



Climate Neutrality Right from the Start

The UTN Climate Action Plan



Preface



Dear reader,

The University of Technology Nuremberg (UTN) sees itself as a learning organisation with a special responsibility to contribute to overcoming current ecological and social challenges. Sustainability and climate action play a central role in our research, in our teaching and learning, in our transfer activities, and in the development of our emerging campus. They are equally important across the technical sciences, the humanities, and the social sciences. For us, scientific excellence and social responsibility go hand in hand at every level. For us, scientific excellence and social responsibility go hand in hand.

With the UTN Climate Action Plan, we are taking another important step on our path to becoming a sustainable and climate-neutral university. Our Plan builds on existing measures, but also aims to provide new impetus for more efficient processes, resource-saving practices and a fundamental rethink in research, teaching and administration. We hope to further develop our university not only as a place of academic excellence, but also position it as a model for sustainable transformation.

We can achieve these goals only by working together. With the support of our committed university community, we want to become a pioneer in university climate action and thus make an effective contribution to overcoming the global climate crisis. I would like to thank everyone who contributed to the development of the UTN Climate Action Plan, especially my colleagues from the Sustainability team, the participating departments and all the committed members of our university community.

Together, we will put UTN on a more sustainable path and face the challenges of the future. Let us tackle this task with determination and our collective commitment.

Prof. Dr. Michael Huth
Founding President of the University

We Take Responsibility – Climate Action as a Founding Principle

The University of Technology Nuremberg (UTN) is a true project for the future: As the first newly founded public university in Bavaria in over 40 years, it is being built from the ground up – with the ambition of becoming a leading international tech university for AI, robotics, and engineering.

In line with this spirit of innovation, sustainability has been embedded as an integral part of the university’s development from the very beginning. Between May 2024 and June 2025, we developed a Climate Action Plan and are consistently working on the implementation, evaluation, and further development of sustainability and climate action on campus.

What’s unique about our campus: There are no legacy structures that would require costly or complex conversion. Instead, we are making strategic decisions today to directly initiate climate-friendly development of the campus, operations, IT, and mobility – and to move step by step, ambitiously yet realistically, toward our goal of greenhouse gas neutrality by 2040. In the UTN Climate Action Plan, the terms “greenhouse gas

neutrality” and “climate neutrality” are used synonymously. From a technical perspective, “greenhouse gas neutrality” is more precise; however, we align with our target agreement with the Ministry, in which the term “climate neutrality” is defined.

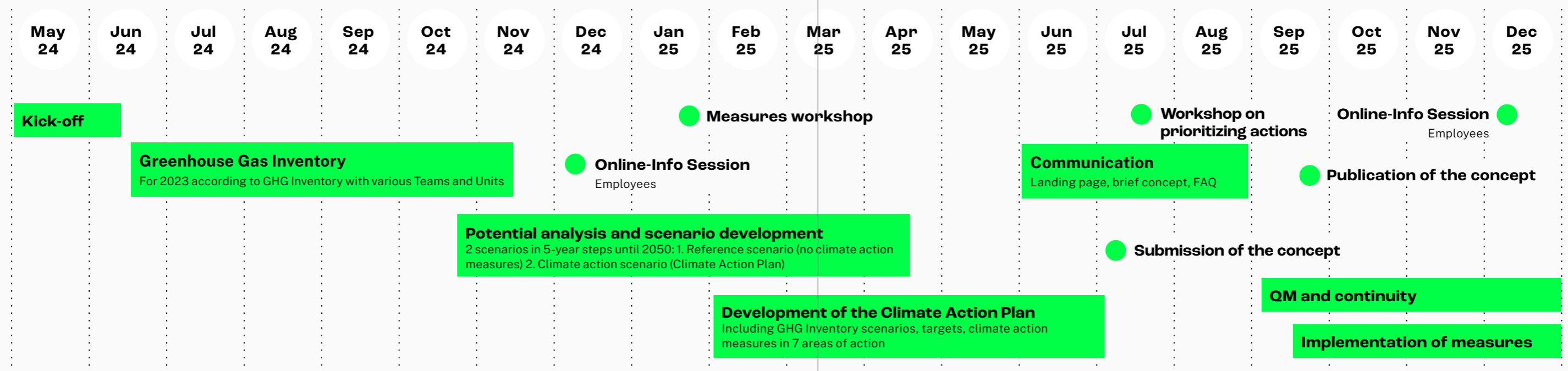
We developed the Climate Action Plan, including the greenhouse gas inventory (GHG inventory) (based on the internationally recognized Greenhouse Gas Inventory), scenarios, and reduction strategy from May 2024 to May 2025 in cooperation with the sustainability consultancy plant values (<https://plant-values.de/>). The plan was adopted by the UTN Executive Board in June 2025. The project was funded by the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

