

# 2024 Sustainability Report



# Table of Contents

## ESG Edition

MCUT Focusing on Taishan District and Leveraging Regional Influence Socially and Environmentally	03
Address from the President	17
MCUT Sustainable Highlights	18
About This Report	19
Issuance Frequency	19
Reporting Boundary and Scope	19
Report Preparation and Approval Process	19
Contact Information	19

## Chapter 1 Sustainable MCUT

1.1 About Us	21
• Our History and Features	21
• Department Overview	22
1.2 Sustainable Development Vision and Goals	23
1.3 Stakeholder Communication	24
1.4 Analysis and Identification of Material Topics	27
1.5 Management of Material Topics	31

## Chapter 2 Institutional Governance

2.1 Organizational Governance	35
• Structure and Operation of Board of Directors	35
• Administration and Teaching Organization	35
2.2 Norms and Complaint Mechanism	38
• Academic Ethics and Norms	38
• Gender Equality	38
• Complaint Mechanism	39
• Compliance with laws and regulations	39
2.3 Internal Control System	40
2.4 Sustainable Procurement	41
2.5 Information Security & Privacy Protection	42
• Information Security Management Measures	42
• Information Security Incident Drills and Notification Mechanism	42
• Information Security Education and Training	44
2.6 Financial Performance	45

## Chapter 3 Education Performance

3.1 Admission and Enrollment	49
3.2 Teaching Quality	51
• Curriculum Planning	51
• Control of Teaching Quality	52
3.3 Student Counseling	55
• Counseling and Psychological Test	55
3.4 Cooperation and Exchange	56
• Student Career Counseling	56
• Alumni Relations	60
• Industry-Academia Cooperation and Off-campus Internships	61
• Internal Exchange and External Participation	66
3.5 Innovative Research and Development Achievements	68
• Research and Development Center	68
• Research Performance	68
• Participation in Government Research Projects	69



## Chapter 4

### Low-carbon Campus

4.1 Climate Change Management	71
• Climate Change	71
4.2 Energy Saving and Carbon Reduction Actions	75
• Greenhouse Gas Emissions	75
• Energy Consumption and Management	76
4.3 Water and Water Impact Management	79
• Water Supply System	79
• Wastewater and Sewage Treatment	79
4.4 Waste Management	80
• General Waste Management	80
• Industrial Waste Treatment (Laboratory Waste Liquid)	82
4.5 Biodiversity	83
• Inventory of Biodiversity Hotspots around the Campus	84
• Safety Monitoring of Side Slopes and School Buildings on Campus	86
• Seismic Safety Monitoring and Early-Warning System for School Building	87
• "Endangered Plant Campus Restoration and Environmental Education Promotion Program " Launched by MCUT and Formosa Plastics Group	87

## Chapter 5

### Happy Campus

5.1 Employees Structure	89
• Declaration of Human Rights	89
• Faculty Structure	90
• Employee Overview	91
• Turnover	92
5.2 Talent Attraction and Retention	94
• Teachers with Outstanding Teaching Performance	94
• Employee Performance Evaluation	96
• Teachers' Capacity Improvement	96
• Training and Education for Faculty and Staff	97
5.3 Remuneration, Welfare, and Rights and Interests	98
• Unpaid Parental Leave for Raising Children	98
• Male-Female Salary Ratio	99
5.4 Campus Health & Safety	100
• ESH Management	100
• Employee and Student Health	108

## Chapter 6

### Social Co-prosperity

6.1 USR Practice	111
• USR Vision and Goals	111
• Promotion Organization	112
• Practice Plan	113
• Annual Plan of Office of University Social Responsibility	114
6.2 Club Social Services	116

## Appendix

External Engagements	118
GRI Standards Index	119
Sustainability Accounting Standard	128
ESG Indicators	131
• MCUT's Management of Material Topics	131
• Campus Information Security Management Measures of MCUT	137
External Assurance Statement	146





