Sustainable Development Goals Report

Technical University of Cluj-Napoca

2023-2024

Content

„Sustainable Development represents, in the Romanian context, the desire to achieve a balance, a synthesis between the aspirations of the free-born citizen, the society on which it depends and through which it is defined, and the context that allows self-realization. This balance starts from man, the central actor who seeks an individual balance and favorable conditions to achieve it. The favorable conditions are influenced by the society that must support and motivate him and by the environment through which he finds himself and can find his balance. The role of the state in the context of sustainable development is to help achieve this balance, not only for citizens now, but also for future generations."

The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, provides a common plan for peace and prosperity for people and planet, now and in the future. At its heart are the 17 Sustainable Development Goals (SDGs), which represent an urgent call to action from all countries - developed and developing - in a global partnership. Thus, it was agreed that the elimination of poverty and other deprivations must be convergent with various strategies that improve health and education, reduce inequality and stimulate economic growth, while addressing climate change and contributing to environmental conservation.

Higher education did not play a significant role in the original Millennium Sustainable Development Goals (SDGs) for the period 2000 – 2015. But this changed profoundly with the definition of the SDGs for the period 2015 – 2030, so now universities everywhere are interested in achieving these ambitious goals. The university as an institution has a long history, starting as an educational institution, later assuming the function of knowledge creation (research) and more recently the so-called third mission of active engagement in society, thus having the role of contributing to the development of society.

Sustainable Development Goals Report -TUCN, 2023-2024

The Technical University of Cluj-Napoca is an active partner in the national and international academic community and has a continuously involved presence in the local and regional community. The purpose of this report is to highlight the involvement and impact in society of the Technical University of Cluj-Napoca in achieving the Sustainable Development Goals, including examples of initiatives, events and projects that provide impact from the perspective of the 17 sustainable development goals.

In the **academic year 2023-2024**, the third evaluation of the University was carried out in the **UIGreenMetric** international ranking - **position 793**.

The University's impact related to the Sustainable Development Goals specific to the prestigious **Times Higher Education International Impakt Ranking 2025** edition, was evaluated as follows:

- for *SDG7-Clean Energy* - **position 100-200** at the international level (out of 1181 universities) and **FIRST position at the national level**,
- for *SDG9-Industry, Innovation, Infrastructure*- **position 200-300** at the international level (out of 1156 universities) and **FIRST position at the national level**
- for *SDG4 - quality education,* **position 100-200** at the international level (out of 1975 universities) and **second position at the national level,**
- and for *SDG11-Sustainable cities and communities'* **position 600-800** at international level (out of 1154 universities), **third position at national level.**

Impact Rankings

Select the type of ranking below to see stats

‹ ›

Quality Education 2025	Affordable and Clean Energy 2025	Industry, Innovation and Infrastructure 2025	Sustainable Cities and Communities 2025	Partnership for the Goals 2025
101-200th	101-200th	201-300th	601-800th	801-1000th
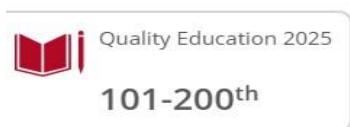
Impact Ranking positions 2022 to 2025 ⌃

2025	2024	2023	2022
401-600th	801-1000th	1001+	1001+

Precise ranks and overall scores are shown for the institutions toward the top of a ranking; for institutions with banded ranks, please see the relevant ranking tables for an

This Report for the **academic year 2023-2024 regarding the Sustainable Development Objectives in the Technical University of Cluj-Napoca** reflects how the University relates to these objectives, identifying and carrying out initiatives, events and impact projects on them.

Complementary to this report , the updated information on progress in various SDG's is published on the Website **sustainability.utcluj.ro.**

Section I. Areas of intervention according to sustainability strategy

1.1. Education and Research (ER)

The Technical University of Cluj-Napoca is a multicultural university that offers **188 bachelor's and master's in 2024** programs in Romanian, German, English and French, which address various aspects of sustainable development. Complementary to formal education, a series of post-graduate training courses or professional retraining offer specialized courses in fields such as Energy management or Energy audit, Green buildings, Circular Economy. Fundamental research, but especially applied research, achieved remarkable results through the projects won at international and national level addressing topical issues, most of which are in conjunction with the objectives of sustainable development.

In the Technical University of Cluj-Napoca, educational and research-innovation activities are the basis for preparing the next generations of students, researchers and innovators, able to address the evolutionary challenges of society in the context of sustainable development. As a facilitator with a significant research activity at national and European levels, the University integrates and supports an important number Research Centers and *Multidisciplinary* Research Centers which are aware of the importance of sustainable development, and the implementation of a culture of sustainability at the level of the entire community, through formal and non-formal education and by stimulating the multidisciplinary research activity that integrate various aspects regarding sustainability.

At the institutional level, there has been continuous progress in terms of the educational context - various student scholarships, accommodation and meal facilities, didactic and individual study spaces, specialist counseling centers **-** the OCOC Center - career counseling and guidance**,** the CESTI Center - Studies and learning, the Alumni Office.

Social and medical services are represented at the campus level by general medical and dental offices, and the maintenance of the state of health at the level of the entire academic community is ensured by the spaces intended for sports activities (Olympic pool, multifunctional sports fields, gyms per campus).

Cultural services offer a wide framework for involvement and participation through various artistic activities.

Achievements

- • Identification and documentation at the level of the current Academic Programs, of the curricular content that aims and promotes sustainability
- • Providing opportunities for non-formal Learning about sustainability - General courses for a wide audience and for the Community, so as to become an active player in the process of transition to the green-sustainable Campus (Green Campus)
- • Promoting and facilitating multidisciplinary and the perspective generated by sustainable development in all Research Activities and Projects
- • 13 specialized study programs at master's level in the field of sustainable development
- • 1 general level course, 166 specific courses at Bachelor level
- • >2000 scientific articles identified by Scopus related to sustainable development objectives for the period of 2020-2024 that accumulated >22000 citations
- • 19.58 million Eur European Research projects (H2020,FP7)

1.2. Energy (E)

In the current context of an energy transition towards renewable sources, decarbonization and environment with low greenhouse gas emissions, the University, through all its actions and policies, is in agreement with the objectives, financial allocations and actions of the decision-makers in Romania and at European levels, the most important being the improvement of energy efficiency by at least 45% by 2030, and the introduction of local renewable sources for self-consumption, respectively.