„What’s unique about our campus: There are no legacy structures that would require costly or complex conversion.“



Focus on sustainability and modern construction methods Cube One © Stefan Meyer

The Project Timeline



Developed Together – For the Best Results

Climate action can only succeed if we work together – therefore, we developed the concept with many stakeholders – openly, transparently, and participatively.

Who are these stakeholders?

Our main stakeholders involved are:

- Climate action core team consisting of employees from all teams and units
- Climate action manager
- Employees from various disciplines such as IT, procurement, HR, and real estate
- University management, including the president, head of administration, executive committee, and founding commission
- Students
- State building authority
- Funding agency

To achieve this, we used different formats to ensure the best possible stakeholder participation:

- Biweekly meetings with the core climate action team
- Internal interviews and discussions
- Data collection appointments
- Workshops
- Online info sessions
- Participation in committee meetings
- Open digital participation via email, digital whiteboard, etc.

The result: a well-founded, practical concept – with broad support and design ideas from across the campus community.

„Climate action can only succeed if we work together.“



Developing specific measures in a workshop © TU Nürnberg

Concept Development Process

Kick-off in May 2024

Internal consultations and data collection

with organizational units on emission sources, mitigation measures, and potential opportunities.

Online information session

GHG inventory sheet with presentation of results and discussion of initial measures.

Participation in committee meetings

e.g. the Executive Committee and the Founding Commission, to ensure anchoring at the leadership level.

Open participation

by email, digital whiteboard, and other means, e.g., at the WOW exhibition.



Interviews on sustainability

with employees from Governance, IT, Finance, Procurement, Diversity, HR, Real Estate, and students.

Sustainability strategy workshop

Development of key topics and areas of action – aligned with the Climate Action Plan.

Measures workshop

Development of specific climate action measures in January 2025 with representatives from all units.

Exchange within the climate action core team

With regular meeting and strategic guidance.

Our Climate Goals – Benefits for All

At UTN, climate action is more than just a goal – it’s a collaborative journey toward a sustainable future.

With clear milestones along the way: net-zero emissions in Scope 1 and 2 from 2028 and greenhouse gas neutrality across all scopes by 2040 at the latest. The concept covers all areas—research, teaching, administration, and campus development—and creates real added value.

Benefits for



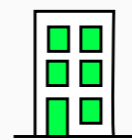
our Students

- Green campus for learning and living
- Help shape the future, direct reference to good practice
- Sustainable studying and research



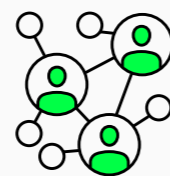
our Employees

- Transparency and clear orientation
- Embedding climate action in everyday work



our University

- Clear strategic plan
- Cost savings
- Pioneering role locally, nationally, globally



the Public

- Regional Catalyst and Role Model
- Open Dialogue
- Driving Innovation in the City

Our GHG Inventory Sheet for 2023 – Where We Stand. Where We Start.

We have calculated our emissions in accordance with the internationally recognized Greenhouse Gas Inventory standard.

We have recorded all mandatory and, for us, essential emission categories in the various scopes. In 2023, our university emitted a total of **259 tons of CO₂e** – equivalent to around **2.2 tons per university member**.

