

Sustainability Report

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Our Global Goals
2019/2020

SDU 



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Our Global Goals

Since its foundation in 1966, The University of Southern Denmark (SDU) has worked with global and societal challenges through free, critical and independent research and research-based higher education. In June 2019, when the Board decided to make the UN's Sustainable Development Goals (SDG) part of this work, the decision not only built on this tradition, but also tapped into a wide range of existing research at SDU occupied with issues related to sustainability. Nevertheless, the decision sends an important signal.

The SDGs represent an unprecedentedly ambitious and transformative development agenda. The adoption of the SDGs is a call for preparation of a new plan on how to restore the balance between humans, resources and the planet Earth. Universities and knowledge institutions have a critical and important role to play in the achievement of the SDGs. Education, research, innovation, collaboration and leadership are essential in helping society to transform into pathways of sustainable development.

In 2020, the world was affected by a pandemic caused by the coronavirus. The pandemic showed how interdependent and interconnected we are globally. Just like the SDGs call for a focus on the connections between development policy sectors, the pandemic

exposed the complex global interdependencies that underpin economies. The pandemic also showed an unprecedented international knowledge creation effort with commitment from multiple stakeholders such as hospitals, private companies, research institutes, governments at various levels and civil society. Researchers from SDU across all faculties also contribute to combatting the pandemic and investigating the societal consequences.

This report covers the first 500 days with the SDGs at SDU and reviews the progress that SDU has made starting with the kick-off event in September 2019 for researchers, staff and students. It is important to stress that the report covers examples of SDU's sustainability activities, and as such the report is not an exhaustive review of every aspect of SDU's sustainability related activities and achievements.



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Research and public engagement

Since its foundation, SDU has worked with global and societal challenges through free, critical and independent research and research-based higher education. As part of that, a wide range of the research at SDU has been related to sustainability. Therefore, the review of SDU's progress with the SDGs in the first 500 days only covers a fraction of the research activities that over time have contributed to a better understanding of our present-day and future challenges. At the same time, it would be impossible to include everything from the 500 days on these pages, so what you will find is selected stories of ambitious and inspiring accomplishments.

Our strategic intentions

Maintaining a careful focus on global and societal challenges, we support new knowledge and breakthroughs in applying such know-how. We are doing so with an equally careful focus on future generations. Sustainable development requires innovative solutions that transcend disciplines, industries and borders. SDU's ethos of working without boundaries will deliver a step change in research and innovation.

- We will promote sustainability and the SDGs as a theme for interdisciplinary research.
- We will strengthen our collaboration on sustainability and the SDGs with civil society, NGOs, companies, public organisations and other educational institutions.

SDGs



Facts

In 2019-2020, SDU had authors of 927 publications classified in the 17 SDGs. The table shows the top ten among the publications.

SDG	Publications
#3 Good Health and Well-Being	366
#7 Affordable and Clean Energy	162
#13 Climate Action	73
#16 Peace, Justice and Strong Institutions	73
#4 Quality Education	68
#11 Sustainable Cities and Communities	46
#12 Responsible Consumption and Production	36
#10 Reduced Inequalities	35
#8 Decent Work and Economic Growth	31
#14 Life Below Water	10

Research at University of Southern Denmark supporting the UN's Sustainable Development Goals, Digital Science and Breakfast Analytics, November 2020

Progress

Joint strategic initiatives

In 2020, SDU launched four new strategic and interdisciplinary research projects addressing global and societal challenges in relation to the SDGs.

Strategic initiatives at the faculties

In 2020, the Faculty of Engineering launched its second research unit focusing on sustainability, SDU Global Sustainable Production, which thereby complements the first unit, SDU Lifecycle Engineering, established in 2015.

In 2020, the Faculty of Health Sciences continued its strong focus on global health, as it took over the responsibility for the Danish contribution to the Bandim Health Project in Guinea-Bissau, where Danish researchers have been working with health, vaccines and child mortality for 40 years.

In 2020, the Faculty of Social Sciences formed four research clusters with the aim of improving the ability to address significant societal challenges: Humans, Machines and Governance, Sustainable Markets, Global Challenges to Rules-Based Order and Health and Inequality.