## ESG Edition

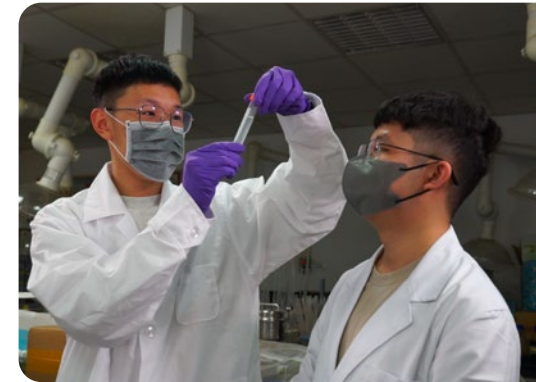


### MCUT Focusing on Taishan District and Leveraging Regional Influence Socially and Environmentally

Over two centuries ago, the site of "Ming Chi Academy," founded by Mr. Cho-Yu Hu, a former tribute student, was located near the present-day MCUT and served as a cultural hub in northern Taiwan. In 1963, amid Taiwan's industrial boom, founders Mr. Yung-Ching Wang and Mr. Yung-Tsai Wang established "Ming Chi Technical College," the predecessor of MCUT, in Guizi Village, Taishan District, New Taipei City, to meet the need for scientific and engineering talent during Taiwan's industrial transformation. Since then, MCUT has produced countless graduates who have become key figures in Taiwanese society and has expanded its influence socially and environmentally.

Socially, the "Sandwich Teaching" program, carried out by MCUT for many years, includes basic learning, off-campus internships, and deeper integration, enabling students to access substantial resources and financial aid in three stages: study, internship, and employment. Starting from the 2024 academic year, MCUT's tuition and fees have been aligned with public universities, and student accommodations are fully exempted, helping to reduce economic disparities among families in Taiwan. MCUT boasts a comprehensive internship system with a long-standing history and ample experience, making it a national off-campus internship coordination unit under the Ministry of Education. The goal is to develop intermediate and advanced management talents for Taiwan's industrialization. The internship positions offered are no longer limited to production-line workers or hourly staff. Instead, partnerships with well-known domestic and international companies provide paid internships, which help enhance students' workplace readiness. Outside campus, MCUT's USR team conducts industry research and collaborative projects in New Taipei City; notably, we used SROI to estimate our social impact. The results showed that each NT\$ 1 invested in planned public welfare resources this year could generate NT\$ 1.28 in social value.

Environmentally, MCUT has had an ISO 14001 Environmental Management System since 2012. MCUT has leveraged its significant environmental influence both internally and externally based on its commitment. MCUT is situated at the foot of a mountain in Taishan District, with an industrial area located at its summit. An air pollution monitoring station has been set up at the campus entrance to protect the health of teachers and students. On the hillside campus, MCUT conducts slope monitoring and dormitory safety assessments and tracks the earthquake-resistant system for three student dormitories to ensure campus environmental safety. In 2024, based on the campus tree species survey, a professional team was invited to remove or relocate trees that posed safety concerns, further strengthening campus safety risk management given the campus's reliance on its natural ecology. Beyond the campus, students from environmental engineering-related departments coordinated with the USR team to conduct water patrols and testing of surrounding rivers (basin length: 20.7 km), with a focus on Taishan. The attention MCUT draws to water environment issues has been recognized by the Environmental Protection Department, New Taipei City. Over the years, we have collaborated with NGOs and government organizations to monitor the water systems around Taishan District; in addition to the water systems near campus, MCUT conducted a river waste investigation for Tamsui River, the major river in Taipei Basin, turning riverbank waste into an opportunity for teachers and students to engage with society and the environment from a river governance perspective. As a result, MCUT can not only offer potential solutions to the river waste problem of the Tamsui River (basin length involved in water waste management: 285.3 km) through STEM environmental education programs but also remove mangroves along this river section from an ecological perspective to restore the ecology and strengthen community ties.



## 1. MCUT Implementing Inclusive Education to Comprehensively Support Students to Establish Themselves in Society



For many years, the University has ranked first nationwide in the performance of its University Affairs Fund. This year, the President signed a Human Rights Policy Statement, underscoring our social responsibility. MCUT adopts flipped learning and aligns curricula with labor-market needs to enhance students' upward social mobility. We continue to invest resources to sustain our signature "sandwich" education model (alternating academic study with workplace practice).