Addressing a major challenge such as climate change requires a truly collaborative, society-wide perspective. The Technical University of Cluj Napoca is an essential partner and actively involved in the education, creation and support of policies and their implementation on Campus and various communities, including in direct relationship with the Municipality of Cluj Napoca a community that has committed to decarbonize its current level by over 80% by 2030.

At the Technical University of Cluj-Napoca we have also committed to act as an example of the best practices at local and regional levels and to play our leader in the transition process towards the realization of a Green Campus. The research center ENTREC is actively involved in research with more than 50 projects and education with more than 20 specialized courses in this area and the results obtained in THE Impakt ranking B as first place at national level and 100-200 position at international level confirm his involvement. Building on the progress made at University level in recent years, we will continue to promote and use new technologies to increase the energy efficiency of heritage buildings according to the Action Plan for Climate and Sustainable Energy (PACED), supporting an ambitious investment transition plan to carbon neutrality.

Achievements

- Actively tracking the reduction of energy consumption - Internal monitoring at the level of the ENTREC Energy Transitions Center, through a dedicated energy consumption software system
- Making sustainable purchases - following the Sustainable Procurement Policy
- Community awareness of the importance of the energy transition and the role that everyone has by courses and workshops
- Identifying and establishing realistic objectives in the field of sustainable energy and greenhouse gas emissions - equipment projects as a prosumer of suitable buildings in the Campus
- Diversifying energy supply by investing in renewable energy sources and reinvesting energy cost savings in new Sustainability Projects and Living labs.

1.3. Campus and Community (CC)

We fully agree that not only health education, but also healthy ecosystems - Campus and Community, are the essential foundation for good life. Globally, health is reflected in all sustainable development goals through direct or indirect correlation. We are fully aware that we depend on the environment and nature to support our educational and economic processes, but also food security, health and the quality of life of the Community.

Sustainable development aspires to improve the health of the environment, society and the economy. The health of the community is determined by a wide range of social, environmental factors and various economic influences. The sustainability and vitality of our University depends on the health of the community and each other.

Increasing the availability of clean water, green energy, providing opportunities for active transport, identifying ways to reduce the waste generated and dispose of single-use plastics, aiming at easy access to safe and clean drinking water, providing healthy, safe and sustainable services, creating opportunities for physical activity, all of which have a positive effect and impact on health and well-being at individual and community level.

The mission of the University is to create an environment favorable to the entire Community, by reorienting the services in accordance with the principles of sustainable development and strengthening community action.

Achievements

- Application of a unified approach at the level of the entire University from the perspective of information and involvement, with the aim of improving the well-being of the entire community -Strategic Sustainability Plan
- Digitization of the University through the EUT4ALL digital project - the transformation of the university ecosystem through the digital transition towards a sustainable European future
- Fully functional eCampus for over 20,000 active users (Elearning and interaction)
- Student Digital Campus - MEUtCluj applications
- Institutional Cloud - CloudIT - support for multidisciplinary research activities
- The Gender Equality Strategy reflecting the current and evolving perspective of the University on this issue
- Improvement of environmental management on Campus (renovation of the Observatory Restaurant, 2 new sports spaces - Baia-Mare multifunctional field, Mărăști Campus sports field equipment, new building at Alba Iulia extension)
- Minimizing the impact on the University's own ecosystem and the environment through operational and infrastructure development activities –85% buildings were high class *Energy certificated.*

1.4. Governance and Partnerships (GP)

At the Technical University of Cluj-Napoca we are aware that sustainable development cannot be adequately approached by a single group working in isolation. The complex problems that arise cover many areas of our work and require an integrated approach, bringing together our strengths as an education and research institution.

Social and environmental challenges are addressed by teachers and researchers in various fields, sustainability projects in Campus are implemented by technical and administrative staff, and students ensure that their priorities are achieved by getting involved in shaping our agenda.

As an ongoing basis, we aim to expand partnerships to increase opportunities for transdisciplinary research in the field of sustainability, to increase the visibility of University's activities in this field and to gain knowledge to valuable international practices. The University aims to optimize development opportunities in a sustainable manner and to integrate environmental and sustainability concerns into inter-university partnerships or with the socio-economic agents.

Achievements

- Over 300 active partnerships, of which 35 are strategic partnerships (3 new in 2023-2024 academic year)
- Fully functional eCampus for over 20,000 active users (Elearning and interaction)
- Institutional Cloud operationalization - CloudIT, Electronic Registry (63,703 documents and approx. 24,000 users)
- more than 55 EUT+ meetings for governance and projects, the establishment of EUT+ Clusters for research and curriculum projects-2023-2025 EUT+ leadership performed by Technical University of Cluj Napoca

• University communities in incorporating the objectives of sustainable development in education, research, services and the processes that take place in the University

Creating a university based on ECampus, CloudIT technology that improves the student experience and supports the efficiency of information and operations
• Encouraging Entrepreneurial Activities for resource efficiency and increasing income diversity to finance future growth and development
• Sustainable development strategy of Cluj Napoca Technical University 2022-2030
• Plan for climate and sustainable energy - PACED Plan
• Energy policy implementation and monitoring
• Sustainable procurement policy continuously applied
• Action plan on climate change
• Strategic plan regarding gender equality implementation and monitoring
• Strategy for University digitalization and monitoring mechanisms for progress.

Section II. Sustainable development of the University- PERMANENT ACTIVITIES

In section II there are presented permanent activities which contribute to SDG goals achievements and in Section III the progress in these achievements is presented for 2023-2024 academic year.

Considering the provisions of the Strategic Plan of the Technical University, the Sustainable Development Strategy adopted in 2022, the indicators collected for the international rankings UI Green Metric and THE Impact Ranking, there is a need to implement sustainable development policies and mechanisms at the institutional level, which aim at achieving the objectives set for the period 2022-2030.

This *Sustainable Development Report for the year 2024* reflects the Status and Progress achieved in a point-by-point perspective, at the level of each of the 17 indicators.

