Universiteit Utrecht

Sustainability Monitor 2019

Complete overview of themes and figures According to guidelines global reporting initiative

SUSTAINABILITY PROGRAMME

15 JUNE 2020

Contents

Summary

Utrecht University wants to be an agent of change in the transition to a sustainable society. Since 2018, the university publishes a sustainability monitor, reporting on its own annual sustainability activities and progress. The *online magazine* contains a compact overview of the results achieved in 2019. This report, together with the UU *CO_2 footprint*, contains a complete overview of facts and figures. In ten themes, the university describes the current state of affairs:

1. **Education: 800 students play game 'Utrecht 2040'.** The university wants all students to engage with sustainability. *Utrecht 2040* is an interactive game in which students can play sustainability challenges in Utrecht.

2. **Research: university signs San Francisco Declaration on Research Assessment**. In 2019, the university signed a declaration to look at research less quantitatively and more qualitatively. The chapter offers an overview of sustainability research in 2019.

3. **Living Labs: The Future Food Lab.** Living Labs connect science with practice. The Future Food Lab opened in the Educatorium in 2019. In 2019, various studies supervised by the Green Office were carried out in this 'lab'.

4. **Energy: 8% saving.** The university is on its way to become CO_2 neutral in 2030. Thanks to savings such as energy efficient lighting in the Cambridgelaan car park, the university used 8% less energy than in 2018.

5. **Waste: Utrecht University will become waste free in 2030.** In 2019, the university took steps to reduce the amount of residual waste. For example, the UU started the 'Zero Waste Project' with waste processor Renewi. In 2019, there was 26kg of residual waste per person, compared to 32kg in 2018.

6. **Buildings: university renovates iconic Van Unnik building.** In 2019, the university laid down sustainability principles for the real estate on campus. The university also decided not to demolish the Van Unnik building, but to renovate it sustainably.

7. **Area: a green campus requires attention to biodiversity.** The latest inventory of animal and plant species habitats, shows a decline in biodiversity. The university wants to stop this with its own biodiversity plan.

8. **Mobility: 32 new charging points and new electric cars.** The university wants to minimise CO_2 emissions from commuting and logistics. With seven new electric vehicles added, the university's fleet is now two-thirds electric.

9. **Catering: 20% less meat for sustainable canteens.** At the university, lunches in meetings are now vegetarian as standard. Contributing to a 4,000 kg (4 tonne) reduction in meat bought by the university in 2019.

10. **Sustainable awareness: growing reach of Green Office Utrecht.** Not only did the online presence grow with hundreds of new followers, events such as the thrift shop generated sustainable awareness among students and employees.

Overview development indicators: in 2019, sixteen indicators showed positive development. Six indicators remained the same or were new, and four indicators decreased.

Introduction

UTRECHT UNIVERSITY'S SUSTAINABILITY AMBITION

Utrecht University wants to be an agent of change in the transition to a sustainable society. This means that the university plans to play a leading role implementing knowledge based on its own research and education. As a public institution with an educational and research role, the university has the means to fulfil this goal.

Students and scientists from the strategic theme Pathways to Sustainability, are committed to finding solutions to global sustainability issues. Utrecht University also wants to contribute to a sustainable society through its own business operations. Sustainable business operations reduce the organisation's environmental impact and encourage students, staff, regional partners and suppliers to become part of the sustainable transition.

The objectives of Utrecht University in the field of sustainability and CO_2 reduction have been laid down in various policy and vision documents:

- ***Strategic Plan 2016-2020***
- ***Strategic Sustainability Plan Real Estate & Campus and Facility Service Centre***
- ***CO_2 strategy 2017-2020***
- ***Vision Programme Sustainability 2019-2022***

SUSTAINABILITY MONITOR 2019

Since 2018, Utrecht University has published a sustainability monitor as an addition to its regular annual report. This form of *non-financial reporting* provides an integrated picture of the university's sustainability activities and enables directors and staff to steer more effectively towards results. For external stakeholders, the sustainability monitor shows where the university stands today and what will change in the coming years.

In addition to the present sustainability monitor, the university also publishes a CO_2 footprint and an online magazine:

- **Online magazine**: With infographics, background articles and the most striking results from the present report, the magazine is a compact overview of the results achieved in 2019.
- **CO_2 footprint 2019**: Since 2014, Utrecht University has drawn up an annual CO_2 footprint. The CO_2 footprint measures how much CO_2 the university emits annually compared to previous years. A summary of the footprint can be found in the *online magazine*. You can also download the entire footprint report as a PDF from that page.

STRUCTURE OF THIS REPORT

Each chapter starts with an introduction to the theme, what the theme entails, and Utrecht University's goals within this theme. It then zooms in on the 'critical performance indicators' (CPIs[1]) of that theme. After the indicators, it describes important milestones that have been achieved over the past year. Each chapter closes with a look ahead to 2020. In the appendix, you will find the GRI table containing the references to the relevant parts of the annual report for each GRI criterion.

Global Reporting Initiative (GRI)

The Global Reporting Initiative (GRI) is a globally accepted and widely used method for organisations to report on sustainability. The university applies GRI to report in a reliable, uniform and professional manner on the economic, social and ecological impact of Utrecht University. See the appendix for a detailed explanation of GRI.

1 **What are critical performance indicators?**
Critical performance indicators (CPIs) are clearly defined variables to measure whether an organization is achieving its strategic goals. For each theme in this report, CPIs have been defined that are as specific, measurable, acceptable, realistic and time-bound (SMART) as possible. By filling in annual scores for all CPI's, a picture of the trend per theme and the overall tail of sustainability at the university is created.

CHAPTER 1

Sustainability in Education

INTRODUCTION

'Every student must encounter sustainability, regardless of their field of study'. This sentence is taken from Utrecht University's Strategic Plan (2016-2020). The university wants to prepare students as much as possible for the many challenges and opportunities presented by the theme of sustainability. By integrating sustainability into education, new generations are trained to become sustainable thinkers. In this theme, attention is paid to the content of education, student awareness and available resources for distance learning. The business operations behind education is discussed in other chapters.

In order to introduce students to sustainability the university carries out these activities, among others:

- One of the university's four strategic themes is 'Pathways to Sustainability'. Within this theme, researchers, students and external partners work together on research for a sustainable future and develop interdisciplinary sustainability education.
- The Social Entrepreneurship Initiative (SEI) promotes education and research in the field of social entrepreneurship.
- The university offers education in the field of sustainability. For a small selection of courses see the list under indicator 1.1.
- In Living Labs, students research sustainability issues from the university's business operations as part of a course. See chapter 3: Living Labs.

In addition, the university has various solutions in education to reduce the CO_2 impact of travel:

- With the Virtual Exchange program, the university participates in an alliance of several international universities that all offer a selection of online courses.
- Through the Life Long Learning platform, the university offers various interactive online courses (SPOCs: Small Private Online Courses) for a limited number of students.

INDICATORS

The indicators below show how many students came into direct contact with the theme of sustainability in their studies during 2019. A number of Bachelor's and Master's programmes focus specifically on sustainability; the first indicator shows how many students graduate on this limited selection of programmes. In the current UU-wide curriculum, sustainability is interwoven in many more ways, but that is not visible in this indicator. The second indicator, the game 'Utrecht 2040', shows how many students started working on the theme of sustainability in the 2019 student orientation week.

1.	Indicators Sustainability in education for 2019	2018	2019
1.1	**Number of graduates in sustainability programmes**	**377**	**481**
MSc	Sustainable Development	96	95
MSc	Sustainable Business and Innovation	38	61
MSc	Energy Science	31	43
MSc	Bio Inspired Innovation	6	15
MSc	Climate Physics	12	23
MSc	Earth, Life and Climate	30	22
MSc	Environmental Biology	48	55
MSc	Public International Law: Oceans, the Environment and Sustainability	66	67
MSc	Cultural Anthropology: Sustainable Citizenship	50	37
BSc	Global Sustainability Science	0	63
1.2	**# players game Utrecht 2040**		**800**

Table 1. CPIs for measuring sustainability in education.

1.1 NUMBER OF GRADUATES IN SUSTAINABILITY-ORIENTED PROGRAMMES

In 2019, 481 students graduated with Bachelor and Master degrees specifically focused on sustainability. This is an increase of 104 compared to 2018. This is primarily due to the first graduates of the Bachelor 'Global Sustainability Science' (Faculty of Geo) in 2019.

In addition, 60 students completed the Young Innovators honours program in 2019. Every year, this program trains students with a passion for sustainability to be change-makers. The program gives them the tools to start creating a sustainable world themselves.

1.2 NUMBER OF PLAYERS 'UTRECHT 2040

Utrecht 2040' is an interactive game in which students can play different sustainability challenges in the city of Utrecht. The game uses the Sustainable Development Goals (SDGs) as a framework. In 2019, 800 students from six study programmes within the Faculties of Geosciences and Humanities played the game.

In 2018, associate professor at the Copernicus Institute Karin Rebel started the development of this game. The goal: to give substance to the strategic objective of bringing all students into contact with sustainability.

ACTIVITIES 2019

Some of the activities in 2019 will focus on sustainability in education:

- In 2019, Bert Weckhuysen, Professor of Catalysis, Energy and Sustainability, received a Teaching Fellow scholarship from the Comenius Programme. He used this scholarship to set up an innovative interdisciplinary bachelor's programme together with colleagues Appy Sluijs and Brianne McGonigle: the *Da Vinci Project*. In this programme, students from different programmes work together on a sustainability issue from an external partner.
- Since the end of 2019 it has been possible to teach and follow courses in a *virtual classroom*. The classroom is the first of its kind at a Dutch university and is used for synchronous (simultaneous) online education and for remote collaboration.
- Lecturers from the strategic theme Pathways for Sustainability have developed a public online course (MOOC: Massive Online Open Course) in collaboration with Lund University and Durham University, available via the Coursera platform. The course "*Urban Nature, Connecting Cities, Nature and Innovations*" focuses on nature-oriented solutions for cities in Europe and worldwide.
- The University Board is investing an additional €2.7 million in audiovisual resources that can be used for, among other things, high-quality conference calls and the facilitation of educational innovation, such as distance learning.

OUTLOOK 2020

- With a contribution from the Utrechts Stimuleringsfonds Onderwijs ("Utrecht Stimulation Fund for Education") (USO) a team led by Karin Rebel will further develop the game 'Utrecht 2040'. The USO contribution is intended to for widespread use of the game for first-year students, and for the building of a sequel for second- and third-year students.

- The university is working on a thematic classification of the courses on offer in 2020. In this way, students will soon be able to use the SDGs to look for education that suits their own sustainability interests.
- In the Inter-University Sustainability Challenge course, students from the universities of Wageningen, Eindhoven and Utrecht receive virtual education about the SDGs. Students will collaborate on interdisciplinary questions from external partners, related to different SDGs.
- A new CHARM-EU university will be developed in 2020, together with four other European universities. CHARM-EU stands for a 'Challenge-driven, Accessible, Research-based, Mobile European University'. The CHARM-EU curriculum is innovative, challenge-driven and based on the SDG issues that the EU and its Member States now face.
- The university will support lecturers to integrate sustainability (based on the SDGs) into the education they provide. For example, by giving a workshop.
- Development of an e-module *Sustainable Education* by Educate-it. This e-module provides resources and ways for instructors to shape the education they provide as sustainably as possible. For example, through the use of audio-visual resources and the provision of distance learning, as a result of which students need to travel less or not at all in order to follow their education.
- In the strategic theme Pathways to Sustainability, opportunities are currently being sought for setting up an interdisciplinary minor, which should be accessible to all bachelor's students at the university. The minor, which will be called *Futuring for Sustainability,* will not only focus on fundamental sustainability issues, but also on social issues such as what the future for society looks like and what impact this will have on sustainability.