On-campus

Sustainable  
Development  
Vision

## 3. MCUT Establishing an Overall Environmental Strategy Internally and Externally per Environmental Management System

Located on hillside terrain, MCUT places strong emphasis on environmental governance. In addition to operating an ISO 14001 Environmental Management System, the University is certified to ISO 14064 and ISO 50001. Following the typhoon in 2024, MCUT conducted a campus environmental risk assessment and removed trees that posed risks to campus safety. The University also conducts long-term monitoring of slope stability, and campus buildings are equipped with seismic protection systems. Air-quality monitoring is installed at the campus entrance to support comprehensive environmental governance across campus.



Social

Social Impact  
Scaling deep

Student Empowerment  
"Sandwich Teaching"

Human Rights-Based  
School Governance

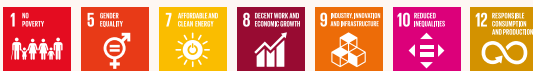
On-campus  
Implementation

MCUT  
Environmental  
Strategy

Campus  
Environmental  
Risk Management

External  
Initiatives  
off-campus

Environment



Through two years of field practice and interdisciplinary design of the MCUT' s USR plan titled "Co-op Design - A Life Experiment of San Chiao Yung Community Culture," The initial SROI is estimated at 1.28, meaning that every NT\$1 of planned public welfare resources allocated to this year's project could generate NT\$1.28 in social value.

SROI



## 2. MCUT's Social Impact and SROI Results

External  
Initiatives  
off-campus

Off-campus



## 4. Water Environment Patrol Team and Raid River Waste Screening of MCUT Acting Ecological Guardians



MCUT' s USR team conducts long-term patrols of rivers surrounding the campus and works with students from the College of Environmental and Resource Studies to carry out water-quality testing.

In addition, the University has implemented a comprehensive river-waste management program for the Tamsui River basin, which has effectively reduced riverine litter over the years.



## 1. MCUT Implementing Inclusive Education to Comprehensively Support Students to Establish Themselves in Society

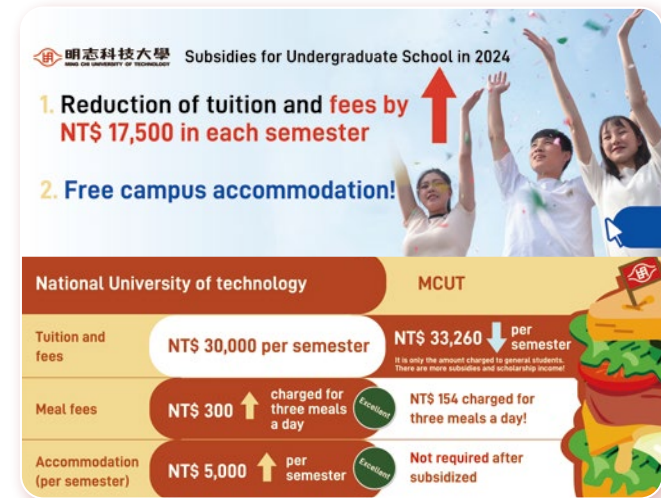
### Assisting in the Enrollment of Disadvantaged Students

To support students and prevent them from dropping out due to financial constraints, MCUT charges student accommodation fees that are below operational costs. In accordance with the "Regulations Governing the Reduction and Exemption of Tuition and Fees for Students from Low-Income and Middle-Income Families" issued by the Ministry of Education, MCUT allocates at least 10% of tuition revenue annually to scholarships and grants. The Student Assistance Division, part of the Office of Student Affairs, manages support programs such as "Aiding the Study of Disadvantaged Students," "Grants for Life Service and Learning," "Emergency Relief," and "Accommodation Reduction/Exemption." These programs aim to assist low- and middle-income students, students with disabilities, and those from families with special circumstances.

