hdk

Zürcher Hochschule der Künste

Sustainability Report

2019

Services report on operational sustainability at ZHdK

CONTENT

Sustainability at ZHdK

ZHdK strives to practise a culture of sustainability and embraces the 17 Sustainable Development Goals (SDGs) of the United Nations. ZHdK provides a university environment that promotes the development of solutions for ecological, social and economic transformation. ZHdK integrates the topic of sustainability into the everyday organizational life of its members, and uses sustainability as an important criterion for decision-making (Strategy ZHdK 2019–2023).

ZHdK Services implement this strategic goal in their operations. They focus on the following SDGs: “Good health and well-being”, “Gender equality”, “Responsible consumption and production”, “Climate action” and “Peace, justice and strong institutions”.

The annual sustainability report presents relevant data, successes and options for action in these areas. It will be further developed on an ongoing basis. The current report outlines and analyses the environmental assessment of ZHdK for the years 2018 and 2019 for the first time.

SERVICES HAVE FOCUSED ON THE FOLLOWING SDGs

Good health and well-being

Gender equality

Responsible consumption and production

Climate action

Peace, justice and strong institutions

1. ZHdK's first environmental assessment

ZHdK's first environmental assessment enables it to examine the effects of its activities on the environment, initiate effective improvements and use sustainability as a criterion for decision-making.

The environmental assessment systematically records and evaluates ZHdK's resource consumption and emissions. It focused on ZHdK's carbon footprint according to the Greenhouse Gas Protocol as a data basis for planning and prioritizing climate protection measures at ZHdK. For a more complete picture, the assessment was also based on the Ecological Scarcity (Ecopoints) Method . To this end, the activities of ZHdK were placed in the context of environmental targets set out in laws or policies in Switzerland. Both methods comply with recognized standards.

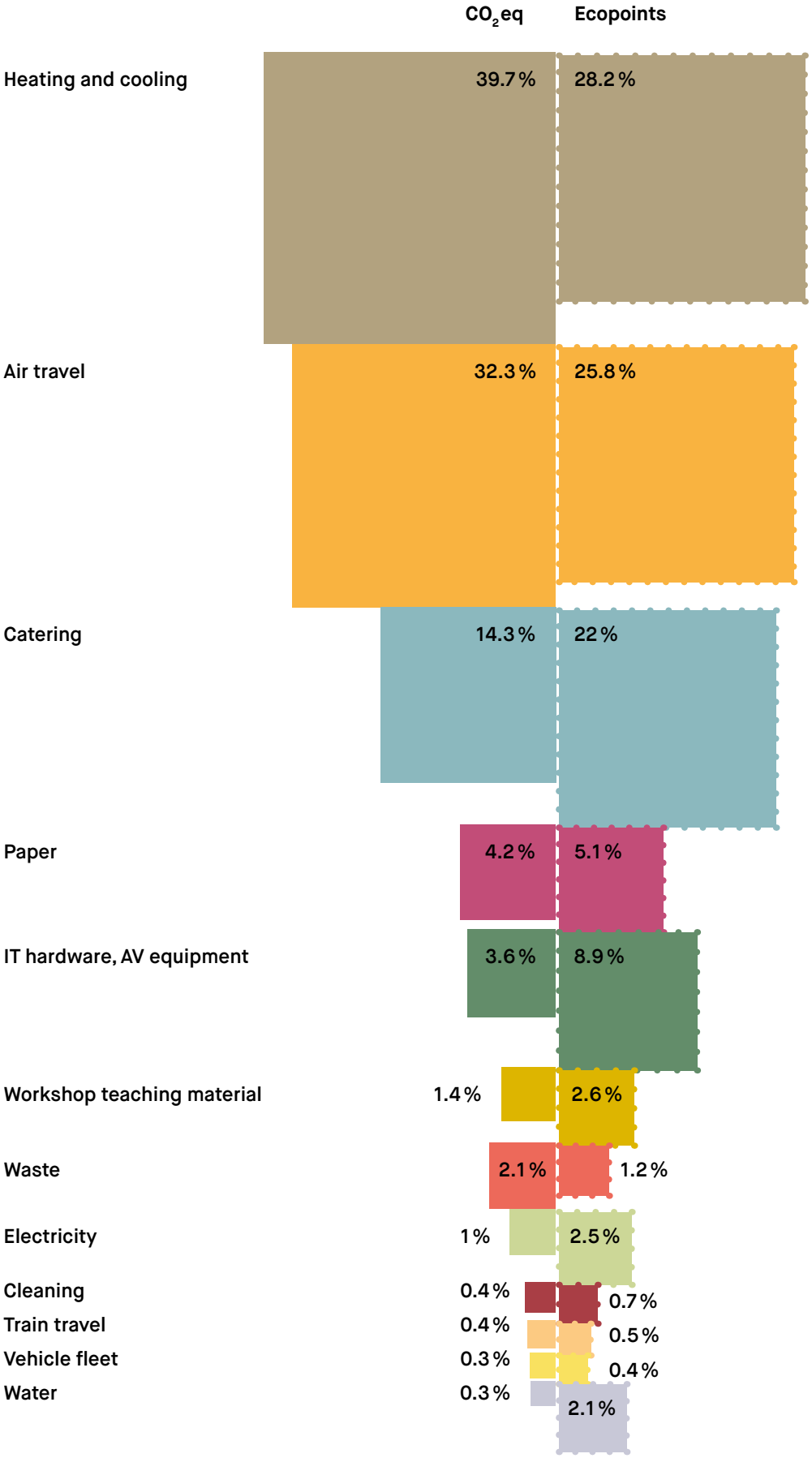
The collection, evaluation and analysis of the data for the years 2018 and 2019 was carried out by Services together with the environmental consulting specialist "Carbotech". System boundaries were drawn during the survey to determine the main environmental impacts with reasonable effort. For example, site-related data was collected primarily for the Toni Campus, as it makes up the largest area of ZHdK. The environmentally relevant energy consumption, in particular, was recorded for the Ausstellungsstrasse and Gessnerallee locations. Smaller locations such as the boarding school of the dance academy or the Pavillon le Corbusier were not currently included.

ACCOUNTING FOR THE YEARS 2018 AND 2019

Assessment of the carbon footprint according to the Greenhouse Gas Protocol

Assessment of the environmental impact according to the Ecopoints Method

Environmental assessment of ZHdK 2019
Comparison of the carbon footprint and environmental impact



1.1. CARBON FOOTPRINT

In August 2019, the Federal Council increased the targets of the Paris Climate Convention: Switzerland aims to become climate-neutral by 2050.[1] It will then emit only as much greenhouse gas as is stored again naturally or technically, for example in forests or underground storage facilities. This decision was based on the Special Report of the Intergovernmental Panel on Climate Change (IPCC) in October 2018.