Cases

SDU helping to ensure clean drinking water in India

600 million Indians are at risk of water shortages, and 8 million children are facing immediate health risks due to poor water supplies according to the annual water report, Composite Water, which is backed by the Indian government. But now the Indian government has launched comprehensive initiatives to ensure



According to the UN, water scarcity affects more than 40 percent of people, an alarming figure that is projected to rise as temperatures do.

clean drinking water for India's citizens. Researchers in environmental technology from the Faculty of Engineering will assist with the implementation of the initiatives.

Threats of a changing political information environment

Researchers from the Faculty of Business and Social Sciences are part of an international research team that will investigate how changes in political information affect the democracy in Europe. The population's access to news and information is changing rapidly. With digitalisation and the Internet, a huge challenge arises for citizens, who must relate to large amounts of information daily. Which media can you trust and how do you distinguish between fake news and factual news?

Sustainability from field to dinner plate

Researchers at the Faculty of Humanities, together with Kolding Municipality, received a research grant from EU to conduct a project on how to overcome existing barriers to boost the transition towards a sustainable urban food system in line with the FOOD 2030 policy priorities. Our food, our shopping habits, in fact, our entire food system must be changed fundamentally in order to slow down the climate and biodiversity crisis. Our current food system is not sustainable, but contributes to climate change, pollution, loss of biodiversity, health problems etc.

Food 2030 is the EU's research and innovation policy to transform food systems and ensure everyone has enough affordable, nutritious food to live a healthy life.



The SDGs aim to end all forms of hunger and malnutrition by 2030, making sure all people - especially children - have sufficient and nutritious food every day.

SDU and Engineers Without Borders provide face masks in Africa

Researchers from the Faculty of Engineering and the Faculty of Health Sciences have initiated a collaboration with Engineers Without Borders to produce and distribute face masks in the countries of Sierra Leone and Guinea-Bissau. The purpose is to limit the contamination of COVID-19 and test the effectiveness of the masks. The masks are produced with local materials and by local tailors via online tutorials from SDU and distributed in villages and local societies. The use of the masks will be tested clinically at the research station Bandim Health Project, where SDU is already located.

Microplastic to be mapped in the North Atlantic Ocean

A researcher from the Faculty of Science is now part of a joint European collaboration investigating the fate of microplastic in the North Atlantic Ocean. Huge amounts of plastic float around in the oceans, ranging from large visible objects such as bags, bottles and fishing nets to invisible, microscopic plastic fragments that can be found everywhere in the water column. The latter pose a potential threat to marine wildlife and the environment. The accumulation of microplastic in small marine animals can be a threat to the integrity of the food web and the marine ecosystem.

Looking forward

In 2021, SDU will establish an interdisciplinary network among researchers across faculties with the aim of strengthening knowledge sharing and collaboration on sustainability in research and teaching.



The world's oceans - their temperature, chemistry, currents and life - drive global systems that make the Earth habitable for humankind. How we manage this vital resource is essential for humanity and to counterbalance the effects of climate change.

Teaching and learning

The need for a large expansion of the capacity to solve complex societal challenges has never been more important or more urgent, with under ten years remaining to the 2030 deadline of achieving the SDGs, and now the added challenges of managing the COVID-19 pandemic and its fallout. As the providers of general, professional and lifelong education to hundreds of millions of learners around the world, the universities have a unique and critical role in meeting this demand.

Our strategic intentions

The underlying principle of education at SDU is active teaching and learning. It includes a wide range of transformative learning approaches as interdisciplinarity, action-based learning and multi-actor involvement.

Students together with teachers and fellow students at SDU are part of a binding learning community characterised by mutual respect, openness and commitment.

→ We will provide students with opportunities to engage with sustainability issues and the SDGs through the formal and informal curriculum.

Facts

About a quarter of the subjects and courses offered in the autumn of 2019 and the spring of 2020 are related to sustainability topics.



Progress

Joint strategic initiatives

In the 2020 autumn semester, around 1,000 students across SDU completed the introductory course on sustainability. The course is a research-based introduction to the SDGs and their relevance to academic studies. The course will provide the students with an interdisciplinary platform for working with the SDGs. The students will also gain experience in working critically and reflectively with the SDGs.

In 2020, the annual conference at SDU about activation of teaching and learning addressed how to integrate the SDGs in teaching and their potential impact on the students' engagement and learning.

