

SUSTAINABILITY REPORT
2024

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### **Profile**

In 1948, professors and students took the initiative for the founding of Freie Universität Berlin. They were protesting the persecution of university members critical of the former Universität Unter den Linden in the Soviet sector of divided Berlin. Based on its history, Freie Universität Berlin has declared its express commitment to its social responsibility for democracy, equality, and diversity. Its founding values of freedom and internationality still guide our development today.

In keeping with its social responsibility, Freie Universität placed a new emphasis on sustainable development in its Sustainability Mission Statement published in 2016. This principle of responsibility applies to all areas of the university and its campus.

In 2019, when Freie Universität took the bold step as the first German university to declare a climate emergency, it set seven ambitious sub-targets. In line with its values, a broad-based participatory process developed strategic options for implementing these goals and established the first concrete instruments and measures. Following an internal university review and discussion, the university leadership decided to adjust the goal of achieving climate neutrality by 2025. As a result, the university will no longer pursue climate neutrality by purchasing external CO2 offset certificates. Instead, the focus will be on promoting climate protection and biodiversity through a new internal university fund.

Freie Universität Berlin has been one of the twelve Universities of Excellence in Germany since 2007. Since 2019, the Berlin University Alliance (BUA) with its four Berlin partners – Freie Universität Berlin, Humboldt-Universität zu Berlin, Technische Universität Berlin and Charité - Universitätsmedizin Berlin –has been funded as the only consortium of excellence in the Excellence Strategy competition of the federal and state governments. The BUA sees itself as an open knowledge laboratory for the great transformations of our time. Freie Universität represents the thematic focus "Sustainability" and "Hopeful Futures" in this framework.

About 38,000 students and doctoral candidates are enrolled in our 219 degree programs in a wide range of subjects. The university's portfolio ranges from natural and life sciences to social sciences, humanities and veterinary medicine. In each of these fields, international cooperation plays an important role. International university networks such as the European university alliance Una Europa, established in 2019, and the International Sustainable Campus Network (ISCN) play an important proactive and networking role in the area of sustainability.

# MILESTONES

### 2001-2010

- Energy Controlling
- Energy Efficiency Program (until 2011)
- Bonus Scheme for Energy Savings
- Green IT Action Program
- 1st Photovoltaic Systems
- 1st Schools@University for Sustainability + Climate Protection

### 2011

• 1st University Sustainability Days

### 2012

• 1st Annual University Closing over Christmas/New Year

### 2013

• 1st Combined Heat and Power Plant

### 2014

- Joined International Sustainability Networks ISCN & UNICA Green
- UniGardening@Sustain It!

### 2015

• Foundation of University Alliance for Sustainability (UAS)

### 2016

• 1st Spring Campus Conference of UAS (until 2021)

### 2017

- Online-Energy Monitoring
- FUdsharing Fairteiler@Sustain It!

### 2018

- Sustainable Development Area in General Professional Skills Courses
- 1st Sustainability Report

### 2019

• Sustainability Lead Una Europa

### 2020

- Community Garden "Leafy Green Canopy"
- 1st SDG Compass

### 2021

- Idea and Innovation Management
- 1st FUturist Competition
- 1st Environmental Statement

### 2022

- 1st Mobility Survey
- Sustainable Campus Tour

### 2023

• Completion of the first cycle of **FMAS** validation

### 2024-2026

- Business Travel Policy
- Biodiversity Strategy
- Climate Protection Fund
- Carbon Handprint and Footprint Position Paper
- Promotion of Living Labs
- Climate Protection Program 2025-2030

# GOVERNANCE

### 2001-2009

- Energy Management Coordinator Position
- Environmental Guidelines
- Energy Management and Environment Department
- ISO 14001 Energy Management System
- Environmental Teams and Audits
- Energy Management and Environment Steering Committee (until 2014)

### 2010

 Sustain It! Initiative for Sustainability & Climate Protection

### 2011

• 1st Climate Protection Agreement with the State of Berlin

### 2015

 Sustainability Sustainability and Energy Management Unit

### 2016

Sustainability Guidelines

### 2017

• Sustainability Steering Committee (until 2019)

### 2018

• 2nd Climate Protection Agreement with the State of Berlin

### 2019

- Climate Emergency Declaration
- Blooming Campus Initiative

### 2020

- Advisory Committee on Sustainability & Climate Protection with Working Groups
- Integrated Management System AGUM

### 2021

- EMAS Validation of Environmental Management
- GreenFUBib Working Group

### 2024

• Biodiversity Working Group

# Demonstrating Responsibility - Taking on the Challenges of Multiple Crises



**Prof. Dr. Günter M. Ziegler** President



Andrea Güttner
Director of Administration and Finance, temporarily entrusted with the performance of official duties

Freie Universität Berlin stands for excellent research, committed teaching and international study in one of Europe's most exciting capitals. Our campus is a place for meeting and interacting with people from quite different origins and backgrounds. We are proud of the fact that important and pressing social issues are negotiated and discussed here in the constructive ways that universities can do best. Our university is and must remain a place of dialog and open, liberal and democratic exchange where all members can develop deeper understandings and informed opinions even on highly urgent international crises and conflicts. Only together, both as a university community on campus and as a society as a whole, can we face up to the current and future challenges.

We are not only confronting the climate and biodiversity crisis through research and teaching, but we are also participating in a social discourse and taking responsibility for the ongoing operations of our institution very seriously. At Freie Universität, we began taking positive action by establishing a university-wide energy and environmental management system over twenty years ago. This long-term, forward-looking approach recently proved its worth yet again during the 2022-23 energy crisis.

Freie Universität Berlin is part of a growing group of committed universities worldwide that are actively taking responsibility for climate protection and have declared a climate emergency. We have set ourselves seven ambitious goals that promote climate protection and sustainability throughout the university in the sense of a "whole institution approach". Considerable efforts have been made in discussing strategic options for achieving these goals. First implementation successes can be seen in the areas of energy, communication and engagement. For the remaining areas of climate neutrality, teaching, and business travel, teams are currently developing cross-departmental concepts that are to be put into practice in the near future.

As we have discovered, adjustments to the path may also be necessary along the way to meeting our targets. For example, the university had at first committed to climate neutrality by 2025 in the sense of a net-zero target. We have changed our policy here. As a result of wide-ranging discussions with professors, employees and students since the 2019 Climate Emergency Declaration, we as Executive Board have concluded that external CO2 offset certificates should play no role in achieving climate neutrality at Freie Universität. Instead, we will focus on our own institutional actions and create opportunities to implement further-reaching climate protection and biodiversity measures as a university community. We want to achieve our goal together in our operations as well on our own premises, even if it takes longer! As Executive Board, we are setting the course for this.

We will set up an internal climate protection fund to be used for financing additional climate protection and biodiversity measures on our campus in the future. This year, we are also systematically tackling the issue of species and nature conservation: We have declared this year the Year of Biodiversity and developed a biodiversity strategy for Freie Universität. Even if the measures introduced so far have been successful, we are aware that we must not let up in our efforts under any circumstances, that we must continue to act with foresight and that we must therefore continue to promote climate and biodiversity protection at Freie Universität Berlin in a transparent, ambitious and sustainable manner and throughout our networks. In addition to the climate protection fund, we are focusing in particular on the consistent integration and further development of our campusrelated sustainability activities in research, teaching, administration, through volunteer work and in exchange with society.

We therefore invite each of you to join us on this journey. This report shows the range of activities that many university members are already actively involved in. Let us all unlock further potential together. We look forward to it!

Enjoy reading and getting active!

Prof. Dr. Günter M. Ziegler Andrea Güttner

At Freie Universität in 2024, we can look back on over two decades of anchoring sustainability in the institution. It all began with the establishment of an operational energy management system in 2001, which we have since gradually expanded into a sustainability management system that aims to address all areas of the university. With a team of 14 colleagues and 5 students, the Sustainability and Energy Management Unit develops strategic topics and supports the Executive Board in its management tasks. However, the core principle of our work has not changed in all these years: Sustainability is and remains a cross-sectional and integrative task that relies on cooperation among all university departments.

A clear strategy, an understanding of the university as an enabler and partnership-based networking are three key responses to this task. Almost all of our activities are therefore linked to the goal of making the greatest possible contribution to networking. This applies first and foremost to our ideas and innovation management system which we have successfully implemented over the last three years. The 3 "FUturist" competitions to date have led to a total of 38 ideas being submitted, 19 of which were funded and supported in their implementation. Existing relationships have been strengthened, but a large number of new collaborations have also been established.

EMAS certification has had a similar networking effect. We apply this environmental management standard not only in order to be able to fall back on the system of a proven set of rules. Rather, we see the certification process as an instrument for involving as many different players at Freie Universität as possible in this context. Within three years, almost all areas of the university are visited by our internal audit team and an external environmental auditor. The audit onsite visits and discussions not only review the functionality and implementation of existing regulations and goals, but also develop new ideas and measures that strengthen sustainability on site and – just as importantly – create a space for experimentation and mutual experience.

Good networking is also the result of our involvement in the Sustainable Development competence area in the General Professional Skills program, where we reach 200 to 300 students per year. We have also built up a network of lecturers at our university. This sustainability report is another example of the relevance of networking. It reflects the diversity of activities in research, teaching, transfer, and on campus and many people have participated in its collaborative production. It is based on the criteria of the German Sustainability Code (DNK), which was developed in 2018 by the German Council for Sustainable Development in cooperation with twelve universities, including Freie Universität.

A final example of the strength of networks is our activities in the field of biodiversity. This field stands out for its unusual dynamism in the past two decades at Freie Universität. Originating in a research context, embedded in teaching activities and interlinked with the Sustain It! initiative, the Blooming Campus initiative succeeded in initiating a paradigm shift in the maintenance of the university's green spaces in just a few years thanks to a tremendous amount of voluntary commitment and constructive cooperation with the administration. This process led to the proclamation of the Year of Biodiversity 2024 by President Ziegler and the adoption of the first university-wide biodiversity strategy in May 2024. This is one more example of our university at its best. The sometimes challenging coexistence of heterogeneous organizational cultures was thus translated into common goals and concepts combined with a successful push and pull mechanism. This is only possible because a university brings together people with diverse experiences and skills as well as exceptional commitment.

My wish is for everyone to get involved - whether as an institute, team or individual. We look forward to your suggestions for and engagement in our efforts to improve sustainability at Freie Universität Berlin!

Andreas Wanke

### Networks as a Success Factor



Andreas Wanke
Director of the Sustainability and Energy Management Unit

# Freie Universität GOVERNANCE

# Anchoring Sustainability and Climate Protection at the University

Freie Universität Berlin has been firmly committed to sustainability for many years. The university is one of the few universities in Germany that publishes regular sustainability reports and whose environmental management is certified in accordance with the European EMAS seal of approval. With its sustainability-oriented ideas and innovation management system, the university-wide bonus system for energy saving and the recent adoption of a biodiversity strategy, the university features a sustainability commitment that is unique in the German university landscape.

Freie Universität adopted its Sustainability Mission Statement back in 2016, committing itself to the principles of sustainable development in the areas of research, teaching, transfer and on campus. At the end of 2019, it became the first German university to declare a climate emergency and set itself seven ambitious goals for climate protection and sustainability-oriented university development.

### Governance

For Freie Universität, sustainability and climate protection are tasks that address each and every area of the institution. Responsibility for controlling and coordinating sustainability management lies with the Sustainability and Energy Management Unit. It reports to the Director of Administration and Finance and thus to the Executive Board. In addition, the Executive Vice President for International Affairs and University Culture is also responsible for the sustainability strategy. With this dual assignment, Freie Universität expresses its basic understanding that sustainable development is both a management and integration task and relates to the entire university. The Executive Board is advised by the Advisory Committee for Sustainability & Climate Protection on the strategies and priorities of Freie Universität's sustainability activities. It supports university leadership in continuously improving the structural conditions for sustainability and climate protection-oriented activities in all areas of the university. The committee, in which all status groups of the university are represented, is chaired by the Executive Vice President. Several topic-related working groups supplement and support the advisory committee. Decentralized sustainability teams at departmental level are another pillar of sustainability management. They are dedicated to the development and implementation of specific projects and measures.

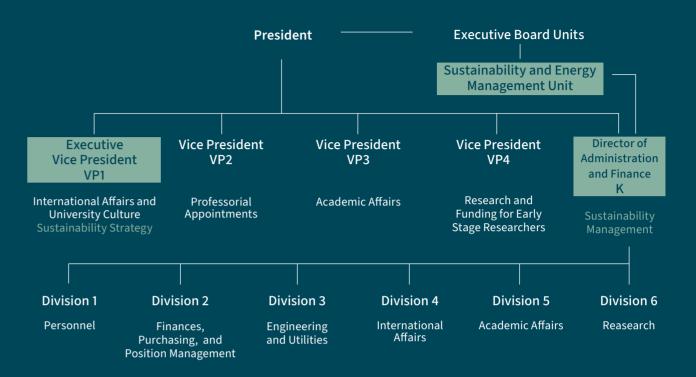
Several sustainability initiatives and actors from within the university provide important impetus for the university's sustainability development, including the Sustain It! initiatives (since 2010), Blooming Campus (since 2019) and GreenFUBib (since 2021). Sustain It! gave rise to additional sub-initiatives such as FUdSharing and the Blätterlaube (Leafy Green Canopy) and UniGardening community gardens. The Campus Zukunftsbildung is developing a wide range of transdisciplinary ESD offerings for schools and the district's educational landscape.

### The Sustainability and Energy Management Unit

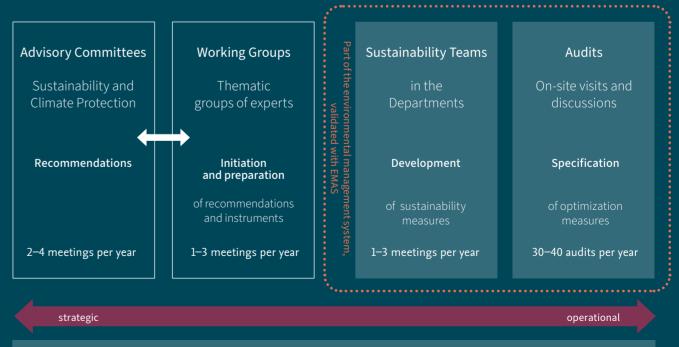
Since 2015, Freie Universität Berlin has bundled the main cross-sectional tasks of sustainability management in the Sustainability and Energy Management Unit. The team of 14 employees and 5 student employees (as of 2024) is Freie Universität's central point of contact for sustainability and climate protection. The employees are tasked with initiating and supporting sustainability-related activities in all areas of the university. Since successful sustainability management generally depends on the fruitful cooperation of many university stakeholders, participatory formats and networking activities are among the key tasks of the unit. It coordinates the Advisory Committee for Sustainability & Climate Protection, the Sustainable Development competence area in the General Professional Skills (ABV) program, and the ideas and innovation management system. This unit is also responsible for the further development of the AGUM integrated management system and the associated EMAS certification process. Among its other tasks is the coordination of the university's waste, energy and mobility management and representing Freie Universität Berlin in regional and international university networks.



### **Organization Chart**



### Governance and Participation Structure



Initiatives for Sustainability and Climate Protection
Sustain It!, Blooming Campus, GreenFUBib, FURad, etc.