As a result, ZHdK signed the "Climate Emergency Letter" in October 2019. It is one of the first 250 or so universities in the world to have declared a climate emergency and has committed itself to becoming climate-neutral by 2030. It is thus making an ambitious contribution to Switzerland's climate protection goals. The first step towards ZHdK's climate neutrality is the present inventory of its greenhouse gas emissions in 2018 and 2019. Based on its carbon footprint, the reduction path of ZHdK can be defined up to 2030 (see "8. Outlook").

In 2019, the recorded activities of ZHdK caused 3,477 tonnes of greenhouse gases[2]. When applied to university members, this corresponds to 1.06 tonnes per FTE[3] or 0.6 tonnes per person. The largest sources of emissions are heating and cooling, air travel and catering. Compared with the previous year's figure of 3,860 tonnes, emissions were reduced by 383 tonnes or 10%. The majority of this was achieved in the area of air travel (-324 tonnes), as well as in the heating and cooling area (-36 tonnes).

For several years now, monitoring of emissions from air travel has been in place with individual departmental targets (see "5. Mobility"). The successes that have been achieved here in a relatively short time are exemplary. They should be stabilized and transferred to other areas with a large reduction potential, such as heating and cooling or catering.

IN 2019

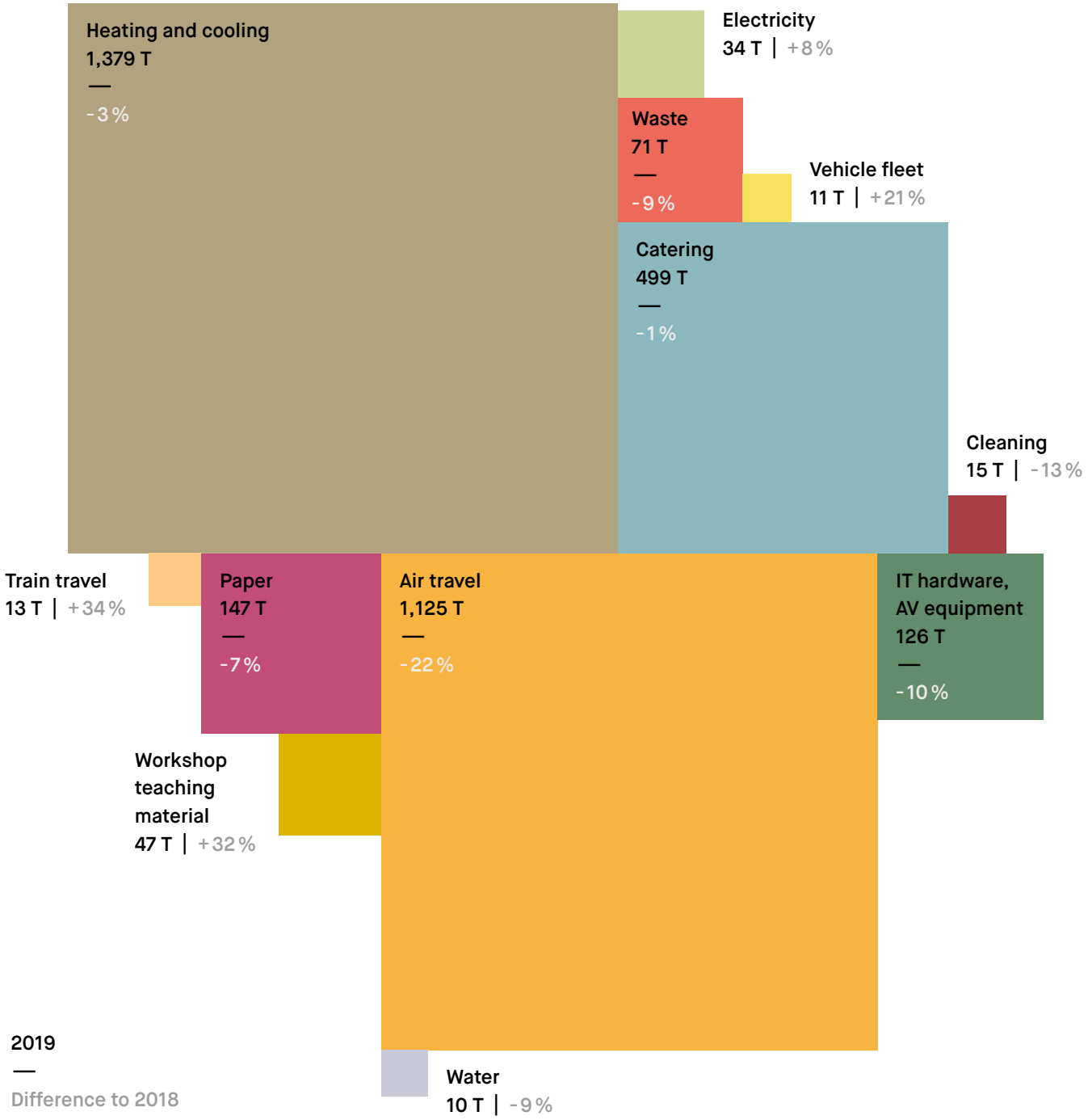
–10 % CO_2eq mainly due to less air travel

AIM OF ZHDK

Climate neutral by 2030

1 Federal Council press release
2 The sum of greenhouse gases is shown in CO_2 equivalents (CO_2eq). This unit of measurement takes into account the respective climate impact of the various greenhouse gases.
3 An average of 0.68 of a full-time equivalent (FTE) was assumed for students and participants in continuing education, pre-university education and in the non-university area.

ZHdK's carbon footprint 2019
3,477 tonnes CO_2 eq



-383 tonnes
-10%

compared with 2018

Reduction total amount CO_2eq

10 tonnes CO_2eq

1.2. ENVIRONMENTAL IMPACT

ZHdK has defined its goal of achieving climate neutrality by 2030. The gradual reduction of its carbon footprint is therefore the focus of the analysis. At the same time, an overview of how the overall environmental impact develops will be maintained. This will ensure that climate protection measures taken by ZHdK also have a positive or at least neutral effect in other areas of environmental protection, such as biodiversity conservation.

The Ecological Scarcity Method was used to assess the environmental impact. It is internationally standardized and is based on environmental targets set out in laws or policies in Switzerland. The consumption of resources such as energy, water and land, pollutant discharges into the air, water and soil as well as waste and noise are assessed and summarized in environmental impact points (Ecopoints).

Overall, the assessment according to the Ecopoint Method confirms the results of the carbon footprint. The three most important sources of environmental impact are also heating and cooling, air travel and catering. These are not the only areas of ZHdK with the greatest potential: looking at the environmental impact of Swiss consumption as a whole, the areas of buildings/living, mobility and nutrition are also leading the way.[4]

Individual areas are more significant compared with the carbon footprint, in particular catering as well as IT hardware and AV equipment. In these areas, the assessment according to the Ecopoint Method also shows, for example, the environmental impact of the use of nitrogen fertilizers or the extraction of rare soils.