GOAL 1. NO POVERTY

This objective aims at how universities address the problem through all their actions and initiatives, having a direct role in reducing the degree of poverty in their own community, both through quality education and through concrete material support, thus reducing the degree of intergenerational poverty.
UTCN considers it a priority to support the smooth running of the educational process and the formation of skills and competencies needed on the labor market, thus through its partnerships it has achieved the continuous provision of a set of scholarships that reward excellence and creativity.
(81 Scopus articles)

Date	Initiative/Event/Project
permanent	OCOC center (https://www.utcluj.ro/ococ/servicii/) offers career counselling and guidance (Career Kit brochure, Open Day, UTCN Caravan in high schools, 'Freshers' Week)
permanent	CESTI Center Remedial programs for various diciplines and Personal deveopments programmes
permanent	SAS - The Entrepreneurial society from Technical University of Cluj Napoca (SAS) organizes events to support entrepreneurial initiatives and innovative technological development ideas (Demoday, Prototype Challenge)
Permanent	Entrebootcamp
permanent	TUCN admision test simulation
permanent	Psihopedagogical workshops and lectures
permanent	Foreign languages workshops and lectures

permanent	Electrosummer – Summer School for pupils and students from disadvanged regions
permanent	Kick off your STEM career mentoring programme Emerson Cluj
permanent	Grants DAAD
permanent	Grants Roberto Roca
permanent	Grants Robert Bosch
permanent	Grants ANIS for education offered to teaching staff that offerts a curriculum adapted to new technologies
permanent	Grants Rada Mihalcea in partnership with Cluj Napoca City Hall
permanent	Grants Hidroelectrica
permanent	Grants NuclearElectrica
permanent	Grants Deep Mind for underrepresented communities, Artificial Intelligence Master TUCN
permanent	Grants competition in partnership with JAR Romania
permanent	Excellency prize Seismic Design Competition

SDG1 in numbers

Over 2000 scholarships and grants
250 students enrolled in personal development programs
35% of students participating in counseling and mentoring activities
200 students in admission preparation programs and 300 students in remedial programs/year

18% of research projects relevant to SDG1
16% Relevant partnerships SDG1

GOAL 3. GOOD HEALTH AND WELL BEING

3 GOOD HEALTH AND WELL-BEING	Ensuring a healthy life and promoting well-being, regardless of age, is an essential component of sustainable development, which can be addressed both through the correct identification of various diseases and through the implementation of intelligent solutions capable of increasing the degree of physical or mental comfort, respectively to monitor or maintain a certain level of health. UTCN has remarkable results in this field through its presence in a series of international research projects, through the implementation of practical solutions adapted to certain needs in the CESTER Robotics Research Center and through continuous monitoring of the health status of community members. **(735 Scopus articles)**

Date	Initiative/Event/Project
permanent	CESTER Robotic Research Center for health applications
permanent	Innovation Hackaton e-Mental Health Hackathon
permanent	TUCN cross with prizes and public recognition of the winners at the Cluj Youth Gala
permanent	*Campus smoke-free* policy in all sites

SDG3 in numbers

7 sports terrains (new one in 2024), Olympic nautical base

38% of research projects relevant to SDG3
55% SDG3 specific partnerships

GOAL 4. QUALITY EDUCATION

4 QUALITY EDUCATION	Quality education is essential for sustainable development, being an area in which universities excel. Inclusive and equitable education supports the addressing of various challenges specific to sustainable development, is a mechanism for reducing inequities and improving the quality of life. UTCN aims to support the increase of the quality of life and the level of well-being through support measures to ensure lifelong learning (LLL-lifelong learning), by providing access to various types of educational resources, courses and scientific events. **(172 Scopus articles)**

Date	Initiative/Event/Project
permanent	InnoEUT- Innovative University of Technology- EUT+ project for education innovation
permanent	EUT+ -Digital &sustenabil --The transformation of the University ecosystem through the digital transition towards a sustainable European future
permanent	Artificial Intelligence Institute -UTCN – IA-UTCN
permanent	CESTI- Study and learning Center
permanent	*Double degree* programmes
permanent	TUCN Digital Living Lab
permanent	DECIDFR for elearning curricula for postgrad and professional reconversion
permanent	E-Campus for digitalisation of educational processes
permanent	ProINVENT -Research and innovation Conference
permanent	Robotics -UTCN - Robotics platform for learning and research
permanent	TUCN -Lib
permanent	NextIng project for student grants
permanent	TUCN Career days
permanent	Student Entrepreneurial Society - UTCN- Demo day - entrepreneurial ideas supported by business plans
permanent	DIGILENT- design and programming competition
permanent	UTCN and DptIT-Software projects competition
permanent	Polihack competition
permanent	BattleLab Robotica competition
permanent	Internet of Things Student Challenge competition
permanent	Seismic Design Competition
permanent	Invent for the Planet competition

permanent	Silcotub - technical webinars for TUCN students
permanent	Bosch Engineering bootcamp
permanent	Emerson engineering bootcamp
permanent	Tenaris month
permanent	Fortech month
permanent	Emerson month
permanent	Endava month
permanent	Bosch month
permanent	Museum Night -TUCN participation as gold partner
permanent	Innovation Lab Hackaton with UTCN academic partnership , RAF and Transylvania Institute of Technology
permanent	Entrepbootcamp- EUT+international summer school
permanent	Romanian culture and language summer school

SDG4 in numbers

34% of research projects relevant to SDG4
69% of partnerships

GOAL 7. CLEAN AND AFFORDABLE ENERGY

<table>
<tr><td>7 AFFORDABLE AND CLEAN ENERGY</td><td>This objective proposes global, equitable access to safe, sustainable energy in an accessible manner, being essential because modern energy supports the other sustainable development objectives.
UTCN provides education and research conditions in modern spaces, in compliance with the latest energy efficiency standards.
The university organizes a series of support activities such as specialized master's courses, postgraduate specialization courses, workshops with a focus on energy, resources and the environment.
(1393 Scopus articles)</td></tr>
</table>