The credibility of Freie Universität in climate protection matters is based, among other things, on the fact that it has succeeded in reducing the university's energy consumption by around 33% since 2000/2001 through diverse targeted measures. If the buildings added during this period are excluded, the reduction amounts to around 40%. The heat consumption of the buildings was almost halved during this period.

Over the past 23 years, many further steps have led to sustainability management in the sense of a whole institution approach. This holistic understanding is also reflected in the seven subgoals of the Climate Emergency Declaration from 2019. These include the goal of achieving climate neutrality by 2025. Given the dependence of the heating supply and business travel on fossil energy sources, this goal would only be achievable by purchasing external CO2 offset certificates, which the university leadership has ruled out after evaluating all strategic options. Instead, future efforts should focus on promoting climate protection on the university campus and giving all university members the opportunity to actively participate. Freie Universität will continue to pursue the goal of ambitious climate protection with a bundle of measures. These include in particular:

- introduction of an internal climate protection fund to promote additional climate protection and biodiversity measures
- adoption of a sustainability-oriented business travel strategy
- development of a climate protection program for 2025 to 2030
- exploring the production and use of biochar as a negative CO2 emissions technology
- consolidation of the sustainability-oriented idea and innovation management system
- establishment of a focused discourse on the positive effects of sustainability in research, teaching, and administration
- introduction of university-wide biodiversity management and the adoption of a biodiversity strategy
- determination of further CO2 emissions in Scope 3 (buildings, procured goods and services, canteens, use of chemicals, etc.)

## The University as a Society's Workshop for the Future

Sustainability management at Freie Universität Berlin follows a whole institution approach that aims to systematically link sustainability-oriented activities in research, teaching, transfer, and on campus. Sustainability is to be integrated into decision-making processes and workflows at all levels of the university in the long term. This is in line with the university's ambition to act as a social workshop for the future, which sees particular potential in networking the various disciplines and areas of the university. In order to develop this potential, participatory formats, discussion programs, and networking activities are given high priority at Freie Universität.

Living labs, which aim to achieve systematic cooperation between the different areas of the university, are a key instrument for realizing this aspiration. Examples of living labs include the creation of the biodiversity strategy adopted in May 2024 and the "Participation Laboratory Apple Meadow" project funded in the "FUturist" competition see page 71).

# Ambitiou<mark>sly Pur</mark>suing the Goals of the Climate Emergency Declaration



Prof. Dr. Verena Blechinger-Talcott Executive Vice President

Prof. Dr. Blechinger-Talcott, you were already a member of the Executive Board that declared a climate emergency in December 2019. Which targets can you already say have largely been achieved?

The seven sub-goals of the Climate Emergency Declaration span all areas of the university and thus tie in with the whole institution approach we are pursuing. I am happy to report that we have already reached three of these goals: With our sustainability and environmental reporting, our EMAS-certified environmental management, the energy efficiency working group and ideas and innovation management, we are at the forefront of German universities. Of course, we aim to remain ambitious in this area.

The glass is clearly more than half full when it comes to two other goals: with the Sustainable Development competence area in the General Professional Skills program, we have created an important foundation for anchoring sustainability in teaching. Now we need to expand the reach of sustainability-related topics in courses offered by the academic departments. Our membership of the International Sustainable Campus Network (ISCN) and our leading role in the field of sustainability in the Una Europa university alliance have positioned us quite well in an international context.

### Which targets require more action?

Comprehensive actions following the Climate Emergency Declaration, such as considering the impact on the climate in all decisions and planning, can only be designed for the medium and long term. The aim here is to bring about lasting change in university culture and also address the extended governance structure. This is a task for the future that challenges us as an entire university community and one that I am committed to. Such a change will take some time, however, as it requires a combination of management on the part of the Executive Board and the promotion of bottom-up initiatives within the university. We have developed several strategic options for the goal of achieving climate neutrality by 2025. These include further improving energy efficiency, expanding the use of photovoltaics, a new sustainability-oriented business travel strategy, and a feasibility study for producing and using biochar, a negative emissions technology. The key decisions have been made and initial steps have been taken for all of these topics; we will still need the patience to see everything through.

Nevertheless, it is already clear that we will be pursuing the goal of net-zero climate neutrality differently than initially planned. Instead, we are taking a new path of our own that suits us better as a university.

Can you briefly explain the reasons for this?

The goal of net zero carbon neutrality could only be achieved in the short term by purchasing externally managed CO2 offset certificates. We have deliberately decided against this path. There are various reasons for this: As an educational institution, we want to invite students and employees to contribute to our climate goals. This is best achieved directly on our campus and not through abstract transactions that are quite difficult in practice to monitor and evaluate. Furthermore, we don't want to buy compliance by contributing to schemes located in the global South. Instead, the climate protection fund we envisage will give us the scope to meet this requirement within our university as a community.

Doesn't this mean a loss of credibility for the university? No. On the contrary. While we might be criticized for not meeting one of our short-term goals listed in our declaration, a more balanced look at our reasons for this shift will reveal that it was precisely the question of credibility that motivated us to pivot from certificates to setting up an internal climate protection fund. Moreover, we have already achieved success in the area of energy efficiency, for example, and have already taken the exemplary measures outlined above. We will also develop a climate protection program for the years 2025 to 2030. Climate and biodiversity protection are and will remain important and decisive aspects of our agenda.

What do you see as the most important steps in the next two years?

We need to consolidate the successes we have achieved and integrate them into the structures of the university, as we have done in the area of biodiversity, for example, with the development of a biodiversity strategy that originated as part of an initiative. For me as Executive Vice President, who is also responsible for university culture, the main focus will be on strategically anchoring a culture of sustainability. This is a task that I am looking forward to working on in dialog with all of the stakeholders in the university and in our international networks.

# Informed and engaged through EMAS-certified management system

Since 2020, Freie Universität Berlin has bundled its extensive and diverse activities in occupational safety, health and environmental protection into the integrated management system AGUM. Developed specifically for the particular challenges at German universities, AGUM describes the relevant processes and interrelationships in the university's various areas of activity and identifies the functions or departments responsible in each case. The AGUM helps to make the current versions of the large number of applicable laws and regulations transparent and comprehensible for all employees involved and to implement them in a legally compliant manner. Information and regulations specific to Freie Universität, such as the environmental mission statement, the Climate Emergency Declaration, participation opportunities, and the Waste ABC instructions are also integrated into the system. The AGUM supports managers and all employees who are entrusted with special tasks, such as safety officers and first responders or fire safety officers. The information platform is available to all members of the university on the intranet. The university leadership has defined the AGUM as binding instructions for all university members. The Sustainability and Energy Management Unit regularly offers introductory workshops to familiarize those primarily addressed by the system and provides them with tips on how to implement the regulations.

Since 2021, Freie Universität Berlin's sustainability and environmental management has been certified in accordance with the European Union's Eco-Management and Audit Scheme (EMAS). This standard is one of the most demanding seals of approval worldwide for demonstrating environmental performance beyond legal requirements and a continuous improvement process. Regular self-audits and subsequent external audits by an external assessor are used to check whether planned improvements in operational environmental protection have been achieved.

Another management tool is an annual environmental statement, in which the university's efforts - for example in waste avoidance, the reduction of direct and indirect emissions or the reduction of resource consumption - are regularly published. Freie Universität submitted its last statement in 2023 and is planning its next environmental statement for September 2024.









# Setting an Example with Our Own Biodiversity Strategy



**Prof. Dr. Aletta Bonn**Berlin State Commissioner for Nature Conservation and Landscape Management



Rebecca Rongstock Biodiversity Manager at Freie Universität Berlin, Sustainability and Energy Management Unit

As the State Commissioner for Nature Conservation and Landscape Management, you submit proposals and suggestions to the State of Berlin regarding nature conservation in the city. How do you classify Freie Universität's activities in the context of the state? Bonn: I think it is very important that a university, as a thought leader and visible social actor, proactively implements the global biodiversity goals that apply to governments, businesses and scientific institutions. Universities are important workshops for the future and should always be places that find solutions to major socio-political challenges, implement them with personal responsibility and thus inspire others. At the same time, Freie Universität Berlin, with more than 37,000 students and over 5,700 employees as well as 34 hectares of land on its campus, is also an important role model for the next generation.

What does it mean for you and the state of Berlin when an institution like Freie Universität embarks on its own biodiversity strategy?

Bonn: The biodiversity strategy of Freie Universität
Berlin builds on the Berlin Biodiversity Strategy and
implements it for the particular situation of the university with its open spaces, buildings, and above all,
integrated in its innovative research and teaching.
I think it's excellent that the idea for a separate biodiversity strategy emerged from the research context
of the "Pflanze KlimaKultur!" (Plants Climate Culture!)
project with student participation, the Blooming
Campus initiative and UniGardening. I hope that the
university will find many imitators at other institutions in Berlin and nationwide committed to developing a healthy, green campus.

What suggestions and ideas would you give Freie Universität for the successful implementation of its biodiversity strategy?

Bonn: Please be courageous - dare to implement the biodiversity strategy quickly and effectively! Trust in further impulses from students, empower and support them. Share your experiences with other stakeholders in Berlin and celebrate your successes!

Freie Universität has declared 2024 the Year of Biodiversity and developed its own biodiversity strategy. What are the most important cornerstones of the strategy? Rongstock: The strategy calls for a commitment to biodiversity and nature conservation on campus and includes increased visibility, networking and the expansion of activities in research, teaching and transformative education. Further goals are to offer more opportunities for participation and to improve communication and cooperation on this topic.

Students and employees of Freie Universität were encouraged to participate in the process as part of a Think Camp. How was the response?

Rongstock: 70 people from very different areas of university life took part in the Think Camp. I also discussed the strategy with many others. There is a lot of interest in urban nature and biodiversity issues and it's easy to get into conversations. For many FU members, diverse urban nature around their daily workplace or place of study is important.

What are the most important challenges for you during implementation?

Rongstock: Many measures for more biodiversity have already been implemented through the voluntary work of the sustainability initiatives. Further measures are to be incorporated in the future into guidelines and thus institutionalized. Action papers for specific parts of the campus should lead to the targeted implementation of measures to promote biodiversity. So, there is still a long way to go.

Development of the strategy itself has already brought about better networking of stakeholders. Other areas of the strategy present us with greater challenges: For example, implementing biodiversity-promoting green space design and maintenance requires training for the staff of grounds maintenance companies. We already have some ideas on how we could implement measures through targeted cooperation between different areas. If everyone involved pursues one goal - as much biodiversity as possible on campus - I am confident that we will successfully overcome these challenges.

Sustainable development is becoming increasingly important in the university system. Why is a research project entitled "Culture of Sustainability at Universities" (KuNaH) needed?

Although sustainability is moving more into focus, our social practice is different. We continue to live in a world in which non-sustainability is the norm. Although many higher education institutions have embarked on this path, issues of ecological and social justice are still often tackled in a fragmented way. even at universities. More and more measures are being initiated and there are exciting projects. However, when we look at the core tasks of research and teaching, when we look at the communication of universities, sustainability is usually less present. Responsibility for sustainability is also sometimes shifted too heavily onto individuals. In 2018, the German Rectors' Conference proclaimed the goal of a "culture of sustainability". However, it largely left open what exactly is meant by this, how it is monitored and how it could be strengthened.

"Culture of sustainability" - that doesn't sound very specific at first. What do you think is the strength of this approach?

Culture focuses on the self-evident facts, assumptions and infrastructures that underlie everyday actions. The focus on cultures emphasizes normalityin other words, what happens as a matter of course and is often not oriented towards sustainability today. A culture of sustainability would probably be realized when it is no longer a question of whether, for example, climate protection and strengthening social justice are central priorities for action in research, teaching, administration, operations and the university's transfer activities.

What does a higher education institution need to bring to a "culture of sustainability"?

There is certainly not "one" culture of sustainability, but rather diverse cultures at every university that are more or less closely interwoven with sustainability. The routines and self-evident ways of thinking and

acting must also be seen in the context of a university's history, location, or subject profile. Furthermore, universities do not consist of a uniform collective, but are more diverse. However, one thing is clear: a "culture of sustainability" does not place responsibility solely on individuals. Instead, a "culture of sustainability" means that regulatory systems, infrastructures and communication are designed by the responsible stakeholders at all levels in such a way that sustainability becomes a structural standard.

Why is this undertaking a particular challenge? Especially in diverse and difficult-to-control organizations such as universities, it is all the more important to think about what is taken for granted behind the scenes. Universities not only have special potential as the future workshops of society, but also a special responsibility. People and scientific institutions are important voices when it comes to putting our societies back on a sustainable climate path, preserving an intact biosphere for future generations and reducing social inequality.

At Institut Futur, you also carry out the national monitoring of Education for Sustainable Development (ESD). How well are (German) universities performing? In monitoring, we look at the extent to which sustainability is integrated into the education system. We can see that sustainability has now been included in most higher education laws as a task for universities and is increasingly being included in target and performance agreements. There are gaps, for example, in course offerings, including in teacher training. In nationwide surveys, we see the importance of making sustainability something that can be experienced and shaped within the organization. A recent study on the "Whole Institution Approach" shows that students who experience more sustainability in everyday life at their university are significantly more motivated and feel able to make important contributions to solving sustainability crises. They also have a strong desire for sustainability to play a much more central role in courses.

### Sustainability as the New "Normal"



# Jorrit Holst Research Associate at the Department of Education and Psychology Joint project KuNaH (Culture of Sustainability at Universities)



# TEACHING

### **Teaching and Learning Sustainability**

Since the summer semester of 2016, the Sustainability and Energy Management Unit has been evaluating all courses regarding their relevance to the 17 Sustainable Development Goals of the United Nations (SDGs). This survey was based on all course titles and descriptions from the course catalog, combined with criteria for an SDG reference or focus (see graphic for definitions, page 32/33). Using the priority model of sustainability - weighting of ecology before social and economic issues - a focus was assessed if the course clearly focused on ecological goals (e. g. climate, species or resource protection) or issues of global socio-ecological justice for the first time.

The evaluation of the winter semester 2023/2024, for example, shows that 709 or 17.8% of all 3,980 courses surveyed relate to at least one up to maximum three SDGs. Of these, 3.8% (153) have an explicit sustainability focus. Compared to the last evaluation, this is an increase in the sustainability reference and a decrease in the sustainability focus by one percent each.

The Department of Earth Sciences offered the most courses with a sustainability focus (35), closely followed by the Department of Biology, Chemistry and Pharmacy (32). The Department of Political and Social Sciences taught the most courses with SDG references (132), followed by the departments already mentioned above. SDG 10 (Combating inequality and discrimination) was addressed most frequently, followed by SDG 16 (Peace, justice, strong institutions) and SDG 4 (Quality education).

# Integrating Education for Sustainable Development into Politics Classes

Since 2015, the Future Education Campus at the Department of Earth Sciences has been offering practice-oriented seminars in teacher training in cooperation with the Center for Didactics in Political Science at the Department of Political and Social Sciences. The teaching-learning format "Integrating education for sustainable development (ESD) into politics classes - (how) does it work?" is an example of the possible implementation of the cross-cutting topic of sustainability and the ESD concept in (political) teacher training. At the same time, it offers student teachers their first practical teaching experience: Student teams develop action-oriented workshops for 10- to 13-year-old pupils and implement them directly as part of Freie Universität's Schools@University for Sustainability + Climate Protection. This program thus makes an important contribution to the skills development of student teachers and promotes the spread of a sustainability-oriented teaching and learning culture in Berlin schools.