CHAPTER 2

Sustainability in Research

INTRODUCTION

How does UU scientific research contribute to the transition to a sustainable society? From the *mission of* the university:

We live in a rapidly changing world. Global issues are complex: they are not limited to generations or continents and cannot be solved from a single perspective. Themes such as climate change, wealth sharing and healthy living require an interdisciplinary approach. Scientific insights are needed to solve these issues.

The university notes the outlines of the Strategic Plan 2020-2025:

Students and staff contribute to a better world. Our mission and the Sustainable Development Goals are an integral part of our education, research, impact and business operations'.

INDICATORS

The purpose of the indicators in this Annual Sustainability Report is to use figures to measure how Utrecht University is doing in terms of sustainability. Other than this, no figures are given in the chapter on *Sustainability in research.* Not only is it difficult to quantify sustainability in education and research, but in 2019 the UU also signed the '*San Francisco Declaration on Research Assessment*', in which the university states future research will assessed less quantitatively and more qualitatively. The aim of this declaration (DORA) is no longer to rely on bibliometric indicators (such as publications and citations) when assessing research and researchers, but rather to apply a holistic, qualitative approach.

The university integrates sustainability into its research:

- One of the university's four strategic themes is Pathways to Sustainability. The focus of this theme is to develop integral solutions that contribute to a fairer and more sustainable future for everyone. In the other themes (Life Sciences, Dynamics of Youth and Institutions for Open Societies) a great deal of research is also carried out that contributes to the Sustainable Development Goals (SDGs).
- The Copernicus Institute for Sustainable Development focuses on transdisciplinary research into sustainable transformation.
- The Centre for Global Challenges (UGlobe) focuses on global challenges from the perspective of the relationship between human rights, conflict & security, sustainability and equality.
- The Institute for Environmental Biology develops sustainable solutions to societal challenges such as food security, the ecological consequences of a changing climate and the protection of our natural resources.
- The Utrecht Centre for Water, Oceans and Sustainability Law investigates the law of water, environment, climate and sustainability.
- The Institute for Marine and Atmospheric Research Utrecht (IMAU) investigates the oceans, atmosphere and cryosphere to contribute solutions for climate change.
- The Social Entrepreneurship Initiative (SEI), stimulates education and research in the field of social entrepreneurship.
- The UU collaborates intensively with the Netherlands Institute for Sea Research (NIOZ).
- In the Urban Futures Studio, scientists from various backgrounds work on positive future scenarios for cities. The Urban Futures studio is a source for inventive, interdisciplinary approaches.

ACTIVITIES 2019

This overview is a small selection of the many academic achievements during 2019 focused on sustainability.

- **UPlasticS3 network launched (Jan 2019)**
  Plastic waste is a major environmental problem, both in size and complexity. In the Utrecht Plastic Sources, Sinks and Solutions (UPlasticS3) network, researchers from various backgrounds are working on interdisciplinary solutions to this problem. The researchers met at the launch of 'Skyscraper' (plastic whale) in Utrecht in early 2019. The initiator, oceanographer Erik van Sebille, is also the person behind the 'plastic soup' website. On this website, students will find scientific information about the plastic problem in understandable language.

- **Pathways to Sustainability conference 2019 (Jan 2019)**
  Almost 500 participants followed the keynotes of Diederik Samsom and Harvard professor Sheila Jasanoff, among others.

- **The harvest of 7 months of ocean research: presentation final report NICO expedition (Feb 2019)**
  The NICO expedition (Netherlands Initiative Changing Oceans) was a scientific cruise on which more than 100 scientists from 20 organisations explored the changing oceans. Hundreds of water and sediment samples are still being examined in the lab. The first results led to a series of discoveries, for example, unusual blue-green algae mats that entangle the coral reefs off the coast of Bonaire, ocean fungi that could possibly be used for the

development of new medicines or fuel and, the presence of plastic in the hydrothermal springs in the Azores - the possible source of life on earth.

- **Public-private partnership focuses on climate goals 2050 (Feb 2019)**
  In a new sustainable chemistry lab, researchers are developing new fuels and materials together with the chemical sector. By doing so, the chemical industry wants to contribute to the solution of the climate problem. The new lab is part of the Advanced Research Center Chemical Building Blocks Consortium (ARC CBBC) led by UU professor Bert Weckhuysen.

- **1.4 million euros for additional NESSC climate researchers (March 2019)**
  The research programme Netherlands Earth System Science Centre (NESSC) will receive 1.4 million euros as an additional contribution for research into climate change. The grant, awarded by the European Marie Skłodowska-Curie COFUND programme, co-funds thirteen international PhD students.

- **UN report: Environmental targets not achievable without drastic change (March 2019)**
  The sixth Global Environmental Outlook (GEO-G) concluded that in order to achieve the internationally agreed environmental targets outlined in the Paris Agreement, a drastic change is needed. Paul Lucas of the Netherlands Environmental Assessment Agency (PBL) and Prof. Detlef van Vuuren (PBL and UU) coordinated the scenario analyses in the report.

- **Utrecht researchers help Vietnam become climate proof (April 2019)**
  Minister Nieuwenhuizen of Infrastructure and Water Management opened the 'Climate Proof Vietnam' programme in Hanoi. This programme, led by TU Delft, supports Vietnam in setting up new and attractive curricula at two Vietnamese universities in the field of water management so that more young Vietnamese will opt for this discipline. Physical geographers Esther Stouthamer and Maarten van der Vegt provide expertise from the UU.

- **New collaboration for climate resilient deltas in the global South (May 2019)**
  On 8 May, the UU, in cooperation with Deltares, RVO and LANDac, organised a meeting for the 'Dutch Diamonds in the Deltas' research programme in which scientists and societal stakeholders jointly search for sustainable delta interventions in the global South.

- **European Environmental Law Forum Conference in Utrecht (Aug 2019)**
  More than 150 international jurists participated in this conference. The 7th EELF conference made an important contribution to the debate on the role of legal instruments in the transition to a low carbon circular economy, sustainable water management and the conservation of biodiversity.

- **Utrecht researchers involved in all six rewarded Gravitation Programme consortia**
  A new consortium led by Professor of Environmental Epidemiology and Exposome Analysis Roel Vermeulen is investigating which factors of daily life are important for our health and how these factors work. To this end, the consortium was awarded 17.4 million euros from NWO's prestigious Gravitation Programme.

- **Alliance with TU Eindhoven, WUR and UMCU launched (Sep 2019)**
  In September UU, UMC Utrecht, TU Eindhoven and Wageningen University & Research announced their new strategic alliance. The focus of this alliance will be on areas where the most impact can be achieved for society; for example, system transitions in the fields of energy, nutrition, health and a circular society.

- **Utrecht Young Academy in action (Sep. 2019)**
  In September 2019, the Utrecht Young Academy (UYA) - a select group of enthusiastic and ambitious young academics at Utrecht University - declared the climate emergency. The UYA thus joined thousands of scientists worldwide who agree that the concerns of the climate strikers are justified.

- **UU involved in the implementation pilot for climate proof neighbourhoods in the Utrecht region (Sep 2019)**
  The collaboration between various partners in the city of Utrecht around the Skyscraper project - the plastic whale that was placed in the Catharijnesingel - was the prelude to researchers from the faculties of Law, Economics, Governance & Organisation and Geosciences to participate in a project of the Utrecht region, to make five Utrecht residential areas resistant to extreme weather conditions.

- **Utrecht researches building materials based on fungi (Sep 2019)**
  New building material based on moulds. That is the idea behind the Fungar project, a collaboration between Utrecht, Denmark, the

United Kingdom and Italy. The Fungar project received 2.85 million euros from the European Horizon 2020 programme, of which 720,000 euros will go to microbiologist Han Wösten and chemist Marc Baldus of Utrecht University.

- **Professor Backes - the much sought-after commentator on the nitrogen crisis**
  Chris Backes, Professor of Environmental Law at Utrecht University, was often interviewed by national media about (European) legal aspects of the nitrogen crisis in 2019. He gave interviews in the NOS Journaal, EenVandaag, the Financieele Dagblad and NRC Handelsblad.

- **New hub on circular economy and society (Nov 2019)**
  The Strategic Theme Pathways to Sustainability launched a new research hub 'Towards a Circular Economy and Society'. The university wants to build a vibrant community for interdisciplinary research into the circular economy, and at the same time, establish the UU as a breeding ground for innovative research and education in this field.

- **KNAW Early Career Award Niko Wanders (Nov. 2019)**
  Physical geographer Niko Wanders has been awarded a KNAW Early Career Award for his research into weather extremes. Niko investigates the interaction between extreme drought, precipitation, climate change and human water use.

- **New public-private partnership for research into disease resistant spinach (Nov 2019)**
  The Top Sector Horticulture & Starting Materials has allocated almost 1 million euros to Utrecht plant scientists and bioinformaticians for a research project into false mildew, the main pathogen of spinach. In the project UU'ers Guido van den Ackerveken, Ronnie de Jonge and Michael Seidl work together with four seed breeding companies.

- **Millions for research into large scale energy storage (Dec 2019)**
  NWO has allocated 10 million for interdisciplinary research into large-scale energy storage. Chemist Petra de Jongh is one of the driving forces behind this RELEASE consortium (Reversible Large-scale Energy Storage). The consortium will investigate new technological possibilities in the field of hydrogen production, hydrocarbon production from CO_2 and flow batteries.

- **ERC Consolidator Grant Sander Thomaes (and 6 other UU researchers) (Dec 2019)**
  Developmental psychologist Sander Thomaes will use a grant from the European Research Council (ERC) to investigate how secondary school students can start to behave in a more eco-friendly way, so that their ideals are more in line with their behaviour.

For even more UU sustainability research, please visit the *UU SDG website*, or the *sustainability research news page*.

New chairs in 2019 contributing to Strategic Theme Pathways to Sustainability:

- Chair of **Sea Level Change and Coastal Impacts** at the Faculty of Geosciences and the Faculty of Faculty of Science, Prof. Dr. R.S.W. van de Wal.
- Special chair **Global water and food security** at the Faculty of Geosciences, Prof. Dr. Y. Wada.
- Chair **Mountain water resources, hazards and climate change** at the Faculty of Geosciences, Prof. Dr. W.W. Immerzeel.
- Chair **Integrated Assessment Modelling of Global Environmental Change** at the Faculty of Geosciences, Prof. Dr. D.P. van Vuuren.
- Chair **Climate System Science** at the Faculty of Geosciences, Prof.dr.ir. W. Hazeleger.
- Chair **Materials for Catalysis, Energy Conversion and Storage** at the Faculty of Science, Prof. Dr. P.E. de Jongh.
- Chair **Theory of Nanoscale Systems** at the Faculty of Science, Prof. Dr. R.A. Duine.
- Special chair **Public organisation of (decentralised) water management** at the Faculty of Law, Economics and Governance, Prof. Dr. H.J.M. Havekes.
- Chair **Sustainable Business** at the Faculty of Geosciences, Prof. Dr. N.M.P. Bocken.
- Special chair **Organisation of Energy Markets** at the Faculty of Law, Economics and Governance on behalf of TNO, Prof. Dr. A. Huygen.
- Chair **Urban Living and social networks** at the Faculty of Geosciences, Prof. Dr. B. Völker.

