the university's sustainability strategy. The initiative brings together stakeholders across departments and institutions who want to promote biodiversity on campus.

The initiative has achieved its most significant successes by changing the way the university maintains its green spaces. Since 2020, mowing frequency has been significantly reduced on all areas and pauses campus-wide during the early bloom phase in April. Highly diverse, species-rich flowering areas are created on approximately eight hectares. Numerous insect species have since returned, and biodiversity on campus has increased significantly. Information boards illustrate the concept for promoting biodiversity. Interested university employees and neighbors are also trained to maintain the areas. In 2020, the butterfly monitoring program was also launched. This is a Europe-wide research project that records the population of butterflies with the support of residents.

Since summer 2020, the Blätterlaube, a community garden project in collaboration with the Sustain it! initiative, has been the headquarters of the initiative. It has created numerous habitats for bats, newts, butterflies, and other insects. In addition, endangered wild plants from Berlin and Brandenburg have been growing on the campus since fall 2021.

The initiative also cooperates with the district, adjacent institutes, schools, foundations, and projects such as the Public Climate School. This makes it an important focal point for nature education and conservation.



PURCHASING AND PROCUREMENT

Sustainable procurement has become increasingly important at Freie Universität Berlin in recent years. In doing so, it aligns its requirements with the Administrative Regulation on Procurement and the Environment (VwVBU) of the State of Berlin. The Central Purchasing Unit in the central university administration provides members of Freie Universität Berlin with a comprehensive range of goods through the catalog system UniKat. Environmentally friendly products are clearly marked in UniKat and are given priority in the hit list. This increases transparency in purchasing and thus contributes to resource conservation and cost reduction. In 2020, Central Purchasing achieved Level 1 certification for sustainable procurement organizations by the Federal Association of Materials Management, Purchasing and Logistics (BME). The virtual marketplace for used items, FUndgrube, is also an important project for resource conservation.

The procurement of laboratory equipment, information, and telecommunications technology (IT) and paper plays a prominent role from a sustainability perspective. For the purchase of IT hardware, the university has developed energy efficiency criteria that go beyond the legal requirements. Printer centralization, which started in 2017, has already led to a sharp decrease in printer, toner, and paper consumption.

However, due to the pandemic, the amount of work equipment procured in 2020 and 2021 is not comparable to previous years. For example, the number of notebooks purchased doubled in 2020 compared to previous years to enable employees to work in their home offices.

SUSTAINABLE PROCUREMENT CONSIDERS THE ENTIRE LIFE CYCLE OF A PRODUCT

Interview with Nicole Samstag
Head of Central Purchasing and Central Services

Ms. Samstag, you are responsible for the central purchasing of goods such as IT equipment or paper as well as services at Freie Universität. What does sustainable procurement mean to you in this context?

For me, sustainable procurement means looking at the entire life cycle of a product. This includes all process steps from production through the supply chain, operation and finally to disposal. Economic aspects as well as ecological and social aspects must be included in the selection decisions.

Can you briefly give us the most valuable information about the scale of central purchasing at Freie Universität?

The annual procurement volume for supplies and services is around 40 million euros. We spend a quarter each on IT and telecommunications as well as scientific equipment. Chemicals, laboratory and veterinary supplies, and general services each account for 17 percent.

Taking sustainability criteria into account is not a new topic for you. In which areas do you think Freie Universität is particularly well positioned?

We are particularly well positioned in the product groups where we have a high degree of standardization. This allows us to successively align the product ranges with sustainability aspects together with our suppliers. We have been doing this for many years in the areas of workplace computers, office supplies and the procurement of new vehicles. We have also found good approaches in the procurement of large-scale equipment through the purchase of renovated products or the consideration of the entire life cycle costs.

Where is there still the most work to be done?

I would say that the whole area of laboratories has enormous potential. There is a lot of purchasing going on, consumables, equipment, and chemicals. The range is large and heterogeneous so further optimization seems possible both in terms of order volume and products.

How is catering regulated at Freie Universität? Are sustainability criteria taken into account?

Since this year, we have been offering two centrally concluded framework agreements for catering ser-

vices via our UniKat ordering system. Previously, event organizers had to launch their own tenders when selecting catering services. In addition to ensuring security of supply under cost-effective conditions, we paid particular attention to sustainability in this tender. In addition to the legally prescribed social and ecological requirements, aspects such as waste avoidance, short delivery routes, electrification of the delivery fleet, reduction of food waste, the offer of regional products, and a wide selection of vegan and vegetarian products were included in the tender.

Freie Universität currently has a fleet of more than 70 vehicles. How far has the conversion to electromobility progressed in recent years?

We have made substantial progress on this issue in recent years. Currently, 22 percent of the vehicle fleet has already been converted to electric vehicles. Due to current delivery problems, the intended conversion of a further 15 vehicles to electric in the last two years could not take place. Our goal is to reduce the total number of vehicles and convert the remaining fleet to e-mobility.

You plan to complete Level 2 of BME certification for sustainable procurement organizations in 2022. What expectations and obligations are associated with the certification?

In the first step, we committed to establishing a sustainable procurement organization by signing the BME Sustainability Commitment. We are currently in the process of developing a sustainable procurement strategy that is necessary for certification, and to document this in the form of a sustainability program with fields of action, objectives, and responsibilities.

In your opinion, what is the biggest challenge for the future?

The greatest challenge is the heterogeneity that a university brings with it. In order to incorporate and expand sustainability aspects in procurement, we need a clear procurement guideline with a binding sustainability program. This now needs to be built up successively.



WE HAVE A DISTINCTIVE SOCIAL MISSION

Interview with Dr. Andreas Brandtner
Executive Director of the University Library

Dr. Brandtner, social responsibility and sustainability are components of the current strategy of the libraries of Freie Universität Berlin. How did this come about?