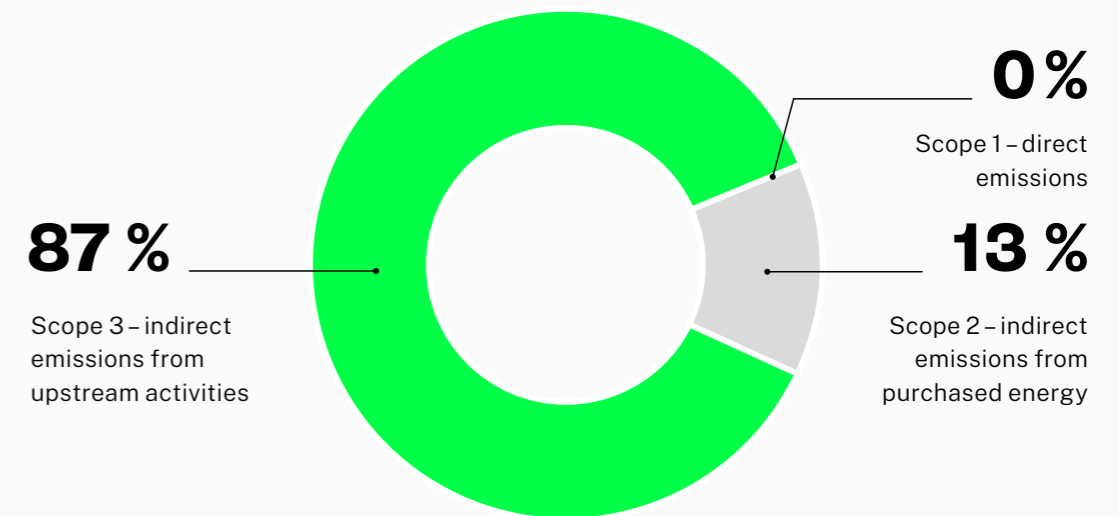
- **87% of emissions** result from Scope 3 (upstream processes),
- **13% from Scope 2** (purchased heat and electricity), and
- **0% from Scope 1** (direct emissions).

What are scopes?



- Scope 1:** direct emissions (e.g., heating, vehicle fleet)
- Scope 2:** indirect emissions from purchased energy
- Scope 3:** all other indirect emissions (e.g., travel, procurement, construction)

Greenhouse Gas Inventory According to Scopes



What We Emit

For greater clarity, we have summarized the emission categories of the Greenhouse Gas Inventory (GHG Inventory) into four hotspots that we consider relevant. These hotspots are mobility, procurement, operations and construction.

Our biggest hotspots (according to the GHG Protocol) are:

53% of emissions from mobility. This corresponds to approximately **25 trips around the world in a gasoline-powered car.** This includes the following emission categories:

- Guest arrivals
- Commuting by students and employees; these emissions account for more than three-quarters of the mobility field of action
- Business trips
- Electric vehicle fleet

30% from procurement. This area of action includes the emission category “purchased goods and services.” Here, we have taken into account **IT (63%)** and **furniture (36%)**, which account for the majority of GHG emissions from purchasing. Paper, printed materials, and cleaning and hygiene products were also taken into account.

15% from operation. Total:

- Electricity
- Heat, with heat **contributing 71%** to this emissions category
- Waste

This generates as much CO2 as 13 households consume in a year.

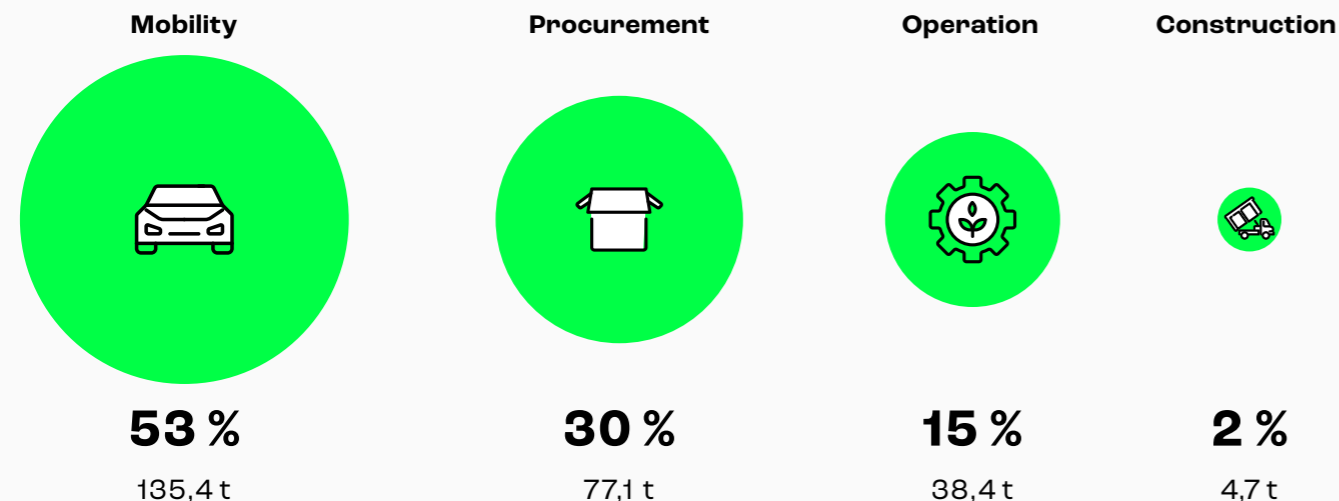
2% due to construction was recorded in the capital goods emissions category. Emissions in this area of action are currently still low, but will become significantly more relevant from 2024 onwards with the ongoing construction of buildings and outdoor facilities.