OUTLOOK 2020

Sustainability is becoming increasingly important, especially in research. In 2020, for example, the alliance of UU, UMCU, Eindhoven University of Technology and WUR will be officially launched; the consortia mentioned above, such as Exposome, will set up and gradually expand their research. In March 2020, the Utrecht Young Academy launched the Climate Action Pledge during the Pathways to Sustainability conference. The CvB received this pledge and will develop it further in 2020. In June, the International SDG Research Symposium (virtual) will take place in Utrecht. Finally, the UU is considering participating in the Times Higher Education Impact Ranking in 2020.

CHAPTER 3

Living Labs

INTRODUCTION

Living Labs[2] connect science with practice by linking research to social issues nearby. An example of this is the link between the business operations of a university and the content of education and research. Many operational issues are suitable for conducting 'living research'. By carrying out Living Labs, students are given the opportunity to exert a positive influence on their own organisation. Conversely, the scientific knowledge available, offers a unique opportunity to improve business operations and make them more sustainable.

INDICATORS

In order to measure the connection between business operations with education and research, the number of living lab projects completed annually by the Green Office is tallied. These are projects in which students investigate university related sustainability issues as part of their studies. In addition, this chapter focuses on other sustainable living lab projects that take place independently of the Green Office.

3.	Living Labs 2019	
3.1	Green Office Living Lab projects	22
	Completed	16
	Running	6
3.2	Other Living Lab projects	7
	Completed	1
	Running	6

Table 2. CPIs for measuring the link between education, research and business operations and sustainability.

3.1 LIVING LAB PROJECTS

Students completed sixteen Green Office Living Lab assignments in 2019; six more will be completed in 2020. Unfortunately, the grades awarded to the projects by the lecturers of the subjects in question are missing and will be included in this report again next year.

Independent of the Green office, seven other Living Lab projects were running in 2019, which were not carried out by students. Six of the seven projects will continue in 2020. Five of the seven projects will be carried out under the leadership of the Utrecht Sustainability Institute (USI). This research institute, related to Utrecht University, realizes research and innovation projects aimed at the sustainable use of energy, water and raw materials in the city and the region. More information about these projects can be found on the *website.*

The project Biodiversity and Climate Variability Experiment (BioCliVe) is an initiative by several biologists and ecologists working at Utrecht University. In the Botanical Gardens they mimic natural grassland and investigate the effect of a changing climate combined with loss of biodiversity.

ACTIVITIES 2019

- The Utrecht Sustainability Institute started the Living Lab Smart Solar Charging in 2019. Together with Professor Wilfried van Sark, Robin Berg and ten other parties, they are investigating the implementation possibilities of Smart Solar Charging. In various so-called living labs, locally generated solar energy is stored in electric cars via smart charging poles. This way of generating, storing and returning energy creates flexible storage capacity that reduces peaks on the electricity grid.
- Based on the results of a Green Office Living Lab, the university is switching to recycled paper for all printers.
- In September 2019, the Future Food Lab in the Educatorium canteen was opened. For the sake of further development and continuous improvement, various Green Office Living Labs were carried out for the Future Food Lab in 2019. Within the Future Food Lab, students, scientists, staff and the university's caterer jointly explore sustainability issues. This initiative is a collaboration between the caterer, Future Food Utrecht and the Green Office.
- For the University of Utrecht's CO_2 footprint, students investigated which CO_2 emissions were not yet part of the total CO_2 footprint. The results of this Green Office Living Lab show that there are more emissions, particularly on student air travel, which the university now includes in its own footprint.
- Based on the results of a Green Office Living Lab study on climate proof buildings, the university is starting a pilot with sustainable building materials.

2 Living Labs are projects that are (predominantly) carried out by UU students. Living labs always start with a question from practice/business.

OUTLOOK 2020

- A diverse group of scientists, support staff and partners from the university are working on a biodiversity plan for the Utrecht Science Park. Ecological research agency Dactylis will present research results in 2020, on the basis of which the university will plan an approach to protect and strengthen biodiversity in the second half of 2020.
- The renovation concept 'Inside Out' makes apartment buildings energy supplying instead of energy using. The project owner, the Utrecht Sustainability Institute, works together with Utrecht University, Utrecht University of Applied Sciences and social partners such as Bo-Ex and the Municipality of Utrecht for the implementation of this Living Lab. In 2020, the first 'Inside Out' renovation of a flat in the Overvecht district of Utrecht will be completed. This flat serves as a prototype. The project partners will keep track of the energy gains achieved in this flat and how residents respond to them. The lessons learned will be considered in the renovation of subsequent flats.
- Real Estate & Campus has appointed researcher Marvin Spitsbaard of the Copernicus Institute to conduct research into measuring the potential environmental impact[3] avoided through the application of circular renovation strategies. He will also examine how this contributes to the Sustainable Development Goals. Within this research, Spitsbaard will specifically focus on the Willem C. van Unnik building. This building will be subject to thorough renovation in the coming years.

3 Environmental impact is the total picture of the impact that a project has on the environment. It includes CO_2 emissions, but also looks at the impact on biodiversity, for example

CHAPTER 4

Energy

INTRODUCTION

The university needs energy to carry out education and research. The generation of this energy causes CO_2 emissions.

Utrecht University's energy strategy is based on the principles of the Trias Energetica (see figure): (1) limit energy demand (2) use renewable energy and (3) use fossil fuels as efficiently and cleanly as possible. By implementing this strategy, the university reduces their CO_2 emissions in the pursuit of a carbon-neutral organisation in 2030 (Strategic Plan 2016-2020).

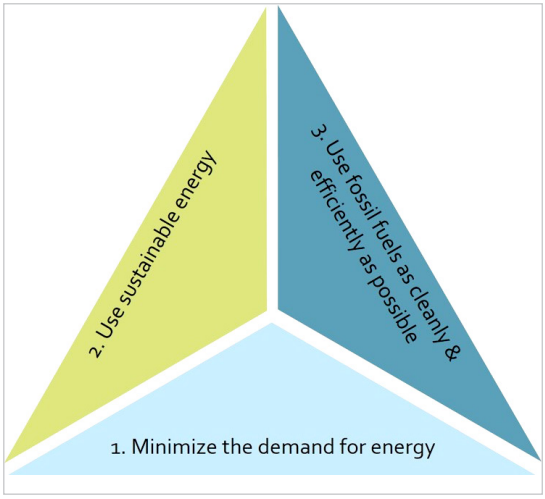


Figure 1. Trias Energetica

INDICATORS

The university calculates the annual energy consumption on the basis of the electricity, gas and heat meters in all buildings and determines the share of renewable energy.

4.	Energy 2019	2017	2018	2019
4.1	Energy use - saving			
	Development of energy use (GJ)	508	515	472
	Energy use/mortality		91.7	80.0
	Energy consumption/student		16.5	14.6
	Energy consumption/m^2		0.79	0.73
4.1.1	Evolution compared to base year (%)		1.5%	-6.9%
4.1.2	Annual development of energy use (%)		1.5%	-8.3%
4.2	Renewable energy	-	4.0%	3.4%
4.3	Efficient use of fossil resources	-	85.2%	83.8%

Table 3. CPIs for measuring the sustainability of energy (use).

The energy consumption is strongly influenced by the outside temperature. As in previous years 2017 and 2018, 2019 was a year with a relatively mild winter[4].

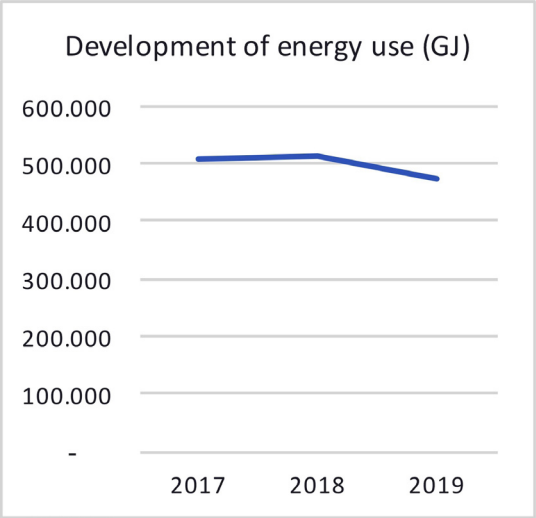


Figure 2. Development of energy use

4.1 ENERGY SAVING - USE

The first principle of the Trias Energetica is energy saving. Utrecht University uses energy in the form of gas, electricity, heat and thermal energy storage. In total, Utrecht University used 6.9% less energy in 2019 than in base year 2017, namely 472,939 gigajoules (GJ)[5]. This is comparable to the use of some 8,250 Dutch households[6]. Compared to 2018, the saving was even 8.3%.

4 Graaddagen de Bilt: 2017) 2685,17, 2018) 2675,54 and 2019) 2648,36

5 By converting all components to gigajoule primary energy consumption, one comparable number is created. This also includes losses that occur during local generation.

6 Source: Milieucentraal, average Dutch household consumes 1,340 m^3 gas and 2,830kWh electricity, which equals (47.1 + 10.2 = 57.3 gigajoules).

In recent years, the university has taken action to reduce energy consumption. With measures relating to insulation, ventilation, management and ICT. A good example is the approach to the Cambridgelaan car park (see also Activities 2019). Ultimately, these efforts will become visible on the energy meters of the buildings. In 2019, there was also a mild winter, as a result of which less gas was needed for heating.

4.2 RENEWABLE ENERGY

The second principle of the Trias Energetica is renewable energy. The goal of Utrecht University is to generate as much energy as possible locally and renewably. With the Renewable Energy indicator, we measure what % of the total energy use is generated locally and renewably.
Currently, the university generates 3.35% of its total energy consumption with solar panels and heat and cold (CHP) installations. This is about the same as in 2018. In 2019, new plans were made for the deployment of more solar panels in the short term. Various new photovoltaic (PV) installations are expected to be realised in 2020, as well as a new thermal energy storage installation.

4.2.1 Thermal Energy Storage

As in 2018, energy from heat and cold storage accounts for more than 2.5% of total energy consumption. The current thermal energy installation is still not working optimally (the potential is 6% of the total current energy consumption). It is a complex system that is continuously improved by a team of managers and maintenance engineers.

4.2.2 Renewable energy plus purchase/compensation

As an alternative to local renewable energy, Utrecht University buys wind energy and Vertogas (green gas). Including this purchase, 25.01% of the total energy consumption is renewably generated. This is almost 5% less than in 2018. The reason for this is that in 2019 the university itself generated more heat (and therefore less electricity) in the combined heat and power plant on the campus. In 2019 the university will purchase 2 million m^3 of green gas, which will be 8 million m^3 in 2020.