We started a change process in 2018. Using the opportunity of the merger of the University Library (UB) and the Center for Digital Systems (CeDiS), we transformed the entire library system in order to be able to operate more effectively within the university. This was accompanied by a strategy development process in which we discussed the basic orientation of our UB together with our colleagues in workshops. We received strong feedback that we absolutely had to include the topic of responsibility and sustainability in the core of the strategy, which we then implemented.

What does sustainability mean in relation to libraries?

Libraries have a distinct social mission. For us, this means that we provide comprehensive support for research, teaching and studying. We promote educational processes; we ensure that knowledge is generally disseminated more widely in society. We dismantle existing barriers, we are easily accessible, welcoming places that contribute to social participation. We are also committed to making scientific results available to society through the increasingly important culture of openness.

What role does digitization play in this discourse?

Digitization has lowered the thresholds. It allows us to reach people we would not otherwise be able to reach. It allows people around the world to access information because it is freely available on the Internet.

You have now addressed aspects of social sustainability in particular. What about ecological or economic aspects?

There is a tradition of green libraries in the Anglo-American world, which we have also taken up. In this respect, ecological sustainability also plays a key role for us. This applies to library buildings, for example. We make sure that they are operated as ecologically and sustainably as possible. It also extends into our work processes, where we ask ourselves how we implement ecological aspects when we procure new material.

The Green FUBib group advocates for sustainable practices in everyday library work. Is it the nucleus of sustainability activities?

I would go further with the nucleus. Janet Wagner works in the Philological Library, and she is enthusiastic about the topic, represents it very competently, and broadens her professional expertise in this field. I was able to convince her to devote part of her working time to sustainability issues. From the nucleus, further accents were then set in the Green FUBib group.

What activities have been implemented since the group was founded in 2021?

Networking activities are central to the work of the Green FUBib group. There is a lively exchange with the sustainability teams of the departments or with central purchasing. The goal is to implement joint activities and pool synergies. In the libraries, there are also small teams that use free spaces, terraces, or balconies to garden together and to collect and exchange seeds. The Social Sciences and Eastern European Studies Library plans to set up a seed corner and be the permanent focal point for a seed library. Another major issue is packaging. Books ordered from around the world are now packaged with as little plastic and resources as possible. We have successfully negotiated this with suppliers. In some libraries, books are delivered in tubs, eliminating packaging materials in the process. The purchase of an e-transporter in 2021 for the libraries was a crucial step toward climate-neutral mobility.

What plans do you have for the future, particularly with regard to the university's goal of becoming climate neutral by 2025?

We have signed the Libraries4Future policy statement. In this respect, we as the UB want to be committed to environmental and climate protection not only within the university, but worldwide. We will actively support the goal of climate neutrality.



NETWORKING SUSTAINABILITY
INTERNATIONALLY

NETWORKS



NETWORKING THE SUSTAINABILITY DISCOURSE INTERNATIONALLY

The topics of sustainability and climate protection are a vital component of international cooperation at Freie Universität Berlin. This is reflected not only in the internationalization strategy, but also in the goals of the Declaration of Climate Emergency. Thus, sustainability and climate protection topics in research, teaching, and transfer are to be made even more visible in the future and specifically integrated into the international networks of Freie Universität Berlin.

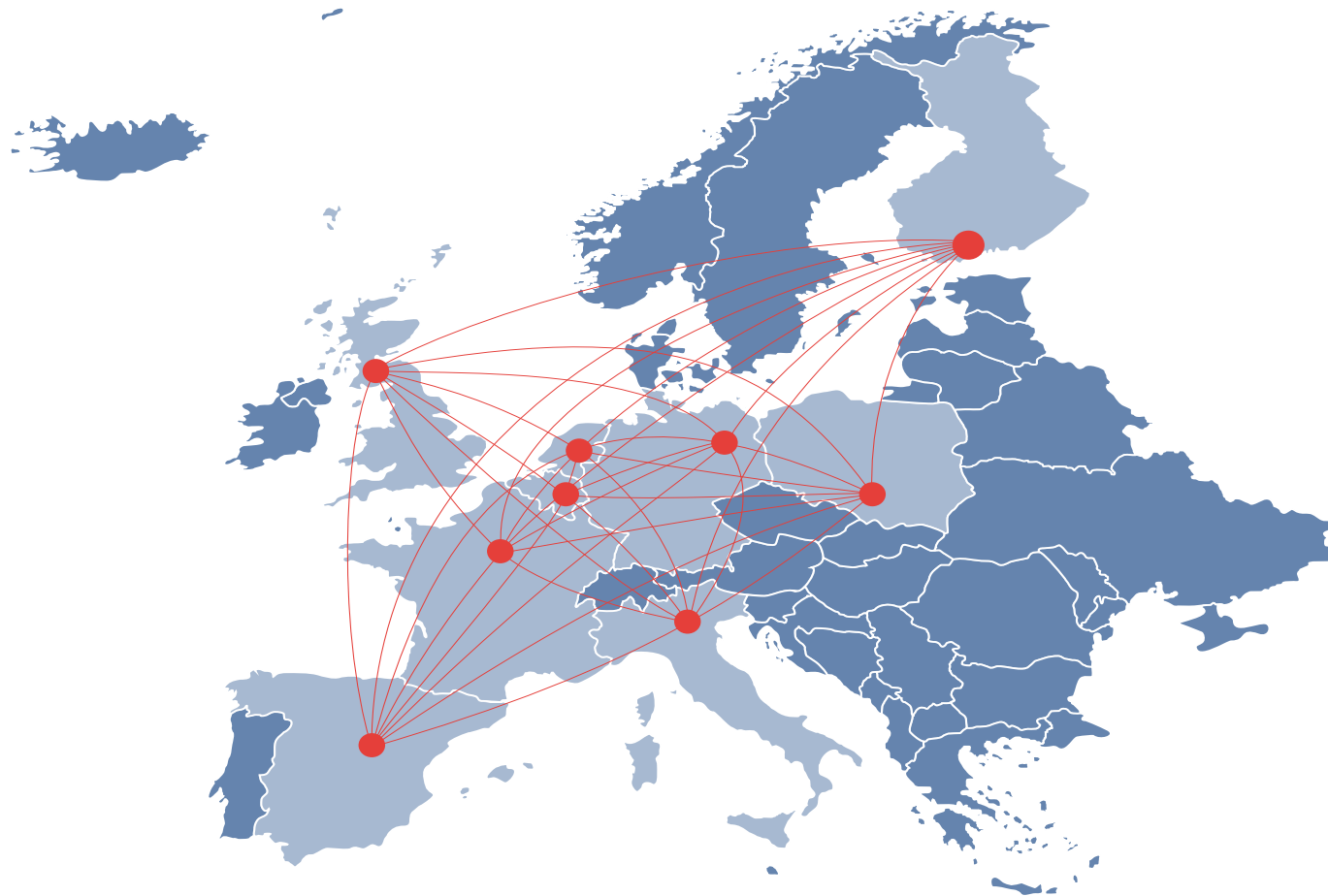
Freie Universität Berlin participates in a number of sustainability-related university networks and also focuses on institutional responsibility for sustainability and climate protection in its other international activities. Freie Universität Berlin also takes a stand in the global discourse: In the run-up to the UN Climate Change Conference in Glasgow in 2021, for example, the university joined the United Nations Race to Zero Campaign for Universities and Colleges and publicly shared binding commitments.