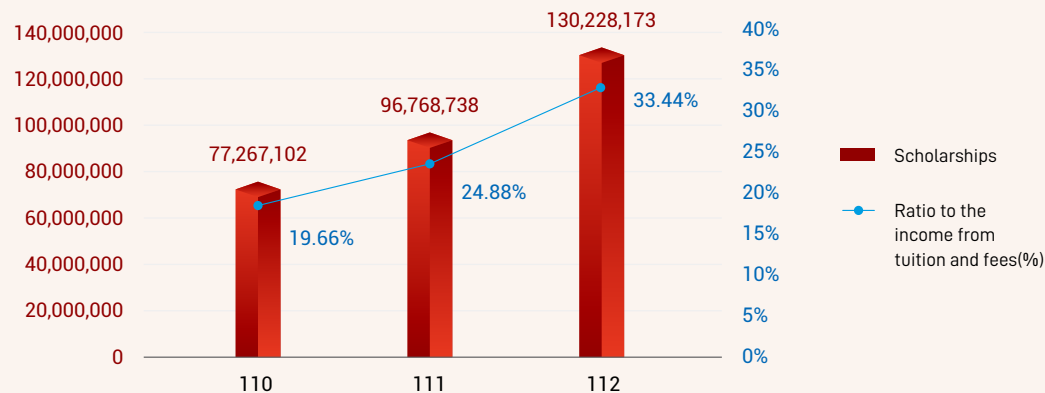
Additionally, MCUT has established the "Center for Education of Indigenous Students" to support Indigenous students with their tuition and fees, board expenses, accommodation fees, and book expenses. In the 2023 academic year, 704 students received a total subsidy of NT\$ 2.03 million.



For detailed information, please scan the QR Code as above



Ratio of scholarships provided by MCUT over the years to the income from tuition and fees



Note: The MUCT student's liability-income ratio was 80.9%. Calculation method of liability-income ratio: The amount of student loans taken by currently enrolled students over 8 semesters (4 years of study) is used as the disclosed liability amount. Additionally, liabilities are considered paid off 1 year after graduation as the basis for calculation. The liability-income ratio, which is the total amount of students with student loans (approximately 23.9%) (about NT\$402,644 per student during school) divided by the income of students 1 year after graduation (about NT\$498,000 per student as the median).



## Undergraduate Honorary Scholarships

To attract outstanding students to study at the four-year technical college of MCUT and motivate them to excel in their studies, we have established the "Regulations on the Implementation of Undergraduate Honorary Scholarships." Students may be eligible for generous scholarship subsidies based on the following conditions: starting in the second semester, students registered for the current semester will undergo a "Performance Assessment" based on their performance in the previous semester. The assessment criteria are as follows:

1. A conduct grade of at least 80 points
2. Ranking within the top 30% of academic performance in the class (or department) (40% for those admitted in the 2023 academic year) or a GPA of 3.38
3. Meeting the TOEIC English score renewal standard
4. Any additional review conditions required by each college; Students who consistently meet these standards will be eligible to receive scholarships and grants, subject to the specified conditions



For detailed information, please scan the QR Code as above

## Enhancing the Accessibility of Student Interviews

Most of MCUT's students come from Taipei City, New Taipei City, and Taoyuan. To help more students from central, northern, eastern Taiwan, and outlying islands join us, MCUT has allocated financial subsidies. The interview subsidies aim to lower students' transportation and accommodation costs from these regions. According to the subsidy plan, we provide round-trip transportation support for interviewed students from remote counties and cities. Additionally, we offer subsidies for examinees from medium- and low-income families in central and northern Taiwan. Examinees participating in entrance exams can also apply for free accommodation at MCUT one day before their interviews. Furthermore, MCUT offers guidance and support on each admission channel, so students who wish to become part of MCUT's big family won't miss opportunities due to living in remote rural areas or lacking resources for their application.



**面試大補帖**  
[住宿篇]  
遠道而來? 幫你準備好床!  
快下課了!



**面試大補帖**  
[交通篇]  
遠道而來? 補助幫你Hold住!  
哈哈

**補助金額一次看懂**  
你從哪裡來, 我們就補到哪裡!

高雄: 4,000 元	新竹: 400 元
金門: 3,500 元	苗栗: 600 元
澎湖: 2,000 元	台中: 800 元
雲林: 1,100 元	彰化: 900 元
台南: 1,500 元	南投: 1,000 元
嘉義: 1,200 元	花蓮: 1,300 元
屏東: 1,800 元	宜蘭: 500 元
基隆: 1,700 元	台東: 1,600 元

紅框縣市限中低收入戶補助  
來明志面試, 就有機會領取!

