Metropolia



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Authors: Pauliina Kahra, Elli Ojala, Marianne Vainikka

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This publication is Metropolia's first sustainability report. In future the sustainability report will be published yearly both in Finnish and English.



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About Metropolia

Metropolia University of Applied Sciences is a multidisciplinary higher education institution in the Helsinki metropolitan area that operates in the areas of culture, business, technology and health care and social services with

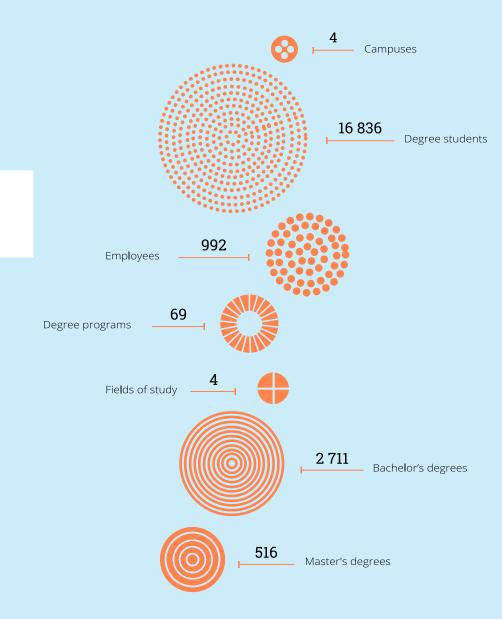
health care and social services with a special focus on the intersecting nature of these fields. Metropolia's research, development and innovation, and more and more of its teaching, take place in phenomenon-based innovation hubs.

We expedite change towards a sustainable society.

Metropolia has four modern and accessible campuses: In Helsinki's Myllypuro and Arabia, in Vantaa's Myyrmäki and in Espoo's Karamalmi.

Our strategy (2021–2030) aims for making a stronger impact for the benefit of society, by putting people first. Our strategic intent is to be a bold reformer of expertise and an active builder of a sustainable future.

In our strategy we have chosen five themes that of are of special importance. The core of the strategy is formed by continuous learning and phenomenon-based innovation hubs. Continuous learning aims to secure future skills through individual learning solutions for different situations of life. Innovation hubs are places where people come together to create innovative solutions to sustainability challenges.



METROPOLIA UNIVERSITY OF APPLIED SCIENCES 2021

ABOUT METROPOLIA



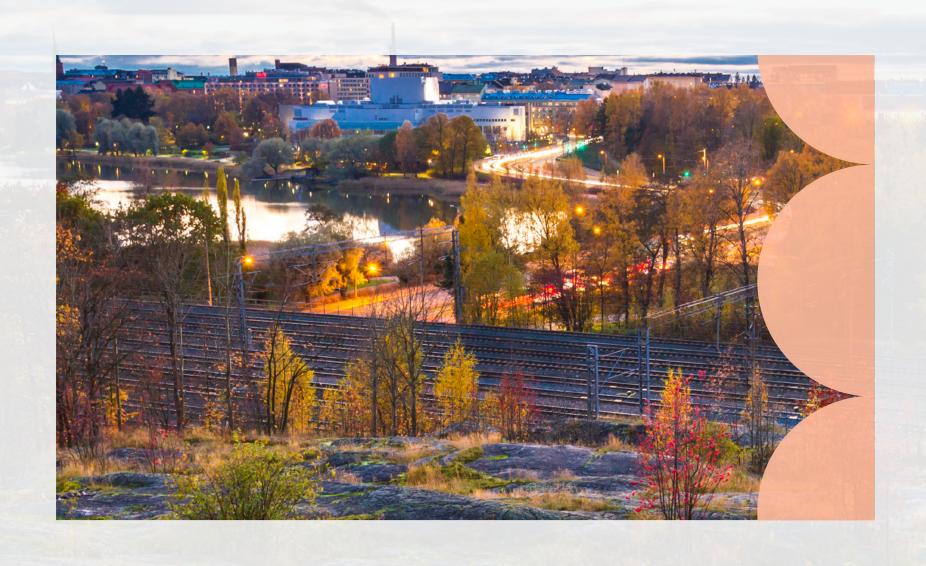
Sustainable development is the overarching theme of our strategy. Our goal is that the principles of sustainable development and responsibility guide all of our operations and that Metropolia is carbon-neutral by 2030. We strive for sustainable growth in Finland as well as internationally.

Key factors to our success include people and culture, as well as digitalization. People form the basis for our operations. We boldly experiment across borders and build a flexible learning culture based on open dialogue. We strengthen our digital capabilities by meeting the needs of digitalized work and society in all our actions.

We implement our strategy responsibly, openly and in wide-ranging cooperation across borders. Strategy leans on our values, which are transparency, community spirit, high quality and expertise.

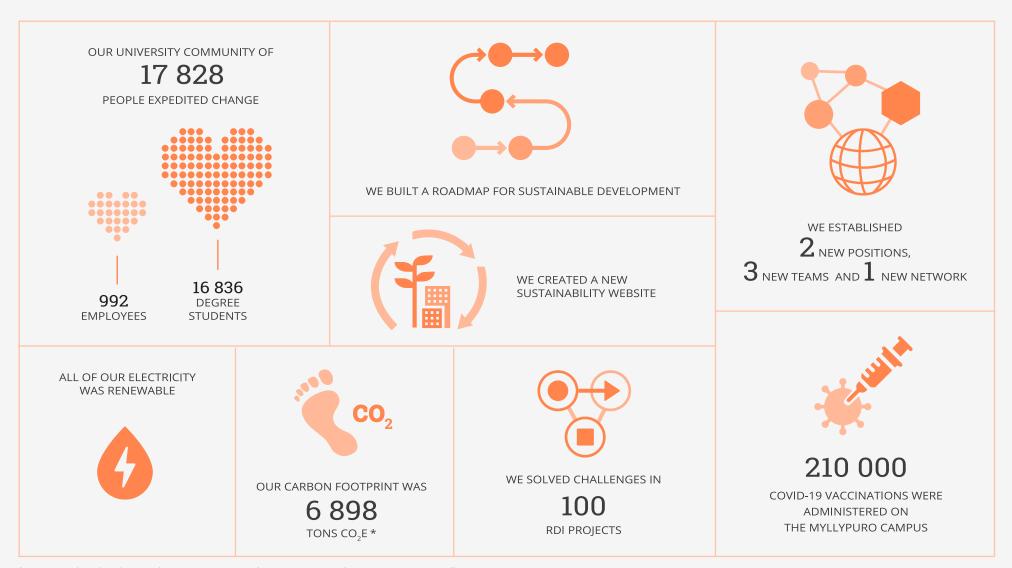
METROPOLIA

METROPOLIA'S STRATEGY 2021 - 2030



SUSTAINABILITY REPORT 2021

Sustainability Highlights in 2021



SUSTAINABILITY HIGHLIGHTS IN 2021

^{*} CO₂e, or carbon dioxide equivalent, is a common unit for measuring greenhouse gas emissions. It allows us to tally together the impact of various different greenhouse gases. (Source: Statistics Finland)

Year 2021 in Review

People and the world are in dire need of new solutions. As a university community of almost 18,000 * people we bear a great responsibility and have a great opportunity to tackle our challenges and make a difference for a sustainable future. We raised sustainable development into a key role in our strategy for 2021–2030. In 2021, we have worked diligently and purposefully to better implement our strategy in the everyday life of all Metropolians.

The COVID-19 pandemic has also affected our sustainability work. The pandemic also increased remote work, which reduced travel and the usage of our facilities. Simultaneously, these exceptional times have required us to invest more into people's well-being.

Work on sustainability is never complete. We at Metropolia also have a lot of work cut out for us, but we are determined to strive toward our goals. Wide-ranging cooperation both within our university community and with outside partners plays a crucial role.

RIITTA KONKOLA, President and CEO Metropolia University of Applied Sciences

In 2021, we began to implement our strategy for sustainable development in practice. We came together with the entire university community and created a roadmap that extends until the year 2030. The purpose of the roadmap is to bring the most essential sustainable development goals into the everyday operations of Metropolia. We promote sustainability in Metropolia's own operations and have a positive impact on society by training experts in sustainable development and solving sustainability challenges in our innovation hubs.

This is Metropolia's first sustainability report. In this report we present our work on sustainable development, the roadmap we have created and our most significant results of 2021.

The UN Sustainable Development Goals that are most relevant for our work are carried along throughout the report.

We are at a good position to continue our impactful sustainability work into the future. In 2022, we will be surveying the current state of sustainable development education in our degree programmes and draft a Code of Conduct for Metropolia that allows us to think more concretely about how we operate in everyday life with each other and with our partners.

ELLI OJALA, Sustainable Development Manager Metropolia University of Applied Sciences



^{*} The number of people included in the Metropolia university community contains employees in permanent employment at the end of 2021 as well as both present and absent degree students and specialising students.

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3. Sustainability Solutions

1 Sustainable University Community

Sustainable Development in Metropolia

Universities play a central role in building a sustainable future. The surrounding world is impacted on three levels:

- 1. **Our university community operates sustainably**, i.e., in a manner that is ecologically, socially and economically sustainable.
- 2. On the second level we ensure that there will be **sustainability know-how** in the future. Our goal is that every Metropolian, whether a member of staff or a graduating student, will get sustainability know-how that can be implemented in working life and society.
- **3.** On the third and most significant level of impact we create **solutions to sustainability challenges** with our partners in our innovation hubs.

SUSTAINABILITY AT METROPOLIA
- THREE LEVELS OF SOCIETAL IMPACT

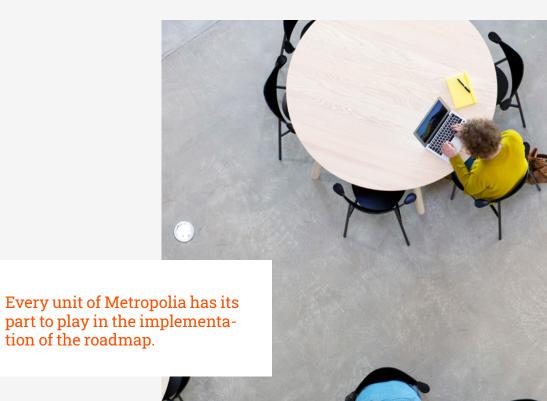
We lead sustainability comprehensively

Out sustainability work is steered by the UN Sustainable Development Goals, the Metropolia strategy 2021–2030, our sustainable development roadmap and the expectations of our stakeholders.

We have emphasised allocating resources for sustainable development.

Because sustainable development is at the core of our strategy, we have placed a special emphasis on allocating resources for this work. In 2021, we organized our sustainable development work into three teams around certain themes: carbon-neutrality team, sustainable education team and a core team that is responsible for the big picture concerning sustainability. The teams comprehensively represent specialists from all over the organization. The management teams of innovation hubs also regularly discuss themes related to sustainability. All of the teams are represented in the core team responsible for sustainability overall.

ORGANIZING FOR SUSTAINABILITY AND THE MOST IMPORTANT STAKEHOLDERS



In 2021, we also established a sustainable development network for the entire university community that connects staff and students inspired by sustainability in order to expedite change in the organization.

We also established two new positions: Sustainable Development Manager who coordinates the overall sustainability work and Environmental Specialist who develops environmental sustainability within the organization. On the management group -level, sustainable development is the purview of the Development Director, while sustainable growth is the area of the Deputy CEO. Furthermore, each goal on the roadmap has a director

assigned to it. We will report on our progress on sustainability quarterly to our stakeholders and Board of Directors via Metropolia's impact reports and annually with a sustainability report.