In 2020, around DKK 300,000 was awarded to projects about sustainability on campus among students. The projects covered areas such as the establishment of a climate garden for students, gender equality, health and well-being under COVID-19 etc.

Strategic initiatives at the faculties

In 2019, all faculties set up sustainability committees with the participation of students and staff.

In 2020, the Faculty of Science instituted a SDG prize to be awarded among the students' first-year projects and made the introductory course on sustainability and the SDGs part of all their study programmes.

In 2020, the Faculty of Engineering made the SDGs part of the curricula for the engineering programmes.

In 2020, the Faculty of Health Sciences began to integrate the SDGs into the modules of their study programmes, where sus-



Students in one of SDU's laboratories.

tainability is a relevant topic. The faculty also decided that the mandatory assignment for students must address the SDGs at the start of their study.

Cases

SDG camp for students

In October 2020, the Faculty of Social Sciences ran a case competition for students with focus on the SDGs and sustainable business. Over 70 students across SDU participated. Over a 24-hour period, teams of students offered ideas and insights by developing solutions to seven specific challenges put forward by the companies, with both researchers and specialists available for consultation. The camp was a platform for students to meet other passionate students, world-class researchers and innovative companies, all of whom are looking to build a more sustainable future.

Global health

Graduate students at the Faculty of Health Sciences can enrol in the elective module Global Health which includes a two-week stay abroad. Global Health can give you an insight into the most significant health challenges in Nepal or the organisation of the healthcare system in Palestine. As student you will gain knowledge about differences and similarities between Danish and foreign healthcare systems and international experience, which can be applied during your studies and in your subsequent professional career.

Sustainable entrepreneurship

Starting in 2020, SDU Entrepreneurship Labs offers a Sustainable Entrepreneurship programme for start-ups that have a great potential within the green area. Interested start-ups and student teams



Eradicating poverty in all its forms remains one of the main challenges facing humanity. While the number of people living in extreme poverty dropped by more than half between 1990 and 2015, too many are still struggling to meet the most basic human needs.

can apply for participation by describing their business ideas and their ambitions within one or more SDGs. The programme runs over three months with participating students receiving sparring from business developers, businesses and investors. As part of the programme, SDU RIO will distribute DKK 100,000 per round to the participating start-ups in the form of start-up grants to kick-start the development. Further, a cash prize at the end of the course will be distributed. This is done in collaboration with an external foundation.

Looking forward

In 2021 and 2022, SDU will improve its understanding of how the SDGs are being taught across the academic curriculum. The findings from the mapping exercise of the academic curriculum will identify opportunities to strengthen good practices and provide new learning opportunities for students.

In 2021, the Faculty of Science will offer two new 1-year master programmes – Master of Climate Adaption and Master of Environmental Chemistry and Management.



Investing in solar, wind and thermal power, improving energy productivity and ensuring energy for all are vital, if we are to achieve SDG 7 by 2030.

Operations and SDU as a workplace

Studies show that the conduct of students and staff has a major impact on the climate footprint of a university. With around 27,000 students and 4,000 employees (FTE), we have good reason to promote climate friendly conduct at SDU and with our suppliers.

Our strategic intentions

SDU is committed to embed sustainability in all our campus operations to conserve resources, reduce pollution, reduce carbon emissions and support positive behaviour on sustainable issues. We also want to ensure that SDU is a diverse employer with innovative and creative research environments and an inclusive and healthy working environment.

All members of the university community should expect to be able to excel and be respected and valued for their unique perspectives and contributions.

- We act green and consume wisely
 - minimal, circular and sustainable
- We live a healthy life
- We are diverse

Facts

SDU has seen a 35 % decrease in energy consumption per FTE since 2008, even though SDU has grown from around 2,800 FTE (2008) to present day FTE level and from 189,102 to 294,213 m².



SDGs



Progress

Energy

Environmental and energy conscious consumption and operation cover a wide range of ongoing and new initiatives. SDU's electricity, water and heating consumption plays a major role and has been a key focus area for several years.

