

Annual Sustainability Report 2022

Sustainability Programme/Green Office



Summary

This is the University of Groningen's Annual Sustainability Report for 2022. The report gives an account of our sustainability actions in 2022 and tracks the progress we have made towards achieving the goals defined in the Sustainability Roadmap 2021-2026.

Introduction

Just like the rest of the world, the University of Groningen (UG) looks back on a challenging year. 2022 saw the start of the war in Ukraine, which resulted in an energy crisis with soaring energy prices and supply shortages. The message hit home loud and clear: sustainability and energy efficiency are more important than ever. Despite our respectable sustainability performance, we will have to step up our sustainability drive in the coming years and continuously work towards improving our sustainable business practices. There was good news to report in 2022 as well: the UG came in fourth in the UI GreenMetric Ranking, a worldwide sustainability ranking of 1,050 universities.

Energy crisis

In the spring of 2022, the Board of the University commissioned an energy efficiency improvement plan and initiated an Energy Task Force whose mission is to identify quick wins for UG-wide energy savings in terms of technical, operational, and behavioural measures. The members of the Task Force are energy experts, engineers and behavioural scientists working at the University. Apart from the measures recommended by the Task Force, the EU as well as the Dutch government have taken action to increase energy efficiency. The Dutch government has called upon teaching institutions to lower the interior temperature of their buildings from 21 to 19 degrees Celsius and to not start cooling their buildings until the interior temperature has reached 26 degrees Celsius.

Sustainability Roadmap

Besides the additional energy-saving effort described above, we also focused heavily in 2022 on achieving the goals and ambitions defined in the Sustainability Roadmap

2021-2026, which was endorsed by the Board of the University in 2021. This report provides an overview of the projects and initiatives that have been undertaken to date and our progress towards achieving our ambitions. Just like in the Roadmap, we have segmented our results by two dimensions, i.e. Planet and Performance. The Roadmap's goals for the People dimension (sustainable employability, diversity & inclusion) are the responsibility of HR and are not reported here.

We are confident that this Annual Sustainability Report reflects our commitment to sustainability and demonstrates how, at the UG, students and staff have joined hands to increase the sustainable impact we have on our world.

Planet

Table 1: progress towards ambitions as at 1 January 2023 — Planet

Theme	Ambition	Achieved in 2022
Carbon emissions	30% reduction by 2026 (baseline: 2019)	46% reduction
Energy use	2% reduction/year (baseline: 2019)	28% reduction
Energy rating C for offices	Legal requirement: energy rating C for offices in 2023	70% of buildings awarded C rating. Three UG buildings are subject to the C rating requirement, two of which have a C and an A rating, and one has an E rating.
New build/renovation as per NZEB	Gas-free Zernike Campus by 2026; ambition: BREEAM Excellent certificate	New Feringa Building and future new build of University Sports Centre will contribute to the goal of gas-free Zernike Campus.
Renewable energy generation	25% from own sources by 2026	20% generated from own sources
Water consumption	10% reduction by 2026 (baseline: 2019)	21% reduction
Waste separation	95% of total waste separated	64% of waste separated
Waste reduction	15% reduction by 2026 (baseline: 2019)	21% reduction

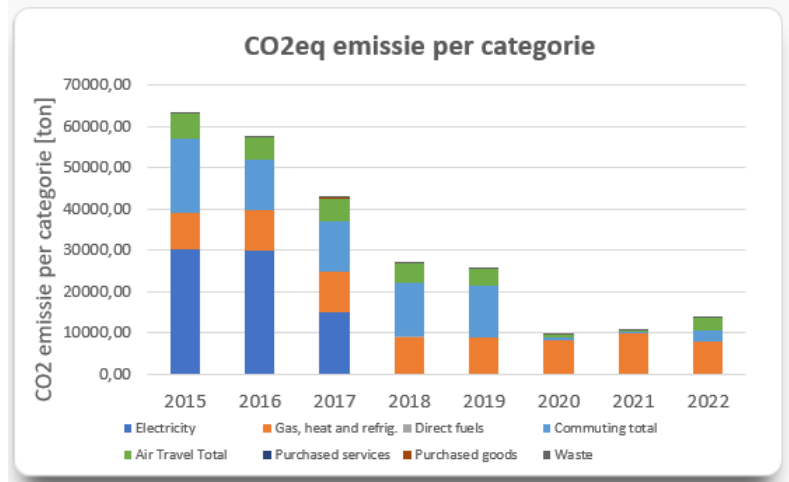
Commuting	Encouraging staff members to make sustainable commuter travel choices	<ul style="list-style-type: none"> • 78% reduction in carbon emissions (baseline: 2019) • 100% fossil-free public transport • No parking privileges for any employees whose commute is under 15 kilometres (effective from 1 April 2023) • Introduction of e-bike sharing from P&R locations
Logistical transport	Emissions-free by 2025	<ul style="list-style-type: none"> • Fossil-free logistics in all new tendering procedures for UG locations by 2025
Air travel	30% reduction in carbon emissions by 2026 (baseline: 2019)	<ul style="list-style-type: none"> • 26% reduction • Introduction of new business travel policy on 1 January 2023
Carbon offsetting	100% carbon offset of air travel by 2026	<ul style="list-style-type: none"> • 0% offset • UG steering committee will formulate a plan in 2023
Biodiversity	Ecologically sound campus and city centre locations	<ul style="list-style-type: none"> • Participation in Biodiversity Week • Keeping pigs at Zernike Campus to control invasive species • Keeping sheep to trim grass
Catering	95% of meat awarded Better Life label	No data available to date; the UG Food Group is in dialogue with the catering company
Food offering in canteen	60%-95% plant-based or vegetarian	See above