Sustainability is implemented into our every-day operations through Metropolia's annual operational planning, for example. Every unit of Metropolia has its part to play in the implementation of the sustainable development roadmap. Measures are promoted throughout the organization and also in the everyday lives of all Metropolians through rewards and development discussions.



We communicate our sustainability work transparently

In the autumn of 2021 we published our sustainability website that makes our sustainability work and goals visible. Technology company AskKauko Oy was our partner in the project. The website emphasises visual presentation methods and the work is visualized with concrete examples and data. The accessibility requirements of the Act on the Provision of Digital Services were taken into account in the realisation of the website, and it was built so

that it could be navigated with the help of various aiding technologies.

The website also features an interesting visualization of our sustainable development roadmap, of our most impactful goals and measures until the year 2030. The roadmap can be navigated and the dynamic contents can be viewed in detail.



SUSTAINABLE DEVELOPMENT IN METROPOLIA





The UN Sustainable Development Goals guide our work

In early 2021 we conducted a materiality assessment to recognize the priorities and most crucial perspectives of our sustainability work. The materiality assessment was conducted based on our strategy and the UN Sustainable Development Goals framework (SDGs). This allowed us to ponder which goals were highlighted by Metropolia's strategic choices. As a multidisciplinary university of applied sciences, Metropolia's operations have an impact on all of the SDGs. The choices were made in relation to Metropolia's strategy and not in relation to the contents of our fields of study, for example.

The materiality assessment was conducted based on our strategy and the UN Sustainable Development Goals framework.

SUSTAINABLE DEVELOPMENT IN METROPOLIA

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The most relevant UN Sustainable Development Goals for Metropolia



SDG 4: QUALITY EDUCATION

Education is at the core of our operations. We ensure that every graduate and staff member of Metropolia is able to promote sustainable development in both working life and society at large. We build individual and flexible learning solutions for various life situations and ensure that our education is accessible and flexible through digitalization, for example.



SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

We educate people to become experts in sustainable development and encourage individuals to make more responsible decisions. We promote the sustainable use of natural resources and resource efficiency in all of our operations by reducing waste and water consumption at our facilities, among other means. We will draft sustainability principles that will steer our future investments and acquisitions. We will report on the progress of our sustainability work on an annual basis



SDG 8: DECENT WORK AND ECONOMIC GROWTH

We aim to grow sustainably within ecological and social boundaries both in Finland and internationally. We will define a Code of Conduct that will steer all of our operations in the future. We strive for resource effectiveness and utilize the business models of circular economy, such as the practices of a sharing economy. We take care of the health, well-being and safety of our entire university community.



SDG 13: CLIMATE ACTION

We will be carbon-neutral by 2030. We increase people's awareness of the climate crisis as part of the education we provide and solve problems related to it. We will lower and reduce our climate emissions regarding energy, transportation, waste, investments and acquisitions, and offset the emissions we cannot eliminate.



SDG 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

We expedite solving sustainability challenges with a phenomenon-based approach and open innovation and research. We reinforce the vitality of our region through sustainable entrepreneurship, business and employment.



SDG 16: PEACE, JUSTICE AND STRONG INSTITUTIONS

We lead sustainably and place people in the centre. We will build a Code of Conduct for Metropolia and ensure the realization of good governance. We are open and transparent in our communication both in-house and externally.



SDG 10: REDUCED INEQUALITIES

We put people first and promote equality, non-discrimination and diversity in our university community. We invest in dialogue and an operational culture that values diversity.



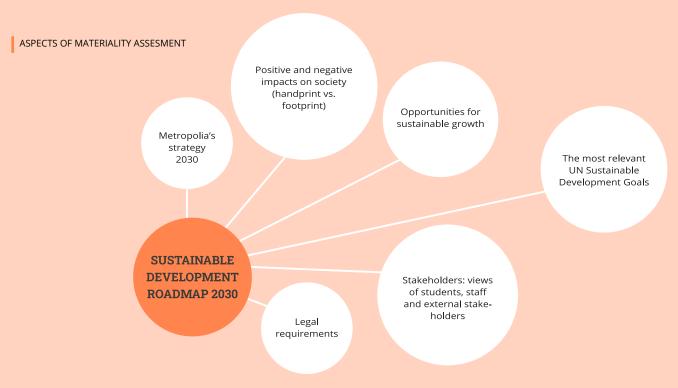
SDG 17: PARTNERSHIPS FOR THE GOALS

We reinforce the vitality of the capital region through sustainable entrepreneurship, business and employment. We operate on an ecosystem basis and cooperate with our partners across borders. We are members of several commitments and networks, both global and local, through which we aim to promote a more sustainable future.

SUSTAINABLE DEVELOPMENT IN METROPOLIA



SUSTAINABILITY REPORT 2021



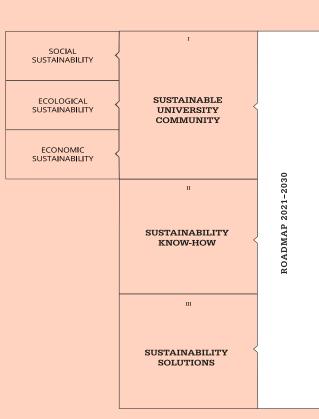
Roadmap 2021-2030

In the spring of 2021 we harnessed our entire community to build a sustainable development roadmap that extends to the year 2030. It depicts our goals and the actions and indicators required to reach them. There was dialogue on existing forums, such as management group meetings and meetings of department heads. Furthermore, detail was added to the measures, indicators, schedule and distribution of duties of the roadmap in several themed workshops and sustainable development teams.

Materiality assessment

In sustainability work, it is crucial to prioritize and focus on the issues that matter. We wanted to discover the most significant topics for our sustainability work. In early 2021 we conducted a materiality assessment to serve as the starting point for our sustainable

development roadmap. As part of this assessment we realized a survey for Metropolia's internal and external stakeholders on the most significant sustainability themes from ecological, social and economical perspectives



We thought about how to minimize the negative impacts of our operations while maximizing our societal impact.

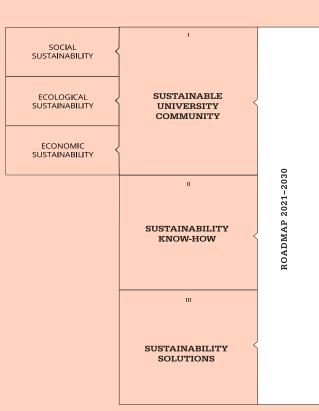
In addition to the responses to the stakeholder survey, the choice of central themes was influenced by statutory requirements, the positive and negative impacts of activities, Metropolia's strategy and the UN Sustainable Development Goals identified on the basis of the strategy. The goal was to find out how we can minimize the negative impacts of our operations, i.e., our footprint, and maximize our societal impact, i.e., our handprint, while enabling sustainable growth. As a result of the materiality assessment we identified five themes that we crystallized as the main goals of our roadmap. The first three themes relate to the

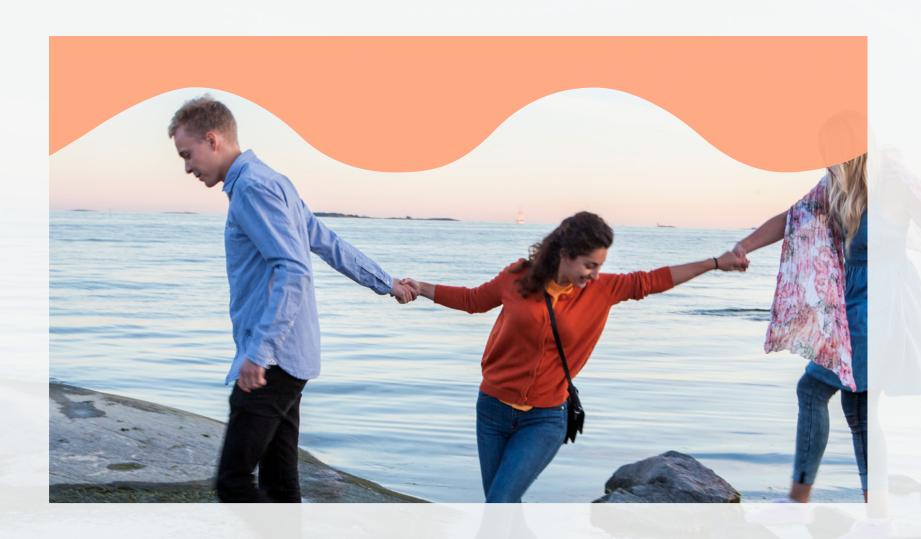
sustainability of our university community, and themes four and five have to do with our societal impact:

- **1.** Social sustainability: We lead responsibly and by putting people first.
- **2.** Ecological sustainability: We will be carbon-neutral by 2030.
- **3.** Economic sustainability: We will grow sustainably and invest into the future.
- **4.** Sustainability know-how: Every Metropolian is capable of promoting sustainable development in society and working life.
- **5.** Sustainable solutions: Together we create innovative solutions to sustainability challenges.

In the following sections we go through the five themes and how we progressed towards our goals in 2021. We also highlight which SDGs are promoted by our operations. At the end of each section we provide an example of how the progress towards a goal is visible in our everyday life.

We conducted a materiality assessment to serve as the starting point for our sustainable development roadmap.





SOCIAL SUSTAINABILITY:

We lead responsibly and by putting people first

For us, social sustainability means taking responsibility for people. Leading responsibly and with good governance is one of the focal points of our sustainability work. We take care of the health and well-being of our university community and foster equality, non-discrimination and diversity as well as an operating culture based on dialogue throughout the community.

Simultaneously, we are promoting the UN Sustainable Development Goals 8: Decent Work and Economic Growth, 10: Reduced Inequality and 16: Peace, Justice and Strong Institutions

ACTIONS	INDICATOR	RELATED SDG
1. We lead responsibly and by putting people first.	Personnel survey index	16 PAGE, INSTITUTE AND STRONG INSTITUTIONS
2. We take care of the health, well-being and safety of our entire higher education community.	Personnel survey and feedback survey of graduate students	8 DECENT WORK AND ECONOMIC GROWTH
We promote equality and diversity in our university community.	Age and gender distributions of staff and students. Share of female executives.	10 REQUALITIES
4 . We increase opportunities for inclusion and open dialogue in our university community.	Personnel survey (communica- tion and participation)	10 REQUADIES

SUSTAINABILITY

ECOLOGICAL
SUSTAINABILITY
COMMUNITY

ECONOMIC
SUSTAINABILITY
KNOW-HOW

SUSTAINABILITY
KNOW-HOW

SUSTAINABILITY
SOLUTIONS

SOCIAL

All indicator results can be found in Appendix table 1.

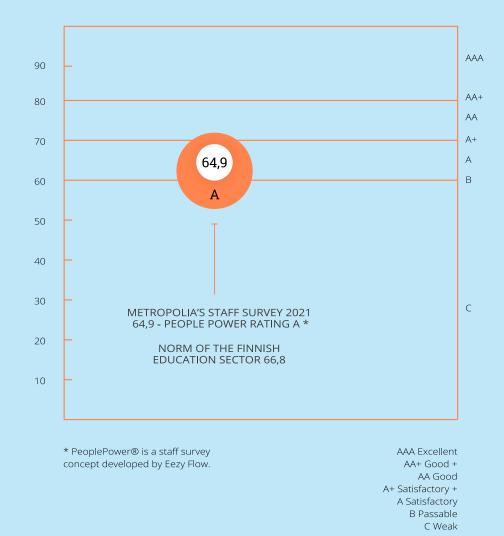
Responsible Management

We invest in responsible and human-centred leadership through our management system, supervisory work and reformed thinking. We monitor our progress by such means as the general index of the People Power staff survey we conduct annually. This survey collects the staff's views on leadership, commitment, performance and dedication. In 2021, the gener-

al index was 64.9. We are slightly below the comparison material – the norm for the education sector is 66.8. 77.3% of personnel responded to the survey (N = 730).