The Sustainability and Energy Management Unit has coordinated the University Alliance for Sustainability (UAS) with Freie Universität Berlin's strategic partner universities since 2015. Over the past six years, a DAAD grant has enabled interdisciplinary exchange formats such as annual UAS conferences, workshops, and a mobility program for all status groups. Since 2020, the annual network conferences have been held digitally, which has led, among other things, to an expansion of the circle of participants, particularly in Eastern Europe and the Global South. The UAS conferences also serve the purpose of targeted networking of internal university stakeholders. In addition, several research workshops and a doctoral student training program were realized in cooperation with the TrAndeS and Una Europa networks.

Since 2016, Freie Universität has been represented on the Advisory Committee of the International Sustainable Campus Network (ISCN) which consists of more than 90 universities worldwide. The focus of the global university network is exchange about all facets of university sustainability management. This takes place in annual conferences and workshops, in which Freie Universität Berlin regularly participates.

Exchange in the European context has a special strategic dimension, as the network partners can jointly represent their interests to the European Commission. Freie Universität Berlin is involved as the lead of the Focus Area Sustainability in Una Europa. In addition, representatives of the Sustainability and Energy Management Unit have been regularly involved in the workshops and round tables of UNICA Green and its SDG Working Group since 2014.





Una Europa

Una Europa is a European university network with a vision to create a European university for exceptional teaching and research. Since 2019, the university network has served as a European laboratory for collaboration in education, research, and innovation towards a university of the future, creating offerings for interdisciplinary, transnational, and inclusive education. The Una Europa network consists of nine partner universities (as of March 2022):

- Freie Universität Berlin
- Helsingin Yliopisto
- KU Leuven
- Universidad Complutense de Madrid
- Università di Bologna
- Université Paris 1 Panthéon-Sorbonne
- Universiteit Leiden
- University of Edinburgh
- Uniwersytet Jagielloński in Krakow

In addition to sustainability, there are four other focus areas: European Studies, Cultural Heritage, Health, and Data Science and Artificial Intelligence. A joint Bachelor's degree in European Studies is planned from the 2022/23 winter semester. The network aims to continue Una Europa beyond the first funding period (2019-2022). To this end, a corresponding EU funding application was submitted in March 2022. Una Europa is seeking further partnerships.

The focus topic of sustainability in teaching

In the area of sustainability, Freie Universität Berlin is coordinating the development of three innovative teaching projects. These include the design of a Bachelor's degree in sustainable development under the leadership of Uniwersytet Jagielloński in Krakow. Furthermore, Freie Universität is participating in a certificate in the context of lifelong learning, for which Università di Bologna is responsible. The implementation of the certificate program at Freie Universität is supported by ERG Universitätsservice GmbH, the service company of the university. Finally, a MOOC (Massive Open Online Course) is being implemented in the subject area of sustainability under the direction of Helsingin Yliopisto. The Una Europa Visiting Professorship Sustainability, held in 2021/2022 by Dr. Mandy Singer-Brodowski, participates in the content conception of the MOOC.

The Task Force Sustainability and Climate Protection

Within the framework of the Una Europa Task Force "Sustainability and Climate Protection", a joint strategy for institutional responsibility in the topic was developed for all Una Europa partner universities. A developed paper shows the vision and strategic fields of action in the areas of governance, teaching and community engagement, operations, and health and resilience to be implemented at the Una Europa partner universities in the coming years.