**交通補助費用領取位置圖**



教學大樓三樓  
校門口



**面試大補帖**  
考前必看實作考古題放送中  
我是xxx  
範例試題請參閱下列連結



















## Scholarships for Remote Cooperative School Students

Since the 2023 academic year, students who graduated from the 87 schools that cooperated with MCUT and were later admitted to MCUT (regardless of the department or admission channel) will be eligible for preferential tuition and fee standards upon registration, as outlined in the "Multi-Stars Project Admission Charge Standards."



For detailed information, please scan the QR Code as above.

## ○ Sustainable development goals and vision

Material Topics	Value Chain			SDG Response			Impact Materiality		Operation Materiality
							Positive	Negative	
Industry-Academia Cooperation & Exchange		MCUT	Downstream				High	Medium	High
Marketing & Admission Measures	Upstream	MCUT					High	High	Medium
Learning Environment & Effectiveness	Upstream	MCUT	Downstream				High	High	Medium
Academic Affairs and Administrative Quality		MCUT	Downstream				High	Medium	High
Educational Opportunities and Accessibility	Upstream	MCUT	Downstream				Medium	Medium	High
Campus Health & Safety		MCUT	Downstream				High	High	Medium

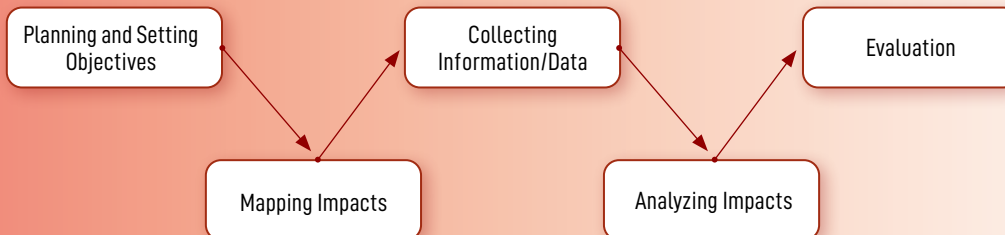


## 2. MCUT's Social Impact and SROI Results

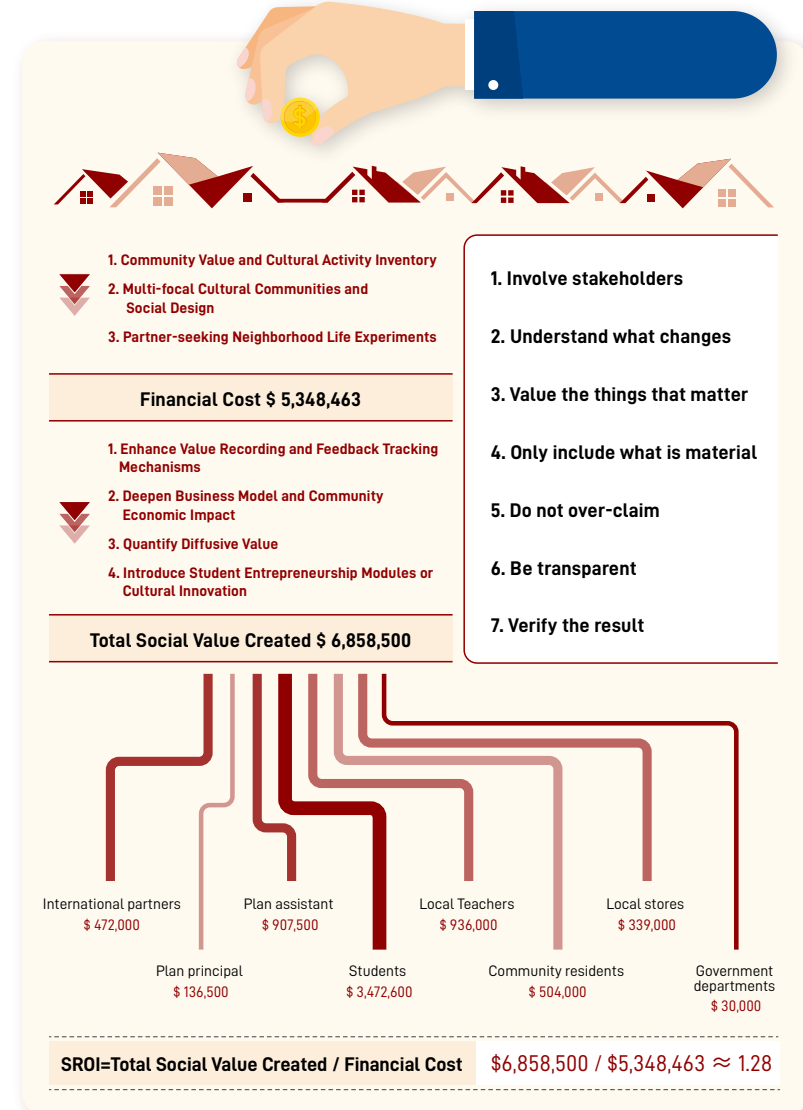
Through two years of field practice and interdisciplinary design of the USR plan titled "Co-op Design - A Life Experiment of San Chiao Yung Community Culture," MCUT has successfully integrated teachers' and students' courses, community culture, international cooperation, and local legal associations, enterprises, old street stores, and government departments to participate in local creation focused on community culture. The initial SROI is estimated at 1.28, meaning that every NT\$1 of planned public welfare resources allocated to this year's project could generate NT\$1.28 in social value.