In 2019, ZHdK was able to reduce its Ecopoints by 6 % compared with the previous year (from 3,704 million Ecopoints to 3,489 million Ecopoints). Analogue to the carbon footprint, the main contributors to the reduction were the areas of air travel and heating and cooling, as well as a reduction in new purchases of IT hardware and AV equipment.

POSITIVE EFFECT OF CLIMATE PROTECTION MEASURES 2019

–6 % Ecopoints

MOST SIGNIFICANT SOURCES OF ENVIRONMENTAL IMPACT

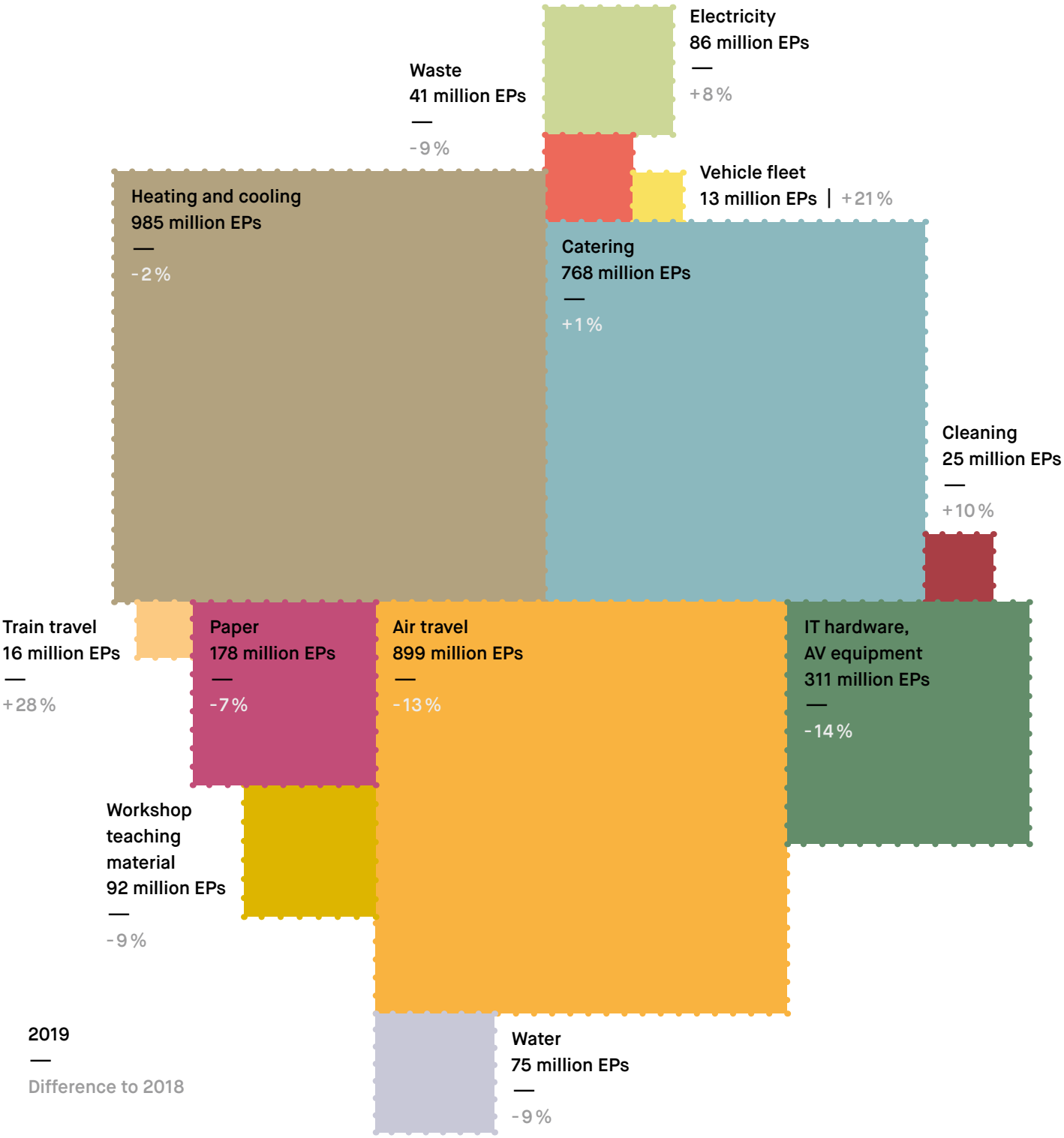
Heating and cooling

Catering

Air travel

4 Swiss Federal Council, Environment Switzerland 2018, p. 31

ZHdK's environmental impact 2019
3,489 million Ecopoints (EPs)



-215 million Ecopoints
-6%

compared with 2018

Reduction total amount Ecopoints

10 million Ecopoints

2. Resource consumption

2.1. ENERGY

ZHdK uses renewable electricity from “naturemade basic” certified plants as specified in the canton’s energy supply contract. Accordingly, the electricity consumption of 6,520 MWh in 2019 caused only 1 % of ZHdK’s carbon footprint. The increase in electricity consumption at the Toni Campus from 2018 to 2019 resulted from an adjustment made to the distribution key between ZHdK and ZHAW. Apart from that, power consumption is stable.

ZHdK generates heat at the Ausstellungsstrasse and Gessnerallee locations with its own natural gas heating systems, which already burn 10 % and 15 % biogas respectively. Heating and cooling is obtained for the Toni Campus from the Zurich district heating network. The energy of the district heating network mainly comes from the waste heat of two waste incineration plants[5], but also from wood, ambient heat, natural gas and oil. The emissions from these energy sources accounted for the largest share of ZHdK’s carbon footprint with 1,379 tonnes or 39.7 % in 2019.

The energy from the district heating network is much more climate-friendly than natural gas heating (around a third less greenhouse gas emissions). At the same time, the consumption per square metre at the Toni Campus is higher than at the other locations. A larger share of renewable energy for the locations with gas heating and a reduction in consumption at the Toni Campus may contribute to reducing emissions. The various stakeholders involved in building use must be involved in developing measures.