We conduct the People Power staff survey annually.

Based on the results of the staff survey we decided to invest into the development of supervisory work. To complement our leadership forum, in 2021 we introduced monthly sparring forums where supervisors of Metropolia gather to discuss themes related to staff management. To bolster our leadership and supervisory work we also realized a development programme for our management group work as well as various counselling groups for supervisors. Over the course of the year we put a lot of effort into making the communication between management and staff and supervisors and employees even more interactive.



METROPOLIA'S STAFF SURVEY 2021



Well-being

Supporting the health and well-being of staff and students was an important theme in 2021. Staff well-being remained at a good level according to the staff survey despite the COVID-19 pandemic. In the survey some half of respondents felt that their well-being at work had remained the same when compared to the time before the pandemic. Approximately a quarter felt that their well-being at work had decreased, and almost a quarter stated that they had experienced an improvement.

Staff well-being remained at a good level according to the staff survey.

Metropolians' ability to work has also remained at a good level. 90% of respondents rated their ability to work either excellent or good. The respondents felt that they could self-manage during the remote work period. Approximately a third felt that communality had suffered in the virtual environment. Hence the upkeep and maintenance of a sense of community was selected as a central target of development on the level of the entire organization as well as in several units.

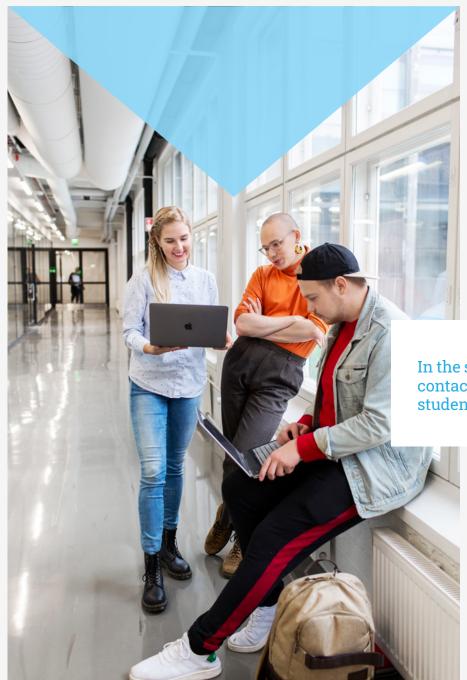
During the COVID-19 pandemic we have offered more robust mental health services as well as professional counselling for staff

and supervisors, in addition to regular occupational healthcare services. When needed, staff could also receive referrals to short-term psychotherapy. At Metropolia there was no rise in sickness absences for mental health reasons. Sickness absences were clearly reduced in 2020 with remote work becoming more common. In 2021, there was an average of 3.6 sickness absence days per person, which is slightly more than in 2020.

Workplace surveys on occupational health-care and the related work community -specific health inspections were conducted on the Myllypuro and Karamalmi campuses. These allowed us to identify resources related to work, the work environment and the work community, as well as possible stressors or hazards threatening the health or safety of employees.

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SOCIAL SUSTAINABILITY



SUSTAINABILITY REPORT 2021

Student Well-being

At Metropolia student well-being is supported and fostered through the cooperative efforts of the entire university community. This involves staff, students, student associations, student counsellors and psychologists, the education work of parishes and the student health service FSHS. It is important for us to create an atmosphere that supports well-being and encourages students to study.

In the spring of 2021 we personally contacted nearly all of Metropolia's students to survey their well-being.

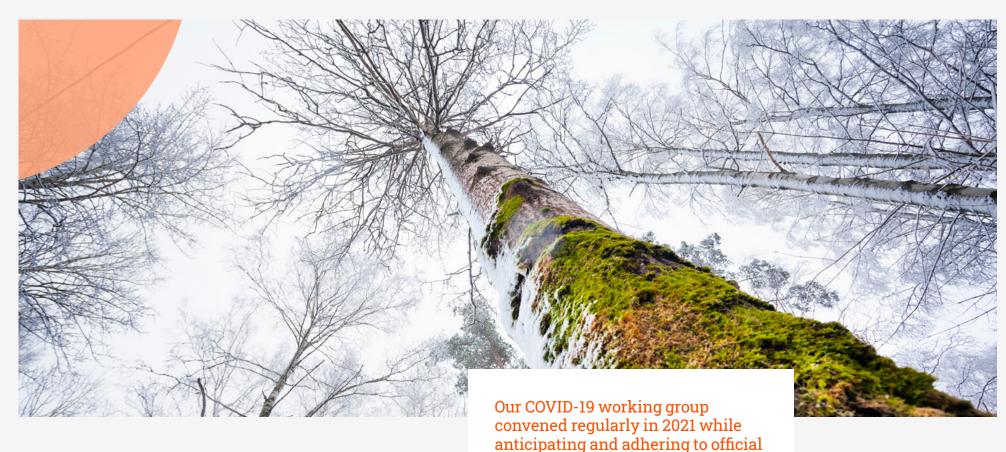
In the spring of 2021 we personally contacted nearly all of Metropolia's students. The goal was to survey their well-being, the progress of their studies and their needs for support when operating in the remote or hybrid modes.

In the AVOP 2 feedback survey aimed at second year students the students evaluated their own motivation to study, their study skills, the relevance of their studies, compassion towards themselves, feelings of loneliness and how they are coping with the circumstances. The students who responded to the survey

had experienced feelings of stress, which hindered their coping and motivation to study. Remote studying had also reinforced feelings of loneliness, especially for young students. However, students still considered their studies relevant for them.

We developed our guidance, counselling and well-being services and our communication about them so that we would be able to react to the individual counselling and support needs of students more efficiently and in a more targeted manner. Low-threshold discussion support was provided by student counsellors, student psychologists and a well-being coach. Guided small group meetings were offered to international students, students interested in internationality as well as students living a family life. We also developed materials to support the well-being of students and their ability to study. These materials can either be used pre-emptively to foster the students' ability to study or in situations where an increased need for support is identified.

Jelppaamo is a low-threshold online meeting place held monthly for Metropolia students and staff. Multidisciplinary cooperative groups that support teaching work and FSHS's health work groups are active on campus, and they have representation from the university's support services, teaching and guidance staff, vocational special teachers as well as the student body. These groups convene regularly to disseminate information about student well-being and organize activities that promote a sense of community on campuses.



instructions.

Security and Risk Management

Our goal is to manage the safety of our university community and its risks proactively and comprehensively. Our occupational safety activities aim to ensure a healthy and safe workplace and a healthy work community that offers challenges and opportunities, safety and communality and successes and development possibilities.

Metropolia employs a Risk Manager and a Safety Planner as well as campus-specific safety managers. Their work focuses on the development of risk management policy, operation models for organizational safety and the methodology of risk management.

In 2021, we streamlined our processes and improved cooperation between different operators and drafted guidelines concerning organizational safety. The COVID-19 pandemic was also a focal point in terms of risk management and safety in 2021. Metropolia's COVID-19 working group convened every two weeks – or more often when required – throughout the year, both monitoring and actively anticipating the situation and the guidelines issued by the

authorities. After each meeting of the group, staff and students were notified of the current situation and possible changes to COVID-19 procedures.

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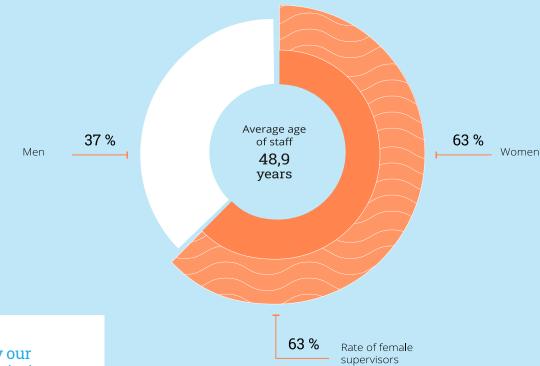
Equality, Nondiscrimination and Diversity

Our goal is to offer our students and staff an equal, non-discriminating, safe and accessible environment to work and study in. Our work is steered by Metropolia's equality and non-discrimination plan (pdf), which focuses specifically on recruitment, career development, wages, studying and teaching as well as leadership, working culture and communication. In the autumn of 2021 we established a working group that promotes equality, non-discrimination and diversity within the university community. The group consists of diversity specialists, students and representatives of our organization. In 2022, we will be placing a special emphasis on increasing diversity expertise and awareness to strengthen understanding of differences and the importance of equal treatment.

The staff survey also charted the status of equality and non-discrimination at Metropolia. Most of the respondents felt that people of different genders and ages were treated equally at the workplace (gender 3.41 / 4, age 3.35 / 4). Overall, the

experience of equality and non-discrimination was slightly poorer (2.97/4). 86% of respondents stated that they had not experienced harassment, bullying or inappropriate treatment at the workplace. 8% had experienced inappropriate treatment but the situation had already been solved, while for 6% of the respondents the situation was still ongoing. Metropo-

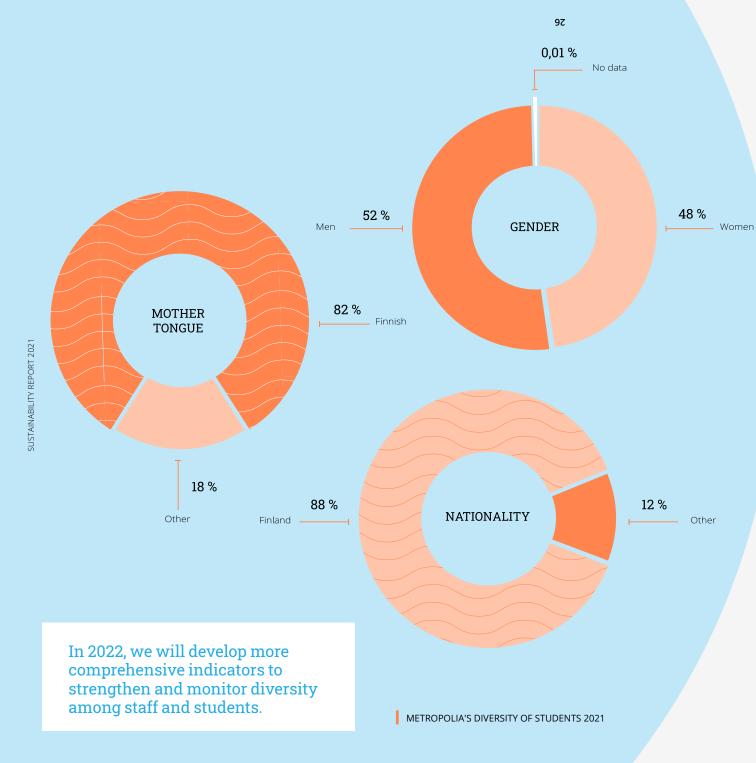
lia is committed to zero tolerance for harassment, and the process, guidelines and support for tackling harassment were developed further over the course of the year.



Our work is steered by our equality and non-discrimination plan.

METROPOLIA'S DIVERSITY OF STAFF 2021

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Student perspectives on equality, non-discrimination and diversity

In the spring of 2021, an equality and non-discrimination survey was conducted on students to discover their experiences of how equality and non-discrimination are realised at Metropolia. The survey garnered responses from 159, which is only 1.1% of Metropolia's degree students registered as present. Most of the respondents (79.9%, N = 127) felt that they were treated equally in their studies. Similarly, most of the respondents (78%, N = 124) felt that they were equal members of the university community. Metropolia's spaces were found to be physically unobstructed and the digital learning environments were considered accessible. The respondents felt that Metropolia was a safe environment for learning and the atmosphere was considered one where shortcomings related to non-discrimination could be brought up.

