

Demands on Justus Liebig University

1. Commitment to climate protection

JLU must commit to the Gießen city government's resolution "2035 Null – Klimaneutrales Gießen" (2035 Zero - Climate-neutral Gießen). It must actively support this goal by reducing its emissions within Giessen to zero by 2035 without using carbon offsets. It must reduce its total emissions, which also include travel outside Giessen, by 90%.

Limiting global warming to 1.5°C is essential for the preservation of our natural resources necessary for human life. By signing the Paris Climate Agreement in 2015, Germany has also committed to preventing global warming from passing 1.5°C. In Germany, the 1.5°C goal is declared in its constitution in Article 20a. Based on this agreement, various studies show that Germany must achieve climate neutrality by 2035 at the latest in order not to exceed the CO₂ budget to which it is lawfully entitled. The city of Gießen has already taken a decisive step in this direction when it approved the motion "2035 zero - climate-neutral Gießen" by a majority in 2019, turning a mere idea into a tangible commitment. However, the necessary steps to meet this commitment have so far been neglected and failure is becoming more likely every year. As one of Giessen's most important stakeholders and as an academic institution with a role model function the JLU must therefore take responsibility and make a clear and public commitment to the Giessen 2035 zero target.

In addition, JLU must join forces with other universities (preferably nationwide) and work together to ensure that climate targets are met and tightened. The demand for climate neutrality by 2035 without compensation from the state and federal governments would be the right statement on the part of the universities. The NGO German Zero (<https://germanzero.de/>) is calling for exactly this with over 30 companies and partners from civil society. With the support of cooperating universities, the demand would have more power and prospects of success.

Attentive readers might point out that JLU is already bound to a tougher target by the government of the state of Hessian decision to make the Hessian administration (including JLU) climate-neutral by 2030 and that committing to Giessen's 2035 zero target is therefore not necessary. However, a clear distinction must be made here. The decision of the government of the Hessian state alone does not oblige JLU to reduce emissions in any way, as the state government is keeping the option open to "nullify" all emissions that the state administration will still be emitting in 2030 with so-called carbon offsetting certificates. This approach to reducing emissions is considered controversial at best and at worst can suggest climate neutrality where no climate neutrality exists. This is also the case at JLU, whose planned measures are not sufficient to achieve the goal of being climate-neutral by 2030. A much more sobering picture of the actual plans of Hessians universities can be found in the Hessian University Pact, as the Hessians universities have committed to reducing emissions by just 2% per year between 2021 and 2025. These amounts are

completely inadequate in the face of the climate crisis and unworthy of the social role model function of universities.

To counter this unsustainable situation, JLU must therefore commit to Giessen's climate-neutrality by 2035. This means that it must reduce its emissions within Giessen to zero by 2035, without offsetting certificates. It must also reduce its total emissions, which also include travel outside Giessen's, by 90% by 2035. Furthermore, we demand that the university first draw up an overview of all CO₂ emissions according to the Greenhouse Gas Protocol standard with Scope 1-3. On this basis, JLU must calculate its residual greenhouse gas budget and determine a concrete reduction path to achieve climate neutrality.

The result is that JLU must reduce its emissions in the Giessen city area by 100% by 2035 and reduce its total emissions by 90% by 2035. It is fitting to conclude here that JLU must communicate more transparently how high the proportion of business trips by plane alone is, which are made by university management or outside the research area.

2. Studies and teaching:

2.1. JLU must set itself the goal that by 2026, 80% of graduates from the entire university will have successfully completed at least one module related to the climate crisis.

The core issue of a university like JLU is to train the specialists of tomorrow. One of the most important topics here should be the topic of teaching and course content in order to prepare students for the time after university. Fundamental and subject-specific knowledge about the climate crisis and sustainable development will be essential for all professionals in the future. According to a study by JLU Professor Dr. Jasmin Godemann, the results of which were presented on 12 June 2023, the desire for this specialist knowledge is also represented among students: 73% of students would like more modules related to sustainability.

We therefore call on JLU to pursue the goal that 80% of graduates have successfully completed at least one module related to sustainability by 2026. This is an attempt to ensure that the majority of students have acquired basic and subject-specific knowledge in the field of sustainable development.