IN 2019

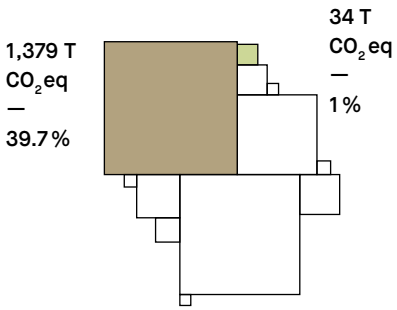
66 % renewable energy

IN FUTURE

Increase proportion of biogas

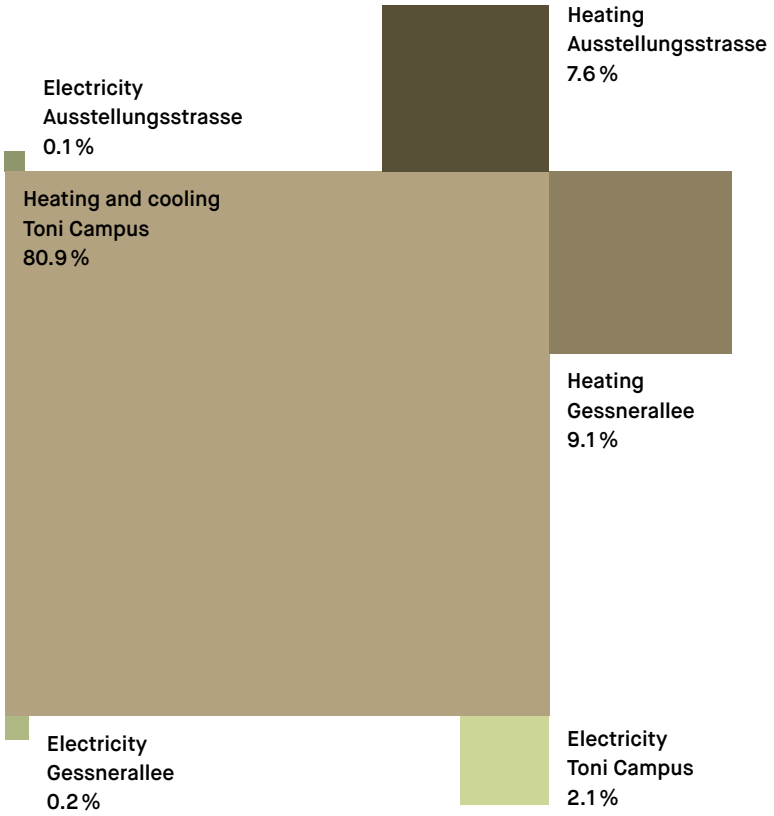
Reduce consumption of district heating and cooling

5 The assessment of greenhouse gas emissions from waste incineration follows the Greenhouse Gas Protocol.



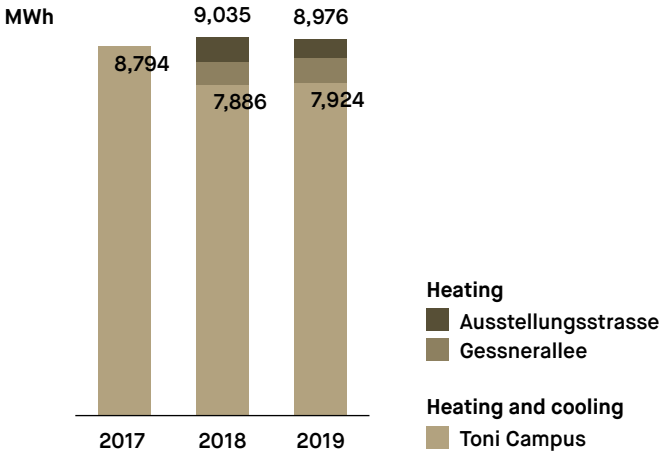
SHARE OF CO_2EQ FROM ENERGY CONSUMPTION 2019

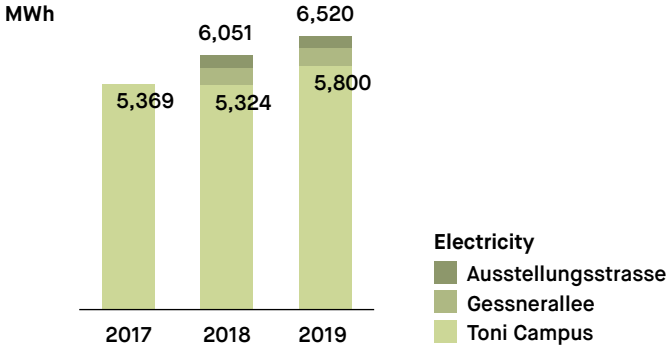
Total 1,379 tonnes

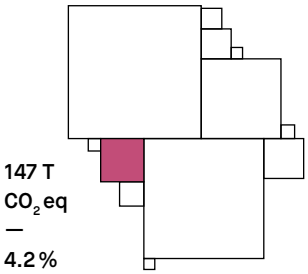


ENERGY CONSUMPTION

From 2018, incl. Ausstellungsstrasse and Gessnerallee. Consumption values partly determined using distribution keys.







2.2. PAPER

The number of printouts at central printing stations has been recorded since 2015 and fell for the first time in 2019. The paper consumption for printed matter such as flyers, posters, brochures and magazines was also surveyed using a sample. In total, paper consumption caused around 4.2 % of ZHdK's greenhouse gas emissions. Printed matter accounts for the majority of this. The choice of paper quality has a significant bearing on the environmental impact. The central printing stations already use 100 % recycled paper. Emissions in the area of printed matter could be significantly reduced by increasing the proportion of recycled paper.

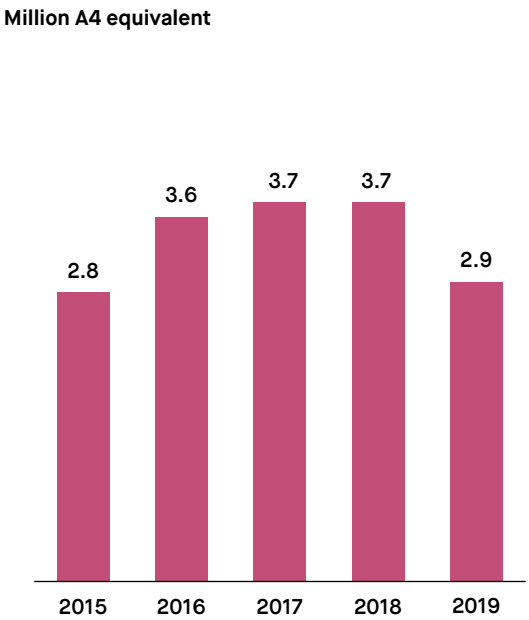
IN 2019

–21 % printouts at printing stations

IN FUTURE

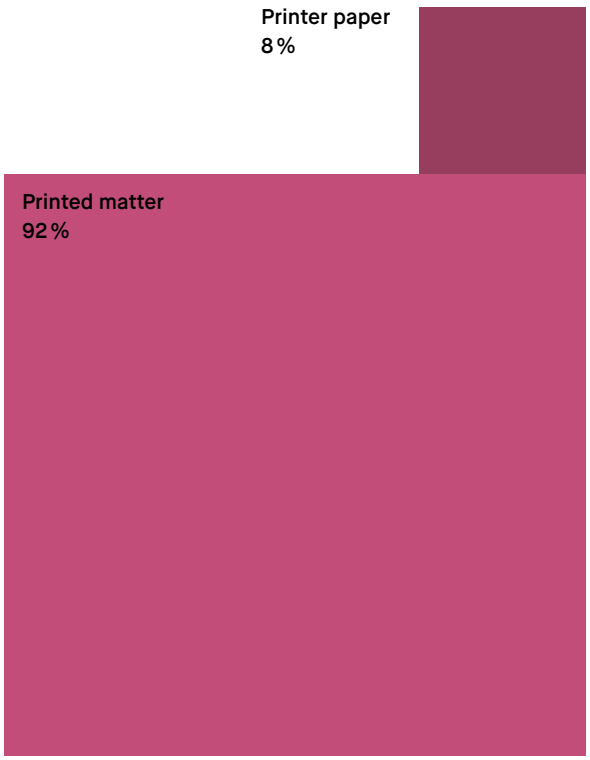
Increase the proportion of recycled paper in printed matter