A third of the respondents (N = 56) stated that they had experienced inappropriate treatment at the university or the student community, and some 40% (N = 68) described having observed inappropriate treatment towards other students at the university or the student community. Based on the results of this survey we will be paying even more attention to how we take the different life situations of students into account in their studies and how to act in situations where somebody is inappropriately treated. In 2022, we will be working on more detailed guidelines that will define inappropriate treatment and depict the settlement process in different situations. The harassment contact persons of student union Metka also offer help, support and guidance for students who have experienced harassment or who want to talk about inappropriate behaviour towards themselves or others.

Rewarding as part of equality work

We developed our total pay system in 2021 and focused especially on communication, increasing flexibility and finding sore spots. We removed the deductible from our Smartum employee benefit, which in 2020 was 50% of the benefit's worth. We develop our total pay by increasing performance-based compensation so that everyone has

the opportunity to influence their salary and compensation through their own work.

Metropolia has a bonus system in place for the entire staff. Our goal is to develop it into an even more transparent direction and bring the indicators of merit pay ever closer to employees and the sphere of influence of their immediate work community.

In early 2021 the pay system working group began its operation. This working group engages in dialogue between the employer and staff representatives and strives to promote openness and transparency in the pay system. Late in the year we conducted a staff survey on salaries, and we discussed the results together with staff representatives.

We monitor the development of our employees' salaries with a salary survey conducted every three years. The salary survey also looks into the salaries of men and women with the goal of determining whether there is a gender-based difference in the salaries of

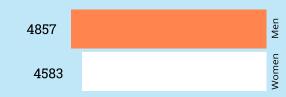
The salary survey looks into salary differences between men and women.

employees doing the same kind of work tasks. The previous salary survey was conducted in 2020.

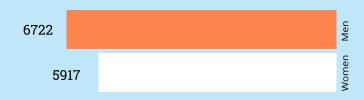
In the salary statistics of lecturers, there was a difference in average total between men and women. This gap is explained in part by the availability bonus that is paid to all teachers of technology subjects in accordance with the collective bargaining agreement. This gap is especially pronounced with senior lecturers: Out of 41 male senior lecturers, 36 were teaching technology subjects, while only five of the women were (out of 33 female senior lecturers). The salaries of administrative and support service staff are determined based on the difficulty of the work, applicable work experience and a personal merit pay portion, and the wage differences between the sexes are minor. In 2021 we identified and corrected shortcomings observed in the salary survey.

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AVERAGE SALARY OF LECTURERS €/MONTH

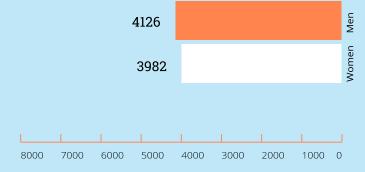


AVERAGE SALARY OF SENIOR LECTURERS* €/MONTH



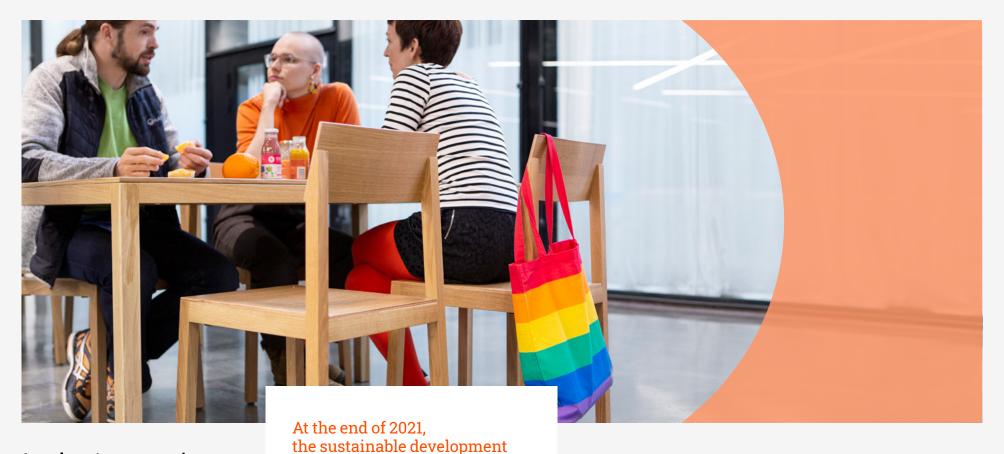
AVERAGE SALARY OF ADMINISTRATIVE AND SUPPORT STAFF** €/MONTH

SOCIAL SUSTAINABILITY



- * Includes only senior lecturers with more than 20 years of work experience
- ** Includes basic salary and unallocated salary component

AVERAGE SALARIES OF METROPOLIA'S STAFF GROUPS 2021



Inclusion and Dialogue

Our university community puts people first, whether its students, customers or staff. We invest in a dialogic operating culture that appreciates diversity. We have increased the number of open dialogue events all over the organization. Peer groups and the sparring support they give to participants have been utilized with new employees and supervisors, among other groups. In joint development projects we already draft a participation plan in the planning stage, and we inform people of

its progression. The "communication & participation" index of the staff survey monitors flow of information, the state of communal spirit, development opportunities and sharing of one's expertise. At Metropolia this index was 2.97/4, which is below the norm for the education sector (3.20/4).

network had 90 participants.

In the spring of 2021 we established a shared sustainable development network for Metropolia's staff and students. The purpose

of the network is to connect Metropolians inspired by sustainable development and act

as an active forum for change. At the end of 2021, the sustainable development network had 90 participants, most of which were staff members. The network convened online three times during the year. During these meetings they worked on a shared vision for the network, disseminated information about current sustainable development projects and exchanged thoughts and ideas about Metropolia's sustainable development work.



CASE:

Parru Promotes Dialogue and Co-creation

The Parru team builds dialogue and supports co-creation at Metropolia. Parru is a support service for all Metropolians established in 2020.

The Parru team

spars with Metropolians in the

use of an inclusive

approach to work.

The team spars with Metropolians on what the benefits of considering an inclusive approach to work are and how inclusion can be facilitated in different situations.

Parru also helps to plan and facilitate inclusive workshops and events.

In 2021, the Parru team supported five strategic development projects on the long term. They provided short-term support by planning and organizing

some 50 individual events. Most of these events were in-house events at Metropolia, but events were also organized for external stakeholder groups, such as the facilitation training held for personnel of the City of Vantaa and the sustainable development webinar for Arene, the Rectors' Conference of Finnish Universities of Applied

Sciences. The Metropolians' ability to utilize the inclusive approach to work was bolstered in over 70 sparring sessions. During the year the team

also organized eight discussion events that supported dialogue between the participants.

Parru is a three-year pilot project that will conclude in late 2022. The goal for the last year of the project is to package the insights and lessons of Parru in a way that allows the organiza-

tion to utilize them going forward and make the inclusive approach to work a part of the everyday life of all Metropolians.



SUSTAINABILITY REPORT 2021

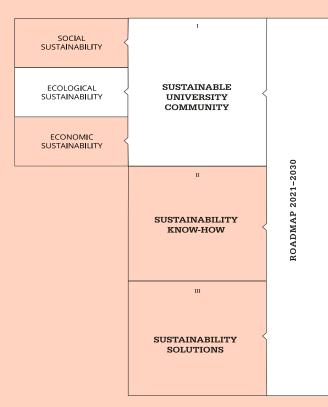
ECOLOGICAL SUSTAINABILITY:

We are carbon neutral by 2030

Our goal is to be carbon-neutral by 2030. We lower and reduce the climate emissions of our operations and offset the emissions we cannot eliminate. We promote resource efficiency and the sustainable use of natural resources in our operations.

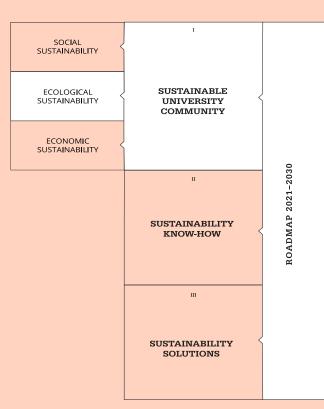
Our carbon-neutrality work promotes the UN Sustainable Development Goals 12: Responsible Consumption and Production and 13: Climate action

ACTIONS	INDICATOR	RELATED SDG
We will develop a more comprehensive emissions calculation and lock 2022 as the baseline year.	Done/not done	13 ACTION
We will increase the use of renewable energy and improve the energy efficiency of our properties.	Emissions from energy use (CO ₂ e tons) and the share of renewable energy	13 ACTION
We support low-emission transportation and reduce emissions caused by transportation	Emissions from transportation (CO ₂ e)	13 ACHION



We lower and reduce the climate emissions of our operations and offset the emissions we cannot eliminate.

ACTIONS	INDICATOR	RELATED SDG
4 . We promote the sustainable use of natural resources and resource efficiency in all our operations.	Emissions from waste manage- ment and water use (CO ₂ e)	12 RESPONSELE CONSIMPTION AND PRODUCTION CONTINUE TO THE CONTI
5. We reduce emissions caused by our investments and procurement.	Emissions from investments and procurement (CO ₂ e)	12 RESPONSBLE CONSIMPTION AND PRODUCTION 13 ACTION COO
6. We prefer climate-friendly food and reduce food waste.	Amount of food waste (tons)	12 RESPONSBLE CONSUMPTION AND PRODUCTION
7. We will offset emissions we cannot eliminate.	Compensation in euros	13 CLIMATE ACTION
All indicator results can be found in Appendix table 1.		



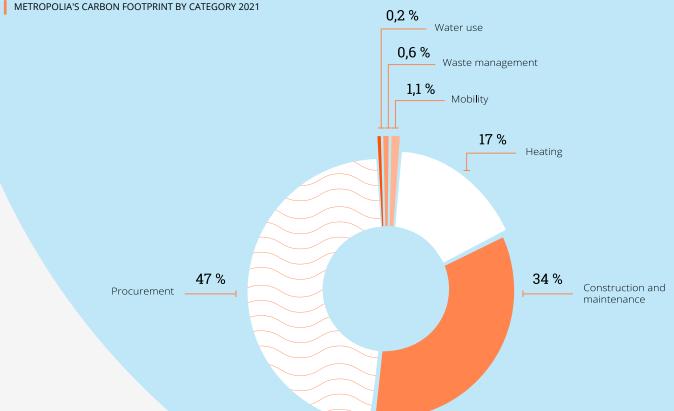
Metropolia's Carbon Footprint in 2021

In 2021, our carbon footprint was 6,898 tons CO_2e . This is 3% larger than the previous year resulting mainly from more precise calculation methods and increased cost levels.

Procurement

Procurement emissions accounted for 47% of our carbon footprint in 2021. The share of procurement was significantly lower than in 2020 because of the changed calculation method and several procurements made in 2020 in relation to the campus reforms that were completed in 2021. Procurement emissions include all of Metropolia's procurements, such as IT equipment, furniture, supplies, services, food and coffee catering and insurance policies, excluding those emissions that have been presented under the categories of travel and properties.