With this demand, it should be mentioned that students should of course continue to be free to organize their studies as they wish. However, the global problems of our time, climate change and the extinction of species, must become basic knowledge, as this knowledge transfer has positive effects for society as a whole. Students must therefore be taught this knowledge across all institutes and departments. By implementing this demand, JLU is committed to education that benefits society. This demand is in solidarity with the citizens of this society, as without their tax contributions, the currently known operation of the university would not be possible. Good education must therefore not only aim for the good of the economic system, but also for the good of society.

In order to create more transparency for students, they must be provided with an overview of all sustainability-related modules. The overview must also include the introduction period of the module so that the transformation process at JLU remains comprehensible.

2.2. In the case of (re-)accreditation, study programs must be geared towards sustainable development and orientation knowledge in the area of sustainability must be implemented.

In order to achieve a transformation process at JLU, it is also necessary to adapt teaching and the range of courses offered throughout the university. For this reason, we also demand that the (re-)accreditation of study programs be geared towards sustainable development and that orientation knowledge on sustainability be implemented. On the one hand, students should be made aware of the urgency of the topic and, on the other hand, the content should

establish a link between the subject and sustainable development and, through specialist knowledge, provide them with the skills they will need in their future careers. Social research shows that pure knowledge only leads to people taking action to a limited extent. The climate crisis makes this very clear. It is therefore important to enable students to experience self-efficacy, gain implementation skills and shape knowledge transfer between different groups/actors/sectors by means of practical projects and involving various stakeholders (e.g. city, industry, etc.). In order to implement sustainability modules in the course of studies, the departments must be involved and provided with technical and financial support in the redesign of existing or the design of new courses with a clear reference to the climate crisis.

2.3. In all degree programs with compulsory electives, students must be able to choose and receive credit for courses from the interdisciplinary range of courses and certificates on orientation knowledge in the field of sustainability.

In addition to the long-term restructuring of teaching at JLU through the (re-)accreditation of degree programs, we support JLU's plan to establish a cross-departmental course and certificate offering for orientation knowledge in the field of sustainability. We demand that this offer be introduced promptly and successively expanded. It must be ensured that students can take advantage of the offer as part of their regular studies. The modules included in the offer must therefore be creditable in principle in all degree programs with elective subjects/profile modules/reference subjects/etc.

3. Research

In addition to the core topic of training the specialists of tomorrow, research is also one of JLU's main tasks. It should not be forgotten that research should primarily serve society. We therefore support JLU's strategic goal (F-1) of promoting interdisciplinary and transdisciplinary research. After all, the major societal challenges do not fall within a single discipline, but are to be assigned to several overarching areas. We appeal to the JLU to consistently pursue its own goals!

3.1. JLU must expand the existing funding pot for sustainable research (Sustainability Fund).

We welcome the existing funding pot at JLU (Sustainability Fund), but at €100,000 it is not large enough. Similar to the planned prizes for sustainable research work of the JLU Sustainability Strategy (F-2), which are basically positive, these are not sufficient either. A new funding pot with more extensive funding should be set up. This can be done, for example, from the funds requested from the state in the amount of €3,359,602.2. Furthermore, a prioritization of funds is necessary. In addition to the current possibilities of the existing funding pot, a new pot should also consider the possibility of financially supporting doctoral and post-doctoral positions.

3.2. JLU must conduct more local research topics with a sustainability focus.

In addition to the funding pot, JLU should implement more local research related to sustainability. A good example of such implementation is the University of Hamburg with its "Sustainability and Future Viability" funding initiative. Here, both students and researchers are funded for specific work. In order to tackle the major problems facing society, we call on JLU to communicate the results and findings of its research to society and therefore demand that science communication be significantly expanded. For example, projects can be launched that bring research together with practice partners and citizens (locally and globally). Research has never been as important in our society as it is now, and yet there is still skepticism about science. JLU must play its part in reducing and ultimately closing the gap between research and society. An example of this is the House of Sustainability (see also demand 4.2), which offers a shared space for research and learning. Such a space represents an opportunity to promote cooperation between science and society, reduce scientific skepticism, redesign science communication and strengthen social commitment. JLU can use facilities such as the House of Sustainability to share knowledge from the various departments with other stakeholders such as urban and regional society. In this way, the JLU can make an effective contribution to promoting the internal dimension of sustainability and supporting the necessary change in social values. Last but not least, the concept of real-world laboratories should be mentioned, which are currently enjoying great popularity.