### Learning to Teach Transformatively



**Dr. Katja Reinecke**Director
Dahlem Center for Academic Teaching (DCAT)



**Dr. Stefan Nessler**Deputy Director
Dahlem Center for Academic Teaching (DCAT)

What exactly does the Dahlem Center for Academic Teaching, or DCAT for short, do?

Reinecke: We are responsible for the continuing professional development of teaching staff at Freie Universität. This means that we address everyone who is involved in teaching: Doctoral students, professors, postdocs, and lecturers. In workshops and through consultations, we teach didactic principles and support teachers in developing both their own teaching skills and teaching methods. Participants can acquire a certificate from us that is recognized throughout Germany; we also offer on-demand workshops on didactics.

Students today learn differently than they did 20 years ago. The demands on teachers have also changed. Against this backdrop, what are the biggest challenges for you?

Nessler: People teaching in universities today face a more socially diverse student body. In addition, future graduates should be prepared for work in professional fields whose professional requirements are in many cases subject to continuous and rapid change. As a result, the demands on professors and lecturers are also diversifying and expanding. It is no longer enough to be academically highly qualified in one's subject. It also requires a rethinking of one's own teaching activities in comparison to how one studied. The courses offered by the DCAT therefore focus, among other things, on how subject-specific and interdisciplinary skills can be taught and how teaching that promotes learning can succeed while addressing a heterogeneous student body.

The importance of sustainability is emphasized both in the Climate Emergency Declaration and in the mission statement for teaching and learning. What role does sustainability play in your work context?

Reinecke: Sustainability is an important aspect of higher education at Freie Universität. As DCAT, we help to bring the mission statement for teaching and learning to life. Among other things, it states that "sustainability is a visible and self-evident part of [thed] teaching and learning culture. [...] Issues of climate change and socio-ecological change are addressed in the learning

opportunities for all members of the university." The DCAT offers lecturers concrete assistance on how they can convey sustainability-related aspects in their teaching in the best possible methodological and didactic way.

What does support for teachers look like in practice?

Nessler: We experience time and again that the success of our workshops is not just about imparting methodological knowledge. It's about giving teachers space and time to exchange ideas with colleagues and across disciplines. We therefore offer them opportunities to reflect on their complex role as teachers in the context of social challenges and in direct contact with students. Among other things, we invite stakeholders to our workshop "Learning to Teach Transformatively in Times of Multiple Crises", which was developed in cooperation with the Sustainability and Energy Management Unit.

What significance does living in times of multiple crises have for DCAT's work?

Reinecke: Teachers tell us, among other things, that they are often confronted with feelings of fear, helplessness, or anxiety from their students in the face of global crises. Recently, lecturers have reported that they have been confronted with highly charged emotional arguments due to differing opinions from students. We also offer workshops on these topics so that teachers are not left to deal with these challenges alone.

It is your job to think about the future of teaching. Where do you think developments are heading and how is Freie Universität preparing for this?

Nessler: The changes in society make it necessary for both course content and the structural framework conditions for teaching and learning to develop and adapt. Ideally, teachers should adopt new impulses from continuing education and feedback from colleagues and students to continuously develop their teaching. At Freie Universität, the DCAT offers lecturers the opportunity to reflect on and professionalize their own didactic approach in a collegial setting.





### New Modules with a Focus on Sustainability: Education for Sustainable Development (ESD) in the Natural Sciences

In the natural sciences at Freie Universität, students can choose new modules with a focus on sustainability, some of which are offered across departments. In the winter semester 2023/2024, for example, the course "Physics and Chemistry of Sustainability I + II" was created for master's degree students in those fields.

The first part is offered at the Department of Physics with a focus on renewable energies. It covers topics such as energy generation and storage using solar plants and hydrogen. The second part in the summer semester 2024 focused on more sustainable chemical (recycling) processes and products and is offered at the Department of Chemistry.

In mathematics, existing courses on numerical climate modeling were supplemented by additional offerings. Following on from the research of the MATH+ Cluster of Excellence and the School@DecisionTheatreLab experimental laboratory of the Berlin University Alliance for Science Communication, a project seminar "Mathematical Modeling in the Discourse of Social Challenges" has been offered since the summer semester 2022, for example. The main topics include sustainable mobility and pandemics. Since the winter semester 2023/2024, further teaching concepts have been developed that combine the breadth of mathematical applications with the teaching profession and education for sustainable development.

Sustainability has long been a cross-cutting topic in biology, particularly in seminars on the Biodiversity, Evolution and Ecology M.Sc. program (see also the Teaching section of the SDG evaluation report). A current example is the new module "Nature Positivity and Multi-Species Cohabitation in Urban Ecosystems" in cooperation with the Una Europa network, which combines artistic approaches with biodiversity and urban research.

### Geographies of Global Inequalities M.Sc. Program: Living Sustainability at the Department of Earth Sciences

In the winter semester 2023/2024, the English-language Master of Science (M.Sc.) program in Geographies of Global Inequalities started at the Department of Earth Sciences. The four-semester program is a further development of the former German-language Geographical Development Research. M.A. program. It addresses global ecological, social and other dimensions of justice even more explicitly and focuses on processes of fragmentation and inequality as well as the conditions under which they arise and are maintained. The foundation is formed by human geography research, enriched by inter- and transdisciplinary perspectives and methods. These include political economy and ecology, concepts of critical social sciences as well as postcolonial and feminist approaches. The course is now even more research-oriented, but the acquisition of practical professional skills through internships and project management remains an integral component.





Courses 2023/24 winter semester 709 | 17.8%

Total with relation to sustainability

153 | 3.8%

of which, with sustainability focus



<sup>\*</sup> up to three SDGs may be assigned

### Courses with reference to sustainability by department Courses that deal with sustainability aspects in the sense of at least one of the UN SDGs are sustainability-related. Courses that focus on sustainability or deal with sustainability issues in an interdisciplinary manner in accordance with the priority model have a sustainability focus.

ical and Social Sciences	132
h Sciences	83
ogy, Chemistry, and Pharmacy	78
cation and Psychology	73
ory and Cultural Studies	60
osophy and Humanities	47
ther departments and institutes	236
I.	709
	'

3 5000 HALLING  1 ***********************************	EDUCATION	STANDS TOULITY  STANDS TOULITY  STANDS TO THE STANDS TO TH	1 == 8 = î	·	10 REDUCED INEQUALITY	IES IIII	13 dawie	H	15 URE ONLINE	16 PEACE, JUSTIN AND STRONG INSTITUTIONS	17 ===== <del>(S)</del>
a 189	b 120	c 87	d 66	e 63	f 56	g h 40 38	i j 31 28	k   27 2		n o 15 14	p 80

### Courses by Sustainable Development Goals and Departments

a	Political and Social Sciences
b	Earth Sciences

Biology, Chemistry, and Pharmacy

Education and Psychology

History and Cultural Studies

Philosophy and Humanities Business and Economics

Law

Institute for Latin American Studies

Berlin University Alliance

John F. Kennedy Institute for North American Studies

Veterinary Medicine

m Physics

n Margherita von Brentano Center

Mathematics and Computer Science 0

Other departments and institutes











# Teaching Projects of the Sustainability and Energy Management Unit

### Competence area Sustainable Development lives inter- and transdisciplinarity

In the winter semester 2023/2024, the Sustainable Development competence area of the interdisciplinary elective area of General Professional Skills program (ABV), coordinated by the Sustainability and Energy Management Unit, had been in existence for five years. Several new transdisciplinary seminar collaborations were successfully developed and tested, including with the Development Policy Education and Information Center (EPIZ), the FU Water Sports Center at Wannsee and the European Academy Berlin (EAB). In addition, a fifth project module, "Understanding Sustainability", was added to the existing four modules (Managing Sustainability, Communicating Sustainability, Shaping Sustainability and Researching Sustainability) when the ABV study and examination regulations were amended in the winter semester 2023/2024.

### Learning to Teach Transformatively at the Dahlem Center for Academic Teaching (DCAT)

The DCAT certificate program offers lecturers of all subjects a wide range of courses to further develop their teaching skills (see also interview <u>page 28/29</u>). As part of the DCAT advanced module, the two-day workshop "Learning to Teach Transformatively in Times of Multiple Crises" was offered in 2023 and 2024. The focus was on understanding concepts of transformative learning and higher education for sustainable development as well as their application in one's own teaching and learning context. Further development and continuation of the workshop format is planned for the DCAT winter program 2024/2025.

### Experience and University Networks to Promote Education for Sustainable Development

Freie Universität Berlin also participated in several university networks and event formats with an ESD focus from 2022 to 2024. For example, the Institut Futur and the Sustainability and Energy Management Unit, in cooperation with the Catholic University of Ingolstadt-Eichstätt and the University of Vechta, offered a symposium on sustainability-oriented teaching qualifications at the TURN conference "Shaping Change - Teaching and Learning Today for the Challenges of Tomorrow" in November 2022. Further training opportunities took place during the 2022/2023 annual program "University Teaching in the Context of Sustainability" funded by the Foundation for Innovation in Higher Education (STIL), with multipliers from 33 university locations. Freie Universität also initiated and continued exchanges with the umbrella organization for sustainability at universities (DG HochN/project INNO4BNE), the Federal Ministry of Education and Research's ESD University Forum and with members of the German Rectors' Conference as part of a series of ESD workshops.



# Sustainability Research as a Reflection of Current Social Developments

For decades now, Freie Universität has been working on aspects of sustainable development, creating new knowledge and developing solutions for the challenges of our time. Focal points on biodiversity, inequality, green chemistry and education for sustainable development are examples of the ongoing research activities across the entire university. To track these, the Sustainability and Energy Management Unit regularly evaluates the third-party funded project descriptions of all departments and entities at Freie Universität Berlin for their sustainability relevance or focus (see figure below, page 40/41).

A total of 158 (10.6%) of 1,486 research projects were identified as having a sustainability focus. In absolute terms, the departments of Earth Sciences (45), Biology, Chemistry, Pharmacy (39) and Political and Social Sciences (24) have the most research projects in this category. Together, these three departments are responsible for around two thirds of all projects with a sustainability focus.

701 (47.2%) of all research projects contain at least one or more links to the SDGs. The three departments mentioned above are also in the lead here.

The sustainability goals most frequently addressed by Freie Universität's research are health and well-being (SDG 3), life on land (SDG 15) and peace, security, rule of law, strong institutions (SDG 16). The One or Global Health focus within the framework of numerous international research alliances (e.g. Horizon Europe, Einstein Research Unit) from various specialist perspectives (in particular medicine, biology, psychology, social sciences) continued in the period from 2022 to 2024.

Other research focuses included trends, effects and the complex causes of political conflicts, digital communication, right-wing populism and social divisions. One striking example is the Wealth Talks research project of the Division of Communication Theory and Media Effects, which, in cooperation with universities in Botswana, South Africa, the USA and the UK, examines the reproduction of (in)equitable wealth distribution in the respective country contexts using everyday narratives.

The Department of Earth Sciences and the Institute of Biology in particular intensified their research focus on global and local ecological challenges such as climate change, biodiversity loss and resource use (SDGs 13 and 15) in cooperation with the Botanical Garden. Research in human geography is particularly interdisciplinary, international and innovative, focusing on the three key areas of geographies of global inequalities, globalization, transformation and gender as well as crisis and disaster research.

# The Chemical Transition as a Driver for Sustainability



**Prof. Dr. Rainer Haag**Institute of Chemistry and Biochemistry



**Prof. Dr. Sebastian Hasenstab-Riedel** Institute of Chemistry and Biochemistry

Some of your projects aim to do nothing less than accelerate the revolution known as the Chemical Transition. Why does chemistry need to be transformed in terms of sustainability and how can this be achieved? Haag: To make chemistry more sustainable, new approaches to chemical building blocks from natural resources must be found. In particular, the recyclability of products is becoming increasingly important. That's why I've been working on sustainable biomaterials for a long time, particularly glycerin, a by-product of biodiesel and a key building block for more sustainable plastics and medical products, among other things. With a group of around 60 scientists, we are conducting very intensive research into sustainable materials. Energy consumption in the chemical industry is also enormous. New and more efficient energy generation solutions need to be found here.

Mr. Haag, in one of your projects you want to develop Berlin into a transfer region for green chemistry. What exactly does that mean?

Haag: The challenge in chemistry is that relatively complex laboratory infrastructures are required to found start-ups. Now, students only have the option of staying at university or going into industry when planning their careers. We need to do more to promote a third option, namely founding a company themselves. That is why we are continuously expanding enabling structures for founders at Freie Universität. The technology and start-up center FUBIC and the FUHUB located there are important platforms for this.

Mr. Hasenstab-Riedel, your work was recently awarded the Werner Siemens Foundation Research Prize. What is your field of research?

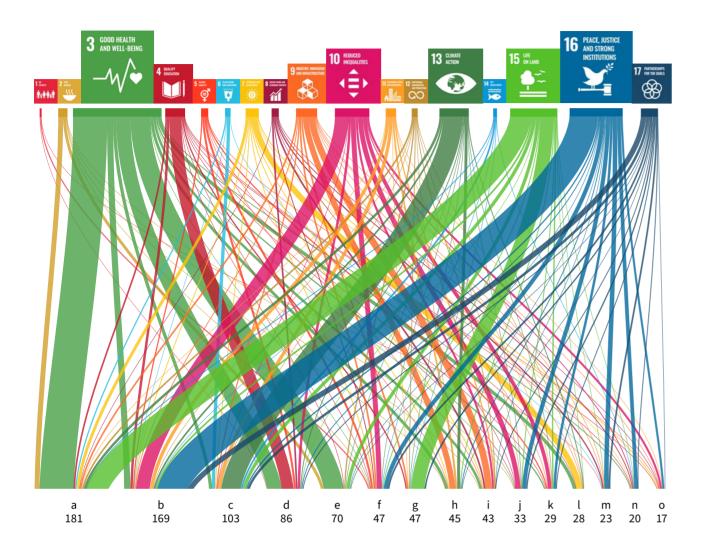
Hasenstab-Riedel: We deal with halogens, especially chlorine, one of the most important basic chemicals in the chemical industry. 55% of all chemical products are manufactured using chlorine chemical processes. This gives us a great deal of leverage when it comes to sustainability. With our research, we want to rethink and research substitutes for established large-scale linear chemical processes, such as those used in the production of plastics.

Your research is highly topical and also offers several opportunities in terms of sustainability. Can you tell us more about this?

Hasenstab-Riedel: We have co-developed chlorinated ionic liquids that offer a range of new possibilities. One example is a chlorine storage material that, unlike the gaseous chlorine currently used, is either liquid or solid. This means that chlorine can be transported and stored much more easily and safely. This in turn facilitates the switch from conventional to renewable energy sources, as a continuous supply of chemical processes can also be guaranteed without continuously producing chlorine and feeding it directly into downstream processes. Making these processes more flexible with the help of the chlorine storage tanks can lead to savings of up to 35% in energy costs. Chlorine production itself consumes a vast amount of the total electrical energy generated in Germany: around 2.3%. Secure storage can therefore also help to stabilize the German power grid. Even more importantly, it is likely that new chemical processes can be developed using ionic liquids. This means that the basic chemicals used as inputs for industrial processes can be synthesized from biomass instead of crude oil.