SUPPORTING GENDER EQUALITY,
DIVERSITY, AND HEALTH

REALIZING SOCIAL SUSTAINABILITY

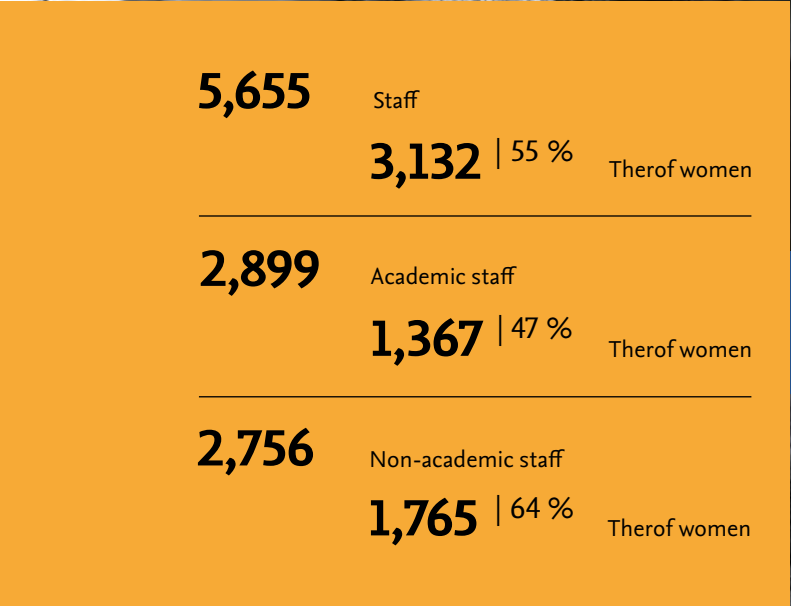
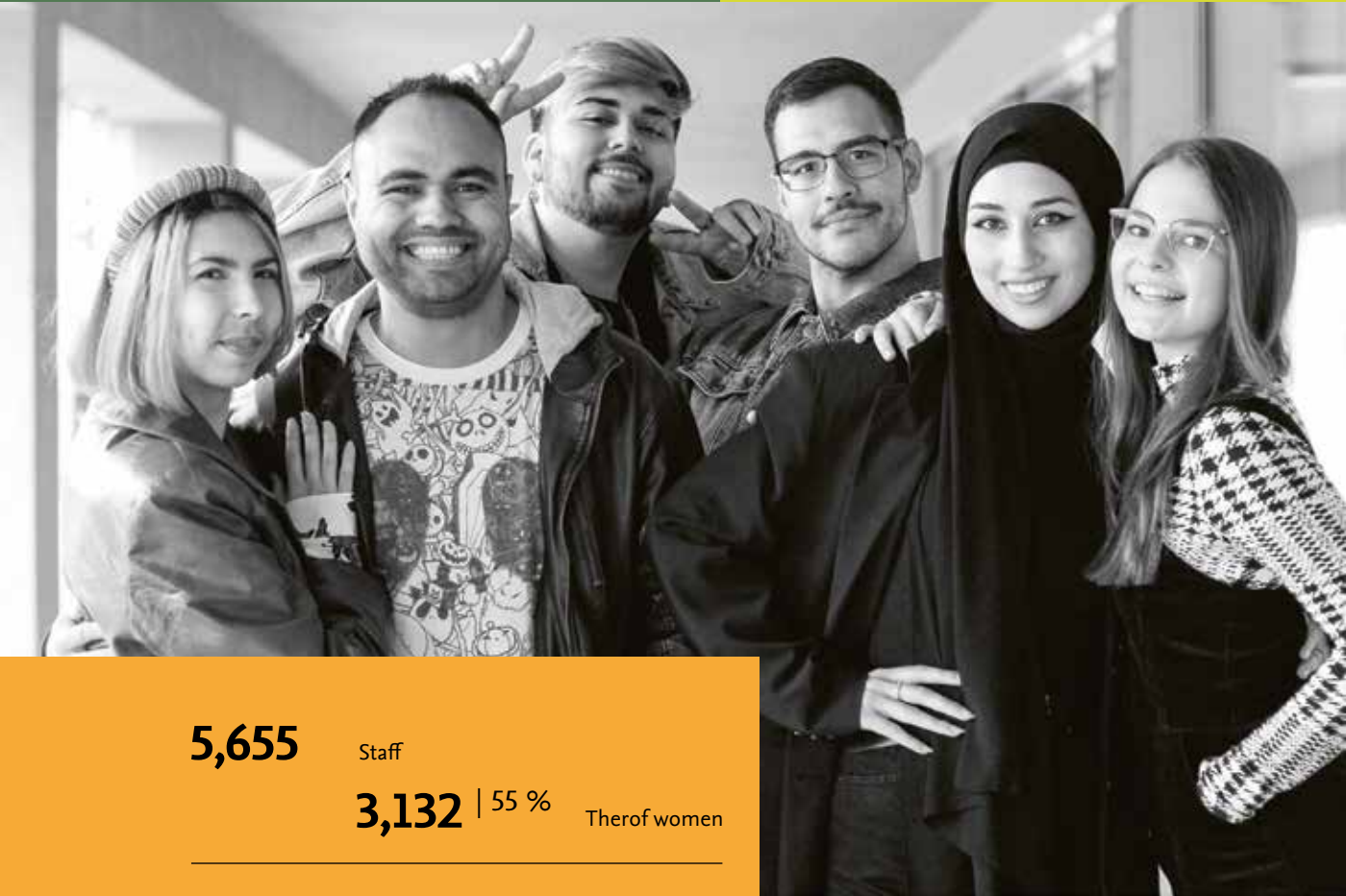
Gender equality, diversity, equal opportunities, and family friendliness have been part of Freie Universität Berlin’s self-image for decades. This applies in particular to gender equity policy goals, which are embedded throughout the organization as a cross-sectional task in accordance with the equality concept. In February 2020, the Academic Senate adopted the new Gender Equity Strategy and Action Plan 2021-2026 of Freie Universität Berlin. The guiding principle is to analyze as well as change discriminatory structures regarding all genders - beyond the representation of all genders in the various status groups and qualification levels. Gender equity is integrated into the university’s organizational and personnel development and sustainably embedded in the management and planning processes at the central and decentralized levels. The Gender Equity Strategy and Action Plan bundles existing requirements and voluntary commitments, formulates goals to be implemented by 2026, and names initial examples of measures for the individual fields of action. These include the equal participation of all genders in science, research, education and administration, the promotion of internationally competitive gender research as a scientific field and teaching content, and the creation of family-friendly conditions.

A core goal of Freie Universität Berlin’s work on gender equity policy is to increase the proportion of women in tenured professorships. In recent years, this has been increased from around 33 percent in 2018 to 36 percent in 2020. In a national comparison, Freie Universität thus continues to be well above average; the current Gender Equity Strategy and Action Plan envisions an increase to 40 percent by 2025.