### MCUT's SROI Analysis Steps



### Co-op Design - A Life Experiment of San Chiao Yung Community Culture



SROI analysis can be used to measure and calculate social benefits. It can also be classified as either "prediction type" or "evaluation type," depending on the project type. The "prediction type" refers to analyzing plans that are currently being developed and have not yet been launched. By predicting the social benefits that could be generated, this analysis aims to maximize the return on investment. The "evaluation type" is a retrospective method that assesses the social benefits produced by ongoing projects, with the goal of understanding the actual social benefits achieved and identifying ways to adjust the project. This report falls under the evaluation-type category. The social benefits generated are evaluated based on the results of this plan's implementation over two years (2023-2024).

It is planned to optimize and adjust the calculation of the social return on investment in the fourth phase of this plan. Suggestions are provided as follows:

1. Improving the value records and feedback tracking mechanism: For example, tracking the impact on the community residents after the activity.
2. Deepening business models and impact on community economy: For example, supporting the creation and commercialization path of the indigo dye cooperative.
3. Quantifying the diffusible value: Including brand visibility and social media influence into the SROI model of the next phase.
4. Introducing student entrepreneurship modules or cultural innovation and creation: Enabling the students not only to participate but also to engage in local entrepreneurship.

### SROI



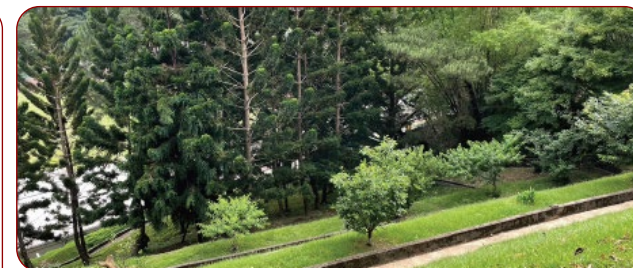
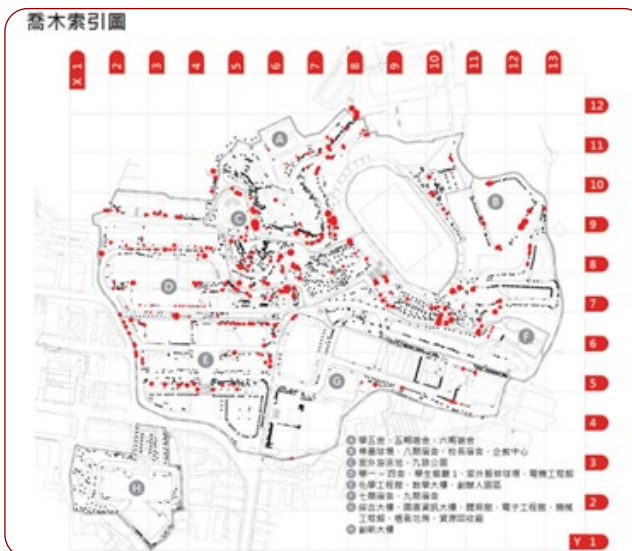
Material Topics	Value Chain			SDG Response			Impact Materiality		Operation Materiality
							Positive	Negative	
Industry-Academia Cooperation & Exchange		MCUT	Downstream				High	Medium	High
Educational Opportunities and Accessibility	Upstream	MCUT	Downstream				Medium	Medium	High
USR Practice		MCUT	Downstream				Medium	Medium	Low

