LUT AND SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

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SDG 1 | NO POVERTY

- The employment rate of our graduates is 97%
- Scholarships have been awarded to 84% of enrolled students who were required to pay a tuition fee.
- As a part of the <u>Finnish Institute of</u> <u>Technology</u>, LUT offers courses free of charge to degree students and adult learners.

SDG 4 | QUALITY EDUCATION

- » LUT offers rolling admission to Master's programmes in English for those who have completed or are close to completing their degree outside of Finland.
- » LUT will start a <u>Bachelor's programme</u> in technology also on its Lahti campus.
- The LUT Junior University concept was awarded by <u>ISCN</u> as an outstanding example of <u>Partnerships</u> <u>for Progress</u>.

SDG 2 | ZERO HUNGER

- During the COVID-19 pandemic, LUT has allowed students to have meals on campus at a student discount.
- The campus restaurant constantly monitors the amount of biowaste produced by customers and buffet lines. <u>Research</u> carried out by the restaurant has shown that measuring and communicating the
- » Food from air with a new process: LUT has piloted power-to-x solutions with VTT.

results decreases biowaste by 25% per costumer.

SDG 5 | GENDER EQUALITY

- At the end of 2020, the share of female employees was 45%.
- » A total of 31% of undergraduate students and 37% of postgraduate students were women.
- The student union LTKY eradicates educational inequalities and ensures that studies are accessible, equal and safe for everyone.

5 EQUALITY

4 QUALITY EDUCATION

SDG 3 | GOOD HEALTH AND WELL-BEING

- Description Employees receive occupational health care services. LUT monitors and develops the health of its employees.
- The mental well-being of the staff is monitored with a monthly mood tracker survey where employees can also give open feedback.
- LUT has created a guide to care robotics and welfare technology in collaboration with German and Swedish universities.

3 GOOD HEALTH AND WELL-BEING



SDG 6 | CLEAN WATER AND SANITATION

- In 2020, LUT's water consumption was 1.84 m3/person.
- » Amit Bhatnagar, Professor of Water Treatment, <u>has been recognised on</u> the Highly Cited Researchers 2020 list.
- A large research project produced new information about reducing pharmaceutical emissions at the primary source and municipal wastewater treatment plants.

6 CLEAN WATER AND SANITATION



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SDG 7 | AFFORDABLE AND CLEAN ENERGY

>> 100% of the electricity LUT purchases is renewable. Solar panels on campus produce 5% of the electricity LUT consumes.



- The "Clean Energy for all Europeans" policy package sets the tone for a more sustainable and customercentric EU energy transition.
- » LUT's Nuclear Engineering Laboratory is developing a small modular reactor (SMR) for district heating to cut heating-related carbon dioxide emissions.

SDG 10 | REDUCED INEQUALITIES

- » LUT welcomes international students from beyond the EU to international <u>Bachelor's studies in technology</u> in education collaboration with HEBUT University, China.
- In 2020, applications to <u>international</u> <u>programmes increased by 55.2%</u>. A total of 82 nationalities were represented among the applicants.
- > 104 outgoing and 199 incoming exchange students.



SDG 8 | DECENT WORK AND ECONOMIC GROWTH

- » LUT Universities updated its Equality and non-discrimination plan in 2020.
- The number of full-time equivalent employees in 2020 was 1028.
- Black Lives Matter movement shows: corporate activism becoming mainstream. Researcher Laura Olkkonen studied the role businesses play in our society.



SDG 11 | SUSTAINABLE CITIES AND COMMUNITIES

In 2020, the Sustainability Science Carbon Negativity Team carried out a survey on commuting habits of students and employees at LUT. The results aided LUT's greenhouse gas emissions inventory.



- » JHC Ukkonen is an <u>electric superbike</u> <u>and an LUT student project</u>. Its goal is to achieve the best possible performance in the lightest possible package.
- The mobile application <u>CitiCAP</u> for personal carbon trading encouraged Lahti residents towards more ecological mobility.