Reduction in carbon emissions

We managed to reduce our total carbon emissions by 46% in 2022 against baseline year 2019. This means that, even today, the UG has more than achieved its ambition of a 30% reduction by 2026. As the chart on the right shows, much of the reduction after 2019 was attributable to the COVID

containment measures in 2020 and 2021, during which only 20% of

students and staff are estimated to have frequented the UG buildings. This resulted in a sizeable reduction in carbon emissions from commuting and a 100% reduction in carbon emissions from business travel. In 2022, carbon emissions were up again relative to the two COVID years because the situation had returned to normal after the pandemic. That said, total carbon emissions in 2022 did not reach pre-COVID levels by far. Another noteworthy aspect is the drop in carbon emissions from commuting in 2022, which was due entirely to the fact that the public transport providers switched to green power. Trains and buses now run on 100% fossil-free green electricity or hydrogen. A decline in business travel and in the UG's total energy use due to energy-saving measures accounted for a further reduction (by 28% against 2019).

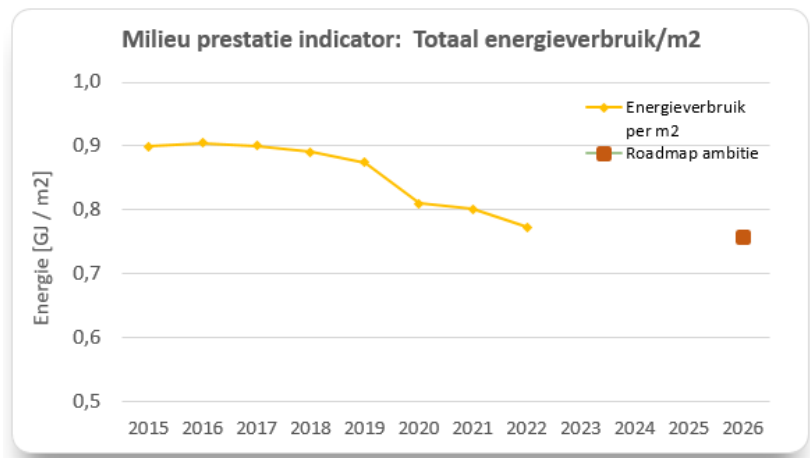


Energy

As shown in the chart on the right, the UG's total energy use fell by 28% in 2022 against baseline year 2019. This was attributable to the measures initiated by the Energy Task Force. The chart shows the performance inclusive of the adjustment for degree days.

Comfort times, i.e. hours at which the buildings are heated (up to

19°C) or cooled (from 26°C), were introduced in dialogue with the faculties and University Services. The opening hours did not change. The introduction of comfort times resulted in significant energy savings for the UG almost immediately. Energy teams are surveying the



UG's buildings to spot areas where technical and operational savings can be achieved in the medium to long term. Based on their findings, short-term as well as long-term measures have been identified. Short-term measures include installing reflective foil insulation behind radiators and long-term measures include replacing glass with insulated glass, and conventional lighting with LED lighting.

In addition to identifying technical and operational measures, a communication strategy was formulated with input from behavioural scientists. This strategy is designed to garner active engagement with the energy efficiency drive from staff members and students. The messages include pointers ('What can *you* do?') to encourage students and staff members to do their part in saving energy and energy use figures are shared on a regular basis.