Date	Initiative/Event/Project
permanent	ENTREC -Research Center in energy transition
permanent	CRIMIGE -Monitoring and learning Center for electrical devices impact
permanent	Emobi-City- energy efficiency through city mobility
permanent	Net4Senergy- cross border network for universities energetic sustainable
permanent	Specialized Course in Efficiency and sustainability for energy managers
permanent	Specialized Course in Energy analysis techniques for NZeb consumption buildings
permanent	Specialized Course Energy audit for buildings
permanent	Master program Green buildings
permanent	Master program Renewable energies
Permanent	Master program law economics and engineering of sustainable development
Permanent	Master program Sustainable polygraphed systems
permanent	Master program Sustainable development and environment protection

SDG7 in numbers

46% of research projects
19% of students enrolled in specific study programs

GOAL 8. DECENT WORK AND ECONOMIC GROWTH
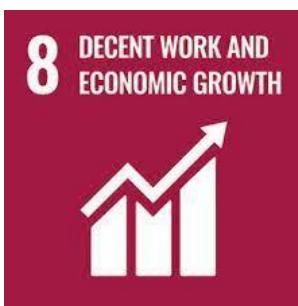
8 DECENT WORK AND ECONOMIC GROWTH	Decent work in safe and stable conditions is a vital component in eradicating poverty and maintaining good health. Universities as employers must provide and educate in such a perspective, and as innovators they can identify advanced and fair ways of working. UTCN is a promoter of the idea of economic growth through decent work in optimal conditions and ensuring a healthy and safe context. **(189 Scopus articles)**

Date	Initiative/Event/Project
permanent	OCOC- Career counselling Center -ESCOUNIV platform
permanent	CESTI – Study and learning Center
permanent	ENTREC- Research and education Center
permanent	Policies on public salaries

GOAL 9. INDUSTRY, INNOVATION, INFRASTRUCTURE

This objective focuses on providing an infrastructure capable of supporting sustainable development. Economic growth and the continued provision of health services, education and a decent standard of living are based on a quality infrastructure, and innovation, science and technology are crucial for the development of a sustainable infrastructure.

UTCN considers research essential in the analysis and solution of global problems, which is why it provides mechanisms to stimulate research and publish results with maximum impact and visibility.
(1161 Scopus articles)

Date	Initiative/Event/Project
permanent	Inno-EUT+ Innovative European University of Technology – growing the innovative and entrepreneurial capacity of the University
permanent	CloudUT- institutional project to support research activities using high-performance hardware/software support
permanent	AMATUC – DICOMI -Directional Composites through Manufacturing Innovation Research Center
permanent	ENTREC Energy transition and efficiency Research Center
permanent	CESTER Research Center
permanent	National projects with industry—2023, 2024 list of projects
permanent	Interreg Danube Transnational Program: Transnational Cooperation to transform knowledge into marketable products and services for the Danubian sustainable society of tomorrow

SDG9 in numbers

More than 120 research projects
Over 290 patents

GOAL 10. REDUCED INEQUALITIES

	The reduction of inequalities is reflected in every aspect of sustainability, through the way of meeting the objectives, offering a broader perspective than the objective of gender equality, which refers only to gender inequities. UTCN reflects this objective in all its processes, constantly contributing through policies and actions in this regard **(406 Scopus articles 2020-2024)**

Date	Initiative/Event/Project
permanent	CCOC- Career counselling Center (Career kit, Open Day, High school Caravan, Orientation week)
permanent	CCOC -Services and facilities for people with disabilities
permanent	Student associations and societies OSUT, BEST,ASFIC, ASCUT, AStA
permanent	EUT+- common projects
permanent	Carta UTCN- Guaranteeing the rights of national minorities and prohibiting any form of discrimination
permanent	TUCN Grants
permanent	DAAD Grants
permanent	Roberto Roca Grants
permanent	Robert Bosch Grants
permanent	ANIS Grants for education offered to teach with updated curriculum
permanent	Rada Mihalcea Grants (in partnership with Cluj City Hall)
permanent	Hidroelectrica Grants for electrical engineering students
permanent	NuclearElectrica Grants
permanent	Deep Mind Grants for underrepresented communities (Artificial Intelligence Master TUCN
permanent	JAR Romania Grants for entrepreneurship

GOAL 11. SUSTAINABLE CITIES AND COMMUNITIES

The objective promotes sustainable cities and communities, reducing the negative impact of cities on the environment, supporting an inclusive, safe, resilient and sustainable context for cities and their communities.

UTCN carries out the promotion and protection of the tangible cultural heritage in the spaces in which it operates, offering open access and ensuring their good conservation by identifying the necessary resources. Through the projects in which it is involved, the University aims to support the intangible cultural heritage by investing in projects and events that promotes this heritage, it also ensures the promotion and support of a sustainable development of the cities where the material heritage resides.

(527 Scopus articles)

Date	Initiative/Event/Project
permanent	Events ALUMNI-UTCN
permanent	Students Cultural Club Românașul, BUM, Honoris, Nova, Pasărea IBIS, TrioTransilvan
permanent	FAU Decodays-Diploma project exposition
permanent	SCIENCE4FUTURE European researchers' night
permanent	Companies night
permanent	Museum night

SDG11 in numbers

More than 35 artistic performances per year
Annual exhibition open to the public with over 120 Faculty of Architecture&Urbanism projects/year and 60 FinalYearProjects at Baia Mare
PROINVENT yearly Invention Salon
Night of museums, Night of companies, Night of researchers --Annual scientific events as organizer or participant

GOAL 13. CLIMATE ACTION

13 CLIMATE ACTION	Climate change affects every part of society in every country. Universities must be the promoters of actions to reduce the impact generated by climate change, acting in such a way as to address these approaches through research, education and the permanent reduction of the carbon footprint. UTCN recognizes the importance of a unified, effective and efficient approach to this issue, which is why it has designed policies and action plans in this regard. TUCN recognizes the determining role of the University in the community and society in analyzing the challenges generated by climate change and sustainability. It is proposed to create a framework in which all university students will graduate with a good understanding of the issue but also with a minimum of expertise in identifying the souls for future generations **(242 Scopus articles)**

Date	Initiative/Event/Project
permanent	ENTREC Research Center
permanent	PACED document mentions effective investments to increase energy efficiency and reduce CO2 emissions
permanent	*Energetic policy* proposes concrete actions that can be monitored and quantified resulting in the reduction of energy consumption and the realization and periodic updating of a PACED plan

GOAL 15. LIFE ON LAND

15 LIFE ON LAND	Maintaining biodiversity is a challenge in the face of climate change and the increasing degree of damage to nature through human intervention. Universities must contribute to the sustainability of biodiversity at the level of Campus and external ecosystems. UTCN has initiated various observation projects by collecting data and processing them to assess potential risks. **(101 Scopus articles)**

Date	Initiative/Event/Project
permanent	Eco2Pac - project to follow the process of collection and recycling of waste from TUCN
permanent	GreenTOP Agrobiodiversity - Structural Funds Project—TUCN partner
permanent	GeoSES, space emergency system towards monitoring of dangerous natural processes—TUCN partner

GOAL 17. PARTNERSHIPS FOR THE GOALS

This goal reflects the fact that partnerships are necessary to ensure sustainable development goals. Partnerships designed for common goals are stronger if they are made between governments, industries and civil society. This objective includes various elements such as financial and development support, public policies, access and development of innovative technologies, development of various resources addressing a whole palette of systemic aspects.