This transparency forms the basis for targeted measures, and allows us to work consistently toward our goals: **net zero in Scope 1 and 2 from 2028**, and **greenhouse gas neutrality across all scopes by 2040 at the latest.**

What is the Greenhouse Gas Inventory (GHG Protocol)?

Internationally recognized standard for calculating greenhouse gas emissions. It ensures that emissions are recorded in a transparent, comparable, and understandable way.

Greenhouse Gas Inventory According to Hotspots



Our Decision for the Future – Climate Action Scenarios 2050

How will UTN emissions develop in the coming decades? What will happen without climate action? And what will happen with it?

To better understand this, we have modeled two future scenarios—each in 5-year steps until 2050:

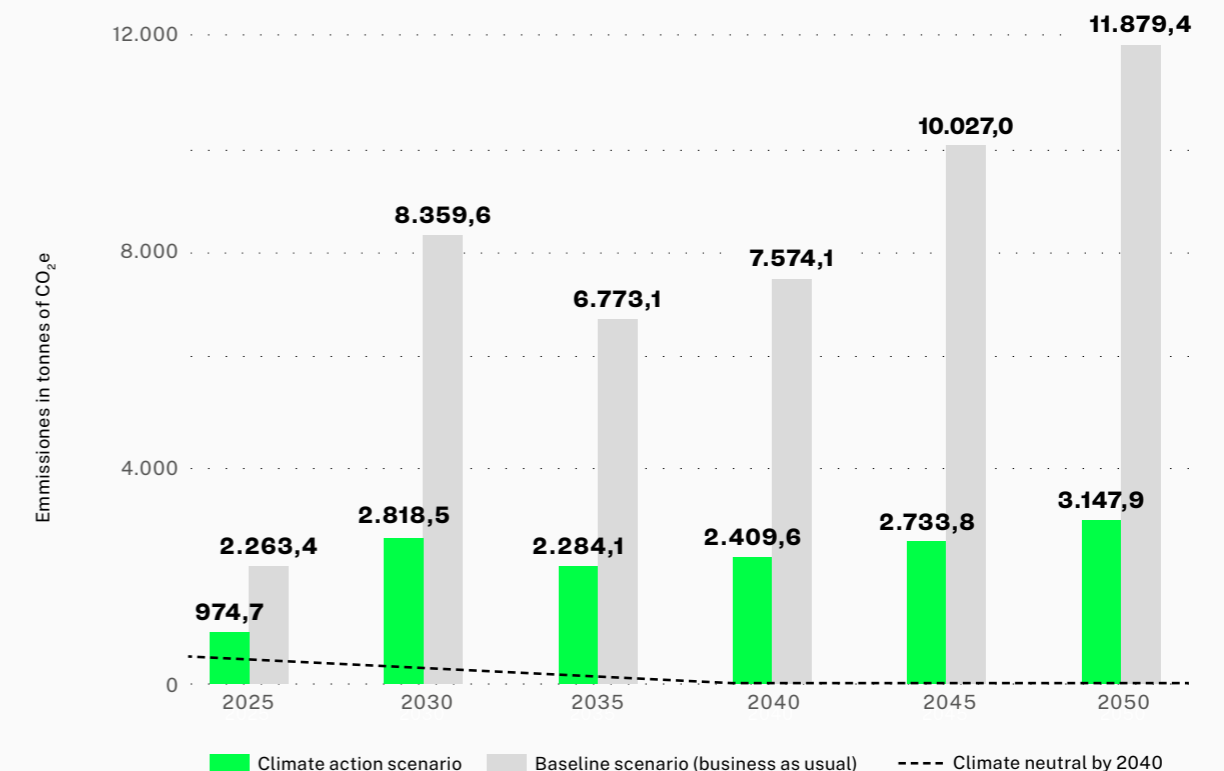
- The **reference scenario** shows how much emissions could rise if no strategic climate action is taken.
- The **climate action scenario** shows how much emissions can be reduced through strategic action.