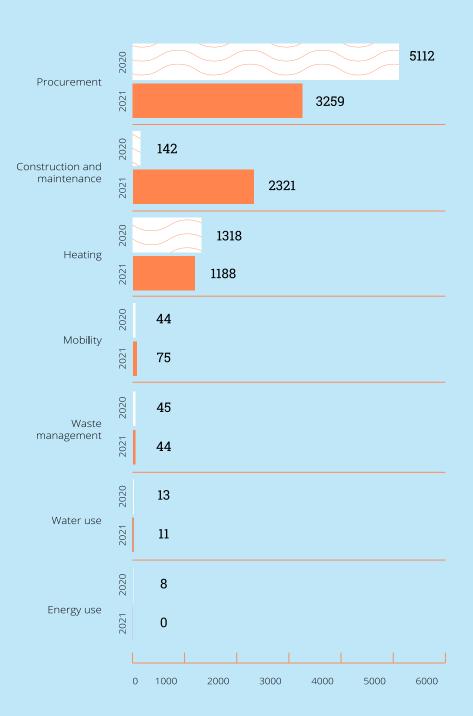
Our goal is to reduce the emissions of our investments and procurements, and in the future we will implement environmental criteria for our procurements. In the previous calculation for 2020, the emissions of procurements were calculated using a non-categorical emission factor based on euros. For 2021,



procurement emissions were calculated for the first time in more detail and by category using Hansel's Hankintapulssi (Procurement Pulse) service. The Hankintapulssi tool analyses an organization's purchase invoice data. Hankintapulssi uses a calculation model developed by the Finnish Environment Institute. The tool enables carbon footprint reporting based on purchase invoice data and the targeting of measures to procurements that result in the most emissions. The carbon footprint estimates of procurement categories are based on the average carbon footprints of products on the Finnish market and might not match the actual carbon footprint of an individual procurement.

In 2021, Metropolia's carbon footprint was 6 898 tons CO_2e , which is 3% larger than the previous year.

ECOLOGICAL SUSTAINABILITY



Construction and property maintenance

Construction and property maintenance accounted for 34% of our total emissions. This share increased from 2020 as a result of more precise calculation methods and increased cost levels. This category includes emissions from new construction, basic renovations, alteration projects, maintenance repairs and use, upkeep and cleaning based on spent euros.

Energy use

Heating accounts for 17% of Metropolia's emissions. This figure includes the consumption of district heating on Metropolia's four campuses and the property at Hämeentie 161, which was relinquished in June as the Soiva campus was inaugurated. In 2021, the heat consumption of our operations increased by approximately 16% and our electricity consumption increased by 20% when compared

to the previous year. However, our heating emissions were reduced by 10% as a result of measures taken by district heating companies that reduced the emission factors of district heating in 2021.

Our goal is to increase our energy efficiency and use of renewable energy. We purchase renewable electricity generated by water power, which has a calculated electricity emission factor of zero. In 2021, we relinquished several facilities that had become unnecessary as well

as facilities that did not use renewable energy.

We purchase renewable electricity generated by water power, which has a calculated electricity emission factor of zero.

METROPOLIA'S CO₂ EMISSIONS 2020

AND 2021

In 2020, our staff travelled less than normal because of the pandemic.

We will be looking into the reasons for our increased energy consumption in conjunction with the energy review of major companies that will be conducted in 2022. The goal is to survey the energy consumption on campuses and find opportunities to improve energy efficiency. In 2022, we are expanding our opportunities to rent facilities to staff and external users. Improving the utilization rate of facilities reduces costs and the need for new construction while reducing the carbon footprint of a single use of the space.

Travel and transportation

Travel and transportation accounted for 1.1% of Metropolia's total emissions. Travel and transportation consists of business trips of employees, car journeys for which mileage allowance was paid, taxi fares, hotel nights, flights and boat trips. Additionally, the figure includes the emissions resulting from the fuel consumption of Metropolia's own vehicles.

In 2020, our staff travelled less than normal because of the pandemic. The amount of travel was further reduced in 2021. The number of kilometres flown by our staff was reduced by some 20% from the previous year, but the carbon footprint was increased as a result of the change of emission factor. The calculation for 2021 uses an emission factor that takes into account the way the

factor. The calculation for 2021 uses an emission factor that takes into account the way the combustion products of aviation fuel boost the effect of greenhouse gases in the upper atmosphere. The carbon footprint of cab rides and car journeys eligible for mileage allowance was reduced by approximately 35% from the previous year. For Metropolia's own vehicles, their fuel consumption dropped by 6%. The boat traffic emissions of our staff were reduced by 87%.

We aim to support low-emission transportation. The Myyrmäki and Myllypuro campuses have charging stations for electric cars and there are appropriate parking opportunities for bicycles on all four campuses. Metropolia staff is offered a commuting benefit that can be used for public transportation. In 2022, our carbon footprint calculation will also include the commutes of students and staff to campuses and between campuses.



ECOLOGICAL SUSTAINABILITY



Waste management

The share of emissions caused by waste management is 0.6% of total emissions. Waste management emissions are calculated based on the waste amounts reported by waste management companies, meaning that they are counted in part by weight and in part by the number of bins and how many times they needed to be emptied. When compared to 2020, the amount of waste was reduced by approximately 1%.

Our goal is to prefer climate-friendly foods and reduce food waste. In 2022, we will be surveying the amounts of food waste generated by restaurants on the campus in student projects.

Reaching the goal of carbon-neutrality requires that the remaining emissions are offset.

Water use

Water use makes up a marginal portion of Metropolia's emissions (0.2%). The emissions of water use are calculated based on the water consumption of Metropolia's campuses (m3). Calculated water consumption dropped by some 17% from the previous year as a result of challenges related to the gathering of data concerning water consumption.

Offsetting emissions

Our goal is to reduce climate emissions as much as possible, but we cannot bring them down to zero through our own actions. Reaching the goal of carbon-neutrality requires that the remaining emissions are offset. In 2022, we will also be surveying credible and verified offset possibilities.

Carbon Footprint Calculation

Reaching carbon-neutrality requires that we calculate our carbon footprint comprehensively enough and reduce it as much as possible. Metropolia's first carbon footprint calculation, which concerned the year 2020, was completed in the spring of 2021. That calculation was made using a carbon footprint calculator that consulting firm Gaia created for Metropolia. In the autumn of 2021 we conducted a new carbon footprint calculation using a more comprehensive calculator created in a working group of Arene, the Rectors' Conference of Finnish Universities of Applied Sciences. The calculation for the year 2021 was realized by combining these two calculation methods as well as the data produced by Hansel's Hankintapulssi tool.

We are continuously developing our carbon footprint calculation and in 2022 it will include investment activities as well as a broader category of transportation that includes the emissions created by staff and students commuting to and between the campuses. Because this calculation will be even more accurate, we will be using the carbon footprint of 2022 as the baseline from which we will calculate our emission reduction scenarios for the year 2030.

Scope of the carbon footprint calculation

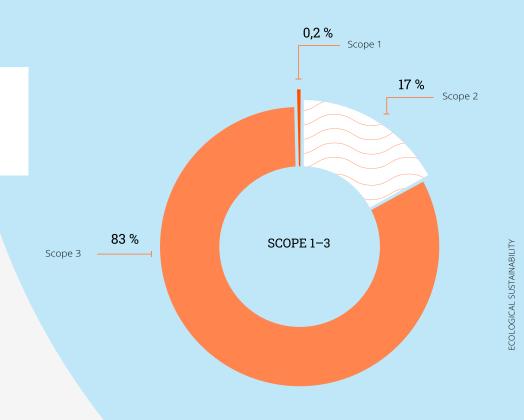
An organization's emission sources are divided into three classes according to the

We will use the carbon footprint of 2022 as the baseline for our emission reduction scenarios for 2030.

Greenhouse Gas (GHG) protocol. Our calculation includes Metropolia's emissions at all three levels (Scope 1–3).

- Scope 1: the organization's own emission sources, which in Metropolia's case means the fuel used in our vehicles.
- Scope 2: indirect emissions resulting from the production of purchased energy. In our calculation this includes electricity and district heating.
- Scope 3: other indirect emissions created in the organization's value chain, which for us includes water consumption, waste, business travel, construction and property maintenance and procurements.

Most of Metropolia's emissions (83%) were indirect scope 3 emissions consisting mostly of procurements. The share of scope 2 emissions was 17% as a result of our consumption of district heating. Scope 1 emissions accounted for 0.2% of our total emissions, and they consist of the fuel consumption of Metropolia's own vehicles.



METROPOLIA'S CARBON FOOTPRINT (SCOPE 1-3) 2021



CASE:

Smart Campus Advances Carbon Neutrality

Nearly 40% of all energy consumed in Finland is spent in buildings and they cause over 30% of all emissions ¹. What role does a smart campus play in reaching Metropolia's goal of carbon neutrality?

The solar thermal collectors

and solar electricity panels on

the roof of the campus work as

teaching and research equip-

ment as well as production

units.

Metropolia's Myllypuro campus is a so-called smart campus equipped with sensors to monitor structures and conditions that relay building data to

the cloud. This data is then utilized in teaching, research and the monitoring of the environmental impacts of the property.

The campus was already designed to be energy efficient in

the construction phase. The solar thermal collectors and solar electricity panels on the roof work as teaching and research equipment as well as production units. They produce some 15 MWh of solar heat per year and some 100 MWh of solar electricity per year. With real-time property data analysis we are able to identify development targets with regard to energy efficiency and react to them. Teaching work at Metropolia makes extensive use of the building services and automation of the smart campus. The work of students and teachers creates solutions

and new applied technologies. Coding, artificial intelligence and cloud services are also an inseparable part of modern building services and their manage-

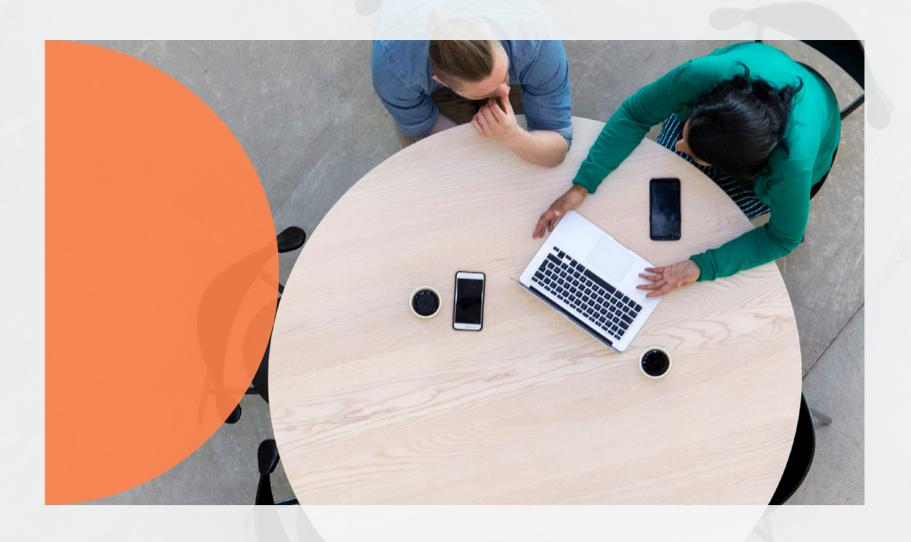
> ment systems, which opens up the possibility to combine the expertise of different fields inside the organization.

> The data gleaned from the campus property and its users can be constantly refined and utilized in various ways.

Combining this data with external data, such as weather, energy price and emission forecasts, enables the creation of new applications and services to benefit the users, energy efficiency and the upkeep of the building. In the future, artificial intelligence and data will be utilized on all Metropolia campuses to anticipate external changes and optimal consumption of buildings.

SOURCE:

1 Confederation of Finnish Construction Industries RT.



We grow sustainably and invest in the future

We aim to grow sustainably within ecological and social boundaries both in Finland and internationally. We wish to be a part of creating the preconditions for sustainable growth across all of society. Sustainable growth is also important for financially securing Metropolia's operations.