Governamental and european partherships
EUT+ European University of Technology
AIRi--Artificial Intelligence Institutute
Romanian digitalisation authority/National strategic framework for Artificial Intelligence
City Hall Cluj-Napoca
NGO's and companies partnerships
Cluj IT IT Cluster
C-EDU Education Cluster
DIH4S Innovation hub
Digital Innovation HUB Innovation hub
ETREC Cluster Economic Regional Electrotehnic ,
ADMATECH Avanced materials for Microandi Nanotehnologies
Drifmat- Distributed Research Infrastructure for Materials, Applications and Future Technologies
Pro-nZEB Cluster
Cluster SpaceTech Transilvania
CLEMS - Cluster Ecoinovativ
TREC - Cluster Transnational for renewable energy
Lookhead Martin Bosch, Emerson, Siemens, Energobit, Continental ,NTT, ARKK, Nagarro, Indeco, Eaton, Intelactsoft, EVozon,UACE, , Banca Transilvania, BCR, BRD
JAR Romania
DpIT
Innovation Labs

SDG17 în numbers

More than 500 partnerships
More than 80 strategic partnerships

Section III. PROGRESS in Sustainable development goals—academic year 2023-2024

Complementary to the permanent activities, the 2023-2024 academic year contributed significantly to the implementation of the sustainable development objectives established by the University's Sustainable Development Strategy and ensuring the policies defined at the institutional level.

Significant results were noted at the level of the following Sustainable Development Objectives, as evaluated by THE impact ranking 2025:

SDG7 and SDG9 – International projects carried out in the field of **Clean Energy and Innovation in industry and infrastructure—FIRST place at national level**

SDG4 - Quality education - new specialized master's programs in the field of sustainable development, -National center of competence and solutions for the development of climate-neutral and intelligent cities- NEtZeroCities (partner), European Project -DIH4Society Digital Innovation Hub for a Smarter Safer and more sustainable Society, InnoEUT- Innovative University of Technology- the EUT+ project for innovation in education, Digitalization Strategy of Cluj Napoca Technical University-**SECOND place at national level**

SDG11 - Actions and projects specific to Sustainable Communities from a cultural perspective and institutional investments for urban regeneration-THIRD place at national Levele

SDG13 - International projects in the field of climate actions (Netzerocities ,Entrainer,Evelixia, REnHomes)

SDG1 - No poverty by increasing the number of Summer Schools, diversifying and multiplying the type and number of scholarships offered by the University, free postgraduate programs for SMEs

SDG3 - Health and well-being thanks to innovative projects won at international level

SDG17 - New strategic partnerships initiated (Lookheed Martin, ENIHEI,Continental, Bosh, NXP, INCDTCI)

GOAL 1. NO POVERTY

This objective aims at how universities address the problem through all their actions and initiatives, having a direct role in reducing the degree of poverty in their own community, both through quality education and through concrete material support, thus reducing the degree of intergenerational poverty.

UTCN considers it a priority to support the smooth running of the educational process and the formation of skills and competencies needed on the labor market, thus through its partnerships it has achieved the continuous provision of a set of scholarships that reward excellence and creativity.

Date	Initiative/Event/Project	Link
2023-2024	Summer school VLDB	https://vldb.utcluj.ro
2023-2024	Winter school Innovating tomorrow Smart cities and AI Driven engineering	https://www.utcluj.ro/media/notices/2024/Invitatie_TIOWS_-_Innovating_Tomorrow_Smart_Cities_and_AI-Driven_Engineerin_w1WQRDV.pdf
2023-2024	Romanian language and culture summer school	https://bri.utcluj.ro/en/anunturi_en.php

SDG1 progress in numbers

61% increase in the number of students participating in counseling activities

80 scholarships and 60 funding grants

90 students enrolled in personal development programs

>120 students in admission preparation programs and >200 students in remedial programs

>60 teams in Boboc UTCN

GOAL 3. GOOD HEALTH AND WELL BEING

	Ensuring a healthy life and promoting well-being, regardless of age, is an essential component of sustainable development, which can be addressed both through the correct identification of various diseases and through the implementation of intelligent solutions capable of increasing the degree of physical or mental comfort, respectively to monitor or maintain a certain level of health. UTCN has remarkable results in this field through its presence in a series of international research projects, through the implementation of practical solutions adapted to certain needs in the CESTER Robotics Research Center and through continuous monitoring of the health status of community members. (**406 Scopus articles 2020-2024**, as for THE Impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	Biomedix- Biomedical Innovations through Digital Transformation of Additive Technologies and Knowledge Exchange	https://www.utcluj.ro/media/documents/2024/BIOMEDIX_1LRvnvE.pdf
2023-2024	Athena-new smart and adaptive robotics solutions for personalized minimally invasive surgery in cancer treatment	https://cester.utcluj.ro/athena/index.php/en/
2023-2024	Enhance	https://cester.utcluj.ro/Enhance/home.html
2023-2024	Asklepios-new frontiers in adaptive modular robotics for patients centered medical rehabilitation	https://cester.utcluj.ro/asklepios/index.php/en/
2023-2024	ReMINDe –intelligent robot for chronic dementia patients	https://www.aalremind.eu/consortium
2023-2024	AAL Remember Me- Digital assistant for preventing cognitive decline and social inclusion	https://www.aal-europe.eu/about/
2023-2024	TRANScare-Transforming health and care sector	https://www.thcs-transcare.eu/
2023-2024	Wisdom of Age – practical platform for knowledge transfer intergenerational.	www.wisdomofage.eu
2023-2024	Mental health Study for students	https://www.utcluj.ro/media/page_document/86/anunt_studiu.pdf