Two paths, one decision: we chose the climate action scenario. A clear commitment to responsibility, the future, and innovation. The scenarios are based on the architectural and structural development of the

campus. By 2029, the first buildings will be completed, featuring teaching, learning, and research areas, an energy center, laboratories, a parking garage, and green spaces. In the following decades, the campus will continue to grow step by step – with a park-like green center, student residences, central facilities such as a cafeteria, sports center, and event spaces. In its final expansion stage, the campus is designed to accommodate around 6,000 students.

This development forms the basis for modeling emissions and long-term planning for a climate-neutral university by 2040.

Climate Action Scenarios up to 2050



Our Activities in 7 Areas of Action

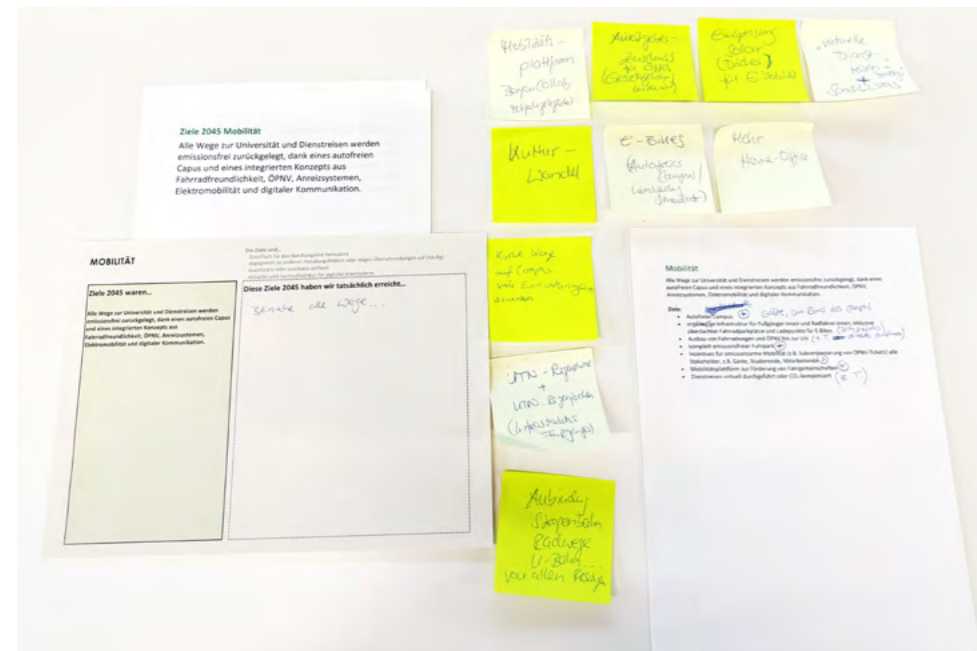
Based on our GHG Inventory sheet, we have analyzed our hotspots and their expected development until 2050 and we have developed measures.

In accordance with the requirements of the funding agency, the measures were categorized into the following **seven areas of action**: procurement, operations, IT, campus infrastructure, renewable energies, space management, and mobility.

The best example is **construction**. What we plan now will determine emissions for decades to come. Those who think climate-smart from the outset will not have to undertake extensive renovations or even compensation measures later on (see climate action scenario).