Sustainable growth is visible in Metropolia's operations through economic sustainability. It concerns

the economic impacts of our operations on different shareholder groups, such as staff, customers, owners and society more broadly.

Within this theme we are especially promoting UN Sustainable Development Goals 8: Decent Work and Economic Growth and 12: Responsible Consumption and Production.

TOIMENPITEET	INDICATOR	RELATED SDG
1 . We comply with the principles of responsible business.	Continuous improvement	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
2. We define and apply the principles of responsible investing.	Investments that meet the responsibility criteria (%)	12 RESPONSIBLE ODESIMPTION AND PRODUCTION
3. Our procurement is in accordance with the principles of sustainable development.	Procurement that meet the sustainability criteria (%)	8 DECENT WORK AND TO CONSUMPTION AND PRODUCTION AND PRODUCTION
4. We promote circular economy thinking, expertise and business models.	Value of sharing agreements (%)	8 DECENT WORK AND ECONOMIC GROWTH

ECOLOGICAL SUSTAINABLE UNIVERSITY COMMUNITY

ECONOMIC SUSTAINABILITY

SUSTAINABILITY

KNOW-HOW

II

SUSTAINABILITY

SUSTAINABILITY

SOLUTIONS

SOCIAL

SUSTAINABILITY

All indicator results can be found in Appendix table 1.

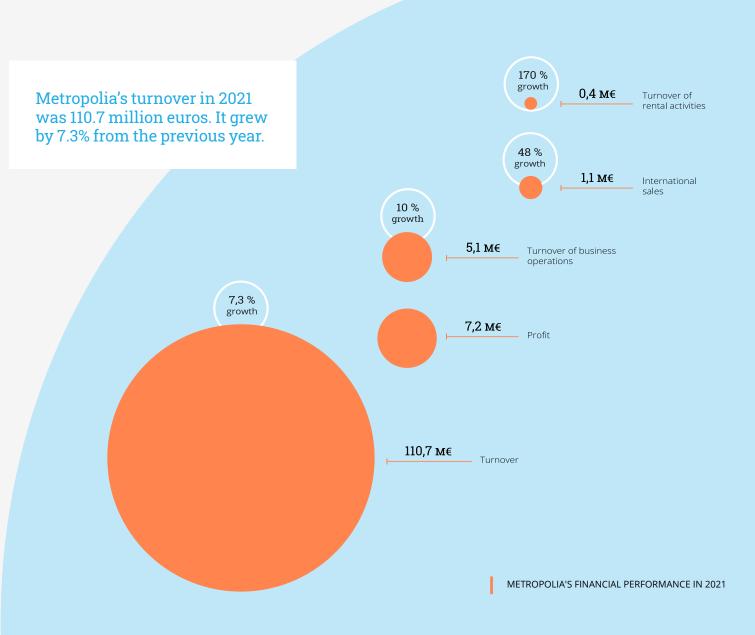
ECONOMIC SUSTAINABILITY

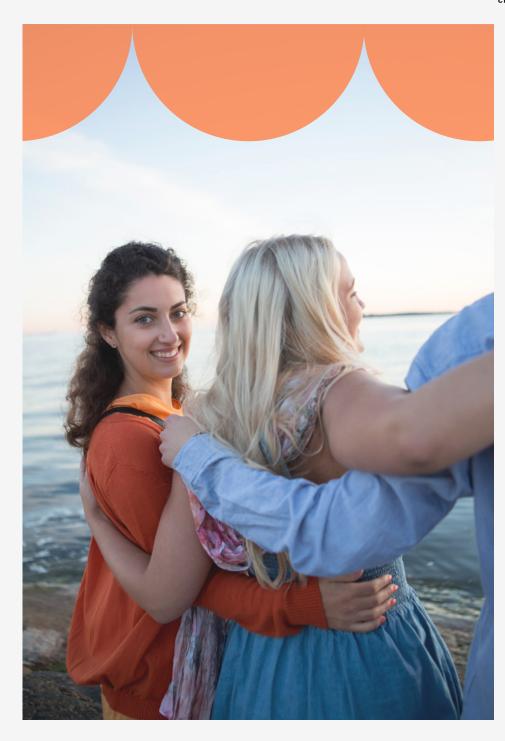
Financial Performance in 2021

Metropolia's turnover in 2021 was 110.7 million euros. It grew by 7.3% from the previous year. The profit for the financial period was 7.2 million euros. The profit grew by 2.1 million euros from the previous year. The result of the financial period included an instalment (2.4 million euros) that was overpaid by the Ministry of Education and Culture, and the corrected profit for the financial period was 4.8 million euros.

The turnover of Metropolia's business operations increased by 10% from the previous year and was 5.1 million euros. International sales, including business operations and tuition fees from students outside of EU/EEA countries, amounted to 1.1 million euros, which means an increase of 48 % from the previous year (2020: 0.8 million euros).

The turnover of rental activities was 0.4 million euros, which means an increase of 170% from the previous year as the City of Helsinki continued administering COVID-19 vaccinations on the Myllypuro campus throughout the year (2020: 0.16 million euros).





Sustainable Growth

It is important that the preconditions for growth are on a sustainable basis. In the coming years we will create sustainability principles for business operations, investments and procurements. We will also update our investment strategy to include ESG (Environmental, Social & Governance) criteria. We strive for resource effectiveness in all of our operations and aim to utilize the business models of circular economy, such as

The opportunities for sustainable growth open up through education and our innovation hubs. While solving social challenges and ensuring that the expertise needs of the future are met, we can also strive for sustainable growth.

the practices of a sharing economy, more in

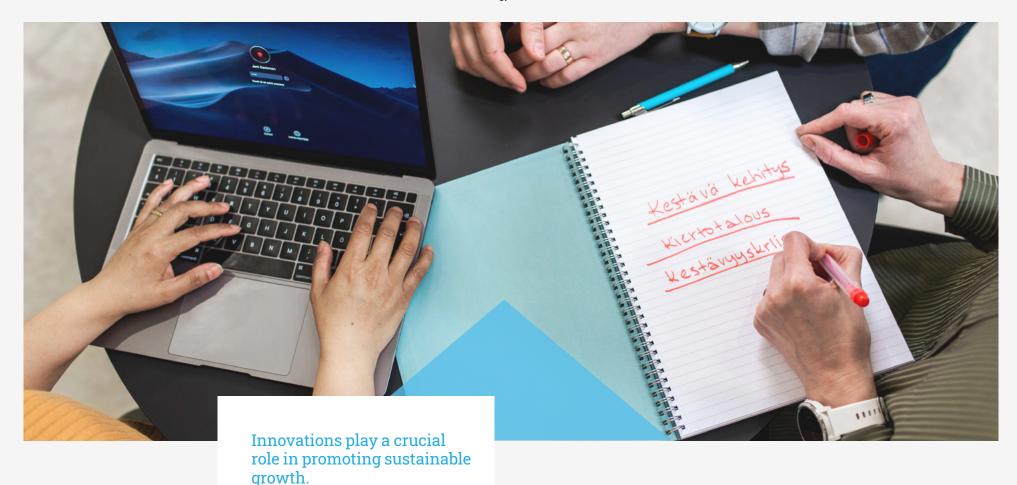
From the perspective of education, Metropolia is seeking growth by training specialists for fields where there is a pressing societal need for them. Finland aims to increase education-based immigration and support the

The number of students paying tuition increased by 77% from the previous year.

integration of immigrants into Finnish society. In order to meet society's needs, Metropolia is involved in international projects to entice expert employees to Finland via studies. Indeed, our goal is to increase our quota of international degree students. In 2021, there were 92 students at Metropolia who came from a non-EU/EEA country and thus paid tuition fees. This meant an increase of 77% when compared with the previous year. The most represented countries of origin among students paying tuition were Vietnam, Russia, the Philippines and Sri Lanka.

Metropolia conducts education exporting as part of EduExcellence Oy, which is a sales company for education export owned jointly by the

the future.



Haaga-Helia, Laurea and Metropolia Universities of Applied Sciences.

Significant strides were made in international sales in 2021 by spreading pedagogy and digitalization of industry (4IR) in South Africa through EduExcellence Oy in cooperation with Laurea. In the project we are creating a unique operation model where learning, genuine work and industrial needs come together.

Innovations play a crucial role in promoting sustainable growth. Metropolia's innovation

hubs enable a new way to learn, create solutions and engage in multisector cooperation to tackle significant phenomena or challenges. Sustainable growth is facilitated by utilizing existing resources as efficiently as possible in the planning phase of new RDI projects.

Our goal is to increase external commercial RDI funding in a sustainable way. Commercial RDI activity is realized, for example, when

companies utilize Metropolia's co-creation platforms and laboratory facilities in their own RDI operations, all the while enabling the integration of studies into their development work. Metropolia Proof Health is an example of a platform that offers companies, research institutes and public sector operators a modern environment, flexible processes and wide-ranging expertise for preclinical testing, piloting, validation and verification. You can read more about Proof Health on page 56. CASE:

Myllypuro Campus as a Vaccination Unit

The COVID-19 pandemic continued to pose a challenge in the spring of 2021 and the City of Helsinki needed new vaccination points to expedite the vaccinations. There were spaces on Metropolia's campuses that were not seeing much use as a result of the pandemic. We wanted to bear our social responsibility and, for our part,

The Myllypuro vaccination point administered a total of 210,000 vaccines.

help alleviate the COVID-19 situation by opening a vaccination point for the City of Helsinki on the Myllypuro campus.

The COVID-19 vaccinations began there on 1 February 2021, and over the course of 2021 the Myllypuro vaccination point administered a total

of 210,000 vaccines. Cooperation with the City of Helsinki gave Metropolia an opportunity to have a positive impact on society by providing a solution in a challenging situation. It also allowed us to put underused facilities to good use, and renting the spaces resulted in proceeds for Metropolia.





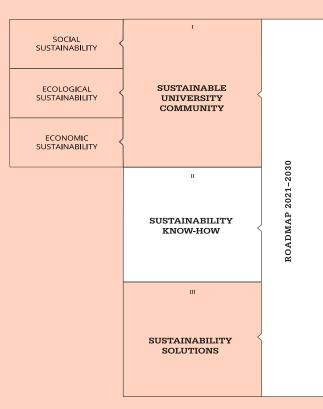
Everyone at Metropolia will get sustainability know-how

A sustainable future requires great investment into sustainability know-how. Our goal is that every member of our university community, whether student or staff, is an expert of sustainability. For us all to be able to promote sustainable development in working life and society, it is crucial to include sustainability in all of our

educational offering and invest in the development of the sustainability know-how of our staff.

Within this theme we are especially promoting the UN Sustainable Development Goals 4: Quality Education and 12: Responsible Consumption and Production.

ACTIONS	INDICATOR	RELATED SDG		
We will integrate sustainable development into all of our education by the end of 2023.	Graduate students' feedback survey (AVOP) on sustainable development skills	4 QUALITY 12 RESPONSIBLE CONSUMPTION AND PRODUCTION		
We will increase the sustainability competence of Metropolia's staff.	Completed studies	4 QUALITY EDUCATION AND PRODUCTION AND PRODUCTION CONSIDER TO CONS		
We build individual and flexible learning solutions for different stages of life.	Credits completed outside of degree programs	4 QUALITY EDUCATION		
4 . We ensure the accessibility and flexibility of education, e.g., through digitalisation.	Share of online and multiform studies (%)	4 QUALITY EDUCATION		



All indicator results can be found in Appendix table 1.