In your projects, you both focus on inter- and transdisciplinary cooperation. How do these support the implementation of the green chemical transition and what are the challenges involved?

Haag: We are currently sitting here in the SupraFab, in the research building for "Supramolecular Functional Architectures at Biointerfaces". Interdisciplinary work is very important here. Research groups from biology, chemistry and physics work closely together. Social sciences, economics and engineering should of course also be involved, for example to directly assess whether a new product will be acceptable to society at all. Such areas of exchange are particularly essential for sustainability issues because they touch on so many different fields of research. Our wish is therefore for a transdisciplinary research center for sustainability topics at the FU Berlin, which should be created as soon as possible.



### Research Projects by Sustainable Development Goals and Departments

- **a** Biology, Chemistry, and Pharmacy
- b Political and Social Sciences
- **c** Earth Sciences
- **d** Education and Psychology
- **e** Veterinary Medicine
- f History and Cultural Studies
- g Botanic Garden/Museum
- h Mathematics and Computer Science

- i Business and Economics
  - Institute for Latin American Studies
- **k** Philosophy and Humanities
- **l** Physics
- m Lav
- n Institute for East European Studies
- Other Departments

### Research Projects

1,486

research projects 2023/24 winter semester 701 | 47.2%

Total with reference to sustainability

158 | 10.6%

of which with a sustainability focus

F	Researcl	n projec	ts by Su	ıstainat	ole Deve	lopmer	nt Goals	*
5	26	215	58	17	13	33	18	51
1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN INSERTY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED NEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE RELOW WATER	15 UFE ON LAND	16 PEACE, RISTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	SUSTAINABLE DEVELOPMENT GOALS
84	25	14	81	10	117	130	44	

<sup>\*</sup> up to three SDGs may be assigned

### Research projects with reference to sustainability by department

Research projects that deal with sustainability aspects in the sense of at least one of the UN SDGs are sustainability-related.
Research projects that focus on sustainability or deal with sustainability issues in an interdisciplinary manner in accordance with the

priority model have a sustainability focus.

Biology, Chemistry, and Pharmacy	154
Political and Social Sciences	109
Education and Psychology	69
Earth Sciences	69
Veterinary Medicine	58
Mathematics and Computer Science	36
All other departments and institutes	206
Total	701

### Climate and Water in Transition



Prof. Dr. Uwe Ulbrich Vice Spokesperson, Einstein Research Unit Climate and Water Under Change (CliWaC)

Mr. Ulbrich, what is the Einstein Research Unit Climate and Water under Change (CliWaC) working on? The Einstein Research Unit Climate and Water under Change (CliWaC) investigates water-related risks of climate change in the Berlin-Brandenburg region. Humanities scholars, social scientists, cultural scientists and natural scientists from the Berlin University Alliance are working closely together. We want to shed light on the topic as comprehensively as possible, both in terms of its scientific and social implications. In three case studies, we are investigating the effects on the topics of heavy rainfall in the city, the Spree River and the Spree River catchment area as well as the hydrogeological system of two groundwater-fed lakes, Groß Glienicker See and Sacrower See.

What is special about your research project and how you are carrying it out?

We are already feeling the strong effects of climate change on lakes, rivers and groundwater in the region. There is great pressure to better understand the processes behind this and the consequences to develop realistic options for action. CliWaC aims to help clarify some of these issues. Our special contribution is that in addition to the various university disciplines, we also bring together other stakeholders from Berlin and Brandenburg, such as the Berlin Waterworks, the Berlin Senate administration and the Fire Department. By taking this rather holistic approach, we have also succeeded in identifying interrelationships among the individual areas. The stakeholders are very positive about the fact that the implementation within the framework of the Berlin University Alliance brings a particularly diverse range of expertise to the project.

You are also taking innovative approaches to reaching the general public with your research findings. What are they and why are you doing them? Clean and sufficient drinking water, healthy lake and

Clean and sufficient drinking water, healthy lake and river systems, dealing with heavy rainfall or drought all affect everyone. By involving the public, we want

to make the future of water a social issue. Involving the various stakeholders and interest groups in the project at an early stage has proven to be very successful. We have tried out new exchange formats here to generate a broad exchange through different workshops and forms of participation. One innovative example is the joint approach with the "AnthropoScenes" project, which used interactive methods to ask visitors to the Humboldt Forum about their views and assessments on the topic of water in the region. For our internal exchange, in which many different scientific disciplines are involved, conventional workshop formats proved to be unsuitable due to the large number of participants. Instead, we organized a poster party in our institute's garden, for example, where the participants were able to exchange ideas in an informal atmosphere while looking at posters showing the latest project results.

Among other things, they examine the framework conditions that have a particularly beneficial or detrimental effect on sustainable development. What are these and can they also be transferred to other areas? The trans- and interdisciplinary exchange has proven to be very beneficial, as sustainable development often fails due to obstacles that can be overcome. To name just one example: Initially, it was not clear whether the heavy rain hazard and flood risk maps we had developed could be made available to the general public due to the highly restrictive German data protection laws. Thanks to the expertise of the lawyers in our team, we were also able to support the Senate administration in this issue, so that the maps are now publicly accessible.

There are rigid rules regarding water use in many areas, but these may no longer be appropriate if the framework conditions change. One example of this is the handling of so-called clear water, i.e. purified water from sewage treatment plants. It currently must be discharged into rivers. In view of the challenges posed by drought, we should revisit more contemporary solutions such as irrigation on land or other uses.



# DIALOG

### In Exchange with Society

Freie Universität Berlin is in continuous dialog with numerous social actors. Both sides benefit from this diverse exchange: The university brings knowledge and results from research, teaching and administration to the public and receives important feedback and impulses from society.

The university's transfer activities, which had to be suspended during the coronavirus pandemic, were able to restart in 2022. These included the Sustainability Days (formerly University Days Sustainability + Climate Protection), the Long Night of the Sciences, the NatLab science hands-on and experimental laboratory for schoolchildren and the Open Lecture Hall format.

Freie Universität's volunteer initiatives, which are supported by students, employees and, in some cases, its neighborhood, are highly visible and offer numerous opportunities for collaboration and exchange with internal and external partners. These include the Blooming Campus initiative, founded in 2019 and awarded the Berlin Nature Conservation Prize in 2023, and the sustainability initiatives Sustain It! and GreenFUBib. The latter is committed to sustainable libraries.

New learning and meeting places such as the Blätterlaube (Leafy Green Canopy) community garden designed in 2020 and the Sustainable Campus Tour were established and support the exchange between the university and people in the nearby urban areas.

# 10 years of UniGardening@Sustain It! - Social-ecological Gardening

2024 marks the 10th anniversary of the UniGardening community garden run by the sustainability initiative Sustain It! Thanks to student and volunteer commitment, our community garden is thriving in the middle of the Botanical Garden, where fruit, vegetables, herbs and medicinal and natural dye plants grow. However, this garden is not only used for planting and harvesting. In partnership with various university departments and initiatives, the Botanical Garden and nature conservation and educational organizations, UniGardening offers workshops, guided tours, training courses and seminars. These outreach events are aimed at various target groups and offer practical insights into climate-resilient gardening, beekeeping, the construction of nesting aids for insects and the production and use of natural dye plants. The focus is on preserving and promoting biodiversity, sustainable cultivation methods, permaculture, climate and resource protection and sustainable consumption practices.

# Teaching and Learning Lab Schools@University for Sustainability + Climate Protection

In spring 2024, the Schools@University for Sustainability + Climate Protection took place for the 30th time on the campus of Freie Universität Berlin. Since its inception, 43,000 pupils (as of May 2024) from all over Berlin have taken part in this educational program, which has won several national and international awards. 55% of all Berlin elementary schools have been reached by the program since 2008. Twice a year - in spring and fall - Freie Universität opens its seminar rooms, laboratories, solar rooftops and the Botanical Garden for a week and makes the 17 SDGs tangible for pupils and teachers in the fifth and sixth grades. This is complemented by action-oriented professional development courses on the topic of "Education for Sustainable Development (ESD)" for teachers as well as exchange and networking meetings for the instructors. Around 2,100 teachers have taken part so far.

The Schüler:innenUni education network is now made up of more than 100 stakeholders from scientific, cultural and educational institutions as well as various initiatives and associations. The Schüler:innenUni is a multifunctional, innovative teaching and learning laboratory and at the same time a multiplier in and for urban society: students and teachers get to know Freie Universität as well as a variety of content and methods (experiments, art, theater and philosophy workshops, future workshops, planning or role-playing games), try out peer-to-peer approaches and pass on their knowledge in the "teachers training teachers" format. Furthermore, student teachers gain experience in teaching (see also the <a href="chapter on teaching">chapter on teaching</a> above), members of various departments and initiatives at Freie Universität pass on their knowledge to new target groups, and external speakers have the opportunity to try out new workshop formats.

### Thematic focus of the Schools@University Workshops by SDG (multiple references possible) (2015-2024; total of 222 thematic workshops) ₫ 0.9% 8.6% 12.6% 3.1% 10.4% 20.7% 100% 15 119 116 19 GOALS 53.6% 8.6% 100%

# Coordination Office for Nature, Environmental and Sustainability Education (NUN)

Since 2019, Freie Universität Berlin has been an important educational venue in the district, helping stakeholders in nature, environmental and sustainability education in Steglitz-Zehlendorf to get to know each other (better), network and cooperate. Over the course of five years, an educational landscape has grown together that has significantly promoted the quantity and quality of educational opportunities in the district.

This is initiated by the Coordination Office for Nature, Environmental and Sustainability Education (NUN) based at Freie Universität. It operates on behalf of the Senate Department for Urban Mobility, Transport, Climate Action and the Environment and the Steglitz-Zehlendorf district's Office for Environmental Protection and Nature Conservation. From the outset, the coordination office has worked successfully with an advisory board of around 20 representatives from education, administration and associations. Coordination centers exist in all 16 Berlin districts. Together, they comprise the Berlin-wide NaturStadt.Berlin network. As a sign of recognition of its leadership on sustainability issues, Freie Universität Berlin has been part of the three-member steering committee since 2023.

The coordination office supports educational institutions and committed individuals with training courses and various networking formats, such as the annual NUN Education Forum or round tables on ecological and climate-adapted gardening for schools, daycare centers and allotment gardeners. The district contact point provides information on funding opportunities, speakers and (green) learning locations. An important part of the work is to make the facilities, their concerns and offerings visible and to advocate for them to be structurally strengthened. For example, politicians get to know various green learning locations and their challenges on the annual "Nature & Education by Bike" bike tour.



Mr. Aykal, as the District Councilor responsible for public order, environmental protection and nature conservation, roads and green spaces in Steglitz-Zehlendorf, what does it mean for your work to have Freie Universität in "your" district?

I have many fond memories of my time as a student at Freie Universität Berlin and of course I know what huge potential it has. Now I'm a city councilor and one of Germany's elite universities is located in our district. It's a stroke of luck! Many young people come here with fresh ideas. Ideas that I am happy to incorporate into my work - I would like to mention the Blooming Campus initiative as an example.

There are already some joint projects between the district and the Freie Universität. Can you give us some examples? What are the advantages of cooperation? The Coordination Office for Nature, Environmental and Sustainability Education (NUN) in the Steglitz-Zehlendorf district is based at the Freie Universität. Its dedicated staff has built up a broad environmental education network in the district and, in addition to an annual education congress, they also organize guided bike tours to green learning locations in the district, which I enjoy taking part in. There are many institutions and initiatives in this area in our district: one of the achievements of the coordination office is that these institutions can get to know each other, exchange experiences and use synergies. Now we also need to stand together for the mobility transition. The Freie Universität has a huge campus and feels like its own district. This place, which is a place of learning for thousands of young students from all over the world, seems a little sleepy when you are out and about on campus. This is particularly evident in the cycling infrastructure. There is a lack of safe cycle paths, particularly on the main road network. A modern and sustainable campus should be a role model for Berlin. The Senate Department of Transport should finally realize this and support

Among other things, you are campaigning for more urban nature. Freie Universität has declared 2024 to be the Year of Biodiversity and is developing its own

important projects such as the cycle path in Thielallee rather than blocking them or putting them on

the back burner!

biodiversity strategy. In which areas do you see a potential for further collaboration?

The Green Spaces Department is constantly trying to strike a balance between the duty to ensure traffic safety and the infrequent mowing of green spaces for the benefit of insects. The Blooming Campus also serves as a role model for the entire southwest of Berlin. For me personally, it is a living laboratory. That's why I'm delighted that, thanks to close cooperation and partnership, August-von-Wassermann-Platz on Ihnestraße, which looked more like a wasteland, now has the character of a flowering oasis. Steglitz-Zehlendorf has 7 million square meters of green space to maintain. For our district, the greenery is not just nature conservation, but also a natural treasure. We want to and must protect this treasure. At the same time, we are trying to unseal more areas, for example by enlarging tree grates and planting as many new trees as possible, especially street trees. Together, we will create many synergies. I am particularly looking forward to this.

Imagine the year 2035 - what will the district look like then and what contributions will Freie Universität have made to this development?

Steglitz-Zehlendorf is on the home stretch with regard to climate neutrality. Public transportation has been massively expanded, everywhere in the district you can move around safely by bike, the sidewalks are surrounded by greenery and barrier-free! Not only is it fun to walk, but also to stroll around all the local shopping centers at the underground and suburban train stations. Steglitz-Zehlendorf is a district of short distances. The neighborhood is free of noise and stress. The people are very motivated and look to the future with optimism.

The Freie Universität Berlin has served as a blueprint with its sustainable campus. In the "FU Campus" living laboratory, students have developed many innovative ideas in terms of sustainability and urban compatibility and made these available for the further work of the district and for closer cooperation between the district and the university.

# Freie Universität as a Role Model and Living Laboratory



# **Urban Aykal**District Councilor for Public Order, Environmental Protection and Nature Conservation, Roads and Green Spaces in Steglitz-Zehlendorf

### #Sustainability: Social media

The diversity of sustainability at the university is also reflected on Freie Universität's central social media channels: sustainability initiatives on campus, projects relating to sustainability in teaching and research are just as much the subject of postings as reports on the sustainable operation of building facilities or energy-saving measures.

### Prepared for Target Groups

In 2022/2023, the topics were prepared and published on social media channels for specific target groups and reached a large number of students, employees and external interested parties with broad impact, as indicated by the number of followers (as of May 2024) shown below:

- Instagram: 42.900 followers
- Facebook: 69.904 followers
- in Linkedin: 144.02 followers
- X (Twitter): 32.418 followers (*The FU Twitter (X)* account was shut down on April 24, 2024)
- Youtube: 6.890 subscribers

On X (Twitter), YouTube and LinkedIn, the focus is on making sustainability-related research accessible to a broad audience, while Facebook and Instagram are primarily used to present how this research is carried out on campus and how university members can implement sustainability in their everyday lives. On Instagram in particular, sustainability topics were used in various formats and campaigns for the target group of students. One example of this is the question "What is happening in terms of sustainability on campus?" around the climate strike day in September 2023







osting about the #FUClimate Challenge on the Instagram accour f Freie Universität Barlin

### With students for students

The #FUClimate Challenge from June 2022 was played out on the university's Instagram channel with several video postings and interactive stories on the challenges of making everyday life more sustainable. The campaign weeks were accompanied by a four-week study on the opinions and behavioral changes of the participants on the topic. The participants in the "WeStudents" ambassador program were the protagonists of the stories and postings: students who share their own personal everyday life as a university student on Freie Universität's social media channels.