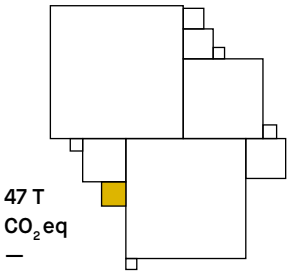
PRINTOUTS OF CENTRAL PRINTING STATIONS



SHARE OF CO_2EQ FROM PAPER CONSUMPTION 2019

Total 147 tonnes





2.3. WORKSHOP TEACHING MATERIAL

As part of the environmental assessment, an extrapolation of material consumption in teaching workshops at the production centre was made for the first time. Other material consumption, e.g. in the production workshops of the Department of Performing Arts and the Museum of Design, were not currently recorded.

In 2019, the material purchased for teaching workshops caused around 47 tonnes of greenhouse gas emissions. This corresponds to a share of 1.4 % of the total footprint. The commitment of those involved in teaching workshops to making university members aware of the importance of sustainable material use, e.g. by conscious purchasing or by reusing materials within ZHdK, therefore seems to be more important than reducing the purchase of materials.

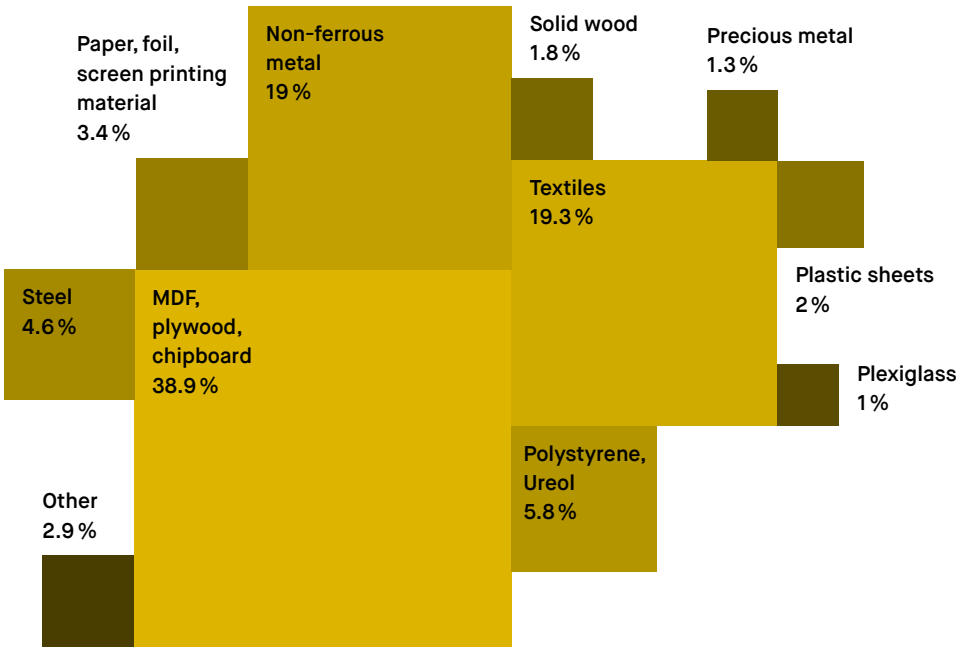
IN 2019

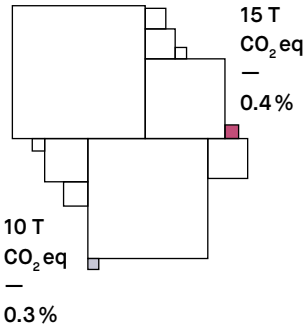
Responsible purchasing

IN FUTURE

Reuse material

PROPORTIONS OF CO_2EQ FROM MATERIAL PURCHASES IN WORKSHOP TEACHING 2019
Total 47 tonnes





2.4. WATER

The fresh water consumption of ZHdK accounted for 0.3 % of the carbon footprint in 2019. Looking at the environmental impact as a whole, the figure is much higher at 2 %, but still in the lower range. Fresh water consumption has been declining since 2017. Therefore, measures for further reduction currently have a lower priority.

Overall, the consumption of fresh water in Switzerland is not problematic. On the other hand, the "water footprint" abroad caused by imported products is notable.[6] The assessment of ZHdK's resource consumption according to the EP Method takes this water footprint abroad into account.

6 Federal Office for the Environment, Environmental Footprints of Switzerland, p. 75

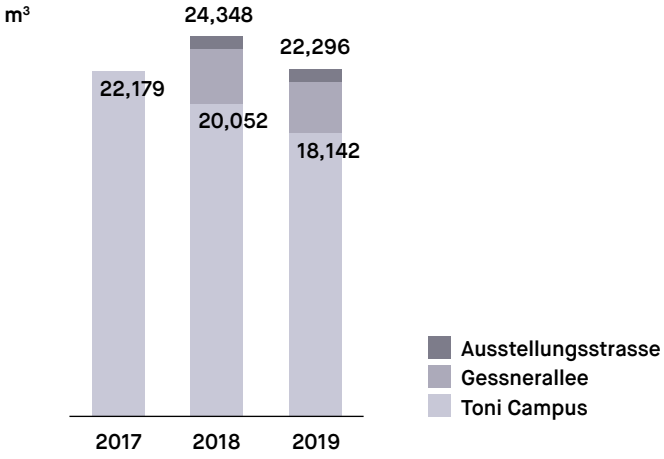
IN 2019

Water consumption not problematic

IN FUTURE

Reduce water footprint abroad

WATER CONSUMPTION 2017–2019
From 2018, including Ausstellungsstrasse and Gessnerallee

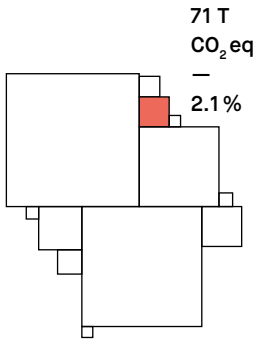


2.5. CONSUMER GOODS FOR CLEANING

In 2019, ZHdK's material purchases of consumer goods for cleaning accounted for 0.4 % of its total greenhouse gas emissions. The products are already selected and used according to ecological criteria. From 2020, the consumer goods of the external cleaning service provider will also be collected and evaluated. When selecting the cleaning company at the end of 2019, particular attention was paid to the criteria of ecological and social sustainability.