For the past two years, Freie Universität Berlin has been increasingly addressing the issue of diversity. In 2020, the Diversity Unit was established in the Office of Strategic Planning and Reporting, which also includes the gender controlling function introduced in 2011. It advises and supports the university management in the strategic development of diversity issues. In June 2021, the Executive Board of Freie Universität adopted a Diversity Strategy and Action Plan, which defines an associated strategy with concrete goals and measures until 2023. In addition, the university is participating in the Stifterverband’s diversity audit Shaping Diversity. In 2020, Freie Universität Berlin was awarded the Total E-Quality award for its commitment to gender equity for the seventh time in a row, and in 2021 it was also awarded the additional Diversity Award for the second time.

University Sports Center

Despite the pandemic, the University Sports Center has offered several activities over the past two years to strengthen the health and well-being of university employees. For example, the Pausenxpress (Active Break) program for more exercise in everyday study and work took place online. The University Sports Center converted other classroom formats into live online formats as part of the UniSport@HOME program. In addition, it used open spaces at the university for outdoor sports activities. In cooperation with the Blooming Campus initiative, the University Sports Center established the new Yoga for Biodiversity course. Since April 2021, the University Sports Center has also had a training boat with electric propulsion. For this, the University Sport Center received the Sustainability Award of the German University Sports Federation.



Working and studying in the time of Covid-19

Since March 2020, employees of Freie Universität Berlin who perform office work or comparable activities have worked mostly from home. The change in working conditions led to an ongoing discussion about making working hours more flexible. For the 2022 summer semester, the university management, and the Staff Council: Entire Freie Universität concluded a supplementary agreement to the Employment Agreement on Alternating Teleworking/Mobile Working. Instead of the 21 days per year previously possible, up to 40 percent of working days in the 2022 summer semester may be spent working on the move or in at home. The supplemental agreement is temporarily valid until September 30, 2022.

Courses were largely held online from the 2020 summer semester onwards. Freie Universität always aimed for the highest possible proportion of face-to-face courses in combination with proven health protection measures. The 2021/2022 winter semester started with the student action week #yeswecampus. Freie Universität once again welcomed its students, faculty, and staff to campus and offered as much face-to-face teaching as possible. Computer science professor Lutz Prechelt developed the web app a.nwesen.de, which can easily trace contacts in case of infection. It also aims to provide as much presence as possible.

As part of the Berlin universities' vaccination campaign, mobile vaccination teams and a vaccination bus were available to employees and students of Freie Universität Berlin from summer 2021. Under the motto "The only thing contagious should be ideas," Freie Universität, together with nine other Berlin universities, offered vaccination appointments on their campuses from October 4 to 15, 2021. They cooperated with the German Red Cross and other aid organizations, which provided the mobile vaccination teams and vaccination buses. With the multiple offerings, the university was able to administer approximately 12,000 first, second, and booster vaccinations against Covid-19 by January 2022.

Supporting refugee students and scientists

Millions of people around the world are currently on the run, forced to flee by violence and persecution. As part of its global responsibility, Freie Universität supports students and scientists in continuing their studies and research. Welcome to Freie Universität Berlin offers language and preparatory courses at the Studienkolleg. One current focus is on supporting Ukrainians and international students who have had to flee Ukraine. Freie Universität has been part of the Scholars at Risk network since 2012. Currently, 30 refugee and at-risk researchers are conducting research at Freie Universität with the support of various programs. The nationwide network Academics in Solidarity (AiS) connects these individuals with colleagues and thus also seeks to open up long-term perspectives on the academic job market. The 2021 AiS Annual Conference focused on the topic of Teaching in Exile. Numerous new transnational teaching formats were presented and ways to improve the inclusion of academics at risk were discussed.

Personnel Development, Family Friendliness & Health Promotion

Freie Universität uses targeted measures to promote career advancement and qualification as well as the entry of new employees and health promotion. Since June 2020, for example, the Welcome Service has been helping new employees quickly find their way around Freie Universität Berlin. Various websites, an onboarding platform, brochures, documents, and events provide information and give an overview of the wide range of services, service facilities, and contact persons available to members of Freie Universität.

With its family-friendly human resources policy and university organization, as well as the Dual Career & Family Service, Freie Universität supports its members in better combining their careers, studies, and academic qualifications with family responsibilities. A freely accessible wiki offers working and studying parents a lot of helpful information on topics such as time off from work when daycare centers and schools are closed, childcare in the home office, and current financial support options. Virtual office hours as well as digital training and information events are also part of the family-friendly offerings.





REDUCING INEQUALITY SUSTAINABLY

Interview about the Diversity Strategy and Action Plan
with Vice President Prof. Dr. Verena Blechinger-Talcott
and Gabriele Rosenstreich, Diversity Unit

Prof. Blechinger-Talcott, Ms. Rosenstreich, what does diversity mean?

Gabriele Rosenstreich: The core idea of diversity is to recognize that there are multidimensional differences among people in regard to social categories. These are not individual characteristics or ways of life, but rather social groups that are constructed around dimensions such as gender, ethnicity, or social status. In addition – and this is important – diversity means that these differences are first to be understood as something positive, and second that they are linked to many interrelated relations of inequality and power structures. These create barriers that lead to some groups not having the same access to social participation as other groups.

What is at the core of the Diversity Strategy and Action Plan approved by Freie Universität Berlin in February 2021?

Verena Blechinger-Talcott: Our main approach is to recognize diversity, to promote it, and at the same time reduce existing exclusionary mechanisms. We understand diversity and anti-discrimination to be two sides of the same coin. We want to provide a teaching, learning, and working environment free from barriers and discrimination, promote a respectful working environment, and to enable all members of the university to participate equally irrespective of the social groups to which they belong. We are striving to ensure equality of opportunity in a sustainable way. In our strategy we follow a horizontal, intersectional approach. This means that as a general rule, we take all dimensions of diversity into account in these measures. At the same time, it is also necessary in some cases to have specific measures for certain groups since these face specific barriers.