We have developed specific, practical measures for all areas of action with a clear goal: **to identify and avoid potential emission sources at an early stage** before they even arise. For us, this means **knowing today what will be important tomorrow**.

Our measures focus precisely where they have the greatest impact: **avoiding and reducing emissions, achieving climate targets – and continuously improving in the process**.



Mobility as an area of action at the workshop © TU Nürnberg

Our Activities in 7 Areas of Action

● Short term: 1 year ● Medium term: 5 years ● Long term: more than 5 years

Procurement



Strategic measures

- Training courses on sustainable procurement
- Develop a list of criteria and guidelines
- Record supplier information for transparency

Quick-Wins

- Check the necessity of procurements
- Use internal exchange channel and eGon platform (non-essential items online)

Operation



Strategic measures

- Digital resource monitoring
- Zero waste and paper reduction
- Implement EMAS environmental management

Quick-Wins

- Worm box for organic waste
- Standby devices with power strips
- IT donations for schools/social department stores
- Energy saving information for university members

Renewable energy



Strategic measures

- Additional PV areas
- Energy storage and load management
- Cooperation for waste and heat recovery

Mobility



Strategic measures

- Integrated mobility concept
- Subsidized commuter ticket
- Zero-emission vehicle fleet
- Making business trips climate-friendly

Quick-Wins

- Virtual alternatives to travel
- E-bikes and bicycles
- Pedestrian infrastructure
- Carpooling platform
- Better bike connections between locations

Campus Infrastructure



Strategic measures

- Smart campus with AI automation
- Energy-positive flagship building
- Sustainable building standard
- "Sponge campus", rainwater harvesting

Quick-Wins

- Flowering meadows
- Guidelines for circular construction materials

Land and Space Management



Strategic measures

- Check demand before new construction
- Optimal land use and less sealing
- Green campus with landscaping and beekeeping

Quick-Wins

- Consider mobile working
- Flexible room concepts
- Ensure efficient use of space

IT



Strategic measures

- Sustainable device lifecycle management
- Resource-efficient data management
- Virtualization instead of dedicated servers

Quick-Wins

- Server cleanup and deletion routines
- Reduce data waste
- Use energy-saving hardware
- Optimize devices in energy mode/use
- Make meetings efficient
- Green coding
- MDM-supported maintenance and updates