SELECTION CRITERIA FOR SERVICES AND PRODUCTS

ecological
social



3. Waste and recycling

Combustible waste, at 140 tonnes in 2019, was at its lowest level since the survey began. It accounted for 2.1 % of the carbon footprint. The more material that can be used in the long term or brought into alternative cycles, whether through recycling or further use within the university, the lower the emissions are in this area.

The recycling quantities are not assessed in the environmental assessment. They are monitored to identify potential for optimization in reducing combustible waste and to assess the effectiveness of measures. Services are currently working on improving collection of this data, which is to be published in the future.

IN 2019

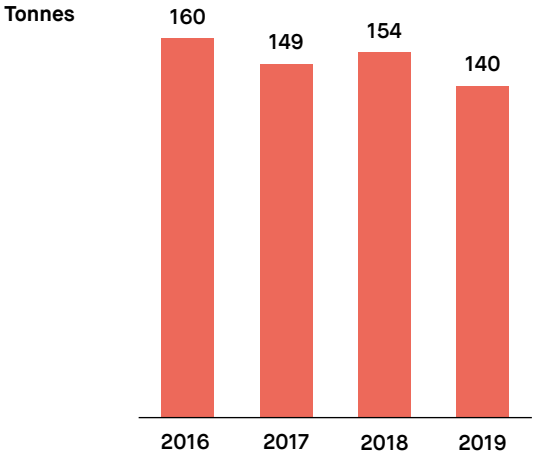
–9 % combustible waste

IN FUTURE

Reuse materials within the university

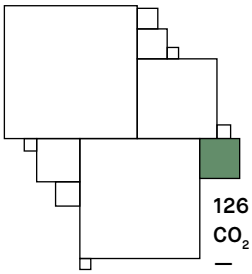
Improve recycling

COMBUSTIBLE WASTE
Without Ausstellungsstrasse and Gessnerallee



Data is collected for the Toni Campus and applied to the universities ZHdK and ZHAW based on the number of persons.

4. Procurement



ZHdK's annual procurement and investment volume amounts to approximately CHF 8 million. The guidelines of ZHdK provide for procurement according to economic and sustainable criteria. In general, long-lasting and high-quality products are preferred. After around seven years of university operations at the Toni Campus, it is currently necessary to replace a great deal of equipment, such as in the area of network infrastructure.

The procurement of IT hardware and AV equipment was evaluated for the environmental assessment. The emissions caused in production are allocated to the usage time. In 2019, this area accounted for 3.6 % of ZHdK's carbon footprint.

In 2019, improvements were in particular achieved in the area of IT hardware. ZHdK's IT strategy, which was revised in 2019, defines the principles of "Green IT" as the first of five principles. "Green IT" covers both the ecological and social aspects of IT procurement and use. To reduce the environmental impact of IT hardware, the Information Technology Centre (ITZ) extended the usage time of some equipment. These devices are depreciated after five years, but are used for a further one to two years if possible so that replacement purchases are required less frequently.

In order to improve its scope for action in the area of socially sustainable procurement, ZHdK has been a member of Electronics Watch since 2019. With the support of the independent monitoring organization, public procurement officers can make an effective contribution to fair working conditions in the electronics industry. The agreement with Electronics Watch covers approximately 24 % (CHF 1.9 million) of ZHdK's total procurement volume.

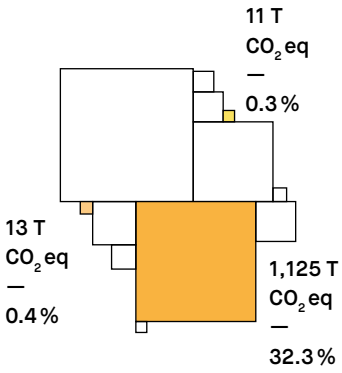
IN 2019

20–40% longer usage time of IT hardware

IN FUTURE

Check 24% of ZHdK procurements with Electronics Watch

5. Mobility



Since 2016, ZHdK has been recording greenhouse gas emissions from centrally booked flights and set targets for their reduction in 2018. In 2019, these goals were achieved in all organizational units, and in most cases even exceeded. Compared with the base year 2017, emissions from air travel fell by 38 % in 2019. ZHdK reduced its flight kilometres by 31 %. The remaining reduction is due to lower emissions per flight kilometre, and was achieved through increased efficiency and utilization of the airlines.

The organizational units defined individual measures to reduce the number of flight kilometres. One example is the newly developed structure of the cooperation platform Shared Campus. Its core objectives include the development of international standards with regard to ecological compatibility and sufficiency of international cooperation.

Other components of a complete environmental assessment in the area of mobility are train travel, the vehicle fleet and commuting. Data on commuting is currently not yet available. The vehicle fleet of ZHdK and all train journeys booked via the central platform were assessed. They account for 0.3 % and 0.4 % of ZHdK's greenhouse gas emissions. The distance travelled by train increased by 20 % from 2018 to 2019, which is another indicator of changed travel behaviour. The vehicle fleet is still largely powered by fossil fuels. Replacement purchases in this area offer potential for optimization. In 2019, the vehicle fleet was expanded to include an electric cargo bike.