Our strategy is underpinned by many principles to guide action, for example, we follow a participative approach in order to include the various experiences, perspectives, and ideas of members of the university

from all status groups. At the same time, we build effective working structures and convey the clear stance of the university leadership.

What role does diversity play in sustainable development?

Gabriele Rosenstreich: We understand diversity as a task of the university across all areas, so we must embed diversity and anti-discrimination in other processes as well, such as in sustainability promotion. For example, our diversity targets are linked with several Sustainable Development Goals (SDG), particularly SDG 10, reduction of inequality, SDG 5, gender equality, and SDG 4, inclusive, equitable and quality education for all.

What are the diversity-related targets for the next few years?

Verena Blechinger-Talcott: The Diversity Strategy and Action Plan 2021 sets out 27 specific goals and 51 measures that will contribute to meeting them.

Until the end of 2023, we emphasize the creation of robust working structures and contact points in the area of diversity and anti-discrimination. This will include the strategic and systematic bundling of the many diversity-oriented programs and measures of Freie Universität Berlin that already exist. Furthermore, we must raise the awareness of university members for this topic and also examine our university more closely and critically by performing a systematic data-based survey, monitoring, and needs analysis. We have already implemented some of the measures, such as the comprehensive diversity web portal, the development of a guideline for a respectful working environment, and the establishment of simple procedures for changing the entries for name and gender for trans*, inter* and non-binary members of the university. There is still much to be done and we are working as hard as possible. We are making good progress toward making diversity more visible and having appreciation for diversity as the norm at our university.



SUSTAINABILITY PROGRAM
2021 – 2023

GOALS



Review of Activities 2021 - 2022

With the exception of a few delays, Freie Universität Berlin has either successfully implemented the measures planned in the Sustainability Program 2021 to 2023 or has started to implement them as planned.

The following individual activities deserve special mention:

- An external auditor validated the university's environmental management in September 2021 in accordance with the requirements of the European environmental standard Eco-Management and Audit Scheme (EMAS). This was associated with the publication of the first environmental statement. In the future, Freie Universität will publish this statement every year; in addition, a sustainability report will be published every two years.
- In close consultation with the Sustainability and Climate Protection Steering Committee, Freie Universität Berlin developed a sustainability-oriented business travel policy, the main features of which were approved by the Executive Board in October 2021. At the same time, the Executive Board recommended that the business travel policy be further developed together with all deaneries and relevant departments of the university. The Sustainability and Energy Management Unit organized this participation process between November 2021 and March 2022 with a total of 19 individual events.
- In July 2021, the project to introduce an ideas and innovation management system at Freie Universität Berlin, as defined in the Declaration of Climate Emergency and the Sustainability Program, was launched. The first more extensive activity to be mentioned here is the FUturst call for proposals. In February 2022, a project advisory board set up specifically for this purpose and representing the various areas of the university selected nine projects from a total of 28 submitted. The projects will be presented at the Sustainability Days to be held in June 2022.
- Since February 2021, the newly established Sustainability and Mobility Project has been working on a sustainable mobility concept for a pedestrian- and bicycle-friendly campus. Among other things, in January/February 2022 it conducted a survey of all university members on mobility behavior and mobility-related change requests together with the WZB Berlin Social Science Center. For the first time, data on the modal split of commuter traffic is available for the university. Together with BVG and its Jelbi project, locations for a variety of sharing services were selected on the Dahlem campus. Implementation is planned for 2023.
- In March 2022, the Sustainability and Energy Management Unit commissioned a second feasibility study on the continuation of the CarbonThink project. The study is to lead directly to a research and development application.
- In the reporting period, an app-supported audio campus tour of exemplary sustainability projects on the Dahlem campus was developed.

- Launched in 2010, the sustainability initiative Sustain it! presented detailed documentation of its activities - such as the annual University Days on Sustainability - and dozens of other events to mark its 10th anniversary. The community garden Blätterlaube, founded in 2020 together with the Blooming Campus initiative, also developed into a place for meeting and experiencing nature during the pandemic.
- In just a few years, the Blooming Campus initiative has succeeded in making green space management more nature- and insect-friendly. With a patron program, it anchored the project even more firmly in the university community.
- In an international context, Freie Universität Berlin held several virtual and hybrid workshops, conferences, and events. The nucleus of international cooperation was the European university network Una Europa.
- Both the Engineering and Utilities Division (Div. III) and the Central Purchasing and Central Services Subdivision (Div. II C) established new staff functions for sustainability.
- In February 2021, the Executive Board approved Freie Universität's first Diversity Strategy and Action Plan, which documents the university's understanding of diversity and its diversity strategy and sets out goals and measures for the period from 2021 to 2023.

Only three projects have experienced minor delays due to limited personnel capacities. The implementation of the Sustainability Toolbox - an online teaching and learning platform for students and lecturers - was postponed by one year. This is mainly due to the fact that the Sustainability and Energy Management Unit was intensively involved in the participatory development of the Mission Statement for Teaching and Learning. Sustainable development is now one of the eight guiding dimensions of the mission statement. The Sustainability Toolbox is to be completed in 2022.

Almost all of the measures listed are linked to follow-up processes that will continue to shape sustainability management at Freie Universität over the next three years. The implementation of the individual measures of the Declaration of Climate Emergency continues to take on a high priority. This includes, for example, the expansion of photovoltaic systems. The energy security crisis sparked by the war of aggression on Ukraine has created an even greater urgency in addition to the already familiar challenges of climate protection. In order to effectively address these tasks, the Energy Security and Energy Efficiency Working Group began its work in spring 2022. One of its tasks is to systematically examine the technical and organizational energy-saving potential at all sites and to implement it. The Working Group will also identify measures that complement and expand the activities already defined in the area of climate protection and energy efficiency. In this respect, these follow-up activities will contribute to ensuring the university's climate neutrality by 2025.