4.2.3 Solar energy

In 2018 Utrecht University had a total of 4,832 solar panels with a total capacity of 1,308 kilowatt peak. No solar panels were installed in 2019. Solar panels accounted for more than 2% of electricity consumption and 0.8% of total energy consumption in 2019.
In the coming years, the university will expand this capacity considerably: the estimated potential is approximately 35% of the total current electricity consumption. Fitting solar panels to remaining suitable free roof space will be completed in 2020 and 2021. Other roofs will be filled in later years in combination with renovation. Solar panels will be installed above parking spaces and in 2020 the university will investigate the possibilities for field set-ups in the meadows around USP.

4.3 EFFICIENT USE OF FOSSIL FUELS

The third step of the Trias Energetica involves the efficient use of fossil resources. Utrecht University's Combined Heat and Power Plant (CHP) uses natural gas to generate both heat and electricity. This gives higher efficiency than conventional separate production of heat and electricity and is therefore the most responsible way of energy conversion. In addition, legislation and regulations oblige the university to use this form of generation. In 2019, the efficiency of the CHP was 84%. By way of comparison: the average fossil fuel efficiency of electricity generation in the Netherlands was 56.4%.[7]

ACTIVITIES 2019

- Sensors, a dimming function and LED lighting have been installed in the car park on the Cambridgelaan: since December 2019 electricity consumption has been reduced by 15,000kWh down a level of 20,000 kWh. That equates to the electricity consumption of 70 Dutch households and is about 720 Gigajoule per year.
- In various buildings, the engineers of the Maintenance and Management Department have installed economical LED lighting, for example in the Educatorium, Janskerkhof 15 and the David de Wied building.

OUTLOOK 2020

- In the University Library in Utrecht Science Park, replacement of fans and optimisation of air control will save around 200,000 kWh per year. In addition, improvement of the heating installation will result in an additional saving of 2,000 GJ per year.
- In the historic University Library on the Drift, half of the single glazing is replaced by high quality insulating glass.
- In 2020, the university will utilise a new heat and cold storage facility for the central area of the Utrecht Science Park, to which the David de Wied building will first be connected.
- In 2020, the university will quantify all maintenance measures yielding sustainability gains, making it even clearer how much each intervention will save.
- At the USP, remaining suitable roofs on the Tolakker and the Jeanet Donkervoet building will be fitted with solar panels. The parking spaces Jenalaan and Sorbonnelaan will be given a first pilot with 12 and 10 respective solar carports (covered parking spaces).
- In the city centre, the flat roofs of the university library and the university museum will be fitted with solar panels.

7 Source: www.cbs.nl/nl-nl/maatwerk/2020/08/rendement-en-co2-emissie-elekrtriciteitproductie-2018

CHAPTER 5

Waste

INTRODUCTION

Utrecht University wants to move to 0 kg residual waste[8] by 2030. This has been laid down in the Strategic Sustainability Plan of Real Estate & Campus and the Facility Service Centre (FSC). Over the next ten years, the university will work to reduce and improve the separation of waste in order to operate waste free by 2030. The university is also encouraging suppliers to design circular products and packaging[9].

The university wants to keep all waste from UU operations (industrial waste) to a minimum. In this way, the university can contribute to a healthy and safe environment and the organisation makes less use of scarce (natural) resources. In addition, the processing and incineration of waste leads to more CO_2 emissions.
This is why the university is committed to a transition from a linear waste chain to a circular one. In UU business practice, the following preferential principle is used for waste:

Prevention –> re-use –> recycling –> incineration and landfill.

Circularity in construction and demolition projects and catering is an important part of the university's 'zero waste' objective. See chapters *6. future-proof buildings* and *9. Catering*.

Indicators

Reducing residual waste contributes to the reduction of the university's CO_2 footprint. Better separation means less residual waste. In 2015, the university started collecting plastic waste. In 2020, this waste separation stream will be extended to plastic, metal and beverage packaging waste. This stream is an indicator for sustainable waste management.

5.	Waste indicator for 2019	2014	2015	2016	2017	2018	2019
5.1	Difference between residual waste and 2014		3%	10%	-7%	5%	-12%
	Total residual waste (kg)	1.142.717	1.174.186	1.255.588	1.067.541	1.202.478	1.003.113
	Residual waste (kg) per fte+ student	32	33	36	29	33	26
5.2	Plastic (kg, 70% recycling)	14.281	41.057	79.368	115.447	111.293	60.621
	Annual development (%)	-	187%	93%	45%	-4%	-46%

Table 4. CPIs for measuring sustainable waste management.

5.1 RESIDUAL WASTE

The university's business operations show a declining trend in the volume of residual waste between 2014-2019 (see table 4). In 2019, the university

8 Rest waste is waste that is incinerated or landfilled.

9 In a linear chain, raw materials are processed into a product that becomes waste after use. In a circular lifecycle, waste no longer exists; everything is reused or can be returned to nature.

produced 12% less residual waste than in base year 2014. The peak in 2018 is due to the university partly emptying a large building for renovation.
The total amount of residual waste in kg per full-time employee (FTE) and student shows an even sharper decline as the number of students and employees has increased. In 2019, this component of residual waste was 19% less than in base year 2014.
Until 2019, there was no structural approach to reduce residual waste. With the start of the Zero Waste Project (see Activities and Outlook), the university is aiming for 375,000 kg of residual waste in 2025 and 0 kg in 2030.

5.2 PLASTIC BECOMES PLASTIC, METAL AND BEVERAGE PACKAGING

Starting in 2015, the university has installed waste bins in buildings to separate waste at the source. This led to an increase in the amount of plastic collected in the period 2012 - 2015. After that, the figures show a decrease. The cause of this is unclear. It may have to do with stricter requirements for separated plastic, which meant that some plastic had to be disposed of as residual waste. It still makes sense to keep materials such as plastic and metals out of the residual waste stream. From 2020 plastic will be disposed of together with metal and beverage packaging, so together they will be the new indicator in the next annual report.

ACTIVITIES 2019

- From mid-2019, the university has a contract with Renewi for almost all waste materials. The contract includes sustainability requirements to give more direction to waste management:
  - Waste figures are reviewed every six months and discussed with Renewi.
  - Renewi offers on-the-job coaching for a correct, separate collection and implementation of the Zero Waste project. In this project, Renewi encourages university suppliers to develop initiatives that contribute to circular business operations and the reduction of residual waste (see also Outlook 2020).

OUTLOOK 2020

- In 2020, the university will complete the Zero Waste project together with suppliers. See the interview with *Marije Elschot* for more information.
- In 2020, the university will switch to recycled printing paper. Every year, students and staff produce around 30 million prints.
- From 2020 plastic, metal and beverage packaging waste will be collected separately.

CHAPTER 6

Future-proof buildings

INTRODUCTION

This theme covers all the buildings managed and used by the university. 'Future-proof' is about maintaining and creating real estate with a future-proof quality. The university wants to focus on value: social value, ecological value and economic value.

The strategy to achieve this was laid down in February 2019 and approved by the Executive Board. The aim is for all UU buildings to become healthy, functional, energy-generating and circular. The principle of 'managing for value' has also been translated into the *Strategic Housing Plan* (September 2019).

A balance between social, ecological and economic values leads to sustainable choices in the development of university real estate. The costs of future-proof buildings are offset by important benefits, such as promoting the wellbeing of students, lecturers and researchers and improving their well-being (social). Other benefits include a reduction in energy costs (economic), the preservation of material and raw material value, as well as proactively anticipating the increasingly stringent energy legislation pending the energy transition (ecological).

In 2019, the foundations were laid for a future-proof development of the university property, the campus grounds and the energy transition. Now it is a question of making a real impact with the construction projects that the university will be carrying out over the next ten years.

INDICATORS

Utrecht University uses the *BREEAM* method to measure the sustainability of new and existing buildings.

Existing buildings are subject to *InUse certification*. For new construction projects, the BREEAM-NL New Building Directive applies, which measures the sustainability performance upon completion. As with *In-Use,* the building is assessed in nine areas: management, health, energy, transport, water, materials, waste, land use and ecology and pollution.

Energy labels provide insight into the energy performance of buildings and are expressed as a score from A++ to G. In 2023, all office buildings in the Netherlands must comply with energy label C. Partly for this reason, the university has decided to have an energy label drawn up for all large buildings on the USP. This already started in 2016 and was also applied to other buildings within last year. This will continue in 2020.

Drinking water consumption shows how much tap water the university consumes in all its buildings. By measuring the consumption annually, it becomes clear whether the university achieves water savings through, for example, more economical buildings.

6.	Future-proof buildings indicators for 2019							
		2014	2015	2016	2017	2018	2019	Total
6.1	BREEAM-NL				1	2	-	3
6.2	Energy labels			6	1		4	11
6.3	Drinking water consumption (litres)	240.000	239.000	211.000	218.000	217.000	217.000	-

Table 5. CPIs for measuring sustainability in buildings.

6.1 BREEAM-NL NEW BUILDING AND RENOVATION

In 2019, no new BREEAM-NL-New Building Certificates have been obtained. However, the certificate for the Life Sciences Incubator (LSI) building has been added. For this building, the university obtained a certificate with level Excellent. A total of three university buildings with an Excellent level have now been certified.

6.2 BREEAM-NL IN-USE

In 2019, the university started the certification of twenty buildings on the Utrecht Science Park at BREEAM-NL *In-Use*, under the name *BREEAM Campus approach*. The necessary information was collected last year. No official BREEAM certificates have yet been obtained in 2019, but they are expected to be completed by the end of 2020.

6.3 ENERGY LABELS

There were already seven buildings with an energy label in 2019, as well as the *Vening Meineszgebouw A* and *C*, *Earth Simulation Laboratory* and *Jeannette Donkervoet building*. Eleven buildings now have an energy label. The remaining nine buildings at the USP will be labelled in 2020. By 2023, all office buildings will at least be awarded energy label C, and by 2030 they must be legally awarded energy label A. The university currently has no target for the remaining buildings. These are, for example, buildings in the city centre with monumental status, for which other rules apply.

6.4 DRINKING WATER CONSUMPTION

Drinking water consumption in 2019 remained the same as in 2018: 217,000 litres. In 2019, the university did not take any new measures to reduce drinking water consumption. Drinking water consumption is not a specific area of attention for the university, as it did not emerge directly from the materiality analysis. However, water consumption is a point for attention in the BREEAM certification. A decrease is therefore expected in the coming years when old buildings disappear and new, more economical buildings are put into use.

ACTIVITIES 2019

1. Van Unnik and Kruytgebouw redevelopment

In 2019, the Executive Board decided not to demolish the Willem C. van Unnik building but to redevelop it. The high-rise building (approx. 27,000 m^2) is an iconic Utrecht University building on campus. A feasibility study showed that the structure (the skeleton) is in good condition and suitable for office and educational functions.
Reuse of the skeleton means a considerable saving in raw materials, CO_2 emissions and transport compared to the demolition and total reconstruction. In addition to the van Unnik complex, the Hugo R. Kruyt building (total approx. 50,000 m^2) is also being redeveloped into a modern research facility. The enormous concrete base construction is of good quality.

2. Executive Board defines ambition document Future-proof Buildings and Strategic Housing Plan

To give substance to the sustainable ambitions of the Strategic Plan 2016-2020, Utrecht University has drawn up the *Ambition Document Future-proof Buildings* in which four specific ambitions are translated into themes, starting points and concrete sustainability measures. Subsequently, by adopting the *Strategic Housing Plan*, the university embraced the future-proof ambitions for all UU buildings.