3.3. JLU must significantly expand science communication and knowledge transfer with city and regional society.

We are in favor of the reports published by JLU itself, which should take place at least once a month (F-2). However, reports are not nearly enough to make research suitable for society. The university must do much more to bring the current state of climate research, as well as other sustainable research, to the public. Various formats are suitable for this, from publicly accessible and advertised events to real-world laboratories. However, better communication of knowledge is not enough; action itself must also be promoted (see also demand 2). To this end, cooperation with the city, the regional society, as well as designated bodies for structures for cooperation and which enable intersectoral multi-actor networks, are suitable. Important lectures on sustainability should also be made public and accessible. The University of Vechta offers another possibility. It promotes participatory research projects in which students conduct socially relevant research with regional practice partners and look for solutions. The example of Vechta also shows that JLU's goal F-3 is too short-sighted. Research and the introduction of sustainability measures should not only be implemented internally at JLU, but should also be promoted outside JLU.

In line with the demands that JLU must become significantly better in its scientific communication, we call on JLU to rethink its educational mission. Educational institutions such as JLU should be accessible to everyone. Especially when it comes to climate change, JLU is not doing enough to fulfill its duty to educate and counter fake news.

4. Networking and knowledge transfer with the city and regional society:
4.1. JLU must network with all (relevant) players in urban and regional society and enter into cooperation in order to establish sustainable solutions.

With almost 26,500 students and 5,700 employees, the University of Giessen is a "big player" in the Central Hessian region. In addition to rights, the role of such a "heavyweight" also entails obligations. The University of Giessen already fulfills this to a certain extent. It shapes the cityscape and has several points of contact in the local economy and politics. However, JLU is currently not sufficiently committed to the urgently needed sustainable transformation of the city and region. We therefore demand that JLU becomes aware of its role as an influential player and demands measures from cooperating institutions for sustainable transformation in and around Giessen and supports them in an advisory capacity. The university must finally show the population that it recognizes the scientific consensus on climate change and is willing to work on solutions in a cooperative exchange with actors from various sectors of urban and regional society. All JLU departments can contribute to this with their expertise.

4.1.1. The JLU must participate in communal heat planning whereby it can cooperate with SWG.

In order to achieve JLU's own goal of "proactively driving its own transformation towards climate neutrality" (B1), JLU must expand its cooperation with *Stadtwerke Gießen* (SWG) and participate in municipal heat planning. JLU is a major customer of SWG and should therefore take responsibility for how the required heat energy is produced and therefore also have an interest in helping to shape a sustainable energy supply.

JLU currently obtains most of its heating energy from the SWG district heating network. Only individual buildings are heated in other ways. As the *Gießener Allgemeine* newspaper reported in October 2022, SWG obtains a large proportion of its district heating from a gas-fired power plant that produces electricity. As this is not a sustainable source of heat for the university, JLU must publicly call on SWG to make heat generation more environmentally friendly and work with SWG on alternatives. For example, the heat energy could be obtained from a biogas plant, geothermal energy or solar thermal energy. Pioneers that SWG could join are, for example, *Energie Steiermark* in Graz, which aims to generate 80% of its district heating from renewable energies by 2025. This would not only help JLU's carbon footprint, but also the city of Giessen in terms of the 2035 Zero target.

4.1.2. JLU must significantly expand its existing cooperation with the city of Giessen and SWG in order to enable students and staff to travel from the city and surrounding area in a sustainable manner.

The SWG, as well as the city and district politicians responsible for transportation planning, are JLU's closest cooperation partners. The

university must call for an accelerated traffic turnaround in the city and surrounding area and expand cooperation in order to enable JLU members to travel to and from all university properties in a sustainable manner. To this end, JLU, together with SWG and the city and district of Giessen, must promote the expansion of bicycle lanes and public transportation to the university's buildings/campuses. In addition, as JLU supports the Regiotram traffic concept in Giessen, it must also call on the city to take action here so that this concept for better connections to the surrounding area and smooth traffic flow can be implemented in the future.