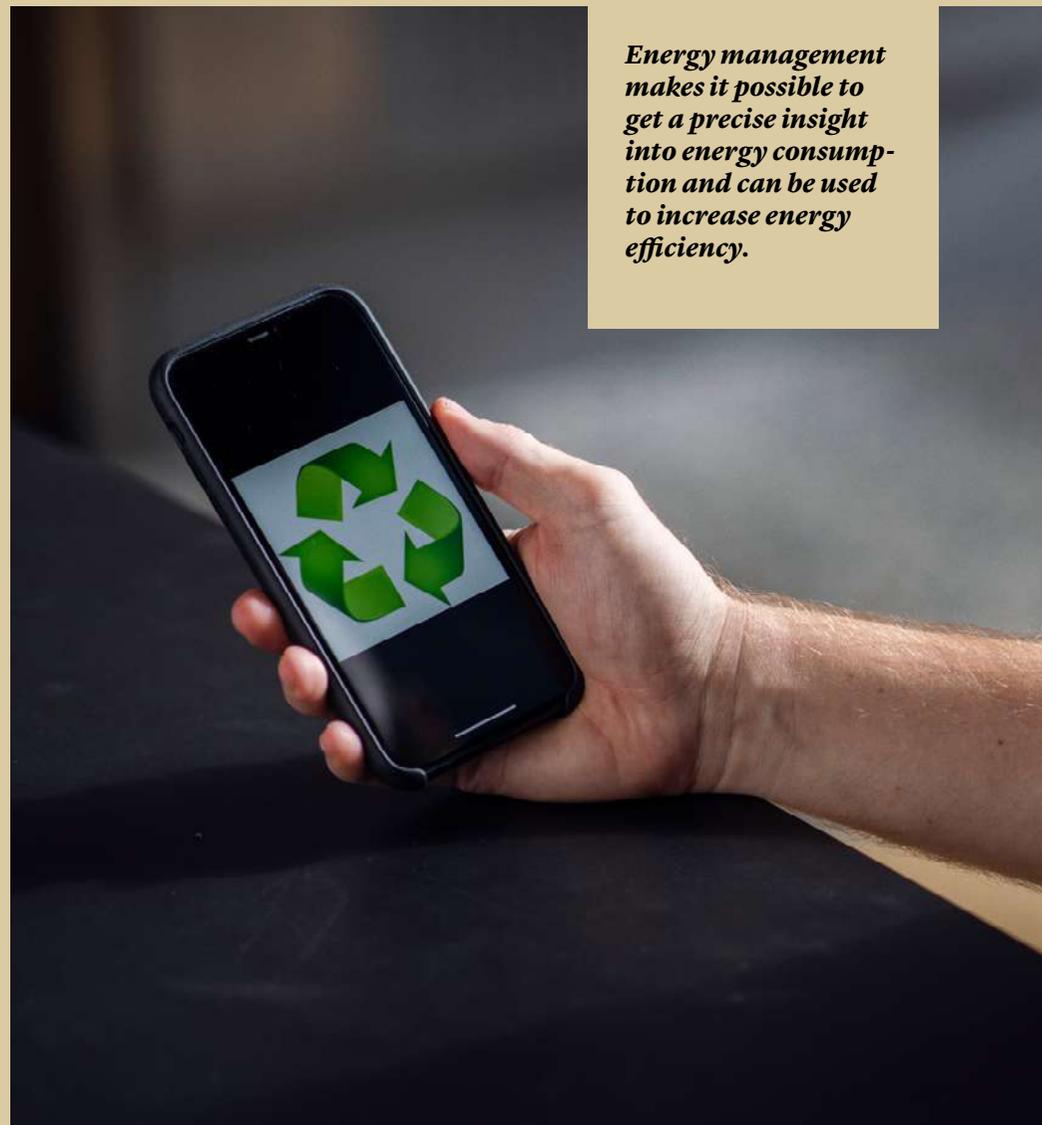
In 2015, DKK 10 million was allocated for implementation of measures such as energy optimisation of ventilation and heating systems, the establishment of solar panels on roofs, replacement of lighting systems and improved heating management as required.

The work within this area continued in 2019 and 2020 and was supplemented by putting equipment on standby mode and using sensors that set a time limit on the power consumption of equipment and buildings.

Green labs

Labs are one of the most resource intensive spaces at the university. Therefore, in 2020, the Faculty of Science and the Faculty of Health Sciences began a certification process in collaboration with My Green Lab. The goal is to engage the researchers in laboratory sustainability to reduce waste, energy and water. The initiative is initially run as a pilot project and will be rolled out in more laboratories later.