3. Director Real Estate & Campus has been elected Green Leader of the Dutch Green Building Council

This year's award for personal leadership in the green construction and real estate sector was won by *Fiona van 't Hullenaar*, Director of Real Estate & Campus at Utrecht University.

4. Joint Strategic Sustainability Plan drawn up for Real Estate & Campus and FSC

The sustainability ambitions and objectives of Real Estate & Campus and the Facility Service Centre have been combined in a Strategic Sustainability Plan.

5. Creating a healthy working environment for Achter Sint Pieter 200 with WELL

As part of the UU vision on future-proof buildings, research has been carried out into the possibilities of using the *Well Building Standard*. This is a recently developed certification methodology aimed at the health and well-being of users in buildings. The WELL methodology focuses on the quality of: air, water, food, light, movement, temperature, sound, materials, spirit and community.

The WELL method was tested as a pilot in the renovation of Achter Sint Pieter 200. For example, the WELL method has requirements for materials and products such as floor coverings, paints, coatings, adhesives and sealants in the interior. This prevents the spread of volatile organic compounds. As a result, the quality of the air inside is much higher.

6. Utrecht University has become a knowledge partner of INSIDE/INSIDE

INSIDE/INSIDE is an independent organisation that provides insight into choices for a sustainable interior using a platform that assesses materials and products in terms of environmental impact, circularity and health effects. In 2019, Utrecht University joined INSIDE/INSIDE as a knowledge partner. This also works as a signal about the importance of sustainability to the university's suppliers.

7. Sustainability of monument Janskerkhof 13/13a

A study was carried out into the opportunities for making Janskerhof 13/13A more sustainable, in collaboration with experts from *De Groene Grachten*. The objectives in the Ambition Document Future-proof Buildings were leading in this. The study revealed, that it is extremely important to better insulate the building. The study serves as an example for renovation and maintenance projects in the city centre.

OUTLOOK 2020

- In 2020, the university will implement the starting points and sustainability objectives of ambitions from Future-proof Buildings in upcoming construction projects. This will enable the UU to translate its ambitions into action.
- For 20 existing buildings on the USP, a BREEAM-NL In-Use certificate will be carried out and the university will provide an energy label.

CHAPTER 7

Campus area

INTRODUCTION

Utrecht University owns approximately 300 hectares. That is larger than the entire city centre of Utrecht. These grounds are used for building, living, working, research, education and nature. The theme 'Area' is about the management of all the university's campuses. In 2018 Utrecht University, together with area partners, laid down a new ambition and vision for a green campus in the Utrecht Science Park Ambition Document. A green campus safeguards biodiversity, facilitates a healthy and green working environment and is prepared for a changing climate.

Due to the large size of the campus sites, Utrecht University has many opportunities to contribute to sustainability and biodiversity, but also to the welfare of students and employees. For example, the university is working on measures that stimulate biodiversity, nature-friendly water drainage and nature-rich places that are accessible to everyone.

INDICATORS

To measure sustainability for this theme, the university monitors three elements. The capacity for water storage, the development of biodiversity on the campus and the amount of green spaces. Water storage is an important element in climate adaptation. Increased water storage capacity ensures that the campus is prepared for extreme rainfall. Biodiversity is measured by the presence of certain animal and plant species. These species, called guide species, are an important clue for the development of biodiversity on campus. The number of green spaces - outside seating locations with lots of greenery - shows the extent to which the campus is a healthy and nature-friendly place to stay.

7.	Zone 2019			
7.1	**Surface water storage (m^2)**	**2018**	**2019**	
	Surface open water USP	-	119,102	
7.2	**Biodiversity development (%)**	**2012**	**2015**	**2019**
7.2.1	Total observations of guide species	4	12	9
		2018	**2019**	
7.2.2	Number of insect hotels 2018	3	9	
7.2.3	Ecological roadsides (m^2)	77,500	81,300	
7.3	**Green places to stay (#)**	**2018**	**2019**	
	# places to stay	21	23	

Table 6. CPIs for measuring sustainability in the university area.

7.1 SURFACE WATER STORAGE

Making sure the campus can cope with large amounts of rainwater and sparing the sewer system at times of extreme rainfall is an important way for the university to adapt to the changing climate. Where possible, Utrecht University wants to use its own grounds and buildings (roofs) for water storage.

Sustainability goes beyond reducing CO_2 emissions. Sustainability is also about dealing responsibly with our natural resources. The diversity of plants and animals around us determines the functioning of ecosystems and thus processes like pollination. It is important that Utrecht University is also transparent about its impact on biodiversity overseas, strives to reduce negative impacts and increase positive impact. Through the food the university buys and the purchasing of materials, the overseas biodiversity footprint can be minimised. Closer to home in the Utrecht Science Park, there are opportunities to strengthen regional biodiversity. This can be achieved by better providing the requirements that characteristic plant and animal species, such as the brown owl, kingfisher and lapwing need from their habitats.

Merel Soons, Professor of Plant Dissemination Ecology & Nature Conservation

As a result, the Leuvenplein was redeveloped in 2019. Here, a special sewer system was applied for the first time in the USP. This system ensures ensures that rainwater is discharged into the soil. In this way, the area retains water longer and relieves the normal sewage system. The capacity is 200 m^3, equivalent to 200,000 litres. By way of comparison: on a 'wet day' (KNMI: 10 millimetres of rain), 50,000 litres of water falls on on a football pitch.

In addition, in 2019 the total surface water in the USP was calculated: 119,102 m^2. This number is used as the zero point. The university wants to expand this amount in the coming years. In 2020 students will look for opportunities for more surface water in urban areas in the USP, in a Green Office Living Lab project.

7.2 BIODIVERSITY DEVELOPMENT

Diversity in species is an important indicator of biodiversity. Insect hotels have been placed to stimulate insect biodiversity. In addition, the development of ecological road verges is important because species-rich grasslands form a habitat for many plant and animal species and provide 'ecological infrastructure'.

To indicate how the biodiversity on the campus will develop over time, Utrecht University works with a small group of guide species. As the presence of these species depends on how well the entire ecosystem functions. The following species were chosen as USP guide species in 2018: the little owl, kingfisher and lapwing.

In 2019, the Eelerwoude agency drew up a new USP nature conservation map. This year four guide species have been added: the black redstart, great spotted woodpecker, broad wasp orchid and spotted orchid. A guide species is named when a suitable habitat for that species has been found in the USP. The guide species each say something about the quality of a specific habitat:

- *Tawny owl* (small-scale farmland with pollarded trees): not found in 2019 In 2015, it was observed at two locations.
- *Lapwing* (meadow bird): of all the meadow birds on the USP site, only the lapwing has one remaining habitat in the sheep pasture. This location is less intensively fertilised than the other grasslands in the USP and is therefore suitable. By 2015, four pairs (i.e. eight individuals) had been found.
- *Kingfisher* (pools and watercourses): The kingfisher was also not found in the Eelerwoude Nature Value Survey of 2019. The kingfisher was found twice for the first time in the Eelerwoude nature conservation study of 2015.

In addition, plant species such as the broad wasp orchid and spotted orchid have been added to the species for monitoring. These species are general guide species, not specific to a particular habitat.

From left to right: little owl, kingfisher, lapwing, spotted woodpecker, black redstart, spotted orchid and broad wasp orchid.

- The black redstart is scattered throughout the USP between the university buildings. Five territories of the black redstart and two for the great spotted woodpecker have been found.
- On the Hoofddijk, near the Lundlaan, there are some areas where herbal plants have developed. The wasp orchid is present here. Although it is also a suitable habitat for the spotted orchid, this plant was not found during the 2019 nature conservation study.

The general conclusion is that campus biodiversity is declining, in line with the national trend. For this reason, the university will draw up a biodiversity plan in 2020.

7.3 GREEN PLACES TO STAY

In 2019, two more green spaces have been added. Along the Genèvelaan four hammocks have been placed and at the Tiny Forest a hammock has also been installed. In total there are now 23 hammocks.

ACTIVITIES 2019

- Nature workday. In October 2019, the University Administration, Botanical Gardens and Landschap Erfgoed Utrecht organised a Nature Workday for university staff. More than 50 participants planted 10,000 flower bulbs. In addition, in a small nature reserve in the USP a dense pond was cleared of vegetation so that sunlight can penetrate and the surface water is clear again.
- Tiny Forest. A Tiny Forest has been created at the junction of Cambridgelaan and Bisschopssteeg. The Tiny Forest is about the same size as a tennis court and there are almost 600 indigenous trees and plants. This makes it a great place for birds, insects and other animals to nest.

OUTLOOK 2020

- In 2020, Real Estate & Campus will develop the Utrecht Science Park Ambition Document into an agenda. This will result in measures and targets for biodiversity. This agenda also provides additional indicators, which will be reported on in the next Sustainability Report.
- In 2020, the Real Estate & Campus will draw up a plan to replace pavement with greenery to combat heat stress and draft policy on the reuse of materials in the public space.
- Biodiversity plan. Globally, biodiversity is under severe pressure due to unsustainable land use. Biodiversity in the Utrecht Science Park (USP) and the surrounding area has also been declining for several decades. In 2019, a start was made with a biodiversity plan for the campus; this plan will be presented in 2020.
- In 2020, the municipality of Utrecht will create an Environmental Vision for the USP. The university will take part in this as landowner, implementing the ambitions for a green campus. Part of the Environmental Vision is a working group on green space. The aim of this working group is to link nature, greenery and the landscape more closely to the built environment.

CHAPTER 8

Mobility

INTRODUCTION

Mobility is an important theme for Utrecht University. In the context of education and research, staff and students travel daily to one or more university locations and regularly to events abroad. Mobility therefore accounts for a quarter of the university's carbon footprint. The university wants to continue to facilitate travel for education and research as much as possible, but also wants to work on minimising emissions. In the *Utrecht Science Park Ambition Document* (see chapter 4), the organisation has formulated goals for sustainable mobility. The most important points:

- Bicycle, pedestrian and public transport come first. That is why the university works to provide good and safe cycle paths and sufficient parking facilities for bikes.
- Fewer and cleaner cars, parking on the edges of campus and good facilities for electric cars, such as charging stations.

With the *Anders Reizen* project, the university is reducing emissions from air travel.

INDICATORS

Together, the chosen indicators provide a picture of sustainable mobility at the university. This concerns both mobility in the context of business operations and commuting of employees to and from work. To gain an insight into emissions from commuting, car use in the Utrecht Science Park (USP) is counted annually. The university wants car use to account for no more than 20% of all commuting between home and work in 2020. In addition, the number of charging stations for electric cars is counted. Both the university's company cars and employees' cars can be charged here.

As far as business operations are concerned, the CO_2 strategy target for Utrecht University's vehicle fleet is to be emission-free in 2020. This is tracked using the 'emission-free cars' indicator: cars that do not emit greenhouse gases in the use phase. In subsequent editions, data on air travel will be added.

8.	Mobility indicators for 2019		
		2018	2019
8.1	Emission-free cars UU FSC	8%	67%
	# cars lease 100% electric	1	8
	# cars lease total	13	12
8.2	Car use employees	20%	22%
8.3	Charging stations electric cars USP	2	34

Table 7. CPIs for measuring sustainable mobility.