SDG3 progress in numbers

23% new research projects relevant to SDG3
2 new multi-sports facility
>8 international conferences organized

GOAL 4. QUALITY EDUCATION

Quality education is essential for sustainable development, being an area in which universities excel. Inclusive and equitable education supports the addressing of various challenges specific to sustainable development, is a mechanism for reducing inequities and improving the quality of life.
UTCN aims to support the increase of the quality of life and the level of well-being through support measures to ensure lifelong learning (LLL-lifelong learning), by providing access to various types of educational resources, courses and scientific events.
(**73 Scopus articles 2020-2024**, THE impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	AITECH- *Excelence center* for artificial intelligence and big data	https://aitech.utcluj.ro/
2023-2024	NUMELEC Numerical Modelling and Electromagnetic Compatibility *Research Center*	https://ethm.utcluj.ro/numelec/
2023-2024	NEtZeroCities- National Competence Center for climatic neutral and intelligent cities.	https://www.utcluj.ro/media/documents/2023/NetZeroCities.pdf
2023-2024	Summer school VLDB	https://vldb.utcluj.ro
2023-2024	WinterSchool Innovating tomorrow Smart cities and AI Driven engineering	https://www.utcluj.ro/media/notices/2024/Invitatie_TIOWS_-_Innovating_Tomorrow_Smart_Cities_and_AI-Driven_Engineerin_w1WQRDV.pdf
2023-2024	D'AIA competition	https://users.utcluj.ro/avramc/concursDAIA/
2023-2024	Romanian language and culture summer school	

SDG4 progress in numbers

1 Center of Excellence in Artificial Intelligence operational

Partener in 1 National Competence Center and solutions for the development of climate neutral and smart cities

4 new laboratory and 1 Research center, 2 Master programes for sustainability education

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GOAL 7. CLEAN AND AFFORDABLE ENERGY

	This objective proposes global, equitable access to safe, sustainable energy in an accessible manner, being essential because modern energy supports the other sustainable development objectives. UTCN provides education and research conditions in modern spaces, in compliance with the latest energy efficiency standards. The university organizes a series of support activities such as specialized master's courses, postgraduate specialization courses, workshops with a focus on energy, resources and the environment. (**537 Scopus articles 2020-2024**, for THE impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	Greener	https://alea.ro/portofoliu/proiecte-europene/proiecte-europene-finalizate/greener
2023-2024	REnplusHOMES renewable energy based positive homes	https://renplushomes.eu
2023-2024	Entrainer -energy transition audits towards decarbonization	https://entrainer-project.eu/
2023-2024	Energeia- empowering energy efficiency awareness through a holistic educational approach	https://www.linkedin.com/company/energeia-project-2023/
2023-2024	Persist -positive energy districts driven by citizens	https://entrec.utcluj.ro/positive-energy-districts-driven-by-citizens/
2023-2024	Hedge- Holistic Approach towards Empowerment of the DiGitalization of the Energy Ecosystem through adoption of IoT solutions	https://hedgeiot.eu/
2023-2024	Dedalus-data driven residential energy carrier agnostic demand response tools and multivalue services	https://dedalus-horizon.eu/
2023-2024	Midina- Microgrids Development in North Africa-- Europe-Africa Research and Innovation call on Renewable Energy	https://dsrl.eu/
2023-2024	Evelixia-smart grid efficient interactive buildings	https://www.evelixia-project.eu/

SDG7 progress in numbers

Represent 29% of new research projects
1 new Master's program
>300 students enrolled in specific study programs

GOAL 9. INDUSTRY, INNOVATION, INFRASTRUCTURE

This objective focuses on providing an infrastructure capable of supporting sustainable development. Economic growth and the continued provision of health services, education and a decent standard of living are based on a quality infrastructure, and innovation, science and technology are crucial for the development of a sustainable infrastructure.

UTCN considers research essential in the analysis and solution of global problems, which is why it provides mechanisms to stimulate research and publish results with maximum impact and visibility.
(**526 Scopus articles 2020-2024**, for THE impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	RoNaQCI- Romanian national quantum communication infrastructure	https://www.ronaqci.upb.ro/
2023-2024	AIRi Artificial Intelligence Research Institute	https://airi.utcluj.ro/
2023-2024	NUMELEC Numerical Modelling and Electromagnetic Compatibility *Research Center*	https://ethm.utcluj.ro/numelec/
2023-2024	INNO EUT+ Start-ups	https://innoeut.utcluj.ro/startups/
2023-2024	DLT-AI SECSPP	https://users.utcluj.ro/~agroza/projects/sol/
2023-2024	National projects	https://research.utcluj.ro/index.php/active-research-projects.html

SDG9 progress in numbers
68 new international and national projects with industrial partners
7 new patents out of a total of 138 in the last 5 years

GOAL 11. SUSTAINABLE CITIES AND COMMUNITIES

The objective promotes sustainable cities and communities, reducing the negative impact of cities on the environment, supporting an inclusive, safe, resilient and sustainable context for cities and their communities.
UTCN carries out the promotion and protection of the tangible cultural heritage in the spaces in which it operates, offering open access and ensuring their good conservation by identifying the necessary resources. Through the projects in which it is involved, the University aims to support the intangible cultural heritage by investing in projects and events that promotes this heritage, it also ensures the promotion and support of a sustainable development of the cities where the material heritage resides.
(**239 Scopus articles 2020-2024**, for THE impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	JUST Streets-mobility justice for all	https://www.just-streets.eu/
2023-2024	Evelixia-smart grid efficient interactive buildings	https://www.evelixia-project.eu/
2023-2024	MAXIMA-modular axial flux motor for automotive	https://maxima-he.eu/
2023-2024	EPISTEAM- new research community	https://ectlab.eu/project/episteam/
2023-2024	REnplusHOMES renewable energy based positive homes	https://renplushomes.eu/
2023-2024	Urban regeneration Bistrița 8 UTCN – Bistrița, Central Plaza 29	https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf
2023-2024	Urban regeneration Baritiu2-4 TUCN Hub	https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf
2023-2024	Urban regeneration Baritiu 4-6 TUCN building	https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf
2023-2024	Urban regeneration Alba-Iulia site	https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf
2023-2024	Bio crafting architecture	https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf
2023-2024	Sustainability and energetic efficiency	https://www.utcluj.ro/media/documents/2024/Sustenabilitate.pdf