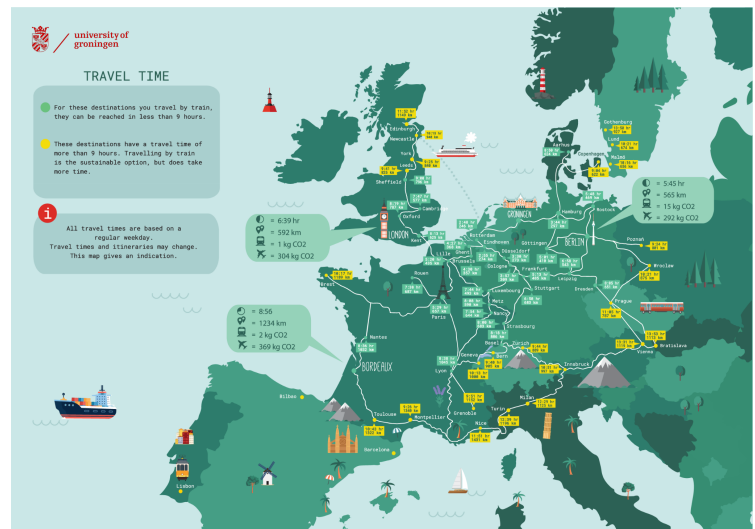
Mobility

The Board of the University approved a number of new mobility policy proposals in September 2022, one of which was to harmonize the parking policy across the UG and another was to take away parking privileges from staff members whose commute is under 15 kilometres. This applies to all car parks, including those at the Zernike Campus, where staff members used to have parking privileges if their commute was longer than 8.2

kilometres. In September, a mobility project group was tasked with implementing these policies. The Board also approved an update of the University of Groningen Policy on Foreign Travel, which it adopted in 2019. Given that a public European tender for foreign business travel by UG staff members will be initiated shortly, a number of aspects of the current travel policy were reviewed and updated. These include:

Carbon offsetting

Carbon emissions of all business air travel will be offset. The Sustainability Roadmap formalizes the ambition to offset 100% of carbon emissions caused by air travel by 2026. The updated Policy on Foreign Travel 2022 now also reflects this ambition. Sustainability Programme/Green Office officers have teamed up with HR, Finance, YAG and



a number of academic and non-academic staff members to flesh out a carbon offsetting plan. The plan should be ready by the end of 2022.

Carbon footprint

Despite the fact that UG staff are increasingly travelling by train to go on business trips, we still see air travel within Europe. To achieve our ambition to reduce our carbon emissions by 30%, it is imperative that we bring down the number of air transport movements. We are currently making an inventory of the distribution of air travel across faculties and services.

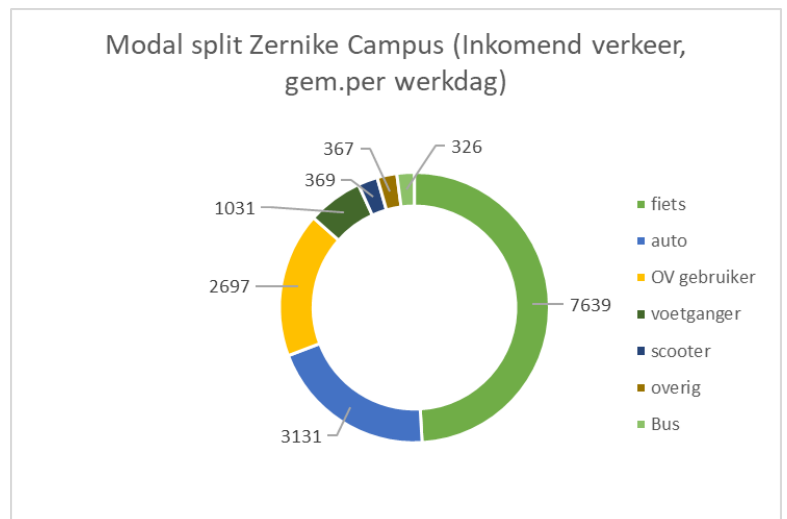
Updated Policy on Foreign Travel

With effect from 1 January 2023, the radius within which UG staff is expected to travel to foreign destinations by train will be increased from 500 kilometres and six hours' travel time to 800 kilometres and nine hours' travel time (see map above). Staff members will also have to ask themselves whether they really need to travel or if an online meeting or a video conference would work equally well.

Zernike Campus

We have collected traffic data using flow cubes, i.e. AI-based intelligent sensors, at the Zernike Campus over an extended period. The data is used to produce an overview of the number of persons per vehicle. This information will serve as a baseline for the action agenda of the collaborating partners, including Hanze University of Applied Sciences, the UG and Bedrijven West, with a view to creating a welcoming, accessible and lively Campus. The action agenda comes with ambitious goals, such as reducing the number of motor vehicles, encouraging shared mobility and promoting a change in the travel patterns of staff and students. The flow cubes allow us to measure the effects of the actions in real time.