8.1 EMISSION-FREE CARS

In 2019, seven new electric cars were added to the university's leased car fleet. These are all cars that the University's Facility Service Centre (FSC) rents from a leasing company. At the end of 2019, eight of the twelve cars (67%) in the leased car fleet were fully electric. In 2018, the figure was 8%. The aim is to have only emission-free cars in the university's fleet by 2020 (as laid down in the CO_2 strategy 2017-2020). The indicator measures how many cars the FSC leases and what proportion of them are 100% electric. The FSC will replace current cars with electric cars when the lease contract expires. Almost all non-electric car contracts expire in 2020.

For the time being, vehicles managed by faculties and De Tolakker farm (part of the Faculty of Veterinary Medicine) fall outside the scope of this indicator. In 2019, there were a total of another 24 vehicles (2018: 26). Because these are vehicles that perform heavier (farm) work, these vehicles are generally difficult to electrify. However, the fuel used by these work and farm vehicles is included in the university's carbon footprint.

8.2 NUMBER OF EMPLOYEES TRAVELLING TO UTRECHT UNIVERSITY BY CAR

22% of the employees in the USP travel to work by car. This is an increase from the 20% in 2018, with the reason that more complete data is available this year. This data comes from the parking management system of the UU and P+R Utrecht Science Park. On the busiest day of the year more than 1,300 of the 6,042 UU employees park their cars in the USP. There seems to be no decline. Student car use is not included because it is a negligible proportion of the total (2% of students according to the mobility study, 2017).

The percentage corresponds with the outcome of the mobility survey of DTV Consultants from 2017, i.e. 23% of the employees. Another research agency (&Morgen) carried out a similar survey in 2017 into what percentage of employees in the city centre and University College (UCU) travel by car. This was 6%. No parking data is available for the city centre and UCU.

8.3 CHARGING STATIONS FOR ELECTRIC CARS IN THE USP

The university installs charging stations for electric cars to facilitate and promote the use of electric cars (by the UU and its employees). In 2019, 32 smart charging stations were added. These smart charging stations can both charge and discharge cars. These charging stations are part of the Smart Solar Charging project (see below under 'Activities 2019'). The user data of these charging

stations will be added as an indicator in the 2020 Sustainability Report. There are also 28 charging stations in the public P+R and 4 at Utrecht University Medical Centre (UMCU). At present, the UU has not yet formulated a target for the number of charge points in the coming years.

ACTIVITIES 2019

Reduction of business air travel

- The UU launched the *Anders Reizen campaign* on 5 November 2019. The goal: 50% less flying by 2030 by actively encouraging employees to make more use of digital resources for collaboration and education.

Activities regarding commuter traffic

- Together with UMCU, Utrecht University of Applied Sciences, the Princess Maxima Centre and Nutricia Danone, the UU developed a carpool app for the USP in 2019. Unfortunately, the app did not pass the test phase and was not taken into use. In 2020, the parties still want to set up a 'USP carpool community'.
- The university organised promotional campaigns for (electric) bicycles: on the national Bicycle to Work Day on 23 May 2019 various suppliers offered bicycles at a discount in the USP. During Low Car Diet, 30 employees tried an e-bike for free for two weeks for their commute to work.
- In 2019 the tram (also known as 'the Uithoflijn') started to run. This improved travel convenience for employees travelling from Utrecht Central Station to the USP. Bus line 12, the busiest bus connection in the country, was removed from the timetable.
- All UU employees receive a regular allowance for commuting expenses, regardless of the mode of transport used. This allowance has been increased from €0.06 to €0.10 per kilometre since 1 October 2019. This measure is more favourable for cyclists and public transport users, as motorists will pay a parking fee.

Emission-free cars and charging infrastructure

- UU employees have been able to use WeDriveSolar electric shared cars for business trips since October 2019. The aim of this is that employees do not come to work in their own car because they need a car for a business appointment during the working day. The first business trips were made in 2019. The pilot will get more promotion in 2020. The Smart Solar Charging stations were officially opened on 16 October 2019. See also the *press release*.

"On your bike to work, who wouldn't want that? Although 23 kilometres from Amersfoort is quite a distance on my ramshackle city bike... I was glad that during the Low Car Diet campaign I had the opportunity to try out an e-bike for two weeks, to see if this would be something for me. And it was definitely for me. To my great joy, I was then able to buy the bike for an attractive price. With the wind in my hair, accompanied by whistling birds, an hour of electric cycling isn't that long at all. And on the way back I take a small detour through the Soestduinen, to be able to leave the hustle and bustle of work behind me. I recommend it to everyone."

Sigrid Dekker, Communication officer
University of Utrecht

OUTLOOK 2020

Reduction of business air travel

- A *pilot is* starting in which two travel agencies offer their services to employees of the university. The aim of this *pilot* is to learn how travel agencies can relieve employees of their worries when booking business travel and accommodation. Another important reason to work with a permanent travel agency is to gain better insight into travel movements of employees. Through the travel agency, the university can make sustainable travel the norm, for example by setting the train as the standard. This *pilot* will last a year and a half, with the aim of determining how and whether a European tender for a travel agency will be set up.
- The Anders Reizen campaign continues. A lot of audiovisual equipment will be installed in 2020. This will enable researchers and lecturers to better communicate online with colleagues and contacts worldwide, reducing the need to physically visit each other. The Anders Reizen campaign focuses on reaching students and staff.
- The university is starting to issue the Travel Green Grant to UU students who go on exchange. The green travel grant is a compensation scheme for the costs of sustainable travel to their destination.

Activities regarding commuter traffic

- As of 1 January 2020, the bicycle allowance has been increased from €1000 to €1500. This scheme allows employees to buy an (electric) bicycle tax-free. This bicycle scheme has been increased to give employees an extra incentive to come to work by (electric) bicycle.
- 'I cycle' is a campaign that ran for three months from March 2020. Employees and students can save points in the 'Ik fiets' app by making bike rides. Due to the corona crisis (spring 2020), this campaign will be extended until October. Through this campaign, participants can also temporarily visit bicycle dealers to try out an e-bike free of charge for a number of weeks.

Emission-free cars and charging infrastructure

- In the longer term, it is important to consider whether and how the charging infrastructure can be expanded.
- The electric car sharing project will continue to be promoted and continued.

CHAPTER 9

Catering

INTRODUCTION

Utrecht University buys large volumes of food and drink for meetings and events. Staff and students buy lunch and hot meals in the restaurants. Utrecht University wants to make its catering and meals increasingly sustainable. The production of vegetables, fruit, cereals and meat often results in greenhouse gas emissions, damage to biodiversity, water consumption and deforestation. The university wants to avoid these negative impacts by making sustainable choices when purchasing catering products.

The ambition to make catering more sustainable has been documented in the sustainability plan (2019), which includes the sustainability objectives of the Facilities Service Centre. This directorate is responsible for catering services. At the request of the university, the caterer pays a lot of attention to supplying vegetable-based dishes, the prevention of food waste, locally grown food that is in season and healthy choices. For example, the caterer in the Educatorium in Utrecht Science Park predominantly offers plant-based meals and the catering service is vegetarian by default. Researchers from the Future Food Hub are working on this.

INDICATORS

In this edition of the Sustainability Monitor, sustainable catering is measured using three indicators: food waste, meat-vegetarian ratio and packaging. Together, meat and food waste have by far the greatest environmental impact. In coming years, this will be expanded to include other themes that are also relevant to sustainable catering.

9.	Cateration 2019		
9.1	**Food waste**	**2018**	**2019**
	Food waste in catering (%)	-	*figures in 2020*
9.2	**Meat vs Vega**	**2018**	**2019**
	Development (% meat reduction)		-20%
	Meat purchase (kg)	20.000	16.000
9.3	**Packaging**	**2018**	**2019**
	Packaging of 1 type of material (%)	-	*figures in 2020*
	Recycled or reusable packaging (%)	-	
	Share of plastic packaging (%)	-	

Table 8. CPIs for measuring conscious catering.

9.1 FOOD WASTE

The university's goal is to reduce the food waste of the catering service by 25% in 2018 and 50% in 2024 - compared to 2015. Waste in restaurants is not included in this scope. Separately discarded food is fermented into compost by waste processor Renewi.

In 2019 no measurements have been taken to understand how much food waste has decreased. However, attention was paid to orders and users to make it clear to them that they play a role in reducing food waste. In 2020, a defined period will be used to measure how much food is wasted. The Contract and Supplier Management Department, in collaboration with the new caterer, will ensure that annual measurements are taken.

9.2 RATIO BETWEEN MEAT-VEGETARIAN RESTAURANT AND CATERING SERVICE

The aim for the university's catering is to reduce the percentage of meat and fish in the total purchase. By 2021, the entire catering service must be vegetarian.

The university has been expanding its vegetarian range for several years, both in the restaurant and at events and meetings. The effect of this extra attention can now be seen in Sodexo's purchasing figures. In 2018, almost 20,000 kilos of meat was purchased by Sodexo for the UU, in 2019 this was 16,000 kilos. The use of dairy products (cheese and milk) has also been reduced by 10%.

9.3 PACKAGING

Utrecht University set the following goals:

- From September 2022, 100% of the packaging will be of one type of material in UU catering, which makes it possible to be 100% recyclable or reusable.
- The university is investigating how the use of plastic packaging can be reduced as much as possible in catering.
- At the moment, there is no data available on the use of packaging. The Contract and Supplier Management Department and the new caterer are dealing with this with issue.

MILESTONES 2019

- On September 11th 2019, the Future Food Lab in the Educatorium was opened. This lab offers, among other things, vegetarian tomato burgers and 'not-dogs', as well as a soup of saved vegetables. By 1 March 2020, 4,521 hamburgers, 839 not-dogs and 4,714 soups had already been sold.
- In February 2019, vending machine supplier Maas stopped selling PET bottles of water from the soft drinks vending machines. This resulted in a reduction of approximately 28,000 PET bottles per year.

OUTLOOK 2020

- From July 2020, the catering of the UU will no longer be carried out by Sodexo but by Eurest. Eurest operates with the following principles: (1) reducing food waste, (2) working with their suppliers to drastically reduce the use of *single use plastic* and (3) responding to consumer demands for plant-based cuisines and meat alternatives. Together with the caterer, the university will further increase sustainable catering.
- All business lunches that the new caterer delivers to the university will be vegetarian by default.

CHAPTER 10

Sustainable awareness

INTRODUCTION

Utrecht University (UU) consists of some 32,000 students and 7,000 employees. They play a crucial role in making the university more sustainable. Not only are they the ones who realise changes within the organisation; they also take this experience with them to other environments. In this way, the sustainable impact of employees and students has a much greater potential reach. Enough reason for the UU to further strengthen the level of knowledge and leadership among its staff and students. The step that precedes this is to increase awareness on sustainability.

INDICATORS

Sustainable consciousness is measured in two ways:

- The social media section of the Green Office gives an indication of the interest of employees and students in the sustainable development of the university. The UU believes it is important that the awareness of students and staff in the field of sustainability grows during the period that they are connected to the university through work or study. Awareness of a particular subject is not easily measurable. However, there are measurable things that can be an indicator of sustainability awareness, such as the number of followers on social media.
- The number of student volunteers of the Green Office gives an indication of the involvement of students in the sustainable development of the university. The aim is to increase the involvement of the volunteers so that they want to be associated with the Green Office for a longer period of time. In addition, the Green Office wants to increase the diversity of study programmes of students who volunteer: the various faculties should all be reflected in the Green Office volunteer database. The Green Office actively recruits new volunteers, especially during the introduction time and the start of the academic year, with both online and physical promotion.