Recognised by the Association for the Advancement of Sustainability in Higher Education (AASHE), the American Energy Society and the International Institute for Sustainable Laboratories, My Green Lab's Certification is considered the global standard for laboratory sustainability best practices.



Energy management makes it possible to get a precise insight into energy consumption and can be used to increase energy efficiency.

Waste and resource management

Campus Services at SDU currently manage 32 waste fractions 'behind the scenes'. This takes place when Campus Services manage waste from SDU's canteens that sort food waste; buildings that sort various building materials and SDU IT, which collects and sorts IT scrap, cables etc.

In 2020, SDU started a pilot project seeking to improve waste and resource management among the users by setting up waste clusters at the Faculty of Science and the canteen at campus Odense. Here, the employees, students and guests must sort their waste into four fractions by themselves: Bio and catering waste; paper and cardboard; glass and metal and residual waste.

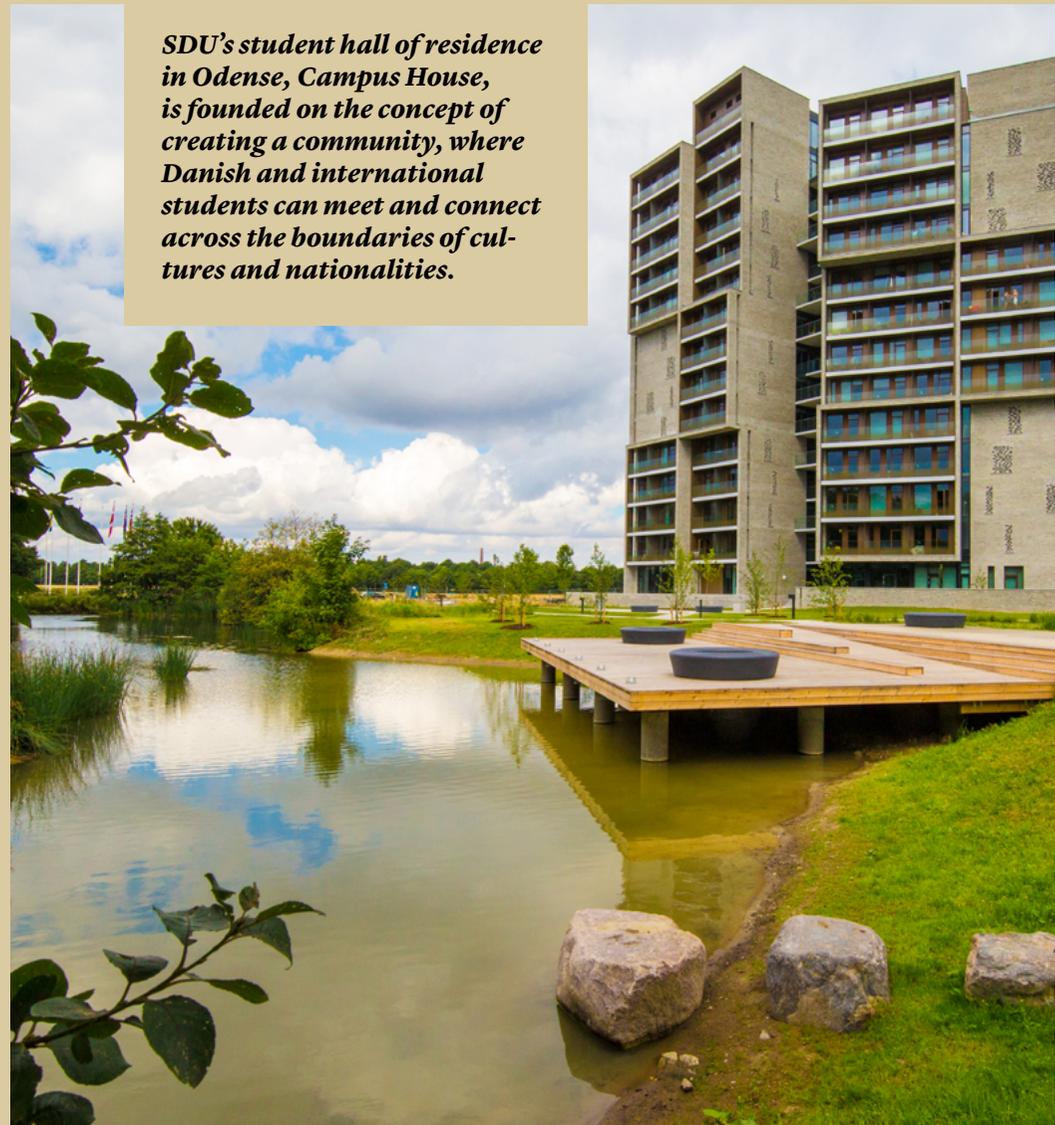
Transportation

The exchange of knowledge with foreign colleagues within the same field of research through networks and conferences is an essential part of a researcher's work. And as an international university, a multi-campus university and a regional university, we may have larger challenges than others in this area. Nevertheless, SDU is working on several fronts to reduce transport activities and transform them into more climate and environmentally friendly modes of transport. In 2020, we started to replace SDU's vehicle fleet with electric or hybrid cars and we also launched a campaign promoting car-pooling and public transportation.

Biodiversity

SDU discontinued the use of pesticides to control weeds on our outdoor areas several years ago and in 2020 started working on a zone plan which will contribute to increased biodiversity. The large acreage of our campus in Odense provides great opportu-

SDU's student hall of residence in Odense, Campus House, is founded on the concept of creating a community, where Danish and international students can meet and connect across the boundaries of cultures and nationalities.



nities to establish increased biodiversity. The large field acreage at the western and south-eastern parking areas will be converted into lakes for surface water and nature experience sites.

To the west, several lakes have already been established, some of which are perpetually filled. There is an abundance of life here, and birds such as herons have been observed on several occasions. We are in the process of planting the area and will continue the construction work when surplus soil is delivered from the construction of the new Faculty of Health Sciences.

Procurement