Working Smarter Together – With Strategies That Are Aligned and Interconnected

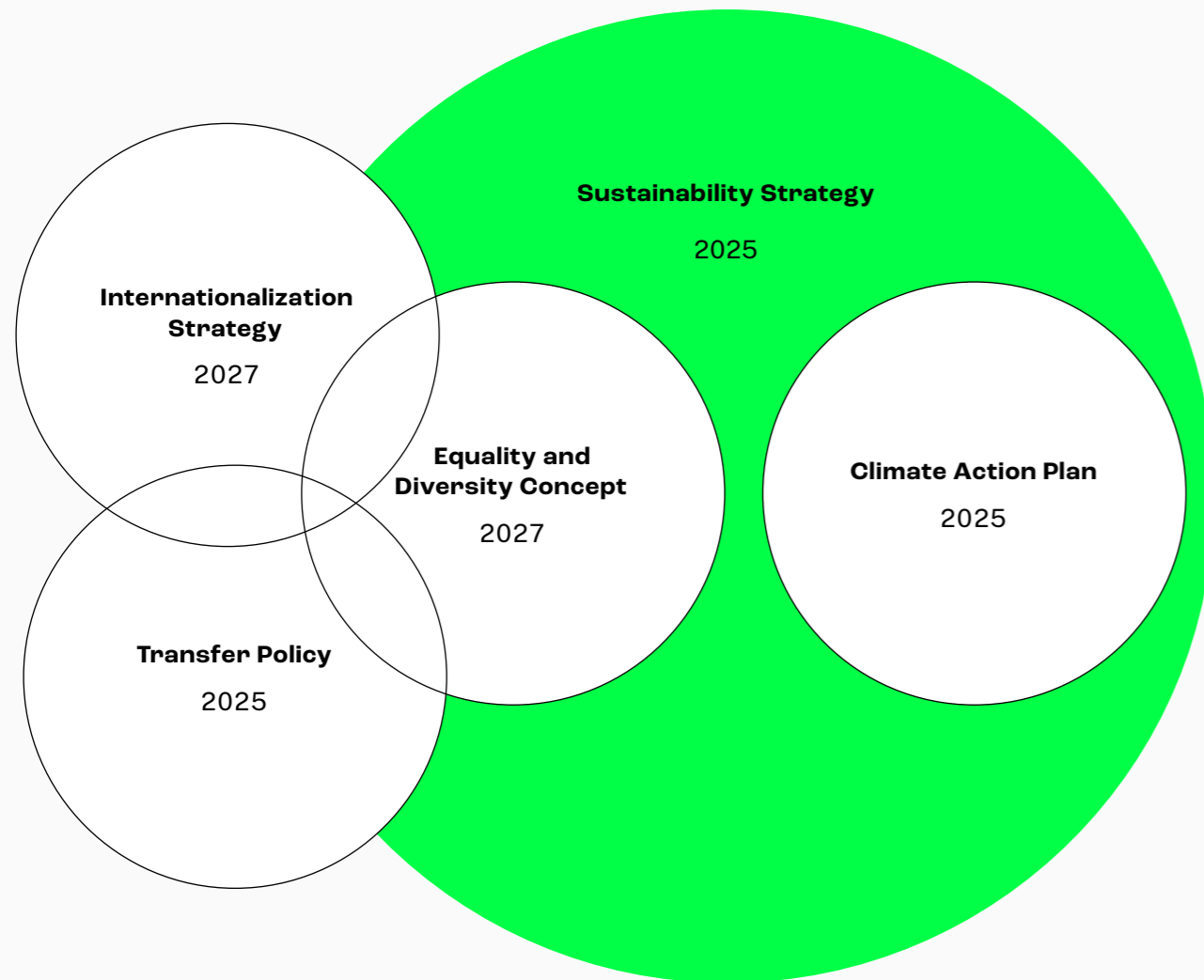
At UTN, we think strategically and collaboratively: our Climate Action Plan is fully integrated into our upcoming sustainability strategy.

Topics that have already been thoroughly addressed in climate action are not discussed again in the sustainability strategy, but are linked in a specific way. In this way, we avoid repetition, utilize synergies, and strengthen effectiveness.

That's why we chose dialogue: In interviews between the climate action manager and representatives of other concepts – such as the **transfer mission statement, gender equality, diversity, and interna-**

tionalization – overlaps were identified and **clearly delineated**. In this way, the sustainability strategy becomes the unifying framework under which the existing concepts interact coherently.

Our motto: Don't reinvent the wheel – especially when, or precisely because, so much is evolving at our newly emerging UTN. We systematically compare where it makes sense to anchor what, and we make sure that everything fits together.



From Climate Action Concept to Systematic and Sustainable Practice

Concepts alone are not enough – what really matters is that they are implemented, reviewed, and firmly embedded in daily practices.

That's why we understand climate action as a continuous process with clear responsibilities, regular evaluation, and space for further development:

- **Annual GHG accounting:** We will continue to calculate our greenhouse gas emissions every year.
- **Regular review and further development of the Climate Action Plan:** We plan, implement, review, and improve our measures and how they are embedded in responsibilities – year after year.
- **Integration with the emerging sustainability strategy:** climate action is part of the bigger picture and firmly anchored in our overall strategy.
- **Embedding in governance and processes:** Responsibilities, procedures, and decision-making are designed so that climate action is consistently taken into account and actively steered.

This is how we create structures that make a difference – today, tomorrow, and in the long term. Because real change needs not only good ideas, but also **perseverance, learning, and continuous improvement**.

In this way, our climate action plan does not remain just a document – it becomes a **living part of our university**.

Join in!



Are you a student or employee at UTN?

Are you a student or employee at UTN? Your ideas matter! Would you like to get involved or do you have an idea for an area of action – e.g., mobility or campus design?

Write us at sustainability@utn.de

Climate action concerns us all!

Do you have any suggestions or ideas on how UTN can become even more climate-friendly? We welcome fresh ideas from outside the company – feel free to write to us at sustainability@utn.de.

Any Questions?

We are always happy to answer any questions you may have: sustainability@utn.de
www.utn.de/en/about-us/climate-action/

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