4.1.3. In all collaborations, JLU must communicate implications based on the latest research with the cooperation partners so that these can also be implemented.

In addition to education, research is also a core topic at JLU. By researching current social problems, JLU has a wealth of knowledge that is often not available to cooperation partners, or only with difficulty. We therefore call on the JLU to always prepare and present the appropriate scientific findings to its cooperation partners. Together, everyone can then choose the best way to achieve the goal of the cooperation on a scientifically sound basis.

4.2. JLU must organize a place that can be designed as a "House of Sustainability". Its staff must be financed and supported by the JLU.

In addition to collaborations, JLU can also promote a sustainable transformation of its environment in other ways. For example, the concept of a "House of Sustainability" (hdn-giessen.de) is already being researched and developed at JLU. As already mentioned in demand 3, this house is a place where people can network and get involved. We call on JLU to open up to society in a new way and to provide a physical space similar to a "House of Sustainability" and to finance its staff. An advantage for the JLU is that such a space offers a place for students to experiment and directly implement applied research. Furthermore, this is a place that can be used by the whole of society for learning and teaching and thus offers space for applied transdisciplinary research and the expression of civic engagement (see also demand 3.2)

5. Mobility:

5.1. JLU's mobility-related CO2 emissions (based on air travel, car journeys, vehicle fleet) must be reduced by at least 80% by 2035.

Another very important point is mobility. Unfortunately, transportation is still lagging far behind when it comes to climate protection, which is why JLU should also focus on this topic and reduce its mobility-related CO2 emissions by at least 80% by 2035.

5.2. JLU must facilitate and promote climate-friendly business trips and significantly reduce long-haul flights.

Furthermore, we demand that JLU enables and promotes climate-friendly business trips and significantly reduces long-haul flights. Since long-haul flights are extremely harmful to the climate and exceed our everyday emissions many times over, we must critically reconsider when these long-haul flights are justified. We need a new attitude to flying that does justice to the climate crisis. For business trips, the train must be preferred to the car or plane, unless it is significantly more expensive. We welcome the fact that JLU will be implementing a concept for climate-friendly business travel from the beginning of 2024. We also support the measure contained therein to ban short-haul flights to places that can also be reached by train within 7 hours. However, there should also be a focus on avoiding long-haul flights for the most part.

Long-haul flights are difficult to avoid, especially in the context of research, but flying can never become climate-neutral simply due to the formation of contrails. JLU must therefore significantly reduce its long-haul flights, but will probably not be able to completely dispense with them in its research operations. We are therefore calling for all long-haul flights that are not part of research operations to be discontinued by 2035.

5.3. When purchasing new cars, JLU must now only use purely electric drives (no plug-in hybrids).

As it can be assumed that hybrid vehicles will be driven in combustion mode for the most part, we demand that the JLU vehicle fleet only buys cars that are purely electrically powered when purchasing new cars. In addition, the vehicle fleet should also introduce a campus car-sharing model, as is the case at Flensburg University of Applied Sciences, for example. There, in addition to employees, students and members of the public can also borrow vehicles outside of working hours and are therefore less reliant on private cars.

5.4. JLU must manage all parking spaces by 2025 and use the money collected for sustainable mobility.

We are also calling for all parking spaces to be managed by 2025. This must not put students at a disadvantage. In addition, there must be social

compensation in the form of free parking for people who are physically impaired or do not have the financial or time resources to do without their car (e.g. people with limited walking ability). This could be modeled on the Technical University of Darmstadt, which has introduced an app to regulate parking management in addition to parking space management. The app can be used to check how many parking spaces are free and reserved in the app. The charges are debited via an external service provider. In order to create attractive alternatives to the car, additional express bus lines could be set up from the train station to the JLU campuses and between the campuses, for example.