Posting about the Sustainable Campus Tour and the #FUClimate Thallenge on the Instagram account of Freie Universität Berlin

Another popular format on Instagram was the takeover: students and members of Freie Universität presented projects in various formats over several days. One successful example of this is the Sustainable Campus Tour in February 2023. The app, which can be used to explore 16 stations on the topic of sustainability at Freie Universität, was presented in a series of well-received posts.

The feedback from followers and the number of hits show that students are particularly interested in sustainability topics.

Overall, targeted posting on social media channels helped to increase the university community's awareness of sustainability, increase exchanges with each other and promote a positive image of Freie Universität as a pioneer in this area.

## From the Campus to the Market: Freie Universität as a Driving Force

Science and research are important drivers of sustainable development in our society. With the Transfer of Knowledge and Technology team anchored in its central administration, Freie Universität Berlin promotes start-ups and innovations so that knowledge and research results can be applied more quickly. The team supports students, graduates and employees at every step in the development process from the identification of potential innovations and their evaluation to the founding of a company or cooperation.

The start-up services of the three Berlin universities and the medical faculty of Charité - Universitätsmedizin Berlin have been working together more closely since 2016. Since 2019, they have been operating under the name "Science & Startups of the Berlin University Alliance". In 2024, the start-up services merged completely under the "Science & Startups" brand with a joint management structure. From 2019 to 2023, "Science & Startups" raised around 30 million euros in third-party funding in nine programs, including in the field of green chemistry (GreenChem). In the "Science & Startups for Future" project, start-up teams in the three clusters "Technologies x Resources", "Sustainability x Society" and "Healthcare x Prevention" have been supported by the Berlin Start-up Scholarship (BSS) for one year since 2023. Since 2021, the sustainable impact of supported start-ups has been determined as part of the BSS. The assessment criteria include stakeholder analyses, compliance with the sustainability goals of the 2030 Agenda, fair labor practices and many other aspects. The aim is to sensitize start-ups to the topic of sustainability and its impact at an early stage. The Berlin start-up grant program, which primarily promotes ideas with a sustainable approach, is supported with more than five million euros by the Senate Department for Economics, Energy and Public Enterprises.

Freie Universität Berlin places a special focus on the individual and structural promotion of female scholars. Women from different status groups are supported in their professional development through mentoring programs, prizes and scholarships. At the same time, the visibility of the achievements of female scholars is to be improved through structural changes and women in top positions in particular are to be promoted. Against this backdrop, the internal Spotlight Program was introduced in 2023, which supports female junior researchers working on a temporary basis in areas such as acquiring third-party funding, building networks and transferring research results. Since 2018, Freie Universität Berlin has recorded a continuous increase in the proportion of women in start-up projects, which has now reached 50% (as of 2024).

The Science & Startups network also encourages women to set up companies with the "EXIST Women" project and, for the first time, is focusing on the development of business models for ideas in the area of social impact. For example, a project on the acceptance of the construction of wind farms in communities and an interactive health education initiative on the topic of daycare food and healthy eating were supported.

### University Catering Proves that It Can Be Done Sustainably



Jana Judisch
Head of Corporate Communications
at Studierendenwerk Berlin

The Studierendenwerk was an early pioneer in establishing Germany's first vegetarian canteen at Freie Universität back in 2010. Where does the Studierendenwerk stand today in terms of sustainability?

With Mensa FU II, we have been EMAS-certified since 2015. This means that we have been implementing a large number of measures for many years that are primarily aimed at ecological sustainability. For example, we stopped using paper cups quite a while ago and now also no longer use disposable dishware - even the after-hours warm meal automat is stocked only with reusable dishware (with a deposit). We have eliminated palm oil from our frying oil, have switched our kitchen equipment to energy-saving devices and the lighting to LED as far as possible. To minimize the impact of our cleaning agents, we use ecological cleaners wherever possible and completely avoid chlorine and phosphates. To reduce the number of trips, we have bundled delivery days. So that each customer can make climate-friendlier choices, we show the CO<sub>2</sub> and water footprint for our menu items. All these measures demonstrate that we're on the right track - but we still have a long way to go. One obstacle we face is that we would like to determine the CO<sub>2</sub> footprint of the entire Studierendenwerk, but we cannot do this yet because the consumption statements from the universities often arrive very late and are not detailed enough. Only when we have reliable figures can we take even more targeted action and strategically reduce our emissions. We are working on it!

The canteens have been offering sustainable food for some time now. What else has changed here recently? In fact, our menu offerings have been predominantly plant-based since 2021. However, we have modified them again in recent months - for example, to include more cereals. This brings us even more in line with the recommendations of the Planetary Health Diet. The federal government's nutrition strategy, which was adopted in January, is also being implemented well in our facilities.

You cater for around five million visitors a year. How is the Studierendenwerk Berlin's commitment to sustainable food being received by students and staff? We wouldn't be doing all this if our customers - the students - hadn't clearly demanded it themselves. As a result, we are receiving mostly positive reviews of our offerings. There are also a few complaints here and there, but they mostly come from university employees - the older generation. We see students as a generation for whom it is very important that their food is climate-friendly.

Many ideas for more sustainability at the Studierendenwerk have already been implemented. Which one convinced you the most?

I am impressed by the menu concept. While there are still discussions in company canteens about whether it's worth going there without the daily currywurst, university catering (not just in Berlin, by the way, but nationwide) proves that it's possible: It works great. And it tastes good.

What do you see as the biggest hurdles to implementing further sustainability goals in the canteens? With regard to determining our CO2 output figures, we could have better cooperation from the universities in terms of concrete and timely data. Without it we cannot calculate how best to leverage our CO2 savings potential in a strategic and systematic way. We are also concerned about how the planned climate neutrality of the campus will be achieved without the purchase of CO2 certificates. The Studierendenwerk has no funds left for this. At the same time, we are happy to play our part in this truly ambitious goal, although a coordinated agreement with the universities to achieve this together is still pending.



# CAMPUS

### **Resilience during the Energy Crisis**

The 2022/2023 energy crisis and the sharp rise in energy prices also presented Freie Universität Berlin with major challenges. At that time, the Berlin Senate called on the state's universities to develop programs to save at least ten percent of energy and staged emergency programs for a possible interruption in the supply of gas and heat. In September 2022, the university management set up an emergency plan and an energy efficiency working group for operational measures to reduce energy consumption. The working group, led by the Engineering and Utilities Division, developed short-term savings proposals that were coordinated with the university's departments.

The program of measures is based on three pillars: raising staff and students' awareness of energy savings, lowering the heating temperature and reducing the running times of ventilation systems, lighting, office and laboratory equipment. The #KeepCoolAndCarryOn publicity campaign encouraged university members to get involved with energy-saving tips and documentation of current savings successes. The laboratory buildings, which have a significantly higher energy requirement than teaching and administrative buildings, were a particularly effective opportunity for energy savings.

In the winter semester 2022/2023, almost 10% of heating energy and almost 11% of electricity was saved compared to the reference year 2019. The positive experiences of the energy efficiency working group have led to the decision to continue its work.

### **Energy Consumption 2022 and 2023**

As a result of energy-saving activities, the university's energy consumption after the pandemic years fell in both 2022 (-1.3%) and 2023 (-4.5%) compared to the respective previous year. In relation to 2019, the decline was 9.0% (2023). This is all the more remarkable given that new – in some cases very energy-intensive - buildings such as the SupraFAB laboratory building and the Fabeckstraße 35 modular building in Dahlem and the Veterinary Center for Resistance Research in Düppel were put into operation in 2021/22.

At 107.9 million kilowatt hours, the university's energy consumption in 2023 reached its lowest level since 2000/2001. As of 2023, there had been a decrease of 33.2% compared to the baseline situation in 2000/2001. On a like-for-like basis, i. e. excluding the new buildings that were added during this period, there was even a decrease of 40.1%. The area-adjusted heat consumption of the university was almost halved in this period at -44.6%.

### **CO<sub>2</sub> Emissions**

In its Climate Emergency Declaration of December 2019, Freie Universität set itself the goal of achieving climate neutrality by 2025. Campus-related emissions from energy consumption and the vehicle fleet (Scope 1 and 2 according to the Greenhouse Gas (GHG) Protocol) as well as emissions resulting from business trips as part of indirect emissions (Scope 3) were included in this target.

Thanks to the extensive reduction in energy consumption over the last 23 years and the purchase of CO<sub>2</sub> -free electricity via the state contract since 2010, the university has been able to reduce its CO<sub>2</sub> emissions by nearly 90% compared to 2000/2001. Due to fluctuating CO<sub>2</sub> factors, emissions from district heating increased in 2022 despite a significant reduction in district heating consumption. In 2023, they fell by 74%.

The implementation of the strategic plan for centralized printing and copying and the increasing digitalization of work processes further reduced paper consumption in the reporting period, which fell by 12% in 2022 compared to the previous year. It rose slightly in 2023 (4%). At around 2,400 tons, CO<sub>2</sub> emissions resulting from business trips increased sharply again after the pandemic years in 2022 but were still significantly lower - by around 40% - than in the years before the pandemic (around 4,000 tons in 2018/2019).

The vehicle fleet is being continuously electrified. One fifth of the vehicles at Freie Universität are now electric vehicles. Due to the increased use of the fleet following the resumption of normal operations after the pandemic years, CO<sub>2</sub> emissions increased by 15% in 2022 compared to the previous year. Yet In 2023, we were able to reduce them by 16% compared to 2022.

The following chart reflects the composition of  $CO_2$  emissions in 2022 and 2023 compared to the 2018/2019 baseline. In 2022, they fell by around 16% compared to the baseline. This is primarily due to the significant reduction in business travel. Data on business travel for 2023 was not yet available at the editorial deadline.

### Business travel and greenhouse gases

International cooperation in research, teaching and administration is part of Freie Universität Berlin's DNA. As an international network university, international travel and exchange has played an important role ever since its founding. However, air travel is one of the most climate-damaging forms of mobility and has a tremendous impact on the university's carbon footprint. In 2022, business trip-related emissions accounted for around 2,400 tons, or about a guarter of Freie Universität Berlin's CO2 emissions.

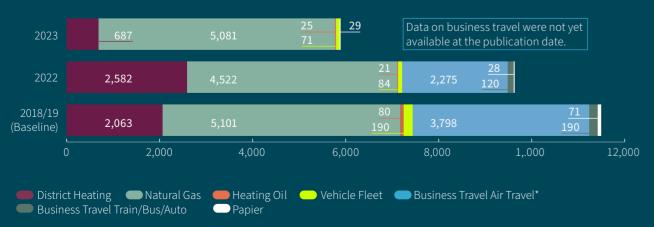
As part of its Climate Emergency Declaration, Freie Universität Berlin committed to reducing its CO2 emissions. A business travel strategy is therefore intended to raise awareness of the issue among university staff and provide information and incentives for climate-conscious business trips. In addition to making use of digital communication to avoid short trips, the policy will also include dialog offers and instructions on how to plan climate-conscious business trips. It focuses on the principle of "avoid before reduce before offset".

The business travel strategy is intended to ensure that:

- business travelers are aware of and reflect on the environmental impact before they start their trip and if possible use more climate-friendly means of transportation,
- trends in business trips are regularly evaluated, and the evaluation results are discussed in the relevant committees,
- CO<sub>2</sub> emissions caused by business travel are reduced compared to the 2018/2019 baseline, and
- unavoidable travel will be assessed a "CO2 levy" that will be used for an internal FU climate protection fund that will serve as financing for additional climate protection and bio diversity projects at Freie Universität Berlin.

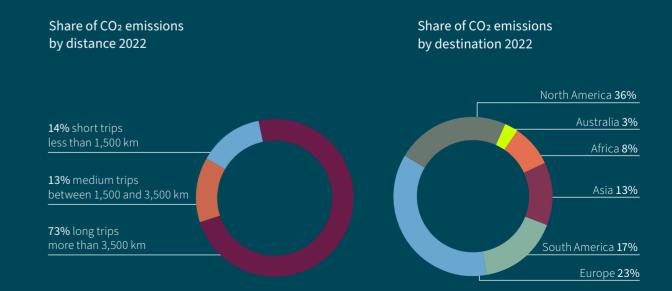
### CO<sub>2</sub> emissions in tons

2022 and 2023 compared to 2018/2019 (Baseline)



Business travel, vehicle fleet and heating oil by CO<sub>2</sub> values of the German Environment Agency. District heating, natural gas, and electricity by CO<sub>2</sub> values of the energy provider or the respective supply contract. Electricity not shown because it is procured completely CO<sub>2</sub>-free.

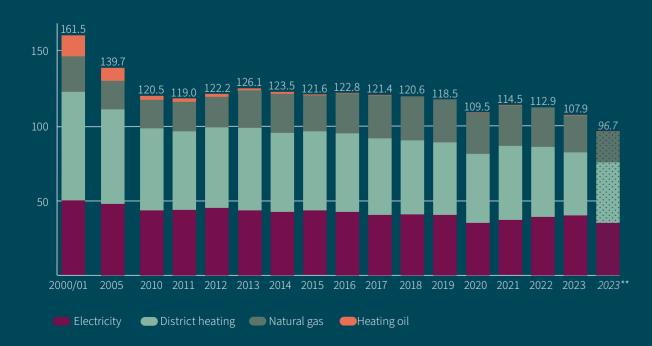
\*Air travel processed by the Business Travel Cost Center, does not include student mobility



### Reduction in Energy Consumption

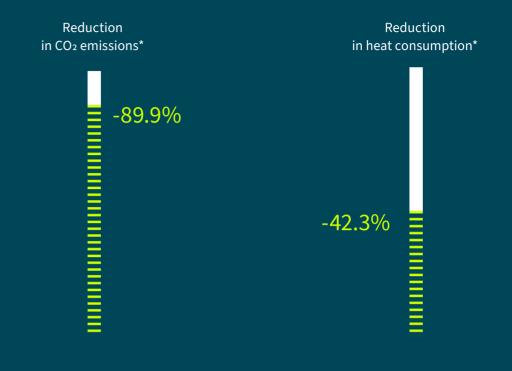
# Total energy consumption\* between 2000/01–2023 +6.3% District heating Electricity Heating oil Natural gas -33.2% -42.2% -20.1% -99.3%

### Energy consumption between 2000/01–2023 in million kWh, weather-adjusted figures



Energy procurement includes the electricity usage of the canteens and cafeterias of Studierendenwerk Berlin.

### Climate Protection in Numbers



\*2000/01 to 2023 including increase in area

-11,680,000 €

Costs avoided through reduction in energy consumption 2023 compared to 2000/01 excluding increase in area



-83,760,000 €

Cumulative costs avoided through reduction in energy consumption from 2003 to 2023 excluding increase in area





Combined heat and power plants with a capacity of

750 kWel

<sup>\*\*</sup>cross-hatched: excluding increase in area

### **Mobility**

Freie Universität has been recording the emissions of its vehicle fleet and Scope 3 emissions from business travel for several years. In 2022, the commuting of its employees and students was also examined for the first time as part of a university-wide survey on mobility behavior.