From 2020, new indicators will be added to the sustainability monitor, such as the number of visitors to events around the theme of sustainability, the amount of items saved from the waste heap through the *Green Office Thrift Shop* and the number of *Travel Green Grants* awarded.

10.	Sustainability awareness indicators for 2019			
10.1	**Social media area Green Office UU**	**2017**	**2018**	**2019**
	Instagram followers (at 31-12)	-	1.164	1.534
	Facebook Page Likes (at 31-12)	2.758	3.322	3.899
	Reach Insta-stories			4.000
10.2	**Volunteers Green Office UU**		**2018**	**2019**
	Active volunteers		59	85

Table 9. CPIs for measuring sustainable awareness among students and staff.

10.1 SOCIAL MEDIA REACH GREEN OFFICE UU

At the end of 2019, the number of followers of the Green Office start-up account was 1,534 (32% growth compared to the end of 2018) and the number of Green Office facebook page likes was 3,899 (17% growth compared to the end of 2018).
The Green Office is committed to organic growth of its reach by providing content with integrity through its social media channels. In addition to offering content on its own channels, the Green Office started in the autumn of 2019 with so-called monthly *Insta story takeovers* of the UU Instagram channel. The three *stories* in 2019 each reached more than 4,000 followers.

10.2 NUMBER OF VOLUNTEERS

In 2019, 85 volunteers were active at the Green Office.
Because the Green Office deliberately works with a varying number of volunteers per year, based on the content of projects, this indicator does not say much about the course of student involvement in the long term. Therefore, this indicator will probably be replaced by other indicators in the next edition, such as numbers of event visitors.

ACTIVITIES 2019

- The Green Office entered a partnership with the Digital University Journal (DUB). At the end of 2019, DUB published the first *Green Office article on* the theme of sustainable travel. The article was read over 3,700 times. This collaboration will continue in 2020.
- The local media also paid attention to Green Office projects. *Radio M* and *RTV Utrecht* visited the Future Food Lab and *De Utrechtse Internet Courant (DUIC)*, *nu.nl* and *RTV Utrecht* wrote about the *tiny forest*.
- The Green Office *investigated the* extent to which students attach importance to sustainability. The majority of the respondents considered sustainability to be very important. International students scored significantly higher in this respect than Dutch students. Female respondents also generally considered sustainability more important than male respondents. More than half of the respondents were already familiar with the work of the Green Office.

- In September, the **Future Food Lab** opened in the Educatorium restaurant. The Future Food Lab is a collaboration between caterer Sodexo, Future Food Utrecht and the Green Office. Within the Future Food Lab, students, researchers, staff and the caterer explore the future of sustainable food.
- In November, the Green Office planted a tiny forest in the Utrecht Science Park in cooperation with the Utrecht Biologists Association. This is the first tiny forest in the Netherlands that is managed by a university. A total of 600 trees increases the ecological value of the campus and offers opportunities for research.
- Two successful (follow-up) editions of the Green Office **Thrift Shop** took place, where thousands of items of departing students were given a second life in the rooms of new students. Many employees also made use of this second-hand shop in the USP.
- The Green Office worked on extra visibility by organizing *pop-ups* at various **Studium Generale** lectures.
- In the summer of 2019 University College Roosevelt also opened its own Green Office: the **Eleanor Green Office**. Like its sister department in Utrecht, the Eleanor Green Office focuses on organizing activities and projects to involve the community in the sustainable development of the university.
- The first edition of **Our Big Fat Green Trip** took place in 2019. With this campaign, the Green Office stimulates study associations to make more sustainable travel plans.
- In 2019, **theme sessions on sustainability** took place in the Green Office for the second year in a row. These were organised by the Real Estate & Campus Management team (V&C), aiming to inspire employees to make more sustainably based choices in their professional working life. In total, some 650 employees attended the sessions.
- Since 2018, the sustainability programme has been creating sustainable content for TV screens in buildings. The aim of this content is to increase sustainable awareness among staff and students. The content highlights sustainability developments, facts and figures and presents sustainability stories from within the organisation. In 2019, the concept was further developed and the content was updated every two months. This resulted in more buildings and faculties running the content on their own screen casting. As a result, the total reach has increased fivefold since 2018.

OUTLOOK 2020

In 2020, various departments of Utrecht University will once again organise events with the aim of increasing the sustainability awareness of students and staff. For example:

- A **virtual biodiversity week**: in May, the university organises a virtual biodiversity week. Students and staff are included in the importance of biodiversity, both locally and internationally, and in the university's biodiversity plans. During the week, UU staff are also encouraged to work on biodiversity themselves, for example on their own garden or balcony. In addition, virtual walks through the Botanical Garden are available.
- The **Future Food Lab** will be continued. As of June 2020 a new caterer has been contracted with whom the university will further develop the Future Food Lab. It continues its aim of combining science, education and food supply to inform restaurant visitors about sustainable food choices.
- **The sustainable monitor**, which creatively informs employees in the physical space about sustainability at the university, is being further developed. The number of locations is being expanded. The aim is to have sustainable content running in ten university buildings by 2020.
- Students will be able to claim the **Travel Green Grant** in 2020: the UU provides a Travel Green Grant for approximately 150 exchange students per semester. The condition is that the students forgo the plane and instead choose a less environmentally damaging option, such as the bus or train.

CHAPTER 11

Overview development indicators

Tables 10 and 11 give an overview of how the indicators have developed over the past year (compared to 2018, unless stated otherwise). For some indicators, 2019 is the first year of measurement, such as the game Utrecht 2040. Table Y shows the development of these indicators with a '~'.

Total score	
Improvement over base year	16
Equal or first measurement	6
Deterioration compared to base year	4

Table 10. Progress 2018-2019.

This overall score is a way to draw an comprehensive conclusion about the impact of the UU's sustainability initiatives. Sixteen of the 26 indicators have improved compared to last year, which is a good result. The effect of efforts made in recent years is clearly visible in areas such as sustainability in education, energy saving and electric cars.

#	Indicator	Development (+ / 0 / -)	Note
1.	**Education**		
1.1	# sustainability graduates	+	
1.2	# freshmen playing game Utrecht 2040	~	Game Utrecht 2040 first released in 2019
3.	**Living Labs**		
3.1	# completed Green Office Living Lab projects	+	
3.2	# other living lab projects	0	
4.	**Energy**		
4.1.1	Energy savings compared to base year 2014 (%)	+	
4.1.2	Energy savings compared to 2018 (%)	+	
4.2.1	Renewable energy	0	* In reality, a deterioration, but this year's figure from last year corrected downwards, so remained the same.
4.2.2	Renewable energy incl. purchasing	–	* less wind energy purchased, through increased self-generation
4.2.3	Power of solar panels	+	
4.3	Efficient use of fossil resources	–	
5.	**Waste**		
5.1	Residual waste from 2014	+	
5.2	Plastic recycling	–	
6.	**Future-proof buildings**		
6.1	BREAM certificates	+	
6.2	Energy labels	~	
6.3	Water consumption	0	

#	Indicator	Development (+ / 0 / -)	Note
7.	**Area**		
7.1	Surface water storage (m^2)	0	
7.2.1	Biodiversity - # habitats guide species	–	
7.2.2	Biodiversity - # insect hotels	+	
7.2.3	Biodiversity - Ecological verges (m^2)	+	
7.3	# green places to stay	+	
8.	**Mobility**		
8.1	Emission-free cars UU FSC	+	
8.2	Car use employees	0	* A deterioration, but caused by other data from parking agency system
8.3	Charging points electric cars USP	+	
9.	**Catering**		
9.1	Food waste		no data available
9.2	Meat v. s. Vega	+	
9.3	Packaging	x	no data available
10.	**Sustainable awareness**		
10.1	Social media reach Green Office Utrecht	+	
10.2	# volunteers Green Office	+	

Table 11. Total progress per CPI 2018-2019.

APPENDIX I

Notes to the Global Reporting Initiative and materiality analysis

This report has been prepared in accordance with the GRI Standards: Core option.

HOW DOES THE GRI WORK?

GRI standards provide a guideline for the way in which an organisation publishes information on sustainability topics such as energy, materials and biodiversity. In the process of reporting according to GRI guidelines, stakeholders and the organization look together at current and future efforts in the field of sustainability.

An important GRI component is the materiality analysis. This is a way of asking those involved which subjects are most relevant ('materiality') to report on.
In *this video*, the organization behind GRI briefly explains what GRI is.

The following ten themes emerged from the materiality analysis:

1. **Educate socially engaged citizens**: to what extent do students come into contact with sustainability in their education?
2. **Educate socially engaged citizens**: how does research contribute to the transition to a sustainable society?
3. **Connection between education, research and business operations**: in this theme attention is paid to all 'living lab' projects, in which students, researchers and employees from business operations work together on sustainable solutions.
4. **Sustainable energy supply**: the energy consumed by the university and the emissions it generates.
5. **Sustainable renovation of buildings**: this theme is about the buildings used by the university. Future-proof means that buildings are functional, healthy, energy-generating and circular over their entire life cycle.
6. **Green Campus**: this theme is about a healthy and green working environment that invites people to meet and exercise, while also increasing biodiversity and climate adaptation.
7. **Sustainable mobility**: this concerns all transport within the organisation and the commuting of employees and students.
8. **Conscious catering**: the environmental impact of all food and beverages purchased by the university for students, staff and guests.
9. **Sustainable awareness**: the extent to which employees and students are aware of the importance of sustainability.
10. **Diversity and inclusion**: the diversity of backgrounds stimulates the accessibility of the university.

Some requirements from GRI are covered in the general Utrecht University Annual Report. In addition, the organisation draws up the internal Annual Environmental Report every year, in order to comply with permit requirements.

MATERIALITY ANALYSIS

Utrecht University reports in accordance with the GRI application level 'core'. This means that Utrecht University reports on the main indicators of GRI and the most important topics from the materiality analysis, as is most common. The reference table below shows which criterion is covered where in the report. Materiality topics were identified during the process of determining the content of the annual report and this report. The working method and the result of the materiality analysis are set out below. The subjects identified by Utrecht University as material are guiding principles for the sustainability policy.

In 2018, the organisation carried out a materiality analysis in line with the *Global Reporting Initiative Standards* with the aim of selecting themes to be reported on. Based on 11 interviews with stakeholders from education, research and business operations, a survey was sent out to 350 stakeholders, both internal and external. This analysis is usually carried out every two to three years, so in 2019 the university has not carried out a new analysis.