5.5. JLU must ensure an improved cycling infrastructure and provide financial incentives for JLU staff and students.

Furthermore, we demand that JLU ensures an improved bicycle infrastructure and provides financial incentives for JLU employees and students so that more people switch to bicycles. To achieve this, JLU could expand its cooperation with Nextbike. More bicycles and more space to park bicycles should be made available at the existing stations and more stations should be set up. JLU could also take inspiration from the University of Natural Resources and Life Sciences Vienna, which offers its students and staff heavily discounted bicycles. Care should be taken to ensure that, in addition to bicycles with mechanical gears, electric bicycles and special bicycles for people with physical disabilities are also financed. In addition, more bicycle stands must be installed and it must also be possible to park larger bicycles, such as cargo bikes. A very low-threshold rental and payment function must be ensured for the use of rental bikes. It must also be possible for employees to pay very easily via an app using their own cost center. JLU must strive to ensure that footpaths and cycle paths offer the easiest way to reach the campuses.

6. Construction and energy

6.1. JLU must avoid the demolition of buildings and the associated construction of new ones and instead refurbish existing buildings.

In order to achieve the necessary turnaround in construction, an important lever is to avoid the demolition of buildings and to renovate existing buildings holistically. We therefore call on JLU to critically question the demolition of buildings and not to demolish any more buildings or construct any new buildings beyond the already planned new buildings. Instead, JLU should refurbish its buildings. The production of materials, transport and construction generate more emissions than refurbishment work (see also [02 - Hinterfragt Abriss kritisch \(architects4future.de\)](#)).

6.2. JLU may only sell buildings if these are linked to refurbishment conditions.

If JLU plans to sell buildings, as this means that fewer buildings need to be maintained, it must not shirk its responsibility to modernise the energy efficiency of the old buildings. We therefore demand that JLU only sell buildings to buyers who commit to modernising the energy efficiency of the property by 2030. This demand is in line with the recommendations of experts from the Federal Environment Agency on the easiest way to reduce climate emissions and raw material consumption ([Quelle](#)). For refurbishments, the JLU or the buyers should be guided by the *Bewertungssystem Nachhaltiges Bauen für Bundesgebäude* (Assessment for Sustainable Building for Federal Buildings).

6.3. JLU must strategically maximise its own generation of energy and heat.

In addition to traditional solutions such as solar and wind energy, JLU must think outside the box. JLU has a good basis for researching alternative solutions: from the use of waste heat from the IT service centre to modern solutions for storing surplus energy in summer, many things are possible. In addition, this can be developed and implemented together with students. This also offers plenty of opportunities for co-operation and opens up new fields of research.

6.4. All suitable areas of the JLU must be equipped with PV systems by 2028.

JLU is currently planning to expand at least 1,000 kW of PV systems by 2030 (B-1). However, this is far too little and too slow. We therefore demand that ALL suitable areas must be equipped with PV by 2028. For this purpose, the areas can be leased to external actors, as has been successfully done in the example of the city parliament. This has the advantage that JLU does not have to bear the entire cost and, in the event of overproduction, the electricity can be fed into the grid, which would otherwise not be possible.

7. Sustainability report

7.1. JLU's annual sustainability report from the "Büro für Nachhaltigkeit" must not be based solely on projects, but must present the structural change at the university using figures.

The BfN's planned annual sustainability reports must not be based too heavily on projects. These create a potentially false picture of the university-wide situation. Instead, the report must present the university-wide transformation using measurable data, such as the development of JLU's emissions, energy consumption, heat consumption, water consumption or the structures created to transfer knowledge with different actors, sectors and citizens of urban and regional society. In addition, the efforts that JLU is making to achieve the goals should be illustrated. In future sustainability reports, the goals of the sustainability strategy must be evaluated and tightened up.

7.2. The annual sustainability report must also report on JLU's emissions and efforts to reduce them. These measures must also be listed in accordance with the CO2 budget.

Based on demand 1, that the JLU prepares an overview of all CO2 emissions according to the Greenhouse Gas Protocol standard with Scope 1-3, the report must contain exactly this. In addition, such a budget also offers the opportunity to align all measures with the remaining budget and clearly show how much individual measures have been planned in terms of CO2 savings, how much they have actually saved and how much still needs to be done to achieve the final target. These figures should also be broken down at department and/or campus level. This allows specific targets to be set to reduce these, not only at the overall university level, but also for individual sectors. In addition, the accessibility of this information also makes it possible to incentivise departments and campuses to reduce them.