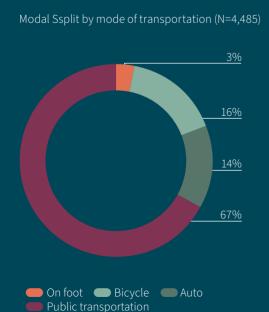
Based on the results of the survey and corresponding to the average travel distance of 17 kilometers per university member, an annual emission of 2,555 tons of CO<sub>2</sub> can be calculated from commuter traffic.

The first-time recording of greenhouse gas emissions from commuting is the basis for measures to reduce these emissions. As a first measure, Freie Universität has entered into an agreement with the mobility service provider Jelbi, which has been offering emission-free mobility at seven locations on the university campus providing e-scooters, bicycles and e-scooters since October 2023. In order to increase the share of cycling, the university's cycling infrastructure is to be expanded with an investment of over 800,000 euros over the next three years, funded by the "Climate Protection through Cycling" program of the Federal Ministry of Economics and Climate Protection (BMWK). In the future, changes in commuter mobility are to be determined regularly through surveys.

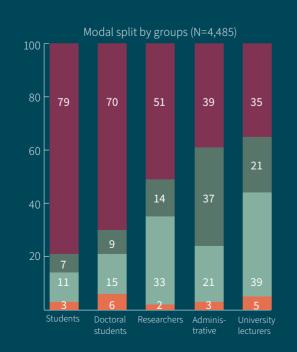
Employees of Freie Universität Berlin have been able to benefit from the framework agreement between Freie Universität Berlin and S-Bahn Berlin GmbH for many years. In addition to the reduced-price company ticket for local public transportation, FU Berlin has subsidized the nationwide Deutschlandticket Job for its employees since 2023.

From the summer semester 2024, students will also benefit from a uniform Germany-wide semester ticket that replaces the previous local network semester ticket.

# Choice of mode of transportation



Travel to and from the university (2019)



### Share, Repair and ReUse

In keeping with its commitment to involve all members of the university community in measures for sustainability, Freie Universität promotes the circular economy concept with sharing, repair and reuse programs. The aim is to reduce the consumption of resources and energy and to sensitize employees and students to the conscious use of resources.

For this purpose, Freie Universität Berlin has been cooperating with the start-up "fainin" since 2024. In a dedicated community, university members can borrow and lend items such as drills, SUP boards and trekking tents free of charge on the rental platform.

In 2019, the Sustainability and Energy Management Unit also created a central marketplace for the reuse and sale of used furniture, appliances and objects: the FUndgrube. Here, too, there are regular opportunities to swap or share. The FUndgrube works closely with the furniture warehouse managed by the Service Center for Property and Facility Management, which also makes furniture that is no longer needed available for reuse within the university.

The FUdsharing@SustainIT! initiative deals with the topic of food rescue and appreciation. Volunteer students and employees rescue food and distribute it free of charge. As the first fair-sharing initiative in the south of Berlin and at a Berlin university, FUdsharing also sees itself as an educational and meeting place.

FUrad is an open, self-help bicycle workshop organized by students at Freie Universität. Amateur mechanics can use space, tools and spare parts at cost price and exchange ideas with like-minded people.



### Sustainable Procurement through Reuse



Earth Science Library Team From left to right: Marcus Bahlo, Lina Geiges-Erzgräber, Lena Dreide, Jonas Schramm, Cornelia Kahlfeld

Libraries are inherently places of sustainability. Sharing books, magazines, tools, musical instruments and much more is part of their DNA. They are cultural and educational institutions that make information and knowledge easily available. The team at the Earth Science Library, led by its director Cornelia Kahlfeld, brings the topic of sustainability to life beyond these core tasks.

For example, when procuring items and materials, we first check whether the Freie Universität furniture store or the FUndgrube can help. Here, usable furniture, equipment and objects are offered for use by FU members, sometimes free of charge or at very low cost. There are also offers for swapping or sharing. For example, the long communal tables from the former original equipment of the Department of Geography library are still doing a good job. Together with donated upholstered furniture, they help to make the library on the Lankwitz campus a popular place to study and exchange ideas. The team at the Earth Science Library has also salvaged many treasures from disposal as bulky waste and is also resourceful when it comes to reusing or repurposing objects and furniture. For example, former magazine shelves are now used to store office materials. "How can we solve this differently?" is a question that the team asks itself in the run-up to activities and purchases. The lack of financial resources is often the reason for creative solutions, the team emphasizes.

Nevertheless, the Earth Science Library can also enjoy further funding opportunities in terms of sustainability from time to time - most recently by winning this year's FUturist call for proposals, which supports innovative projects that make a direct contribution to the goals of Freie Universität's Climate Emergency Declaration. The funding provided by FUturist will be used for the procurement of mobile plantable room dividers, which are intended to sustainably improve the experience of being in the library and establish a green learning space.

In general, the library pays attention to sustainability, resource conservation and durability when purchasing new products. For example, when equipping a new study room or purchasing air filters during the Covid pandemic, particular attention was paid to the energy efficiency of the equipment. Only FairTrade coffee is served in the cups here. It's not just the library staff who benefit from this. In collaboration with the Geography Student Council Initiative, the library team has been running a small coffee counter for some time now, which everyone can help themselves to. Together with the reused furniture, the entrance area of the library offers an almost homey atmosphere, making it very popular with students.

Leftover coffee grounds are processed together with other organic waste in the library's own worm bin. The resulting soil is used in the library garden. On the initiative of the team, gardening is carried out here in a natural way.

The Earth Science Library is represented in the "GreenFUBib - Sustainability at the University Library" working group and is actively involved in the planning of climate and environmentally friendly projects.

Prof. Dr. Knaus, one of your responsibilities is location development at Freie Universität Berlin. What does that mean exactly?

As an institution for research, teaching, and knowledge production, we compete for investment, funding, specialists and students on a regional, national and international level. Strengthening our position as a location is therefore of great importance. This involves emphasizing the unique potential of Freie Universität Berlin and linking various areas of work and research as well as their respective opportunities. On this basis, we can establish supporting structures and expand our competencies. In order to accelerate these processes, the position of a location manager will be created in the future.

What role does the topic of sustainability play in your strategic considerations for the development of Freie Universität Berlin?

In view of the global challenges, it is crucial that educational institutions take on a pioneering role. Our commitment to sustainability is reflected in teaching, research, administration and directly on campus. Sustainability is a core value for Freie Universität Berlin that shapes our self-image and is anchored in all of our activities. For example, we actively promote and support research projects with a clear connection to sustainability. They contribute to solving urgent challenges and strengthen the academic profile of our university. We are also highlighting the importance of sustainability in the Berlin University Alliance's new communication campaign "The Open Knowledge Lab". For Freie Universität Berlin, we have identified the research focus areas "Health/Prevention", "Water/ Biodiversity/Climate" and "International Networks".

What role does the future design of the campus play in the development of the location?

The design of our campus has a far-reaching impact on the academic and social development of the region. State-of-the-art research facilities and teaching buildings are essential to attract top researchers and talented students and to create an inspiring learning environment. We want to make the campus a vibrant center of innovation by forging close partnerships with non-university institutions and companies and developing the campus as a dynamic, transdisciplinary platform for entrepreneurial activities. A sustainable design of the buildings, infrastructure and green spaces will also help to minimize the ecological footprint and have a positive impact on the environment.

A new science building dedicated to biodiversity is currently under construction in Königin-Luise- Straße... We are delighted to be able to open our new Biodiversity Dahlem cooperation building in the Year of Biodiversity. In future, scientists from the Leibniz Institute of Freshwater Ecology and Inland Fisheries will be working here with researchers from Freie Universität Berlin to investigate important issues relating to biodiversity and the impact of humans on the environment. By pooling expertise and resources, synergies can be exploited. Animal Aided Design (AAD) was used in the construction of the building. This means that the needs of animals, for example for breeding sites and open spaces for feeding, were also considered in the design. The building meets high energy standards with energy-efficient technologies such as heat recovery systems, intelligent building control systems and a solar power system.

Which topic is particularly important to you now? One of my main concerns is increasing sustainability in our research facilities, in particular the certification of our laboratories with the GreenLab label. It is important to me that we actively reduce our consumption of energy and resources and contribute to environmental protection. By implementing sustainable practices in our laboratories, we can minimize our environmental impact, reduce costs and promote awareness of sustainability in research.

# Sustainability as an Important Factor in Location Development



Prof. Dr. Petra Knaus Vice President of Freie Universität Berlin and responsible for research



# NETWORKING

# From Regional to International: Promoting Sustainability Through and In Networks

Freie Universität Berlin works closely with other universities, research institutions, and partners, both nationally and internationally, to take advantage of opportunities to exchange knowledge, ideas and best practices. Some networks are explicitly dedicated to sustainability topics, but Freie Universität Berlin is also committed to integrating the topic of sustainability in networks that are not exclusively limited to sustainability. In particular, we would like to highlight the activities in the International Sustainable Campus Network (ISCN), the UNICA Green & SDGs working group of the UNICA network of European capital city universities, and the European university alliance Una Europa.

Founded in 2007, the International Sustainable Campus Network offers a global forum for expert exchange with more than 100 universities from six continents. To be accepted into the network, universities must demonstrate a special commitment to sustainability management. Freie Universität has been represented on the Advisory Committee since 2017, which meets approximately every six weeks to discuss the strategic development of the network.

Una Europa is a European university alliance with the vision of creating a European campus for innovative teaching and research. Since 2019, this university network has served as a European real-world laboratory for cooperation in education, research and innovation towards a university of the future and creates opportunities for interdisciplinary, transnational and integrative education. Freie Universität Berlin assumes the leading role in the Focus Area Sustainability.

The UNICA Green & SDGs network also focuses on the ongoing exchange of ideas and experience, which is characterized by regular roundtables and workshops on current topics such as strategy development, recording Scope 3 emissions, and sustainability communication.

These exchanges in the European context have an additional strategic dimension, as the network partners can better represent their interests vis-à-vis the European Commission.











### **Regional and National Networks**

Freie Universität is actively involved in various nationwide university-related sustainability networks. For example, it has participated in the annual program 2022 "University Teaching in the Context of Sustainability" of the Foundation Innovation in University Teaching (STIL). In addition, Freie Universität is a practice partner with two real-life experiments as part of the BMBF-funded (Federal Ministry of Education and Reseach) joint research project "Cultures of Sustainability at Universities". Lively networking takes place within the framework of the HochN successor project DG HochN, in whose exchange formats Freie Universität regularly participates. Another platform for networking with other universities is the University Sustainability Indicator Monitoring System (UNISIMS) network, funded by the German Federal Environmental Foundation, which aims to develop a standardized web-based benchmark system for assessing sustainability at universities. As part of the events organized by the HIS Institute for Higher Education Development (HIS-HE), the focus is on topics such as mobility, climate protection, EMAS certification and energy and waste management.

Freie Universität is a member of the "Association for Occupational Safety, Health, and Environmental Protection (AGUM e. V.)". The aim of the association is to use the online AGUM system to support universities in the implementation of legal requirements for occupational safety, health and environmental protection. In 2023, Freie Universität hosted the "AGUM On Site" network meeting. In addition to implementation, the exchange focuses in particular on the further development of the AGUM system.

Freie Universität also regularly participates in the Energy Working Group coordinated by the Berlin Energy Agency and the "Network for the Environment at Universities and Research Institutions in the region Eastern Germany" (NUHF), which is supported by HIS-HE. Environmental and sustainability officers from universities in the eastern federal states consult intensively here, supported by specialist presentations on campus-related topics such as sustainable procurement, sustainability assessment, energy saving and business travel management.

### **FUturist**

# Initiating Innovations for Sustainability



Since 2022, 38 project ideas have been submitted to the "FUturist" competitions. The most promising 19 projects were selected for funding by a jury consisting of scholars, administrators, students and former "FUturists".



Every year since 2022, Freie Universität Berlin's Ideas and Innovation Management system has been funding innovative ideas that make a direct contribution to the goals of the Climate Emergency Declaration with the FUturist call for proposals.

From 2022 to 2024, 19 projects were supported across a wide range of topics: from the FUndgrube sharing space to fair trade in university sports, a podcast on sustainability, a tiny forest on campus and a workshop on the future. At FUturist, not only the result but also the design of the project process is crucial: regular meetings of the "FUturists" take place throughout the funding year to promote networking and exchange and to jointly consider the further potential of the projects. Accompanying training courses provide the teams with the tools they need to successfully implement their projects.

In our Living Labs, ideas, products, services or processes relevant to sustainability are tested and further developed on campus in a practical manner. The integrative potential of living labs lies in the collaboration between research, teaching and administration across faculty boundaries and status groups.



FUturist projects bring together people from the most diverse areas of Freie Universität and thus strengthen the university community. A good example of this is the kestrel project. With the aim of getting students and employees of Freie Universität interested in the topics of sustainability and species conservation, a suitable location was sought for a kestrel nesting box on campus, including live transmission of the animals via a webcam. In addition to the actual FUturist team, employees from IT Support, the Engineering and Utilities Division, the Department of Veterinary Medicine and caretakers were crucial to the success of the project.



The aim of the FUturist project "Participation Laboratory Apple Meadow" was to preserve an endangered apple orchard on the grounds of Freie Universität and to develop it into a place of learning and encounter on the topics of biodiversity and climate protection.

At the heart of the participation laboratory was a two-semester, transdisciplinary and practice-oriented seminar in the Sustainable Development area of the General Professional Skills program. The result was a concept of measures to improve soil, species, climate and water protection, which was discussed intensively with the Executive Board and the Engineering and Utilities Division and is now about to be implemented.

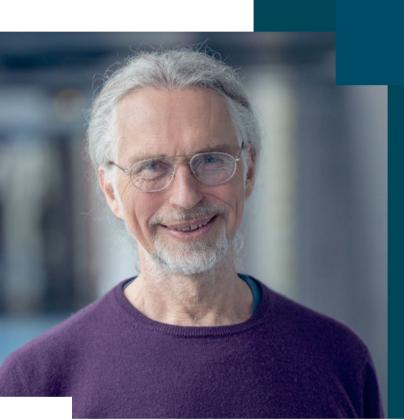


How can the more than 40,000 students and employees of Freie Universität Berlin be persuaded to implement climate protection measures? The joint FUturist project "#FUClimateChallenge" by the Department of Psychology and the Office of Communication and Marketing at Freie Universität surveyed participants of the "#FUClimateChallenge" 2022 on their eating and mobility behavior. The Climate Challenges were embedded in this, for which tasks on climate protection in the areas of mobility, nutrition, waste avoidance and energy saving were posted on the university's Instagram account.





# Una Europa - International Cooperation as a Driving Force for Sustainability



Prof. Dr. Holger Dau
Department of Physics, Head of the Self-Steering
Committee Sustainability Una Europa



Janina Taigel
Project Coordinator for Sustainability in the University Alliance Una Europa, Sustainability and Energy Management Unit

What is Una Europa and what was it set up for?

Dau: Eleven of Europe's leading universities have joined forces in the Una Europa University Alliance. The oldest European universities, Bologna and Paris, are among the members. They all have a broad thematic focus, covering the entire range of subjects in a variety of ways. That is definitely one of the strengths of this alliance. Una Europa was launched after French President Macron announced the "Initiative for Europe" in 2017, with which he campaigned for a "Europe of culture and education". He considers close partnerships promoting student mobility and the development of excellence in education, research and innovation to be central. We at Una Europa are committed to this.