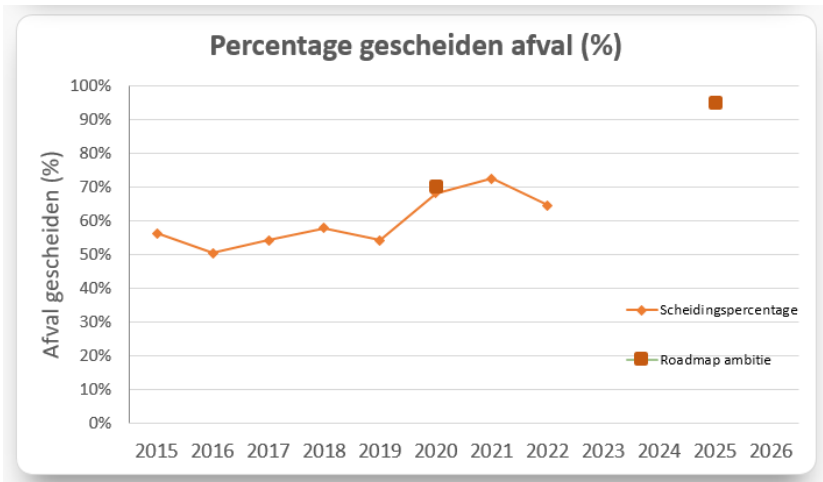
The modal split shows the breakdown by different types of vehicles.



Waste

Separation at source

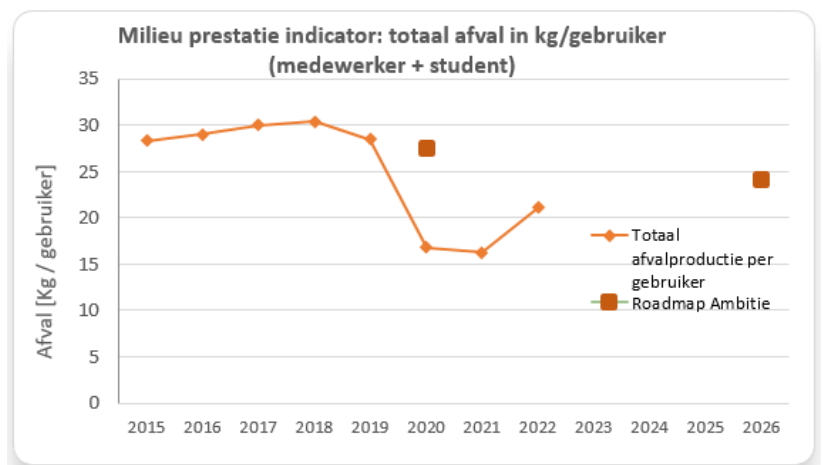
Meeting our waste targets is a key priority for the UG. The goal is to separate 95% of the UG's total waste. In 2022, we separated 64% of our waste. In 2019 (pre-pandemic), the waste separation rate was a relatively low 54%. The success of our waste separation effort was primarily attributable to the introduction of new waste bin islands, which allow students and staff to separate waste by type (i.e. monostreams). The waste streams are organic waste, paper, plastic, coffee cups and residual waste.



Based on an analysis of our residual waste, we have identified areas for improvement, which will help us reach our target. The analysis showed that the residual waste of the canteens still contains many organic materials as well as large quantities of single-use cutlery and plastic containers. This hold us back from reaching our waste-related targets. At the offices, we found many coffee cups and paper in the residual waste stream. Here, there is room for improvement in separating organic waste. Expectations are that we will be successful at further reducing our residual waste stream once the ban on single-use plastic containers (coffee cups, meal containers, etc.) has taken effect.

Waste reduction

At the UG, we also have the ambition to achieve a 15% reduction in our total waste production by 2026 (baseline: 2019). As it stands, we have managed to reduce our waste by 21%. This reduction was due, in part, to blended working. Many of our staff now partially work from home. We can bring down our waste quantities even



more by making sustainable choices in the purchasing process, which will put us on the path to a better planet.

Subsequent separation

Before our residual waste is incinerated, it is subjected to subsequent separation, in which process any remaining organic materials and plastics that are of reasonably good quality are extracted from the residual waste. The organic waste is digested into green gas. This gas has the same quality level as natural gas and can be used to replace Russian gas without further processing. In 2022, our about 225,000 kilograms of residual waste contained another 10% of organic materials that were suitable for digestion. The plastics (about 28,000 kilograms) were recycled into plastic packaging.