IN 2019

Air travel targets exceeded

IN 2019

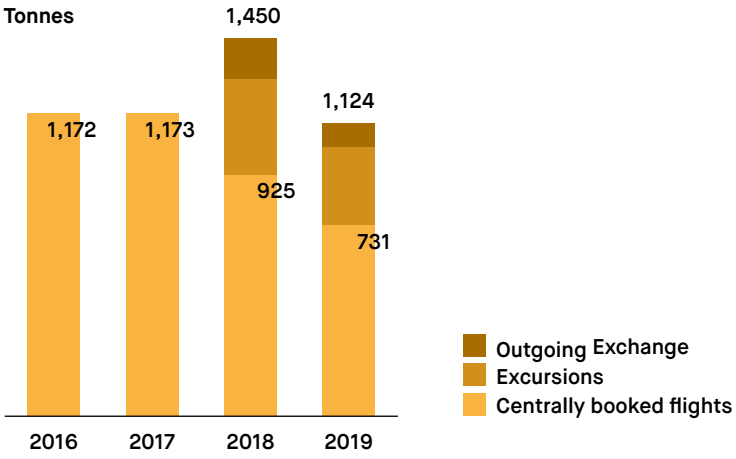
+20% train travel

IN FUTURE

Operate vehicle fleet with more renewable energy

CO_2EQ FROM AIR TRAVEL

From 2018, incl. excursions and exchange semesters



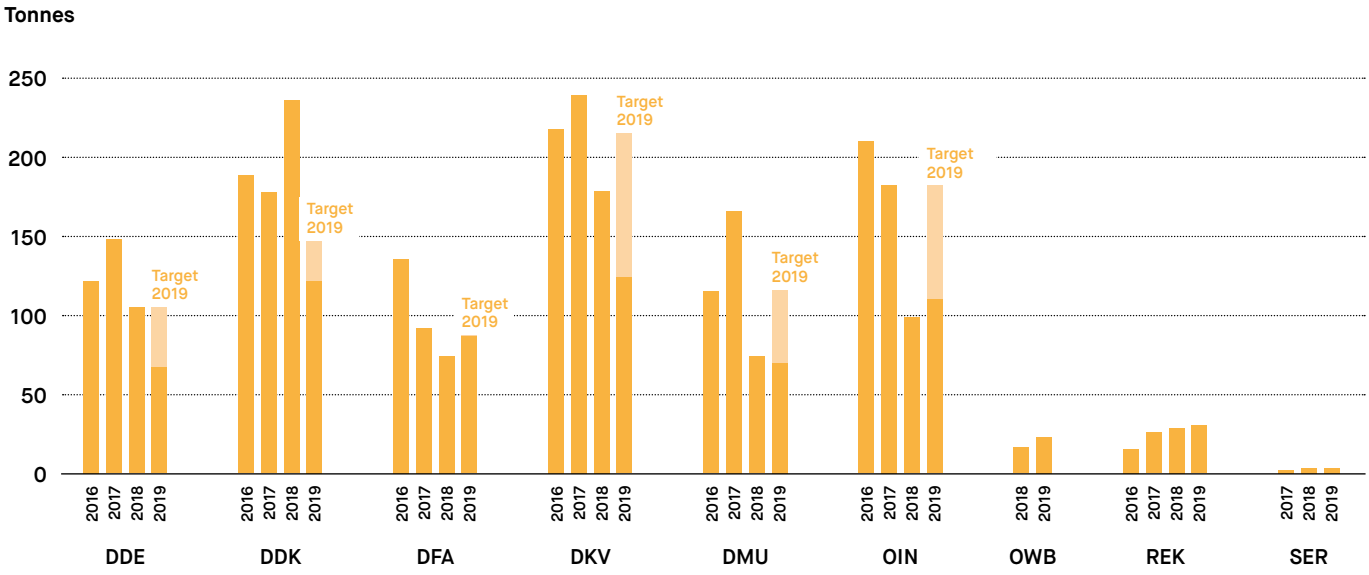
CENTRALLY BOOKED AIR TRAVEL 2017–2019

-38 % CO_2eq

All centrally booked flights of ZHdK are automatically recorded (booking via the AirPlus travel tool or the FIRST Business Travel travel agency). In addition, since 2018, individually booked flights for excursions and exchange semesters have been evaluated by ZHdK students. The emissions are calculated according to the standard "VDR + RFI 2.0". The air traffic infrastructure is also taken into account. In accordance with current best practice, the RFI factor for assessing the increased greenhouse gas effect at high altitudes has been reduced from 2.7 to 2.0. The data shown has been adjusted retrospectively.

CO_2EQ BY ORGANIZATIONAL UNIT

Development and reduction targets for centrally booked air travel



Centrally booked flights
Target 2019

DDE Department of Design; **DDK** Department of Performing Arts and Film;
DFA Department of Fine Arts; **DKV** Department of Cultural Analysis;
DMU Department of Music; **OIN** International Affairs Dossier;
OWB Continuing Education Dossier; **REK** Office of the President; **SER** Services

6. Health

6.1. GOOD HEALTH AND WELL-BEING

The occupational health management (BGM)[7] of ZHdK serves to maintain or improve health and well-being at work. Absences due to illness should thus be kept to a minimum.

In 2019, proven activities such as psychological counselling, sports activities, flu vaccination and ergonomic advice were continued. In addition, workshops were offered on the psychological strain faced by employees and students. The new series of lectures on health-related topics ("Nutrition" and "Managing the resource sleep") was also well attended.

In addition, the BGM working group, consisting of members of different personnel categories and areas of ZHdK, was formed. Here, the needs of the employees are discussed and suggestions for measures are collected.

IN 2019

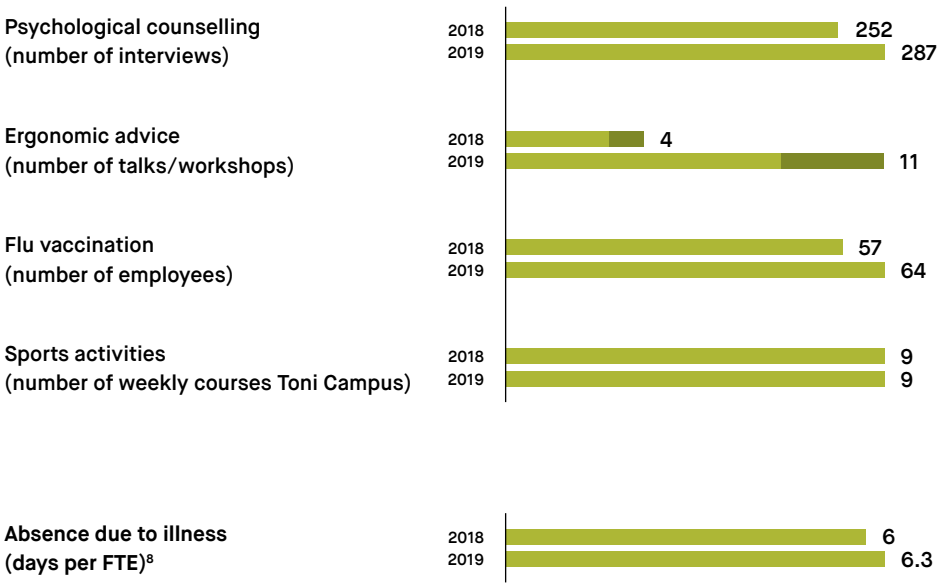
Additional lectures and workshops

IN FUTURE

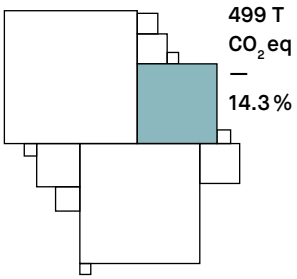
Expand sport and recreation offer on the roof terrace

7 A more detailed report on the BGM will be published within the university. Information on occupational safety and health is available in the safety report of ZHdK.

ACTIVITIES
2018–2019



8 Includes all employees with time recording. Without long-term absences of 30 days or more.



6.2. FOOD

The catering facilities at the Toni Campus are operated by the ZFV companies. University members should be offered attractive, healthy and sustainable food. After heating and cooling and air travel, catering is the third largest lever for ZHdK's climate protection measures. The higher proportion of vegetarian and vegan menus in 2019 (59 %) reduced greenhouse gas emissions by 1 % compared with 2018, while at the same time the number of meals sold increased by 3.5 %.

As part of the environmental assessment, the meals sold in the Molki canteen and the Chez Toni bistro were evaluated as well as food waste, coffee consumption and disposable items. The greatest potential for improving the carbon footprint lies in the choice of food offered and the reduction of food waste. At the same time, there are also various measures to reduce the number of disposable items: since the summer of 2019, a clearing station on the roof terrace of the Toni Campus has made it easier to use reusable dishes and since autumn, Kafi Z has been offering hot drinks in porcelain or glassware. Compared with 2018, around 20 % less disposable material was purchased in 2019.