The aim of the University Alliance is to promote sustainability. What makes this commitment so important? Taigel: Together, we can reach around 100,000 employees and more than 500,000 students in Europe. As universities, we have a great impact on society as a whole, both through our joint research and teaching activities and through projects that are implemented at an operational level on campus.

What is Una Europa actually doing in this context and how are the universities networking on this topic? Dau: At Una Europa, teachers and researchers work together in self-steering committees. I lead the Sustainability Committee as a university professor, while Janina Taigel coordinates the work of the committee and its projects as an administrator. There are also administrative working groups, such as the Mobility Cluster or Taskforce Sustainability & Climate Protection. The cooperation between the academic and administrative levels is a great strength of the network. In the area of research, we are currently holding open-ended discussions about what added value Una Europa could contribute beyond the existing scientific networks. Living Labs, for example, in which we initiate and research sustainable developments on campus and compare them across Europe, could be exciting. We are trying to promote new networks for young scientists through seed funding initiatives.

What are currently the key topics for teaching in the Self-Steering Committee Sustainability?

Dau: Una Europa is currently in the process of launching a common bachelor's degree course in Sustainability, BASUS for short, which is due to start in the winter semester of 2025/2026. Both its cross-university organization with multiple study locations and its interdisciplinary orientation are something entirely new. Taigel: Una Europa is also experimenting with Massive Open Online Courses (MOOCs) and their integration into university teaching. The University of Helsinki, supported by the Universities of Krakow and Bologna, has prepared instructional units for sustainability topics. Students at network universities can earn credit points through these MOOCs. In addition, the MOOCs

Why did Una Europa set up the Sustainability & Climate Protection Taskforce and what are the most pressing issues here right now?

are available to the general public free of charge.

Taigel: Freie Universität has been a strong advocate for the establishment of a sustainability and climate protection task force and has taken on a leading role. The exchange between university sustainability offices has already proven to be beneficial in other international networks and we wanted to give the issues more weight at this level against the backdrop of our Climate Emergency Declaration and the Fridays for Future protests. We find the concrete exchange on current topics, such as dealing with the energy crisis or business travel to be very enriching and constructive.

Please tell us more about the opportunities, particularly surprising ones, that have developed from the cooperation. How does Freie Universität benefit from this kind of international exchange?

Dau: Cooperation and discussions at the international level also lead to sustainability issues being strengthened at the individual universities themselves.

We are seeing a kind of positive competition between universities, but also a greater willingness to reduce bureaucratic hurdles, for example, as part of such international cooperation.



# US

## **Realizing Social Sustainability**

Gender equality, diversity, equal opportunities and family friendliness are part of our identity. Freie Universität´s aim is to recognize and value the diversity of the university community in terms of various social categories. At the same time, the individual and structural barriers that stand in the way of equal participation should be removed.

In order to meet these goals, the Executive Board of Freie Universität adopted a concept in 2021 that defines the diversity strategy of Freie Universität as well as related goals and measures until 2026. It forms the basis for the work of the Diversity and Anti-Discrimination Office (DIV), which was founded in 2023. In the same year, the Stifterverband awarded Freie Universität with certification after its "Shaping Diversity" audit. By participating in the audit process, Freie Universität confirms its commitment to addressing the topic of diversity with broad participation and to aligning its organizational structure with the criterion of diversity equity.

In order to strengthen the topics of gender equality and equal opportunities, the Gender\*Equality Team of women's representatives and gender equality officers has been expanded. In addition to providing advice, networking and training, its central tasks include the design of management tools, the development of funding programs, the analysis of current developments and strategic public relations work. Since 2023, the Chief Gender Equality Officer at Freie Universität has represented the operational level in the Diversity & Gender Steering Committee of the Berlin University Alliance. An external evaluation of the gender equality structures at Freie Universität in 2023 led, among other things, to a campaign that improved the visibility of the "Gender\*Equality" team. A core goal of Freie Universität's gender equality policy work is to increase the proportion of women in permanent professorships. In recent years, this has increased slightly from around 36% (2020) to 38% (2023). In 2024, the newly drafted statutes for ensuring and promoting equal opportunities for all genders (equal opportunities statutes) and the anti-discrimination statutes were also published.

## **University Sports**

University sports activities are an important part of university life, promoting the health and quality of life of students and employees. To meet the growing demand for outdoor sports, a freely accessible outdoor fitness facility was built on the Dahlem campus in 2023. In future, guided courses will also be offered here.

Sustainability is also considered at university sports events: In 2023, for example, reusable drinking cups were used for the first time for the course catering at the Campus Run event. Reusable tableware and regionality were also selection criteria for the catering providers at the summer party. As part of a FUturist project, an intensive exchange with the first sustainably certified amateur sports club in Germany, the FC Internationale Berlin soccer club, on areas of action and opportunities for more sustainability in university sport was established.

### Personnel Development and Health Promotion

The qualifications and motivation of employees make a decisive contribution to the success of Freie Universität as a place of cutting-edge research, committed teaching and modern administration. Job satisfaction and the well-being of university employees are central to this. Personnel development and workplace health promotion are important components of Freie Universität's self-image as an employer. Employees have access to a comprehensive range of services for professional development and qualification, for new employees and for health promotion.

## **Dual Career & Family Service**

With a family-friendly personnel policy and university organization, Freie Universität supports its members in balancing their career, studies and academic qualifications with family responsibilities. Freie Universität has successfully participated in the "Family-friendly University" audit for many years. The Dual Career & Family Service is the central point of contact and coordination for all family-related concerns of employees and students at Freie Universität Berlin. The advice and concrete assistance are aimed both at people who look after and care for children and those who have taken on the care for their relatives. In addition to advice on childcare, family sports and care consultation hours in cooperation with the care support centers, the Family Service also offers information and training events. Current support offers include the workshops "Stress Management for Parents" and "Sharing (fairly) Family Work and the Mental Load". The Dual Career Service supports the partners of newly appointed professors in gaining a professional foothold in Berlin.

## **Student Health Management**

Student Health Management (SGM) has been successfully established at Freie Universität Berlin since 2016. The aim is to raise awareness of mental and physical health issues among students and those involved in health management and to support them with targeted advice and measures. In addition, regular health reporting for students at Freie Universität Berlin has been established. The last University Health Report (UHR-FU) was published in 2023. The years of the coronavirus pandemic have had consequences for students, particularly in the area of mental health, including symptoms of depression, anxiety disorders and exhaustion. Even after the pandemic, there is still no improvement in sight. The "Health at university" working group is addressing this issue comprehensively. It is a network of stakeholders at Freie Universität Berlin who are committed to the health of students. These include the Executive Board, the Student Administration, the Office of Corporate Health Management, University Sports, the Deans of Studies and the Women's and Equal Opportunity Officers.

## **Support for Refugee Students and Academics**

Against the backdrop of increasing international crises, Freie Universität Berlin is aware of its global responsibility and supports refugee students and academics. In 2015, it launched its "Welcome@FUBerlin" program to promote the inclusion of prospective students and academics with a refugee background.

Future students are offered preparatory language courses. The high number of applicants shows that there is a great deal of interest and demand. Freie Universität has therefore decided to continue the language courses from its own funds in the coming years, despite the discontinuation of support from the Berlin Senate and the German Academic Exchange Service (DAAD).

Funding for refugee scientists is another focus. In recent years, up to 30 researchers have been working on projects that they were unable to continue in their home countries due to restrictions on academic freedom or war. As part of the "Academics in Solidarity" mentoring program, up to 130 colleagues were networked nationwide in order to show exiled scholars long-term prospects in the German academic system.

The Internationalization and Academic Freedom Strategy published in 2020 outlines the guidelines for responsible internationalization. The focus is on the protection of students and academics abroad and cooperation with international partners.



People from over 150 nations, different backgrounds and religions study, teach and work at Freie Universität Berlin. What structures has Freie Universität established for dealing with diversity in an appreciative manner and for reducing inequality?

Freie Universität has long been committed to diversity as early as 2013, the university issued its first diversity mission statement, in which it pledged to create a teaching, learning and working environment that is free of discrimination. This commitment has been continuously expanded and consolidated since then: In the Diversity Concept from 2021, with the successful participation in the diversity audit "Shaping Diversity" by the Stifterverband in 2023 and finally, of course, through the establishment of the Diversity and Antidiscrimination Office. The team works with specific measures to promote diversity and break down barriers for members of marginalized groups. We offer anti-discrimination advice. In addition, we are currently setting up a complaints management process and are thus addressing an issue that has so far received little attention at universities. Finally, the anti-discrimination statute adopted in February 2024 expresses Freie Universität Berlin's commitment to resolutely and effectively countering discrimination, sexualized harassment and violence, bullying and stalking within university life.

Various measures have been implemented as a result of Freie Universität's diversity concept. Which ones are vou particularly proud of?

The ultimate goal of all measures is a cultural change: we want to contribute to the realization of an equal opportunity, discrimination-sensitive university with equal opportunities for all university members to participate. In this respect, our focus is particularly on how our measures as a whole are changing the teaching, learning and working environment at Freie Universität - slowly, of course, but steadily. We must also be aware that the members of an institution the size of Freie Universität have very different levels of knowledge and experience in the area of diversity and

anti-discrimination. Some are personally affected by discrimination, others have never had to think about structural inequality, while others have dedicated research projects on these topics. In the long term, we want to address and reach all university members.

How can diversity contribute to sustainable development at Freie Universität?

Diversity and anti-discrimination are essential crosscutting issues for the sustainable development of all institutions, including Freie Universität. The promotion of diversity also aims to implement the Sustainable Development Goals of equality, inclusive and fair education, and the reduction of inequality. By actively striving to reduce discrimination and structurally supporting the promotion of diversity, Freie Universität Berlin can achieve sustainable change at the institutional level from the bottom up with the involvement of all university members.

Life at Freie Universität is always a reflection of general social developments. How have the developments of recent years influenced your work?

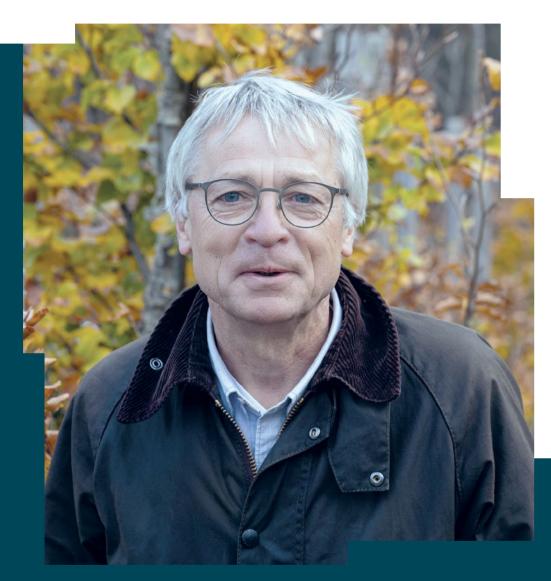
Exactly, the university as part of society always reflects its discourses. On the one hand, legal requirements have brought about changes in recent years: for example, with regard to the use of a self-chosen name for TIN\* people – i. e. trans\*, inter\* and nonbinary people – which has been possible for students and staff at Freie Universität for some time without any unnecessary red tape. On the other hand, political development, such as the war in Israel and Gaza, are of course also shaping the debates on campus. Since the Hamas attack on Israel in October 2023, we have organized numerous events on the topics of anti-Semitism and also anti-Muslim and anti-Arab racism and are working on consolidating these offers. In addition to specialist advice and information events on dealing with the conflict in courses, we have also established safer spaces for members of minoritized groups.

# We Want to Ad<mark>dress an</mark>d Reach Everyone



**Dr. Rebecca Mak**Head of the Diversity and Antidiscrimination Office

## Beech Forests of the Future



**Dr. Manfred Forstreuter** Institute of Biology

Mr. Forstreuter, you launched the Climate Forest project. What is behind it?

The climate forest is located on a former tree nursery site in the Grunewald Forest in southwestern Berlin. We have planted around 1,500 copper beeches from all over Europe here and can thus investigate under real conditions in the field how climate change affects the respective copper beech provenances. How do the trees cope with late frost and drought? What influence does leaf size or early or late flowering have on how well a tree can cope with extreme conditions? We are constantly collecting comprehensive data and researching, for example, the genetic variability of trees, their ecotypes – i. e. their adaptation to their respective locations—or their contribution to biodiversity. It all started with a seminar on applied woody plant ecology in 2012/2013. We chose the copper beech because it is the so-called "bread and butter" tree species in Europe. Beech trees are central to groundwater recharge, climate and cooling. In this way, the beech forest ecosystem makes a significant contribution to biodiversity.

Through various activities, you always manage to involve people from Freie Universität and the city in your project. How and why do you do try to include them? The climate forest is managed by the Institute of Biology at Freie Universität Berlin in cooperation with the Berlin Forestry Department and the Forest Museum of the German Forest Protection Association. However, such a project would not be possible without a significant amount of voluntary commitment and donations. We are very fortunate that many people are pleased to become involved in the project, whether as part of our planting campaigns or by taking on tree sponsorships. The Ernst-Reuter-Gesellschaft - the association of alumni, friends, and benefactors of Freie Universität Berlin-has also supported us many times. Our aim with these campaigns is also to create an understanding of the effects of climate change on forest ecosystems. That's why we regularly have guests on our sites and give guided tours.

The Climate Forest has been around since 2013. How have the research priorities developed over time? Originally, my research focused on the properties of copper beech forests as CO<sub>2</sub> sinks and, in this context, I also investigated the effects of the water balance on the CO<sub>2</sub> balance of trees. Very different issues can be researched in the climate forest, and I am very pleased to have created a place where scientists from different institutions can work together. These include the Institute of Forest Genetics at the Thünen Institute in Großhansdorf and the Institute of Geographical Sciences at the FU Berlin. We are investigating gene regulation in selected red beech cultivars under drought stress and the influence of biochar in the soil on the growth of trees, also as part of numerous bachelor's and master's theses.

The term sustainability originally comes from German forestry. As a research project, what do you do differently and more sustainably than conventional forestry? As a university, we naturally operate our forest under different conditions than conventional forestry. In view of the changes caused by climate change, there is a great deal of uncertainty in forestry regarding the future shape of the forest and forest management. Ultimately, we do not yet know which trees are climate-resilient and how exactly the ecosystem as a whole will react to climate change so that we can plan and act accordingly. As a research institute, we are trying to shed light on how things work and how they are connected in order to create this knowledge. Let's assume you had unlimited funds at your disposal: How would you use them for the project? We have now collected a lot of data on the climate forest, but unfortunately there is a lack of time and human resources to analyze it comprehensively. And if I had unlimited resources at my disposal: We have planted areas of copper beech in various countries across Europe as part of various EU projects. I have long wished that these could be linked to research at universities for a comparative study.