By placing demands on our suppliers, we can positively contribute to the SDGs and the Danish Climate Change Act as a university, both in Denmark and in the countries where goods procured are produced. In 2020, SDU became the first university in Denmark to join POGI, the Partnership for Green Public Procurement, which will ensure sustainability of our procurement in the future. In 2020, SDU also adopted a new sustainable procurement policy and strategy. The new procurement strategy is backed by a completely new procurement system: TrueTrade.

Dining services

SDU places demands on the canteen lessees for sustainability and a green imprint by tendering the operation of the canteens at SDU's sites. In 2020, after a public tender, SDU chose a new canteen operator. In the tender, great emphasis was placed on a minimal wastage of food, limited use of disposable tableware and a green and sustainably varied supply of food.



***Kick-off event for students,
staff and researchers
September 2019.***

Gender Equality

The GE work contributes to SDU's overall strategy with its focus on creating value for society, enabling all talents and encouraging the exceptional, breaking boundaries and shaping the future. SDU's GE work is an informed, consistent and conscious effort rooted in evidence-based research and shared experiences with other Danish and international universities, e.g. in the GEAR:DK network. In 2019, SDU became the coordinator of SPEAR – Supporting and Implementing Plans for Gender Equality in Academia and Research. A 4-year EU-financed project that develops and implements gender equality plans at 9 European universities.

SDU moves

'SDU moves' is a project that seeks to contribute to the integration of a healthy culture in the everyday lives of staff and students. A change in behaviour in order to contribute to better health and well-being at SDU. The project is organised as a Citizen Science project, where staff and students are involved and engaged in the development, execution and implementation of the project in every campus city.

Looking forward

In 2021, we will publish SDU's first climate account and on that basis make an action plan to reduce SDU's GHG emissions and negative environmental impact.

In 2022, we will begin establishing charging points for electric or hybrid cars driven by employees and students.



On SDU's campus in Odense, an athletics facility has been built, which the Olympic Committee in 2015 named as the most groundbreaking facility in front of 125 others.

Widening engagement and participation

Since the beginning, it has remained a high priority at SDU to make the work with sustainability as transparent as possible and to support network creation, knowledge sharing and creativity across the university.

Our strategic intentions

We will support interested students, researchers and staff who would like to take part in the work with sustainability and the SDGs. Everyone and every contribution are important in creating a sustainable future.

- We walk new paths
- We always learn
- We interact

Facts

Since 2019, SDU has held or participated in over 50 events related to sustainability or the SDGs. The events, which have primarily been held online in 2020, were targeted at staff, researchers and students, but there have also been events open to the public.