IN 2019

59 % vegetarian and vegan meals

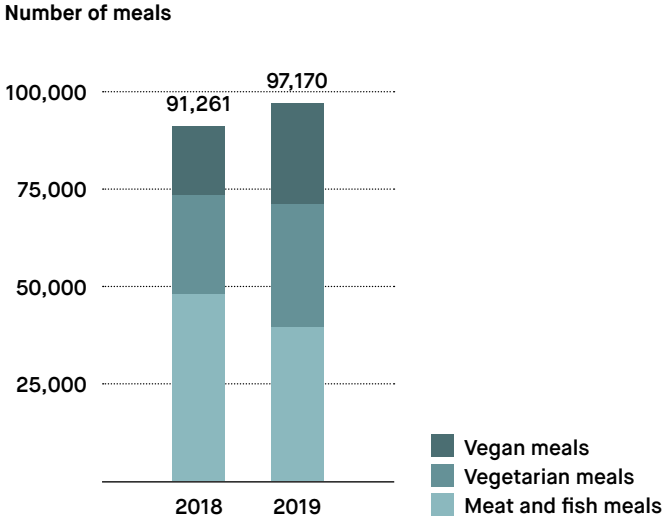
–20 % disposable material

IN FUTURE

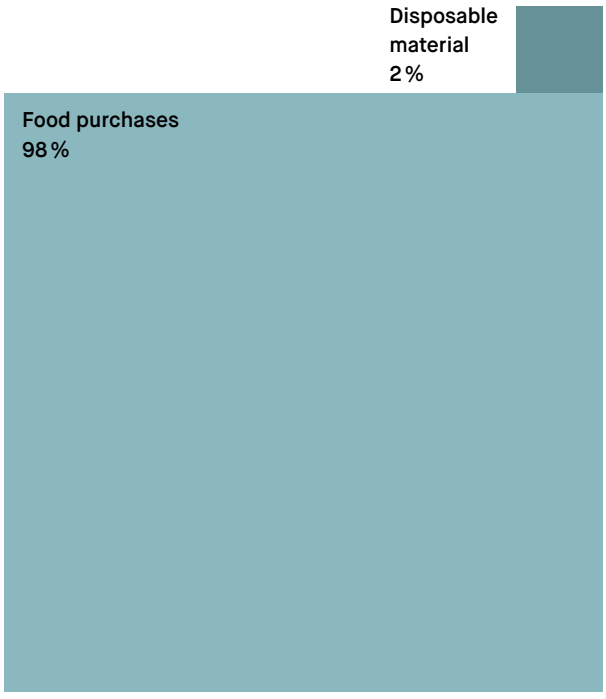
Choose climate-friendly food

Reduce food waste

VEGAN, VEGETARIAN, MEAT AND FISH MEALS IN THE MOLKI CANTEEN



PROPORTIONS OF CO_2EQ FROM CATERING 2019



7. Networking and communication

The Sustainability Working Group (SWG) ensures interaction within Services and develops, accompanies or implements measures to improve operational sustainability.
Additional staff joined the Sustainability Working Group in 2019. Members include:

- Alvaro Alvarez, Facility Management incl. Recycling Processes, Team Leader Technical Facility Management
- Nadja Fässler-Keller, Head of SWG, Aide to the Head of Administration, Sustainability Officer Services since 2019
- Daniel Fischer, Head of Financial Accounting, Member of the Investment Conference
- Mathias Schmid, Deputy Head of ITZ, Group Leader Support & Solutions and Head of "nitz – sustainability in ITZ"
- Martin Sonderegger, Group Leader Workshop Teaching, Responsible for Z-Tech courses, Chairman of the Timetable Committee
- Markus Werder, Deputy Head of Human Resources Management and Occupational Health Management

In 2019, the SWG worked extensively on the Sustainable Development Goals (SDGs) and identified five priority goals for Services (page 3) At the annual team workshop on 22 October 2019, all Services employees were invited to learn about these goals and explore their significance for their own work.

Services were also involved in the cross-university initiatives "Kuratorium Ökologie" (Ecology Board) and "Zentrum Nachhaltigkeit" (Centre for Sustainability) to strengthen networking between operations and faculty, also with regard to aspects of sustainable development.

Services promote students' commitment to sustainability, in particular by providing financial, technical and organizational support for the Zurich Sustainability Week. In order to strengthen the support of students and increase contact with teaching staff, the Head of Administration employs Kaspar König as an artistic employee for sustainability. In 2019, he designed the action space as an open format for the Sustainability Week. He initiated circulation ideas to raise awareness of resource consumption, mentored student projects and managed teaching formats such as the 2,000-watt lab.

Services regularly discuss issues of operational sustainability with other universities. They are a member of the swiss network for sustainable university business travel, which was launched by ETH Zurich and EPFL in 2019. In 2019, external interest remained high and Services responded to various enquiries, for example to the demands of "Klimastreik Zürich" (Climate Strike Zurich).

IN 2019

Reinforcement of the Sustainability Working Group

IN FUTURE

Embedding the Sustainable Development Goals in Services

8. Outlook

In 2019, ZHdK launched two important projects for implementing the strategic sustainability goals in the areas of teaching, research and artistic practice with the pilot initiative "Kuratorium Ökologie" (Ecology Board) and the concept work "Zentrum Nachhaltigkeit" (Centre for Sustainability). With the completion of the present report, it is already known that ZHdK intends to set up a sustainability dossier. This will also be an important starting point for issues of operational sustainability. The dossier offers the opportunity to jointly integrate sustainability even more firmly in the everyday organizational life of university members and to use the campus as a "living lab" for sustainability.

In 2019, Services invested many resources in environmental assessment and thus in expanding the environmental dimension of reporting. This information can now be used to define effective climate protection measures and ZHdK's reduction path to achieve climate neutrality by 2030. Further expansion of the reporting is planned in the future, increasingly in economic and social dimensions, to achieve a balance between the three dimensions of sustainable development. In addition to evaluating environmental impact, the positive impact of the university's operations will increasingly be highlighted.

In 2020 and 2021, Services will in particular
- define the strategy for the operational sustainability of ZHdK
- outline ZHdK's reduction path to climate neutrality up to 2030
- implement climate protection measures in the area of catering
- refine the database on heating and cooling consumption as well as catering and recycling
- implement the guidelines of Electronics Watch within ZHdK
- establish the circulation zone for the university's internal reuse of material in cooperation with the "Zentrum Nachhaltigkeit" (Centre for Sustainability)
- upgrade the roof terrace and create a sports room
- extend the sustainability report with information on economic and social sustainability based on the internationally established GRI standards for sustainability reporting.

OBJECTIVES

Define strategy for operational sustainability

Outline a reduction path to climate neutrality

Establish circulation zone

Extend reporting to economic and social dimensions

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