Sustainability Education

At the moment Metropolia offers several degrees linked to sustainable development. Questions of ecological sustainability are strongly present in technical degrees in Schools of construction and real estate, automotive and mechanical engineering and smart and clean solutions. Degrees in health care and social services emphasize themes of social sustainability. In the culture sector, degree programmes in design and fashion, for example, have sustainability themes built into

them. On the business and administration side, perspectives of sustainable business are discussed.

There is still a lot to do, as our goal is to integrate sustaina-

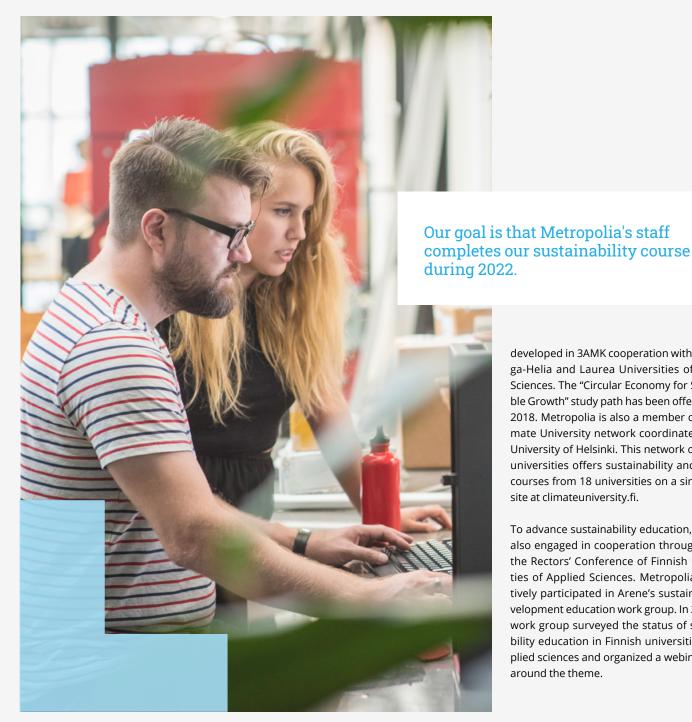
ble development into all of our education by the end of 2023. To achieve this goal we established a multidisciplinary sustainability education team in early 2021. The team consists of teachers from every field of study at Metropolia, as well as experts in pedagogy and curriculum planning. The purpose of the team is to visibly incorporate sustainable development into courses as quickly as possible. This work

Our goal is to integrate sustainability into all of our education by the end of 2023.

began by surveying how prevalent sustainability was in the degree programmes in culture and health care and social services. Based on pilot projects a model was created that allows us to evaluate the current status of sustainability in our degree programmes more extensively. All of Metropolia's degree programmes will conduct an analysis from this perspective in 2022.

The Al-based tool developed jointly by Eduix, Headai and Metropolia can also be used in the evaluation of the current state of the degrees. The tool enables comparisons between curriculum contents and the UN Sustainable Development Goals. The purpose of the Agenda2030 tool is to support the analysis of the current state of the degree programmes as well as the development of curricula.

Metropolia has offered an elective 30-credit study module on sustainable development since 2017. The module is realized in English and it especially highlights perspectives of circular economy. The course offering on sustainable development has also been



developed in 3AMK cooperation with the Haaga-Helia and Laurea Universities of Applied Sciences. The "Circular Economy for Sustainable Growth" study path has been offered since 2018. Metropolia is also a member of the Climate University network coordinated by the University of Helsinki. This network of Finnish universities offers sustainability and climate courses from 18 universities on a single website at climateuniversity.fi.

To advance sustainability education, we have also engaged in cooperation through Arene, the Rectors' Conference of Finnish Universities of Applied Sciences. Metropolia has actively participated in Arene's sustainable development education work group. In 2021, the work group surveyed the status of sustainability education in Finnish universities of applied sciences and organized a webinar series around the theme.

In the spirit of continuous learning our goal is to build personalized and flexible learning solutions that accommodate various life situations. The number of credits (79,905) completed in the Open University of Applied Sciences, in cooperation between universities, in preparatory education for immigrants and in specialization training grew by 23% from the previous year.

Our goal is to use digitalization and other means to ensure that our education is accessible and flexible. We monitor our progress towards this goal using the share of courses that are realized either completely or partially online as an indicator. In 2021, the share of online courses was 32% of all offered courses.

Staff Competence

Developing the sustainability competence of our staff forms an important part of our sustainable development work. In late 2021 preparation work began on a sustainability course intended for all Metropolians. The goal is that our staff completes the two-workday course independently during 2022. The sustainability expertise of the entire staff was also developed in the Campus Academy that deals with Metropolia's strategic themes, as well as in the Management Academy intended for management. Metropolia is a member of the FIBS corporate responsibility network, which also gives staff members an opportunity to develop their sustainability competencies further.

Bachelor's Degree in Fashion and Clothing – an Alumna's Perspective

Our goal is that every Metropolia graduate knows how to promote sustainable development in working life and society at large. We asked Anna Jokinen, an alumna of Metropolia and founder of the sustainable fashion label Revoel, how sustainable development was present in her studies.

The Master's Degree in

Fashion and Clothing was

updated in 2021 making

sustainable development

one of its central themes.

Anna Jokinen founded *Revoel* with her friend Elisa Karvonen in 2018. The company's goal is to create fashion for women who wish to stay on the move feeling confident and gorgeous. Revoel was born out of two friends' desire to create beautiful yet sustainable fashion that stands out from the mainstream.

Anna Jokinen graduated as a Bachelor of Fashion and Clothing from Metropolia in 2021. Her *fashion and clothing studies* provided a comprehensive overall view of the fashion industry. However, Anna was

left wanting more concrete, practical lessons on the various ways to create collections on a sustainable basis, for example. She would have wanted the opportunity to visit companies and see how they solve challenges related to sustainability in real life. Anna feels that the most valuable lessons she learned related to the manufacture and design of clothes as well as the processes of production. In her courses on logistics she had the opportunity to try what running a factory is like in practice.

Sustainability is at the core of Revoel – all products are designed and manufactured in Finland using high-quality recycled materials. The entrepreneurs dream of opening their own clothing factory in

the future and growing their business operations especially towards international markets.

The Master's Degree in Fashion and Clothing was updated in 2021 and sustain-

able development was made one of its central themes. In the future the degree programme will also deal with sustainability, communication regarding sustainability and the development of business operations in a circular economy. The updated master's degree programme in Fashion and Clothing that adheres to the renewed curriculum will begin in the autumn of 2022.





SUSTAINABILITY SOLUTIONS:

We create innovative solutions to sustainability challenges

Climate change, transportation, health services, urbanization and construction now pose the most urgent challenges that we are developing sustainable solutions to in our five innovation hubs. We solve these challenges in a human-centred manner using the methods of open RDI.

Our innovation hubs especially promote the UN Sustainable Development Goals 4: Quality Education, 8: Decent Work and Economic Growth, 9: Industry, Innovation and Infrastructure and 17: Partnerships for the Goals.

ACTIONS	INDICATOR	RELATED SDG		
We will increase the impact of innovation hubs in solving sustainability challenges.	RDI projects contributing to sustainable development (%)	9 NAUSTRY, INCOMING AND INFRASTRUCTURE		
We solve sustainability challenges with open innovation and research and a phenomenon-based approach.	Amount of open access publications, amount of RDI partnership agreements	9 MOUSTRY INNOVATION ANOMPRASTRUCTURE 17 PARTINERSHIPS FOR THE GOALS		
3. We will strengthen the vitality of the region through sustainable entrepreneurship, business and employment.	Number of start-up teams and staff	4 QUALITY B GEONOMIC GROWTH		
All indicator results can be found in Appendix table 1.				

SOCIAL
SUSTAINABILITY

ECOLOGICAL
SUSTAINABILITY

ECONOMIC
SUSTAINABILITY

SUSTAINABILITY

RNOW-HOW

III

SUSTAINABILITY
SOLUTIONS

Every year we realize approximately 100 RDI projects in our innovation hubs.

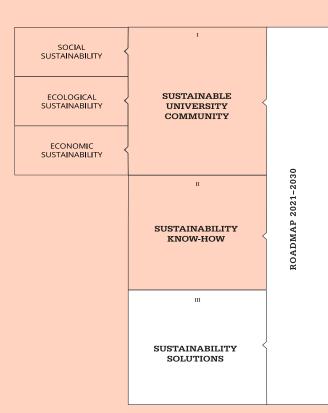
In practice our innovation hubs create solutions in the form of various projects, customer jobs and services. The operation model of the innovation hubs allows us to seek solutions in multidisciplinary cooperation with our partners. By identifying systemic wholes and the interdependencies between things we are able to better support our efforts to reach our sustainability goals.

Every year we realize approximately 100 research, development and innovation projects in our innovation hubs together with our partner networks and operators from working life. Our students are also actively involved, and they are there to learn and create something new.

Our goal is to focus and steer the operation of the innovation hubs towards certain UN Sustainable Development Goals. This would make their operations more societally impactful and our handprint even stronger. In 2021, we analysed the RDI project portfolio of each innovation hub in relation to the SDGs. We also identified three SDGs as the shared goals of Metropolia's innovation hubs:

- SDG 4: Quality Education
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure

In 2022, we will pay more attention to sustainable development already in the preparatory phase of RDI projects. We will also develop an indicator for monitoring sustainability work in innovation.



Open Innovation and Research Activities

When solving challenges related to sustainability, it is crucial that innovation and research activities are open and transparent. We have constructed cooperation platforms on Metropolia campuses that adhere to the principles of open research, science and teaching. Our partners, students and staff work together on the same platforms such as the Helsinki XR Center for virtual and augmented reality, the indoor food production platform Urban Farm Lab and the HyMy Village that produces health and well-being services.

These platforms allow us to build long-term ecosystem cooperation to solve sustainability challenges using the methods of open research and innovation. We support ecosystem cooperation with RDI partnerships of which there were eight at the end of 2021. In the RDI partnership model the partners commit to the innovation hubs and to the open development work conducted on their platforms. These partnerships must also support Metropolia's sustainable development goals. In 2022, we will develop Metropolia's ecosystem partnership model and standardize the principles of ecosystem operations.

SmartLab on the Myllypuro campus is a good example of open and goal-oriented ecosystem cooperation that aims to solve sustainability challenges. SmartLab is a testing platform for future housing and an accelerator of smart home development that enables multidisciplinary learning and research and development work between Metropolia students, staff, partners and third parties. The ecosystem of SmartLab enables user-friendly solutions for the inhabitants of future homes that are tested through a shorter development cycle.

We support ecosystem cooperation with RDI partnerships, of which there were eight at the end of 2021.

Our open publication policy reinforces sustainability expertise and makes the solutions available to different operators. We promote the openness of publications, research material and educational material on sustainable development, and submit the research and infrastructure created on the innovation platforms to be freely viewed on the research repository at research.fi. By the end of 2021 we had published a total of 76 pieces of Creative Commons -licensed educational material on *the Library of Open Educational Resources*.



SUSTAINABILITY SOLUTIONS



SUSTAINABILITY SOLUTIONS



Our goal is to bolster the vitality of the capital region through sustainable entrepreneurship, business and employment. This means developing the innovation and entrepreneurship competencies of students, for example, and we invested heavily into this in 2021 with the support of the City of Helsinki. Metropolia is committed to developing its business incubator activities in the Campus Incubators programme in 2021–2024 together with other universities in the Helsinki area. This programme is based on the development of freely available and mutually complementary campus incubator services and on open sharing of information between universities and the region's start-up ecosystem. The goal is to open the entrepreneur study path for all degree students

enables entrepreneurship studies for all degree students.