Progress

Sustainability committees

In 2019, all faculties and some departments set up sustainability committees with the participation of students, researchers and staff.



Kick-off event for students, staff and researchers September 2019.

SDG Pool for students at SDU

SDU supports students who would like to work with the SDGs. A pool was allocated for this purpose in 2020 and focuses on student-based initiatives. The pool has been set aside for the purpose of ensuring financial support for student-based initiatives and activities, which are developed and run by the students and aimed at working within the framework of the SDGs. The pool may only be applied for by existing student associations at SDU or by students at SDU.

SDG award at SDU

SDU bestows an annual award of DKK 25,000 to staff and students who have made a special and inspiring effort in relation to the SDGs. The award is given for an initiative that can provide inspiration internally at SDU as well as externally. The award aims to motivate everyone at SDU to focus on the SDGs. The recognition for these special efforts is presented at the yearly gala, which is SDU's annual celebration. In 2020, a group of students received the award for their idea of a sustainable sanitary towel made from plant fibres.

SDG forum at SDU

SDU's SDG forum is an open forum, where ideas and initiatives can be developed for working with the SDGs. These ideas and initiatives will influence the prioritisation of new, important activities at the university. The new forum is aimed at students and staff, but representatives from businesses, the public sector and others will also be invited to inspire to new ideas and actions. The SDG forum will contribute to setting frameworks for initiatives in relation to the 17 SDGs and ensure ownership for new activities among staff and students.



***Kick-off event for students,
staff and researchers
September 2019.***

SDG HUB

The task of the SDG HUB is to support the work on sustainability and the SDGs. The HUB does this by telling about our large and small efforts with sustainability and the SDGs in our research, teaching, student activities and in the day-to-day operations across SDU. The goal is to learn from each other. The HUB also promotes dialogues on the work with sustainability and the SDGs across employees and students at SDU and companies, authorities and citizens outside SDU. The goal is to strengthen the cooperation. And finally, the HUB functions as a sounding board for all employees and students at SDU, who want to work with sustainability and the SDGs. The goal is to make it easy to get started.

Cases

Students' climate garden

In 2020, students from the Green Student Movement received funding from The Students' SDG Pool. The funds are used to create a climate garden for students at SDU in Odense. The garden has two purposes. It will, of course, serve as a vegetable plot for the students – but it will also serve as a gathering point for the students who are interested in climate issues and sustainability. In addition to having a large box filled with fertile soil in which to grow your vegetables, the students will also be able to enjoy lectures and workshops in the long run as well as help to establish permaculture in the climate garden.

Green transportation

Based on suggestions from staff and students, SDU began to work on promoting more climate friendly transport in 2020. With 27,000 students, 4.000 employees (FTE) and a large car fleet, SDU's green



Students from the Green Student Movement are working on building the climate garden at SDU.

transport initiatives are set to reduce its overall carbon footprint. However, green transport is about more than just measuring the impact here and now. It is about a fundamental change in behaviour and about finding lasting solutions through disruptive field tests. Among other things, these initiatives will nudge us into changing motorist behaviour from one driver, one car, to carpooling. A group of students from the Faculty of Engineering is going to investigate this subject. During November and December 2020, the team tested a number of behaviour regulating interventions in the car parks, including reservation of spaces for electric and hybrid cars and for cars used for carpooling to SDU.

Looking forward

In 2021, SDU will launch an SDG Camp for young people. The event will put the SDGs on the agenda for young people, strengthen the network among young people and introduce research-based knowledge of the SDGs.



SDG 11 aims to renew and plan cities and other human settlements in a way that offers opportunities for all, with access to basic services, energy, housing, transportation and green public spaces, while reducing resource use and environmental impact.

About SDU

SDU welcomed the first students onto the campus in Odense in September 1966, and things have been developing by leaps and bounds ever since.

Research, teaching and innovation are grouped into five faculties: The Faculty of Humanities, The Faculty of Science, The Faculty of Business and Social Sciences, The Faculty of Health Sciences and The Faculty of Engineering.

The campuses of the university are represented in six cities: Odense, Esbjerg, Kolding, Copenhagen, Slagelse and Sønderborg - all with main focus on research, research-based education and outreach.



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