SDG11 progress in numbers

5 new European projects on the SDG11
>10 public expositions and project demonstrations

GOAL 13. CLIMATE ACTION

	Climate change affects every part of society in every country. Universities must be the promoters of actions to reduce the impact generated by climate change, acting in such a way as to address these approaches through research, education and the permanent reduction of the carbon footprint. UTCN recognizes the importance of a unified, effective and efficient approach to this issue, which is why it has designed policies and action plans in this regard. **143 Scopus articles 2020-2024**

Date	Initiative/Event/Project	Link
2023-2024	NetzeroCities	https://netzerocities.app/resource-4061 https://www.utcluj.ro/media/documents/2023/NetZeroCities_eTRkMiH.pdf
2023-2024	BIGALPS Bio inspired geotechnical applications to launch paneuropean solutions	https://bigalps.utcluj.ro/
2023-2024	Greener	https://alea.ro/portofoliu/proiecte-europene/proiecte-europene-finalizate/greener

SDG13 progress in numbers

3 new european projects

GOAL 15. LIFE ON LAND

	Maintaining biodiversity is a challenge in the face of climate change and the increasing degree of damage to nature through human intervention. Universities must contribute to the sustainability of biodiversity at the level of Campus and external ecosystems.
	UTCN has initiated various observation projects by collecting data and processing them to assess potential risk.
	(45 Scopus articles 2020-2024 for THE impact ranking)

Date	Initiative/Event/Project	Link
2023-2024	BIGALPS Bio inspired geotechnical applications to launch pan European solutions	https://bigalps.utcluj.ro/
2023-2024	NOVAFoodies system based on a sustainable value chain of marine and freshwater raw materials for conscientious European consumers	https://novafoodies.eu/
2023-2024	RoSSA systems -development of electro-optical systems for space domain awareness	https://rossa2.rosa.ro
2023-2024	Greenday - "Hai la ecologizare"	https://www.utcluj.ro/media/documents/2024/Actiune_de_ecologizare_Ingineria_Mediului.pdf

GOAL 17. PARTNERSHIPS FOR THE GOALS

This goal reflects the fact that partnerships are necessary to ensure sustainable development goals. Partnerships designed for common goals are stronger if they are made between governments, industries and civil society. This objective includes various elements such as financial and development support, public policies, access and development of innovative technologies, development of various resources addressing a whole palette of systemic aspects.

Governamental and european partherships--2023	Link
EIT Deep Tech Talent- European Institute for Innovation and Technology	https://www.utcluj.ro/media/documents/2023/Deep_Tech.pdf
TRIV – Transilvania Regional Innovation Valley	https://www.utcluj.ro/media/documents/2023/Lansare_TERIV.pdf
RO HYdro Hub	https://www.utcluj.ro/media/documents/2024/Ro-HydroHub_v2.pdf
TUCN-Bosch-NXP-Continental strategic partnership	https://www.utcluj.ro/media/documents/2024/comunicat_PNRR_microelectronica_MP_VT.pdf
NetZeroCities-Educational Center	https://www.utcluj.ro/media/documents/2023/NetZeroCities.pdf

NGO's and companies partnerships	
Lookheed Martin partnership	https://www.utcluj.ro/media/documents/2024/contract_Lockheed_Martin.pdf
Envipco partnership	https://shorturl.at/lHqlp

SDG17 progress in numbers

7 NEW strategic partnerships
20% of students enrolled in SDG-specific study programs

Appendix 1. Indicators from Sustainability strategy and degree of achievements

No.	Measure	Indicators	Degree of achievements (0-4)	Term
ER1	Integration of concepts, mechanisms and approaches on sustainable development in the educational programs of the University	Number of courses that integrate aspects of sustainable development (min 30% of the courses in the Curriculum integrates notions of sustainable development) Number of dedicated courses (min. 1/year) Number of specific courses (min 5% of the total courses)	3	Ongoing
ER2	Encouragement and support offered to non-formal education initiatives for sustainability in the University	Number of courses, workshops, summer schools (min. 2/year) Number of students (internal/external) participants	2	Ongoing
ER3	Participation of the technical staff of the General Administrative Directorate in training sessions, and development of competences in the field of sustainable development and energy efficiency, through *in-house* courses	Number of courses (min. 2/year) Number of participants (approx. 20)	0	2024
ER4	Proposing and implementing research and development projects in areas related to sustainable development (according to the 17 SDGs - Sustainable Development Goals)	Number of research projects (min. 2/year) Number of publications (min. 200) Number of associated events (min. 2)	4	Ongoing
ER5	Supporting and promoting pilot demonstration projects such as *living labs,* regarding innovative solutions with applicability in the University's own buildings aimed at energy efficiency, renewable sources, smart buildings, etc.	Number of pilot projects (min. 2)	3	2025
E1	Increasing awareness and involvement of the university and local community on the subject of energy efficiency and the transition to clean energy, through information campaigns and training in the field. Launch of materials to promote energy efficiency in buildings: guides, posters, stickers	Number of campaigns/year (min. 2)	1	Ongoing
E2	Development of a Community-wide network for monitoring energy consumption on campus. Installation of smart thermostats (temperature, humidity, Co2) Designation of an Energy Manager	Monitoring structure Energy Manager	0	2024
E3	Monitoring the level of energy consumption and emissions, as well as the measures to reduce the CO_2 emissions at the level of the University's buildings and infrastructure;	Annual Report	1	Ongoing