SDG 9 | INDUSTRY, INNOVATION AND INFRASTRUCTURE

- > 52 active spin-offs have been established at least three years ago.
- An LUT-based new start-up supplies new functionalities for water electrolysis applications that make green hydrogen as profitable as possible.
- The multidisciplinary <u>Digibuzz project</u> aims to determine the best digital twin and modelling solutions for industry.

DUSTRY, INNOVATION D INFRASTRUCTURE



SDG 12 | RESPONSIBLE CONSUMPTION AND PRODUCTION

- In 2020, 0% of LUT's 105 tons of waste was landfilled.
- » A multi-epistemological inquiry into culture and institutions tells what constrains the sustainability of our day-to-day consumption
- The Package Heroes consortium explores food packaging solutions that are environmentally friendly.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

SDG 13 | CLIMATE ACTION

- » LUT is committed to <u>carbon negativity</u> <u>by 2024</u>. Our carbon footprint is calculated in accordance with the Greenhouse Gas Protocol.
- Energy citizenship researchers aim to understand the conditions that best support people in working both individually and collaboratively towards a more sustainable future.
- LUT explores how the valuable carbon dioxide in atmospheric circulation can, with emission-free electricity and new technologies, be transformed into a number of products to replace fossil raw materials.

SDG 16 | PEACE, JUSTICE AND STRONG INSTITUTIONS

- Finnish universities have published 12 theses and intend to become leaders in sustainable development.
- » LUT's organisational structure, board of directors, advisory board and university collegium are transparent. LUT consults its student union in decision-making.



Anne Quarshie's research resulted in five global ideas for disaster preparedness of authorities in cases such as the COVID-19 pandemic or extreme weather caused by climate change.

SDG 14 | LIFE BELOW WATER

Clean water, energy and air are life-giving resources for which we seek <u>new solutions</u> with our degree programmes in technology and business.



CLIMATE

ACTION

- A research project has identified the pharmaceutical residues that are the most harmful to the environment and the most efficient technological solutions for their treatment.
- The <u>Department of Separation Science</u> specialises in water analysis and water, wastewater and soil purification techniques.

SDG 15 | LIFE ON LAND

The Metsä360 award granted by LUT accelerates forest processing and supports the growth of a responsible bioeconomy.



- » Satellite images and computational models combat invasive species that threaten biodiversity.
- In 2020, the University Properties of Finland, the owner of our campus buildings, <u>commissioned</u> <u>nature assessments</u> for about twenty of its campuses, including LUT's Skinnarila campus.

SUSTAINABLE GOALS

SDG 17 | PARTNERSHIPS FOR THE GOALS Local level:

» LUT played a significant role in the Green Leaf application process of the City of Lappeenranta; as a result, the city won the <u>European Green Leaf</u> Award for the year 2021.



- » LUT campuses are located in
- Lappeenranta (European Green Leaf city 2021) and Lahti (European Green Capital 2021) – both forerunners in environmentally friendly activities. In co-operation with the university and a large range of enterprises and other organisations, the cities create a platform for sustainable innovations.
- » LUT is a part of the <u>Smart Campus National RDI</u> <u>Network</u>. It aims to improve the competitiveness, specialisation profiles and digitalisation of higher education (HE) and municipalities.

National level:

- » LUT was actively involved in collaborative theses on the sustainable development and responsibility of Finnish universities.
- » LUT, Wärtsilä and St1: <u>Power-to-X solutions</u> should be brought to the core of Finland's energy and climate solutions.
- » LUT's research aims to change <u>public procurement</u> from price-centric to value creation for the society.

International level:

- » LUT's database is used for Wärtsilä's interactive map on <u>100% renewable electricity systems</u>.
- LUT is a member of many <u>international</u> <u>networks</u> promoting sustainable development, such as the <u>ISCN</u> and the <u>NSCN</u>
- The Participatory Communication of Science project explores ways to ensure diversity and inclusion in science participation and communication.