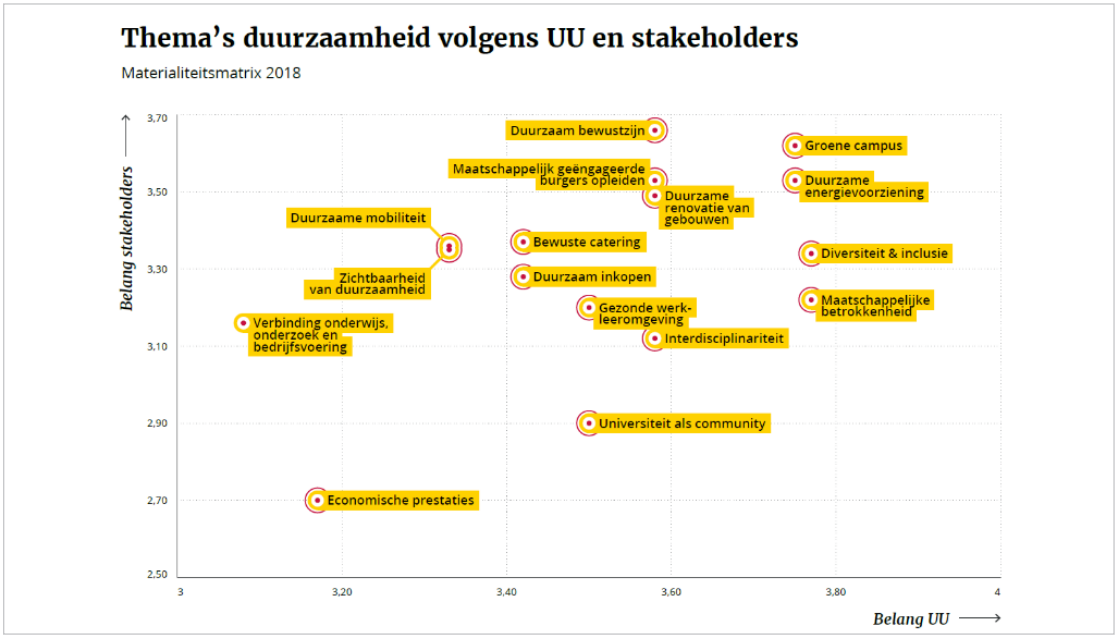
Interviews with stakeholders were held prior to the survey. The starting point was to achieve a good representation of internal and external target groups, who are involved in Utrecht University's sustainability policy and/or have expertise on sustainability in organisations in general. On the basis of these interviews, a selection of themes were made, which were prioritized in the survey according to the most important themes. At the beginning of 2018, the university sent out a survey to student organisations, internal staff, sustainability coordinators of other universities, educational policy staff, UU scientists and other stakeholders within the UU.

These respondents indicated which themes they thought were important for the university and for this report. Seven topics were selected based on the response. Sustainable mobility and Connecting education, research and business operations scored slightly lower, but are still included in the report on the basis of previously made strategic choices.

Mobility is an important strategic theme for Utrecht University, because it significantly influences the CO_2 footprint and because the accessibility of Utrecht Science Park is a point of attention. Linking education, research and business operations is a spearhead of the Sustainability Programme and Green Office Utrecht; by linking business operations issues to education and research, the organisation utilises the available knowledge and offers students and researchers the opportunity to contribute to the sustainability of their own organisation.

In the 2019 edition, waste has also been added as an important theme. In 2019, the university set itself the target of having zero residual waste by 2030.

The names of the themes in this report differ from the theme names in the materiality analysis, in order to better match existing names within the organisation. A table is included under the figure 'Themes sustainability according to UU and stakeholders' for this purpose.



This table is presented in Dutch

Theme in materiality analysis	Theme in the present report
Educating socially engaged citizens	Sustainability in Education
	Sustainability in Research
Connection between education, research and business operations	Living Labs
Sustainable energy supply	Energy
Sustainable renovation of buildings	Future-proof buildings
Green Campus	Area
Sustainable mobility	Mobility
Conscious catering	Catering
Sustainable awareness	Sustainable awareness

NB: Diversity and inclusion emerged as a relevant topic in the analysis, but has not been included in this report. The UU Diversity Programme itself issues an annual internal report and the subject of diversity and inclusion is also included in the general UU Annual Report.

ACCOUNTABILITY

The Sustainability Programme is responsible for this reporting and the associated monitoring and evaluation of objectives, whereby the Programme Manager is accountable to the Vice-Chairman of the Executive Board and to a Steering Committee that includes:

- Prof. Annetje Ottow, Vice President of the Executive Board;
- Leon van de Zande, Secretary General Utrecht University;
- Fiona van 't Hullenaar, representative on behalf of operations;
- Prof. Dr. Merel Soons, research representative.

The Sustainability Programme invites stakeholders to share questions and comments on sustainability and this report to duurzaamheid@uu.nl.

APPENDIX II

GRI Index

GRI Code		Reference DV= sustainability report JV= annual report	Explanation
GRI 102: GENERAL INDICATORS			
1. Organization profile			
102-1	Name of the organisation	Cover (DV)	
102-2	Main brands, products and/or services	Utrecht University: profile and key figures (JV)	
102-3	Location of the organisation's head office	Colophon (JV)	
102-4	The number of countries in which the organisation is active	Utrecht University: profile and key figures (JV)	
102-5	Ownership structure and legal form	Colophon (JV)	
102-6	Markets	Utrecht University: profile and key figures Chapter 1. Research (JV)	
102-7	Size of the reporting organisation	Key figures (under Utrecht University: profile and key figures) 6.1 Financial result 2019 (JV)	
102-8	Composition of the workforce	Annex 4: Staff figures (APR)	
102-9	Description of the organisation's supply chain	Utrecht University: profile and key figures (JV)	
102-10	Significant changes for the organisation and the chain	Foreword by the Executive Board Message from the Supervisory Board (JV)	
102-11	Explanation of the application of the precautionary principle by the reporting organisation	Chapter 7: Risk management (JV)	
102-12	Externally developed economic, environmental and social charters, principles endorsed by the organization	Strategic themes and hubs (under Chapter 1. Research) (JV)	
102-13	Memberships of associations (such as industry associations) and national and international interest groups	Appendix 1: Prizes and distinctions Appendix 5: Related parties (JV)	
2. Strategy			
102-14	Declaration of the highest decision-making authority of the organisation	Foreword by the Executive Board (JV)	
3. Ethics and integrity			
102-16	Description of the values, principles, standards and norms of conduct used by the organisation, such as a code of conduct.	Core values (under Utrecht University: profile and key figures) (JV)	
4. Board			
102-18	The governance structure of the organisation	Appendix I: Notes to the Global Reporting Initiative and materiality analysis (DV) Report of the Supervisory Board Report of the University Council Governance - Organisation Chart (JV)	

GRI Code		Reference DV= sustainability report JV= annual report	Explanation
5. Stakeholder Engagement			
102-40	List of stakeholder groups concerned by the organisation	Appendix I: Global Reporting Initiative disclosure and materiality analysis (DV) Appendix 5: Related parties (JV)	
102-41	Employees under a collective bargaining agreement		All employees of Utrecht University are members of a collective agreement (CAO).
102-42	Starting points for the identification and selection of stakeholders	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	
102-43	Means of involving stakeholders	Appendix I: Notes to the Global Reporting Initiative and materiality analysis (DV) Chapter 5. University and Society (JV)	
102-44	Main issues and issues arising from consultations with stakeholders	Appendix I: Notes to the Global Reporting Initiative and materiality analysis (DV) Chapter 5. University and Society (JV)	
6. Reporting practice			
102-45	List of all companies included in the consolidated accounts and not covered by this report	Chapter 76. Finance (JV)	
102-46	Process for determining the content and specific demarcation of the report and the starting points used in this process	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	
102-47	Material issues identified during the process of determining the content of the report	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	
102-48	Consequences of any re-statement of information provided in a previous report and the reasons for such re-statement		There have been no significant re-statements of information
102-49	Changes in reporting	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	
102-50	Reporting period		1 January - 31 December 2019
102-51	Date of most recent previous report		15-Jun-19
102-52	Reporting cycle	Summary (DV)	Annually
102-53	Contact person for questions about the report or its content	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	

GRI Code		Reference DV= sustainability report JV= annual report	Explanation
102-54	Claims for reporting in accordance with GRI Standards	Appendix I: Global Reporting Initiative and materiality analysis (DV) disclosures	
102-55	GRI Content Index	Annex II: GRI Index (DV)	
102-56	Assurance policies	Message from the Supervisory Board (JV)	
GRI 103: SPECIFIC INDICATORS			
Educating socially engaged citizens - Sustainability in Education & Research			
103 - 1-3	DMA	1. Sustainability in education 2. Sustainability in Research (DV)	
UU1	Number of graduates in sustainability courses	1. Sustainability in education (DV)	
Connecting education, research and business - Living Labs			
103 - 1-3	DMA	3. Living Labs (DV)	
UU2	Number of living lab projects	3. Living Labs (DV)	
Renewable energy supply (GRI 302/305) - Energy			
103 - 1-3	DMA	4. Energy (DV) UU CO_2 footprint reporting 2019	
302-4	Saving energy through measures and daily maintenance	4.1 Energy saving - use (DV) UU CO_2 footprint reporting 2019 (Appendix II Method)	
305-1/2/3/5	CO_2 footprint	UU CO_2 footprint reporting 2019	
UU3	Renewable energy	4.2 Renewable energy (DV) UU CO_2 footprint report 2019 (Local and renewable)	
UU4	Efficient use of fossil fuels	4.3 Efficient use of fossil fuels (DV)	
Waste			
103-1-3	DMA	5. Waste (DV)	
306-2	Total waste (in kg) and annual development :- Residual waste - Plastic	5. Waste (DV)	
Sustainable renovation of buildings - Future-proof buildings			
103 - 1-3	DMA	6. Future-proof buildings (DV)	
UU5	Number of buildings with 'BREAAM-NL In Use' certificate	6. Future-proof buildings (DV)	
UU6	BREAAM-NL new building and renovation certificates	6. Future-proof buildings (DV)	
Green campus - Area			
103 - 1-3	DMA	7. Area (DV)	
UU7	Surface water storage	7. Area (DV)	

GRI Code		Reference DV= sustainability report JV= annual report	Explanation
UU8	Biodiversity development - Observations of guide species - Number of insect hotels - Ecological verges (m^2)	7. Area (DV)	
UU9	Number of green spaces that contribute to meeting and exercising	7. Area (DV)	
Sustainable mobility			
103 - 1-3	DMA	8. Mobility (DV)	
UU10	Percentage of cars emission-free	8. Mobility (DV)	
UU11	Percentage of employees travelling to the Uithof by car	8. Mobility (DV)	
UU12	Number of loading bollards in the yard	8. Mobility (DV)	
Conscious Catering			
103 - 1-3	DMA	9. Catering (DV)	
UU13	Percentage reduction of meat products	9. Catering (DV)	
Sustainable awareness			
103 - 1-3	DMA	10. Sustainable Awareness (DV)	
UU14	Percentage of CPIs in annual report showing a positive development	11. Overview development indicators (DV)	
UU15	The social media reach of Green Office Utrecht gives an indication of the commitment of staff and students to the subject of sustainability.	10. Sustainable Awareness (DV)	
UU16	Numbers of volunteers at the Green Office, as an indication of student involvement.	10. Sustainable Awareness (DV)	
Diversity and inclusion			
103 - 1-3	DMA	Diversity and inclusion (JV)	
UU17	Percentage of female UHDs and professors		Below is the percentage of female scientists working at the UU in 2019. PhD: 50.7%University Lecturer: 46.6%University Senior lecturer: 36.7% Higher lecturer: 28.7%