Environmental legislation

Environmental legislation is subject to constant change. The Dutch government tends to focus increasingly on enforcement. In the Netherlands, a large number of environmental rules and regulations will be combined into the Environment and Planning Act, which is scheduled to come into force on 1 January 2024. This Act will bring about many changes in Dutch environmental legislation. Environmental permits and requirements will remain in effect, but new requirements will be imposed for activities at other, non-licensed locations qualifying as environmentally harmful activities (Dutch acronym: MBA). These environmental rules and regulations will apply to all UG sites.

Environmental compliance

In view of the number of permits, varying regulatory provisions, and faculty diversity, there is a realistic risk that the vast number of rules and regulations will cause us to overlook a change, a requirement, or a provision after its having become effective. This may result in sanctions, such as unforeseen or unexpectedly high costs. Taken to the extreme, it may even come to threaten the continuity of our operations. For this reason, the Occupational Health, Safety, Environment, and Sustainability Department has recently acquired a compliance program. By monitoring compliance with the requirements and conducting periodic internal audits, we can assure, and demonstrate to, our stakeholders that the UG meets all the relevant environmental regulations. This also helps to ensure the continuity of our operations.

Performance

Purchasing

The Green Office provides input into the UG's purchasing processes to make sure that our sourcing is as sustainable as possible and that our commitment to fair working conditions is observed in our procurement. Our first circular tendering procedure ever was initiated in 2022. The Green Office was also asked to weigh in on the tendering procedures for car rental, printing and printed matter, degree certificates, and buffets/catering.

Teaching

A large-scale survey among undergraduate students was conducted in May 2022. Based on the United Nations Sustainable Development Goals (SDGs), they were asked to share where in their curriculum sustainability aspects are addressed, which themes they would like to learn more about, and how. The survey findings told us that most students would like to see more sustainability themes in their curriculum, either as a standard part of their programme or by way of thematic minors. As the findings differ from one faculty to the next, we will engage with each faculty separately to explore our options for providing the relevant support.

Research

The Sustainability Programme and the FSE PhD Council organized the first sustainability course for PhD students in March. This one-day course (5 ECTS credits) addressed a range of topics, including sustainability in labs, energy efficiency, research computation and mental health. Because of positive feedback on this pilot project, the course will also be offered to students of other faculties in the next few years.

Engagement and participation

We organized a number of different theme weeks in 2022 to raise awareness of sustainability issues. These included Digital Clean Up Week (a partnership between Sustainability Programme/Green Office and CIT), Biodiversity Week (in collaboration with other Dutch universities) and the fifth edition of Sustainability Week. At year-end 2022, more than 150 staff members and students were actively involved in the UG's sustainability drive via the Green Office Ambassador Programme, the Food Group, and FSE is Going Green. In the academic year 2021-2022, 50 associations took part in the Green Label Programme and 34 associations applied for a sustainability grant.

Living Labs — Sustainable UG

Students have the option of taking on sustainability projects and research as part of the Sustainability Programme. A total of 18 projects were carried out in 2022: five Honours projects, three Bachelor's theses, one Master's thesis, four group projects, four placements and one staff project. These involved a great variety of topics, such as green mobility, use of plastics at the UG, and sustainability in an archaeological context. The findings will inform the University's further sustainability drive.

Communication

2021 was the first year in which the UG formulated communication targets for sustainability. These were included in the Sustainability Roadmap. In 2022, efforts were made to expand the Green Office's professional communication network. The Green Office also invested in new ways of communicating with students, for instance through the Sustainable Student Guide, a handbook for Dutch and international students that gives them an idea of sustainability-related aspects that might be of interest to them during their course programme. We also introduced new coffee cups in 2022; they are designed to be reused.

Energy

Because of the energy crisis and the measures we took to drastically reduce our energy use, we decided to launch a large-scale, UG-wide communication campaign on the

theme of energy in 2022. In the context of this campaign, staff members and students were told about the energy efficiency measures and encouraged to do their part to help conserve energy at the UG, for instance by wearing warm clothing, switching off lights and equipment, and turning off their computers before they leave.



Ranking lists

The UG participated in two sustainability ranking initiatives in 2022: the UI GreenMetric World University Ranking and Sustainabul. We came in fourth (of 1,050 universities worldwide) in the UI GreenMetric ranking, which is an excellent achievement. This makes the UG the second most sustainable university in the Netherlands; we are the runner-up to Wageningen University & Research (WUR). We took fifth place in the Sustainabul ranking

(2021: 14th). Our website was updated again in 2022, which leads us to believe that we will be able to maintain, or improve upon, this ranking in 2023.