No.	Measure	Indicators	Degree of achievements (0-4)	Term
E4	Develop a *Sustainable Climate and Energy Action Plan (PACED)* for the major renovation of TUCN buildings and to significantly reduce energy consumption and greenhouse gas emissions, in line with the ER resolution	Plan PACED Increase energy efficiency min.45% -2030 vs 2012 Increase Decarbonization min 80% - 2030 vs 2005	1	2023
E5	Coordination of accessing and allocating financial resources, with priority non-reimbursable in order to significantly increase the comfort and energy efficiency of the patrimonial buildings	Number of projects (min.2/year)	4	Ongoing
E6	Implementation of energy-efficient lighting systems (motion sensors in corridors and toilets, the classrooms equipped with presence sensors, photovoltaic lighting devices for outdoor lighting of dormitories) Development of electric vehicle supply infrastructures adjacent to buildings	Min 30% LED lighting Number of stations (min.2)	4	2024
E7	Implementation of infrastructures to support transformations in the heritage of buildings, where possible, to become prosumers	15% of energy from renewable sources Number of prosumer buildings (min. 1)	4	2024
E8	Green-buildings certification for new spaces under renovation	Certificates for new buildings on Campus (BT and CM)	4	2024
CC1	Raising awareness in Campus and Community about the appreciation of biodiversity for ecosystem health, well-being and personal health through information actions and promotional materials	Number of information actions (min. 1)	1	Ongoing
CC2	Prioritizing the employment of students in various social and sports activities.	Number of students (min. 25%)	4	Ongoing
CC3	Development of Community-wide initiatives to support and monitor physical and mental health (safety of Internet use, cyberbullying)	Number of shares (min. 1 /semester)	1	2024
CC4	Development and implementation of a sustainable procurement policy	Acquisition policy 25% of sustainable purchases	4	2024
CC5	Development and implementation of a waste management policy, reduction of paper consumption and single use of plastic containers. Implementation of eco-containers.	No eco-containers (min.2) Plastic free campus 2030 50% reduction of paper consumption 2025	3	2024

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No.	Measure	Indicators	Degree of achievements (0-4)	Term
CC6	Reducing water consumption. The use of rainwater for the maintenance of green spaces in the Campus and sanitary systems	10% yearly	3	Ongoing
CC7	Active transport (bicycles, electric vehicles) carried out, and Campuses with prioritized pedestrian access, made with the support and collaboration with the local public administration, that already implemented its own public policies and infrastructures, as the University has a city distributed structure of the Campus	Specific spaces for bicycle parking (min 1 / site on Campus) Electric vehicles (min. 2)	4	2024
GP1	Development of the "Green University" Charter, in accordance with international and national policies	Green Metric UI Rating and Certification	4	2024
GP2	Establishing new strategic partnerships at the level of the local, national and international community for the implementation of the SDG objectives. Establishing new strategic partnerships at the level of the local, national and international community for the implementation of the SDG objectives	Number .of Partnerships (min 2/year)	4	Ongoing
GP3	Evaluation and documentation of the University's progress in achieving the established targets correlated to the Sustainable Development Goals (the 17 SDGs)	Sustainable development goals Report	4	yearly
GP4	Dissemination and transfer of knowledge and results within the Consortium of Technical Universities in Romania ARUT	Number of meetings / workshops (min. 1)	4	Ongoing
GP5	Dissemination and transfer of knowledge and results within the EUT+	Number of meetings / workshops (min. 1)	4	Ongoing

Appendix 2.1. Scholarly output per SDG (2019-2023)

Date last update Scopus 1.09.2024

Name	Scholarly Output	FWCI	Citation Count
SDG 1: No Poverty	3	0.37	3
SDG 2: Zero Hunger	48	2.38	796
SDG 3: Good Health and Well-being	372	1.31	4883
SDG 4: Quality Education	58	0.66	324
SDG 5: Gender Equality	4	0.02	3
SDG 6: Clean Water and Sanitation	97	1.24	1147
SDG 7: Affordable and Clean Energy	530	0.96	3949
SDG 8: Decent Work and Economic Growth	84	0.85	789
SDG 9: Industry, Innovation and Infrastructure	390	1.09	3528
SDG 10: Reduced Inequality	7	0.41	16
SDG 11: Sustainable Cities and Communities	224	0.85	1392
SDG 12: Responsible Consumption and Production	188	1	1733
SDG 13: Climate Action	148	1	1196
SDG 14: Life Below Water	6	1.69	89
SDG 15: Life on Land	40	1.5	374
SDG 16: Peace, Justice and Strong Institutions	6	0.63	33
Total 2020-2024	**2205**	**1.09**	**20255**

Appendix 2.2. Scholarly output per SDG (2020-2024)

Date last update Scopus 27.10.2025

Name	Scholarly Output	FWCI	Citation Count
SDG 1: No Poverty	3	0.37	3
SDG 2: Zero Hunger	57	2.38	1310
SDG 3: Good Health and Well-being	406	1.31	6272
SDG 4: Quality Education	73	0.66	316
SDG 5: Gender Equality	8	0.02	32
SDG 6: Clean Water and Sanitation	100	1.24	1938
SDG 7: Affordable and Clean Energy	537	0.96	5003
SDG 8: Decent Work and Economic Growth	105	0.85	1114
SDG 9: Industry, Innovation and Infrastructure	526	1.09	6091
SDG 10: Reduced Inequality	10	0.41	72
SDG 11: Sustainable Cities and Communities	239	0.85	1949
SDG 12: Responsible Consumption and Production	209	1	2354
SDG 13: Climate Action	143	1	1686
SDG 14: Life Below Water	5	1.69	121
SDG 15: Life on Land	45	1.5	627
SDG 16: Peace, Justice and Strong Institutions	10	0.63	79
Total 2020-2024	**2244**	**1.10**	**20906**

The information in this report is taken from the Rector's Report 2024 (accessible at
https://www.utcluj.ro/media/page_document/279/Raport_Rector_2024_19_februarie.pdf), and presentation accessible at
https://www.utcluj.ro/media/page_document/279/FINAL_VT_V4_xAKiWQZ.pdf

and from the Newsletters regarding the activity of the Board of Directors, and the statistical bibliometric data are taken from Scopus SciVal
(https://www.scival.com/home).

These data represent the activities of the community of teaching staff, researchers and students within the Cluj-Napoca Technical University and reflect their alignment with the Sustainable Development Goals.

Cluj-Napoca, November 1st ,2025 Eng. Cosmina IVAN

Thanks to the Academic Community for the effort made in achieving the sustainable development goals.