Sustainability Program 2022-2024

GOVERNANCE & PARTICIPATION

Measures	Deadline	Implementing parties	Status
Continue the Sustainability and Climate Protection Steering Committee.	2024	Sustainability and Climate Protection Steering Committee	●
Continuation of the subject-related working groups for teaching, campus, participation, libraries, procurement, and biodiversity.	2024	Working groups	●
Validate the environmental management system of the university in accordance with EMAS (Eco-Management and Audit Scheme) .	2021	Entire university Coordination: Sustainability and Energy Management Unit	●
Establish a unit for sustainable construction and a sustainability officer in the Division for Engineering and Utilities and Unit II C.	2021	Division for Engineering and Utilities, Unit IIC Central Purchasing and Central Services	●
Implement the Diversity Strategy and Action Plan including expansion of governance and working structures as well as contact points regarding diversity/anti-discrimination.	2023	Office of Strategic Planning and Reporting (SPB) Diversity network	●
Implement a sustainability-oriented idea and innovation management system.	2024	Sustainability and Energy Management Unit	●
Conduct idea workshops for implementation of the Declaration of Climate Emergency in the academic departments and in the divisions of the central university administration.	2023	Sustainability and Energy Management Unit Central University Administration	●

● Implementation completed ● Implemented continuously ● Implementation underway ● New Deadline

RESEARCH, TEACHING, AND KNOWLEDGE TRANSFER

Measures	Deadline	Implementing parties	Status
Coordination and expansion of the Competence Area Sustainable Development in General Professional Skills Courses (ABV).	2024	Sustainability and Energy Management Unit	<div></div>
Continue the education initiative Schools@University for Sustainability + Climate Protection.	2024	Schools@University Project	<div></div>
Continue the sustainability module in the supplementary area of teacher training-related vocational science for primary schools within the framework of the bachelor's degree programs for the teaching profession.	2024	Dahlem School of Education Sustainability and Energy Management Unit	<div></div>
Organize additional training for lecturers on the teaching and learning concept of Education for Sustainable Development (ESD).	2024	Sustainability and Energy Management Unit Institut Futur, Project SUPPORT	<div></div>
Introduce and further develop a sustainability toolbox – an online teaching and learning platform with information on sustainability topics in teaching, research, and campus management.	2022	Sustainability and Energy Management Unit CeDiS	<div></div>
Regularly implement continuous education opportunities on climate neutrality, AGUM, EMAS validation, and ideas and innovation management for employees.	2024	Sustainability and Energy Management Unit Center for Continuing Education	<div></div>
Coordinate the key area of sustainability in the European university network Una Europa and the Task Force for Sustainability and Climate Protection; develop teaching pilots.	11/2022	Vice President for International Affairs, Sustainability and Energy Management Unit Division IV: International Affairs (CIC) Division V: Academic Affairs	<div></div>
Continue the Blooming Campus project in cooperation with the university's green space management team.	2024	Blooming Campus Initiative	<div></div>
Continue participatory sustainability formats such as Sustainability Days, Fudsharing, UniGardening and community gardens.	2024	Sustain it!	<div></div>
Continue to implement the joint project FUBIC (All Electricity for Technology Quarters), funded by the Federal Ministry for Economic Affairs and Energy.	2025	WISTA Management GmbH, RWTH Aachen, aedifion GmbH, BTB GmbH, Sustainability and Energy Management Unit	<div></div>
R&D proposal for the continuation of the CarbonThink project including the second feasibility study.	2022	Department of Earth Sciences Sustainability and Energy Management Unit	<div></div>

Implementation completed Implemented continuously Implementation underway New Deadline

COMMUNICATION, NETWORKS, AND DIALOGUE

Measures	Deadline	Implementing parties	Status
Actively participate in DBU Project of TU Dresden – sustainability assessment at universities.	2023	Sustainability and Energy Management Unit	<div></div>
Actively participate in sustainability network ISCN.	2024	Sustainability and Energy Management Unit	<div></div>
Actively participate in sustainability UNICA GREEN and SDG's.	2024	Sustainability and Energy Management Unit	<div></div>
Develop and implement a sustainability campus tour of exemplary sustainability projects.	2022	Sustainability and Energy Management Unit	<div></div>
Publish regular sustainability reports and environmental statements as per EMAS.	2024	Sustainability and Energy Management Unit	<div></div>
Continue the University Alliance for Sustainability (UAS); establish digital event formats.	2024	Sustainability and Energy Management Unit	<div></div>

CAMPUS MANAGEMENT

Goal: Climate Neutrality by 2025

Measures	Deadline	Implementing parties	Status
Continue with the energy efficiency measures on campus and in buildings, online energy monitoring, technical-structural energy efficiency measures.	2024	Sustainability and Energy Management Unit Division for Engineering and Utilities	<div></div>
Certification of new buildings in accordance with the silver standard (at minimum) of the Sustainable Construction of the German Federal Government (BNB) Rating System. New construction in accordance with the BNB gold standard of the university building at Königin-Luise-Str. 28-30.	2024	Division for Engineering and Utilities	<div></div>
Assess further locations for photovoltaic and solar thermal plants.	2022	Division for Engineering and Utilities Sustainability and Energy Management Unit	<div></div>
Assess the conditions under which CO ₂ -free district heating could be connected.	2022	Sustainability and Energy Management Unit	<div></div>
Assess whether and under which conditions natural gas connections could be switched to biogas.	2022	Sustainability and Energy Management Unit Division for Engineering and Utilities	<div></div>
Completion of the reconstruction of the chemistry building Arnimallee 22 and beginning of the reconstruction of the chemistry building Takustraße 3.	2025	Division for Engineering and Utilities	<div></div>