Campus Incubators programme

at Metropolia. The perspectives of sustainable development are included in the selection criteria when choosing projects and teams.

Cooperation between cities and universities plays a central role in making the region more vibrant. Metropolia joined the Urban

Tech Helsinki incubator project together with the City of Helsinki, Aalto University and the University of Helsinki. The project seeks clean and

sustainable urban solutions while attracting experts and companies to the Helsinki metropolitan area and facilitating and expediting the birth of new companies.

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Five Innovation Hubs



Customer-oriented Well-being and Health Services is an innovation hub that reinforces social sustainability. The operations of the hub are manifested in the HyMy Village, which is a learning and development environment where health care and social services are developed in multiprofessional teams consisting of students, staff, customers and partners. Since March 2021, HyMy Village has had the authorization to provide private healthcare services.

The operations of the HyMy Village focus on the prevention of social exclusion and inequality as well as on reducing health disparities, especially in Eastern Helsinki. To support the lifelong learning and feeling of inclusion of Helsinki residents they are made participants in the everyday operations of the university.



Clean and Sustainable Solutions is an innovation hub that creates sustainability solutions and trains the specialists of the future who are able to respond to the rapidly increasing number of global challenges, such as climate change, ecosystem stress, depletion of natural resources and the availability of clean food, water and energy. The central themes of the hub are circular economy, sustainable food system and Industry 4.0 applications.

In the sustainable food system theme we focus on developing new foodstuff innovations and technologies that are crucial for the food security of the future. Cooperation with partners takes place on the indoor food production platform Urban Farm Lab and in biochemistry and food technology labs.



Data-driven Construction is an innovation hub that promotes economically, ecologically and socially sustainable digitalization in the built environment. Its central themes are smart properties, digitalization of construction work and builders of the future.

2021 saw the opening of the **SmartLab** learning and development environment that was realized as a joint project by Metropolia, Skanska and ABB. This development platform for smart homes is used to test and develop technologies, interfaces and practices that allow us to develop user-friendly solutions that serve the purposes of housing. SmartLab collects user experiences from regular people and the results are utilized in the planning of apartments of the future. The smart homes of the future learn things about their inhabitants and, at best, increase their well-being without them noticing.



Functional City for People is an innovation hub that develops cities in a socially sustainable way that enables resident well-being and participation. Its central themes are urban development, cultural well-being and work and expertise of the future.

In 2021, we founded a centre of excellence for cultural well-being together with the University of the Arts Helsinki and the Cities of Helsinki. Espoo and Vantaa. The centre for excellence brings together operators from health care, social services and the culture sector to strive for well-being and new solutions through creativity. Our partnership portfolio was also reinforced through the New European Bauhaus (NEB) network of the European Union that selected Metropolia as a partner in the summer of 2021. As part of this network we support the European Green Deal and bring it closer to citizens.



SUSTAINABILITY SOLUTIONS

Smart Mobility is an innovation hub that focuses on studying the impacts of the revolution of transportation technology on the practical level and in a human-centred manner. Its central themes are healthy and sustainable transportation, regulation and standards of transportation, transportation professionals of the future and unmanned aviation.

In 2021, the aims of sustainable traffic systems were advanced in such projects as the Countryside Mobility project that builds networks between transportation operators in rural and peri-urban areas. Energy efficiency was promoted in the AutoMod project that develops new kinds of technical solutions to facilitate circular economy through traffic automation and robotics.

Sustainable Well-being in Ecosystem Cooperation

The goal of *Metropolia Proof Health*® that operates on the Myllypuro campus is to produce sustainable well-being for society and facilitate high-quality and safe healthcare. Solutions that support sustainable well-being are born in cooperation through resource wisdom, need-centred development and the sharing of expertise.

At Metropolia Proof

Health students are

able to learn togeth-

er with partners.

Metropolia Proof Health offers companies, research institutes and public sector operators a

modern environment, flexible processes and wide-ranging research and testing services. The aims are to reinforce the need-centred expertise of client companies regarding health and well-being technologies and to support the RDI competencies of companies. In 2021, the City of Helsinki In-

novation Fund granted funding to accelerate the operations of Metropolia Proof Health.

Together the testing platform of the City of Helsinki, HUS Testbed and Metropolia Proof Health form the Health Proof Helsinki service platform.

On this platform partners offer services on a one-stop shop basis. The cooperation focus-

es on sharing expertise between the different operators and partners. Ecosystem cooperation allows for a more robust business life in the Helsinki area.

Metropolia Proof Health is also closely connected to

Metropolia's teaching as it provides a platform for thesis work and other studies. Here students get to develop their expertise and learn together with our partners.



APPENDIX:

Objectives, indicators and results of the Sustainable Development Roadmap 2030

SDGS RELATED TO OBJECTIVES	ACTIONS	INDICATOR	TARGET 2030	RESULT 2021	RELATED SDG TARGETS	RELATED SDG INDICATORS
SOCIAL SUSTAINABILITY OBJECTIVE: WE LEAD RESPONSIBLY AND BY PUTTING PEOPLE FIRST		Key Performance Indicator: Personnel survey index	Above the norm of the education sector, norm of the year 2021: 66,8	64,9	16.6, 16.7, 8.5, 10.2	
8 DECENT WORK AND ECONOMIC GROWTH 10 REQUALITES 16 AND STRONG INSTITUTIONS 2 STRUCTURE 17 STRUCTURE 18 STRUCTURE 19 STRUCTURE 19 STRUCTURE 10 STRUCTURE 10 STRUCTURE 10 STRUCTURE 11 STRUCTURE 12 STRUCTURE 13 STRUCTURE 14 STRUCTURE 15 STRUCTURE 16 STRUCTURE 17 STRUCTURE 18 STRUCTURE 18 STRUCTURE 18 STRUCTURE 19 STRUCTURE 19 STRUCTURE 10 STRUCTURE 10 STRUCTURE 10 STRUCTURE 10 STRUCTURE 10 STRUCTURE 11 STRUCTURE 12 STRUCTURE 13 STRUCTURE 14 STRUCTURE 15 STRUCTURE 16 STRUCTURE 17 STRUCTURE 17 STRUCTURE 18 STRUCT	We lead responsibly and by putting people first.	Personnel survey index	Above the norm of the education sector, norm of the year 2021: 66,8	64,9	16.6, 16.7	
	2. We take care of the health, well-being and safety of our entire higher education community.	Personnel survey and feed- back survey of graduate students	Target level and data available for the 2022 report		8.5, 8.8	8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status
	3. We promote equality and diversity in our university community.	Age and gender distributions of staff and students. Share of female executives.	The target level will be defined in the 2022 report	Personnel: 63% women, 37% men. Students: 48% women, 52% men, other / no information 0.01%. The proportion of women in management positions is 50%.	10.2, 10.3, 10.4	5.5.2 Proportion of women in managerial positions
	4. We increase opportunities for inclusion and open dialogue in our university community.	Personnel survey (communication and participation)	The target level will be defined in the 2022 report	2,92/4	10.2	

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SDGS RELATED TO OBJECTIVES	ACTIONS	INDICATOR	TARGET 2030	RESULT 2021	RELATED SDG TARGETS	RELATED SDG INDICATORS
ECOLOGICAL SUSTAINABILITY						
OBJECTIVE: WE ARE CARBON NEUTRAL BY 2030		Key Performance Indicator: CO ₂ emissions (CO ₂ e tons)	0 tons CO ₂ e	6 898 tons CO ₂ e	13.2	13.2.2 Total greenhouse gas emissions per year
12 RESPONSIBLE CONSUMPTION AND PRODUCTION COO	We will develop a more comprehensive emissions calculation and lock 2022 as the baseline year.	Done/not done	Done	Calculations extended to include all procurements. Investments and commuting are missing from the calculation.	13.2	
	2. We will increase the use of renewable energy and improve the energy efficiency of our properties.	Emissions from energy use (CO ₂ e tons) and the share of renewable energy	Energy consumption 0 tons CO ₂ e, 100% renewable energy	Emissions from energy consump- tion: 1188 tons CO ₂ e, share of renewable energy: 51%	13.2	7.2.1 Renewable energy share in the total final energy consumption
	3. We support low-emission transportation and reduce emissions caused by transportation	Emissions from transportation (CO_2e)	Emissions reduc- tion scenarios to be defined in 2022	75,3 tons CO ₂ e	13.2	
	4. We promote the sustainable use of natural resources and resource efficiency in all our operations.	Emissions from waste management and water use (CO ₂ e)	Emissions reduc- tion scenarios to be defined in 2022	Waste manage- ment: 44 tons CO_2e , water consumption 11 tons CO_2e	13.2, 12.2, 12.4, 12.5	
	5. We reduce emissions caused by our investments and procurement.	Emissions from invest- ments and procurement (CO ₂ e)	Emissions reduc- tion scenarios to be defined in 2022	3258,6 tons CO ₂ e	13.2, 12.7	
	6. We prefer climate-friendly food and reduce food waste.	Amount of food waste (tons)	Emissions reduc- tion scenarios to be defined in 2022	Data available for the 2022 report	13.2, 12.3	12.3.1 (a) Food loss index and (b) food waste index
	7. We will offset emissions we cannot eliminate.	Compensation in euros	The means and funding needed for offsetting clarified	Not started	13.2	



SDGS RELATED TO OBJECTIVES	ACTIONS	INDICATOR	TARGET 2030	RESULT 2021	RELATED SDG TARGETS	RELATED SDG INDICATORS
ECONOMIC SUSTAINABILITY						
OBJECTIVE: WE GROW SUSTAINABLY AND INVEST IN THE FUTURE		Key Performance Indicator: Procurement that meet the sustainability criteria (%)	Target level and data a report	evailable for the 2022	8.3	
8 DECENT WORK AND ECONOMIC GROWTH AND PRODUCTION AND PRODUCTION	1. We comply with the principles of responsible business.	Continuous improvement	Target level and data available for the 2022 report		12.6	
	2. We define and apply the principles of responsible investing.	Investments that meet the responsibility criteria (%)	Target level and data available for the 2022 report		12.6	
	3. Our procurement is in accordance with the principles of sustainable development.	Procurement that meet the sustainability criteria (%)	Target level and data available for the 2022 report		8.3, 12.7	12.7.1 Number of countries implementing sustainable public procurement policies and action plans
	4. We promote circular economy thinking, expertise and business models.	Value of sharing agree- ments (%)	Target level and data a report	vailable for the 2022	8.4	

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SDGS RELATED TO OBJECTIVES	ACTIONS	INDICATOR	TARGET 2030	RESULT 2021	RELATED SDG TARGETS	RELATED SDG INDICATORS
OBJECTIVE: EVERYONE AT METROPOLIA WILL GET SUSTAINABILITY KNOW-HOW		Key Performance Indi- cator: Graduate students' feedback survey (AVOP) and studies completed by personnel	Target level and data available for the 2022 report		4.7	
4 QUALITY EDUCATION	1. We will integrate sustainable development into all of our education by the end of 2023.	Graduate students' feed- back survey (AVOP) on sustainable development skills	Target level and data available for the 2022 report		4.7, 12.8	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment
	2. We will increase the sustainability competence of Metropolia's staff.	Completed studies	Target level and data available for the 2022 report		4.7, 12.8	
	3. We build individual and flexi- ble learning solutions for differ- ent stages of life.	Credits completed outside of degree programs	The target level will be defined in the 2022 report	79 905 credits (23 % growth from previous year)	4.3	
	4. We ensure the accessibility and flexibility of education, e.g., through digitalisation.	Share of online and multi- form studies (%)	Target 2022: 20 %, target 2024: 40 %	Share of online studies 32 %	4.3, 4.5	