# GOALS

## Review of the Sustainability Program 2022 to 2024

The majority of the projects in the Sustainability Program 2022 to 2024 were implemented as planned in the reporting period or are still being implemented. Only a few measures could not be realized as planned: A sustainability toolbox in the context of the Sustainable Development area of the General Professional Skills program was discarded, as several publications on the topic of Education for Sustainable Development (ESD) with toolbox elements were released as part of the BMBF-funded projects "HochN" and "LeNa Nachhaltig Forschen". The certification of level 2 of the BME certification "Sustainable Procurement Organization" and the development of a university-wide mobility concept including a pooling concept for the vehicle fleet were postponed due to a lack of personnel resources.

The exchange activities of the University Alliance for Sustainability (UAS), which was founded in 2015, could not be realized as planned due to the pandemic and the consequences of the Russian war of aggression on Ukraine. However, international networking activities in the Una Europa university alliance were intensively expanded in the reporting period.

#### Focus of activities in 2022 and 2023

- The meetings of the Advisory Committee for Sustainability & Climate Protection in 2022/2023 focused on the implementation of the Climate Emergency Declaration and its seven sub-targets. The design of a sustainability-oriented business travel policy and Freie Universität's strategic options for achieving the 2025 climate neutrality target were discussed in particular detail.
- The first three-year EMAS validation cycle was completed in September 2023, during which the entire university underwent an external audit and annual environmental statements were published.
- In mid-2022, Freie Universität Berlin published its third Sustainability Report. The report is based on the criteria of the German Sustainability Code (DNK) developed by the German Council for Sustainable Development. A declaration of conformity was published on the DNK website. In 2022, the Sustainability and Energy Management Unit also published an SDG report on its website for the first time and updated it in 2023.
- In both 2022 and 2023, the sustainability initiative Sustain It! organized Sustainability Days lasting several days with a variety of events, presentations and activities.
- As part of the FUturist competitions, five projects were selected for funding by juries in both 2022 and 2023, intensively supported by the Sustainability and Energy Management Unit and presented at final events. In addition, two competitions for ideas for a sustainable campus were held and three projects were subsequently funded as part of the Entrepreneurship Foundation's Masterclass.

Funding principles and criteria were developed during the reporting period for the funding of living labs planned from 2024 and a wide range of contacts were established with potential living lab participants.

- In order to determine the mobility habits at Freie Universität Berlin and the need for optimization in this field of action, the Sustainability and Energy Management Unit, in cooperation with the Berlin Social Science Center (WZB), conducted a survey at the beginning of 2022 in which around 6,000 university members, or around 13% of all university members, took part. In order to implement the goals resulting from the mobility survey, the Sustainability and Energy Management Unit, in cooperation with the Engineering and Utilities Division, applied for a project to expand the cycling infrastructure at Freie Universität at the end of 2022 as part of the BMU's Climate Protection through Cycling funding program.
- In the wake of the 2022/2023 energy crisis, the university leadership set up a Working Group for Energy Efficiency to identify short- and medium-term energy savings at Freie Universität and implement them in dialog with the departments. Together with a communication campaign, the working group succeeded in reducing energy consumption in winter 2022/2023 by ten % compared to the reference year 2019. The working group was subsequently made permanent.
- The result of two feasibility studies carried out at the Department of Earth Sciences was that the carbonization of organic waste such as shrub and wood cuttings would be a suitable negative emission technology for avoiding around 2,500 tons of CO<sub>2</sub>. Practical implementation is being examined by the Engineering and Utilities Division.
- A virtual Sustainable Campus Tour was introduced during the Sustainability Days in June 2022. In 90 minutes or 10,000 steps, it informs interested parties about exemplary projects and activities on the topic of sustainability at Freie Universität. Using a cell phone or tablet, visitors can explore 16 stations on the Dahlem campus. With the help of the Actionbound app, interested parties have also been able to complete the Sustainable Campus Tour in a fun and interactive way since May 2024.
- During the reporting period, the Blooming Campus initiative succeeded in continuously expanding the green spaces maintained with a modified mowing concept in coordination with Freie Universität's green space management. In August 2023, the co-founder of the initiative and long-standing coordinator received the Berlin Nature Conservation Award for her commitment.
- In October 2023, the Executive Board of the University proclaimed 2024 the Year of Biodiversity and initiated the development of a biodiversity strategy. This was presented to the public in May 2024 following the conclusion of a participatory process.
- In both 2022 and 2023, Freie Universität was ranked third among the "most recycled paper-friendly universities" in the annual Paper Atlas university competition organized by the Initiative Pro Recycling Paper (IPR) sponsored by the German Federal Ministry for the Environment.
- Freie Universität Berlin has been represented on the Advisory Committee of the ISCN since 2016 and has provided a Senior Fellow for "Network Engagement Strategy and Communications" since the end of 2023 to support the network in its strategic development in these areas.
- In the Una Europa university alliance, Freie Universität has chaired the Self-Steering Committee Sustainability since 2019 and coordinates the Task Force Sustainability and Climate Protection that deals with the institutional integration of sustainability, among other things.











## Sustainability Program 2024 to 2026

## Governance and Participation

Measures	Dead- line	Responsibility	Status
Continuation of the Advisory Committee for Sustainability & Climate Protection founded in 2021 (formerly the Steering Committee), appointed by the Academic Senate in October 2023	2026	University leadership Coordinated by the Sustainability and Energy Management Unit	•
Establishment of a biodiversity working group to implement the biodiversity strategy with the development of guidelines and an action program	2025	University leadership Coordinated by the Sustainability and Energy Management Unit	
Validation of the environmental management system in accordance with EMAS (2nd validation cycle 2024 to 2026, starting in September 2024)	2026	entire university Coordinated by the Sustainability and Energy Management Unit	
Introduction of a sustainability-oriented business travel strategy	2025	Sustainability and Energy Manage- ment Unit in cooperation with De- partments I and II and the Business	
Development of a position paper on the CO <sub>2</sub> footprint and handprint	2025	Sustainability and Energy Manage- ment Unit	
Continuation of the sustainability-oriented idea and innovation management introduced in 2021 (including "FUturist" competitions, living labs, student idea competitions, fainin exchange platform)	2024	Sustainability and Energy Manage- ment Unit	

- implementation completed/implemented continuously
- in preparation/implementation
- New Deadline

## Teaching and Transformative Education

Measures	Dead- line	Responsibility	Status
Coordination and expansion of the Sustainable Development competence area in the General Professional Skills (ABV) program (since 2018)	2026	Sustainability and Energy Manage- ment Unit	
including: Consolidation of the Sustainability module in the supplementary area of the Teacher-Related Vocational Science for Primary Schools study area as part of the bachelor's degree programs for the teaching profession		Dahlem School of Education	
Continuation of the educational format "Schools@ University for Sustainability + Climate Protection"	2027	Schools@University for Sustainability + Climate Protection	
Organization of further training for lecturers on the teaching and learning concept of Education for Sustainable Development	2026	Sustainability and Energy Manage- ment Unit DCAT	
Implementation of regular training programs on the topics of energy efficiency, mobility, biodiversity, procurement, AGUM and EMAS validation for employees	2026	Sustainability and Energy Manage- ment Unit, Continuing Education Center	•
Coordination of the profile topic of sustainability in the European university alliance Una Europa and the Task Force for Sustainability and Climate Protection, development of teaching pilots	2026	Executive Vice President for International Affairs, Steering Committee Sustainability, Sustainability and Energy Management Unit, Department IV - International Affairs (CIC)	
Continuation of sustainability activities such as "Sustainability Days", "FUdsharing", "UniGardening" and the "Blätterlaube" (Leafy Green Canopy) community garden	2026	Sustain It!	•
Continuation and implementation of the joint project FUBIC – All-Electricity Realization, funded by the Federal Ministry for Economic Affairs and Climate Action	January 2027	WISTA Management GmbH, RWTH Aachen University, aedifion GmbH, BTB GmbH, Sustainability and Energy Management Unit	

## Sustainability Program 2024 to 2026

## Communication, Networks and Dialog

Measures		Responsibility	Status
Participation as a pilot university in the DBU project UNISIMS - University Sustainability Indicator Monitoring System at TU Dresden	2024	Sustainability and Energy Manage- ment Unit	•
Participation in the university networks ISCN (Advisory Committee) and Unica Green & SDGs	2026	Sustainability and Energy Manage- ment Unit	
Publication of regular sustainability reports, declarations of conformity in accordance with the DNK, SDG reports and environmental declarations in accordance with EMAS	2026	Sustainability and Energy Manage- ment Unit	•
Participation in the annual Times Higher Education Impact Rankings	2026	Sustainability and Energy Manage- ment Unit	

### Conservation of Resources

Implementation of the concept for drinking water taps	2026	Coordinated by Sustainability and Energy Management Unit	
Central Purchasing: BME certification for sustainable procurement	2026	Division II - Division II C - Central Purchasing	

- implementation completed/implemented continuously
- in preparation/implementation
- New Deadline

## Campus Management/Climate Neutrality

Measures		Responsibility	Status
Development of a climate protection program 2025 to 2030	2025	Coordinated by Sustainability and Energy Management Unit Participation: entire university	•
Examination and possible implementation of the "Negative CO <sub>2</sub> emissions technology biochar" project	2026	Engineering and Utilities Division	
Establishment of a CO <sub>2</sub> price and a fund for climate protection and biodiversity measures	2025	Sustainability and Energy Manage- ment Unit in cooperation with Depart- ment II and the Climate Neutrality Working Group	•
Expansion of photovoltaic systems in the order of an additional 2 MW	2026	Engineering and Utilities Division	
Continuation of the "Energy Efficiency Working Group" established in 2022 to identify and imple- ment energy-saving and energy efficiency measures	2026	Coordination: Engineering and Utilities Division and Sustainability and Energy Management Unit Participation: entire university	•
New construction of the institute building Königin- Luise-Straße 28-30 according to BNB, gold standard	2025	Engineering and Utilities Division	
Renovation of the chemistry building Takustraße 3, construction phase I	2027	Engineering and Utilities Division	
Development and implementation of a sustainable mobility concept for a pedestrian and bicycle-friendly campus (implementation of the climate protection and cycling project funded by National Climate Initiative (NKI) and the BMWK)	2027	Sustainability and Energy Manage- ment Unit and Engineering and Utilities Division	•
Conversion of the FU vehicle fleet to e-mobility	2027	Division II Division II C - Central Pur- chasing Engineering and Utilities Division	•

## **Appendix**

		2000	2005	2010	2015	2020	2022	2023
<b>Annual government grant</b> [€ m	nillion]	267.6	292.4	274,2	311.6	363.0	389.8	394.5
Disbursements from third-party funding (total) [€ million]		36.7	46.1	106,3	126.6	117.0	144.23	145.23
Students [number]	total	35,283	31,398	32,043	35,413	37,102	37,908	37,356
	of which, women	53%	59%	58%	59%	61%	61%	61%
Doctoral students	total	2,351	2,260	3,902	4,406	3,628	3,557	3,481
International students	total	5,481	4,765	6,042	7,358	7,384	8,261	8,394
Full-time staff [number]	total		4,497	4,863	5,143	5,573	5,672	5,728
[namser]	of which, women		53%	56%	57%	55%	56%	56%
Non-academic staff	total		2,283	2,216	2,357	2,720	2,731	2,763
	of which, women		67%	67%	67%	64%	64%	64%
Academic staff	total		2,214	2,647	2,786	2,853	2,941	2,965
	of which, women		35%	45%	47%	47%	47%	49%
Professors	total		433	474	548	539	520	540
	of which, women		20%	31%	38%	38%	40%	41%
Professors with tenure	total		372	309	319	363	369	369
	of which, women		19%	25%	31%	34%	37%	38%
Professors on fixed-term contracts			0	31	54	42	40	34
Junior professors			30	77	106	65	49	58
Visiting professors				57	69	69	62	75
Student employees [numbers]				1,662	1,713	1,344	1,339	1,342
Adjunct teaching staff [numbers]			1,325	1,461	1,094	894	876	856
Number of research projects related to sustainability (of total number)						665 (1,796) -2019-	744 (1,776) -2021-	701 (1,486)
Number of courses related to sustainability (of total number)						678 (4,159) winter semester 2019/20	725 (4,507) winter semester 2021/22	709 (3,980) winter semester 2023/24

		Baseline	2005	2010	2015	2020	2022	2023
Energy consumption <sup>a</sup> (weather-adjusted) [MWh]	total	161,462 (2000/2001)	139,705	120,529	121,627 <i>117,431</i>	109,480 <i>104,562</i>	112,950 <i>106,17</i> 9	107,908 <i>96,730</i>
	reduction to baseline		13.5%	25.4%	24.7% 27.3%	32.2% 35.3%	30.2% <i>34.4%</i>	33.2% <i>40.1</i> %
Electricity		50,222	48,059	43,716	43,472 41,216	35,276 <i>32,366</i>	39,263 <i>35,353</i>	40,141 <i>35,112</i>
District heating		73,399	63,612	55,152	53,345 <i>52,577</i>	46,504 <i>45,57</i> 9	46,899 <i>45,125</i>	42,395 <i>40,662</i>
Natural gas		23,774	19,034	19,251	24,303 23,131	27,625 <i>26,542</i>	26,709 <i>25,622</i>	25,280 <i>20,8</i> 63
Heating oil		14,067	9,000	2,410	507 507	75 75	79 	93 93
Energy cost reduction [€ million] calculated with the energy prices of the respective year	annual reductions compared to baseline		1.22	3.19	3.45 3.97	5.43 6.15	6.81 <i>8.07</i>	8.97 <i>11.68</i>
prices of the respective year	cumulative		2.40	14.72	32.87 <i>34.24</i>	53.99 <i>58.32</i>	65.79 <i>72.08</i>	74.76 83.76
CO <sub>2</sub> emissions according to provider	total	57,194	26,160	12,951	13,075 12,736	6,887 6,655	7,192 6,908	5,793 <i>4,</i> 877
information and electricity supply contract [t] <sup>b</sup>	reduction to baseline		54.3%	77.4%	77.1% 77.7%	88.0% 88.4%	87.4% 87.9%	89.9% <i>91.5</i> %
Electricity	total	38,118	10,717	0	0	0	0	0
	reduction to baseline		71.9%	100%	100%	100%	100%	100%
CO₂ emissions per square meter of building area [kg/m²] <sup>b</sup>		107.9	50.1	24.1	23.1	12.1	12.2	9.8
Water usage [m³]	total	283,009 (2004)	272,014	197,870	219,146	197,126	172,147	159,228 <sup>d</sup>
Water costs [€ million]	total	1.556 (2004)	1.593	1.502	1.400	1.218	1.111	1.101
Waste disposal costs [€ million] <sup>c</sup>	total	0.428 (2004)	0.454	0.348	0.339	0.310	0.358	0.428
Residual waste		0.151	0.142	0.142	0.159	0.186	0.223	0.231
Special waste (chemical waste, bulky waste, electronic waste, etc.)		0.236	0.275	0.203	0.180	0.127	0.135	0.197
Building area (net floorspace) [m²]		530,000 (2000/2001)	522,000	537,000	565,000	568,000	589,000	589,000
Paper consumption [t]					151.27	43.11	34.37	35.59

Italics: excluding increase in floor space
a Energy consumption includes the electricity consumption of the canteens and cafeterias of Studierendenwerk Berlin.
b The reduction from 2020 resulted mostly from a change in the calculation method for district heating.
c From 2023 the costs of disposal of solid manure from the Department of Veterinary Medicine are included.
d Preliminary figures

#### **PUBLISHING DETAILS**

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