CAMPUS MANAGEMENT
Goal: Climate Neutrality by 2025

Measures	Deadline	Implementing parties	Status
Develop and implement a sustainable mobility plan for a pedestrian- and bicycle-friendly campus.	2023	Sustainability and Energy Management Unit	●
Examine the mobility structures and processes to, from, and on campus.	2022	Sustainability and Energy Management Unit	●
Develop a concept to pool and optimize the FU vehicle fleet and transition to e-mobility.	2022	Unit IIC, Central Purchasing and Central Services, Division for Engineering and Utilities (charging infrastructure) Sustainability and Energy Management Unit	●
Develop a university-wide policy for the reduction of CO ₂ emissions from business travel.	2022	Subdivision IA, Personnel Office for Academic Employees and Civil Servants, Work-Related Air Travel Working Group	●

Goal: Conserving Resources

Create and implement a drinking water fountain strategy and action plan.	2023	Sustainability and Energy Management Unit Division for Engineering and Utilities	●
Implement a demand-oriented central management strategy for printers and copiers.	2022	Unit IIC, Central Purchasing and Central Services	●
Develop further an EventN toolbox to plan and implement sustainable events at Freie Universität Berlin.	2022	Sustain it! Initiative for Sustainability and Climate Protection	●
Central Purchasing: achieve Level 2 of the BME Certification for Sustainable Procurement.	2022	Unit IIC, Central Purchasing and Central Services	●

● Implementation completed ● Implemented continuously ● Implementation underway ● New Deadline

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		2000	2005	2010	2015	2019	2020	2021
Annual government funding [M €]		267.6	292.4	274.2	311.6	351.0	363.0	373.8
Disbursements from third-party funding (total) [M €]		36.7	46.1	106.3	126.6	140.0	117.0	125.0
Students [Numbers]	total	35,283	31,398	32,043	35,413	37,308	37,102	37,608
	women	53 %	59 %	58 %	59 %	60 %	61 %	61 %
PhD students	total	2,351	2,260	3,902	4,406	3,792	3,628	3,645
International students	total	5,481	4,765	6,042	7,358	7,904	7,384	7,958
Staff [number]	total		4,497	4,863	5,143	5,376	5,573	5,655
	women		53 %	56 %	57 %	55 %	55 %	55 %
Non-academic staff	total		2,283	2,216	2,357	2,534	2,720	2,756
	women		67 %	67 %	67 %	64 %	64 %	64 %
Academic staff	total		2,214	2,647	2,786	2,842	2,853	2,899
	women		35 %	45 %	47 %	48 %	47 %	47 %
Professors	total		433	474	548	559	539	527
	women		20 %	31 %	38 %	37 %	38 %	38 %
Tenured professorships	total		372	309	319	359	363	364
	women		19 %	25 %	31 %	33 %	34 %	36 %
Temporary professorships			0	31	54	45	42	44
Junior professorships			30	77	106	78	65	50
Guest professorships				57	69	77	69	69
Student employees [numbers]				1,662	1,713	1,541	1,344	1,344
Adjunct teaching staff [numbers]			1,325	1,461	1,094	941	894	915
Number of sustainability-related research projects (total of all projects)						665 (1,796)		744 (1,776)
Number of sustainability-related courses (total of all courses)						678 (4,159) WiSe	922 (4,422) WiSe	725 (4,507) WiSe

		Baseline	2005	2010	2015	2019	2020	2021
Energy consumption* (weather adjusted) [MWh]	total	161,462 (2000/2001)	139,705	120,529	121,627 117,431	118,545 114,301	108,602 103,684	113,025 106,552
	reduction to baseline		13.5 %	25.4 %	24.7 % 27.3 %	26.6 % 29.2 %	32.7 % 35.8 %	30.0 % 34.0 %
Electricity		50,222	48,059	43,716	43,472 41,216	40,472 38,048	35,351 32,441	36,744 33,469
District heating		73,399	63,612	55,152	53,345 52,577	49,101 48,347	45,626 44,701	49,192 47,292
Natural gas		23,774	19,034	19,251	24,303 23,131	28,680 27,613	27,550 26,467	27,038 25,770
Heating oil		14,067	9,000	2,410	507 507	292 292	75 75	21 21
Energy cost savings [M €] (calculated with the energy prices of the respective year)	annual reductions compared to baseline		1.22	3.19	3.45 3.97	4.51 5.12	5.51 6.22	5.21 6.12
	cumulative		2.40	14.72	32.87 34.24	48.56 52.17	54.06 58.39	59.27 64.51
CO ₂ emissions equivalent to provider information & power supply contract [t]	total	57,194	26,160	12,951	13,075 12,736	11,463 11,178	6,788 6,558	6,585 6,294
	reduction to baseline		54.3 %	77.4 %	77.1 % 77.7 %	80.0 % 80.5 %	88.1 % 88.5 %	88.5 % 89.0 %
Electricity		38,118	10,717	0	0	0	0	0
	reduction to baseline		71.9%	100%	100%	100%	100%	100%
CO ₂ emissions per square meter of building area [kg/m2]		107.9	50.1	24.1	23.1	20.3	12.0***	11.4
Water use** [m³]	total	283,009 (2004)	272,014	197,870	219,146	243,752	197,126	175,000
Water costs [M €]	total	1.556 (2004)	1.593	1.502	1.400	1.454	1.218	1.097
Waste disposal costs [M €]	total	0.428 (2004)	0.454	0.348	0.339	0.373	0.310	0.361
Residual waste		0.151	0.142	0.142	0.159	0.192	0.186	0.217
Hazardous waste (chemical waste, bulky waste, electronic scraps etc.)		0.236	0.275	0.203	0.180	0.158	0.127	0.127
Net floor space [m²]		530,000 (2000/2001)	522,000	537,000	565,000	565,796	567,424	578,148
Paper consumption [t]					151,27	79,51	43,02	39,05

Numbers in *Italic*: excluding increase in floor space
 * The energy use includes the energy consumption of canteens and cafeterias run by the Studierendenwerk Berlin.
 ** Projection 2021: For 1 % of the water meters, the previous year's value was estimated due to the lack of current figures.
 *** Decrease in 2020 mainly results from significant change in the calculation method for district heating.

SUSTAINABILITY REPORT 2022

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