• SROI = Total Social Net Value Input / Total Project Investment = \$6,858,500 / \$5,348,463 ≈ 1.28

### 3. MCUT Establishing an Overall Environmental Strategy Internally and Externally per Environmental Management System

MCUT has established an environmental management system since 2012. By establishing systematic evaluation methods, MCUT is able to identify activities that have a significant impact on the environment, serving as a reference for determining its environmental objectives and targets. This includes all environmental aspects related to the university's direct and indirect impact on the environment, both past, present, and future.

- **Environmental aspects:** Key elements in the interaction of the university activities, products or services with the environment
- **Major environmental aspects:** Aspects considered as possibly subject to significant environmental impact
- **ISO 14001 promotion committee:** Comprising environmental management representatives and representatives from each unit/department
- **Stakeholders:** Individuals or groups concerned about the university's environmental performance



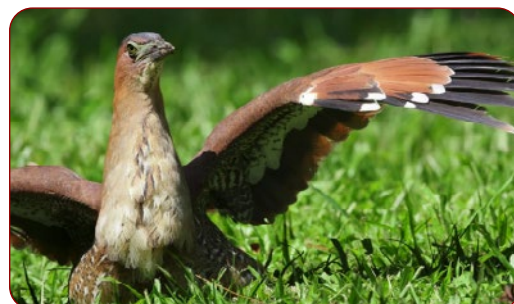
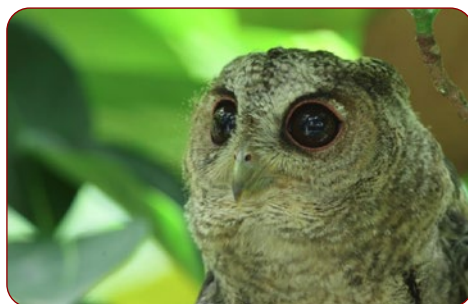
To establish and manage a campus forest form database, MCUT initiated a tree inventory and risk assessment in the teaching area from 2023 to 2024. The inventory was conducted based on environmental ecological investigations and practical planting experiences, and comprehensive surveys and analyses were performed for existing trees and underplantings on campus. To strengthen campus safety management, MCUT has systematically assessed the health status and risk levels of trees on campus and established a tree management database. This helps monitor the current condition of these trees, record their distribution, quantity, and health, and evaluate potential risks such as lodging and branch breakage to ensure campus safety. The evaluation results will be used to create a database supporting SDG 15 "Life on Land" and ecological survey plans, serving as the foundation for future decisions on maintenance and environmental education.

During this survey, the campus was divided into eight areas (A-H). The inventory results showed approximately 1,963 trees, including 993 native species, 664 cultivated species, and 306 naturalized species. There were also about 1,417 shrubs, consisting of 304 native species, 1,101 cultivated species, 11 naturalized species, and 1 invasive species. The evaluation and analysis indicated that high safety risk trees and shrubs made up approximately 15% and 6%, respectively. It is recommended that trees requiring removal be taken out in different zones and stages through thinning, and newly planted trees and shrubs should be placed in suitable locations. Currently, native species account for 54% of the trees and 21% of the shrubs. The proportion of native species should be increased among newly planted trees and shrubs.



In addition to their ecological, landscaping, and carbon sequestration functions, the trees on campus are also closely linked to campus security and environmental quality. This inventory and risk assessment work not only aims to strengthen the planting management system but also deepens campus sustainable governance and practices, aligning with the spirit of sustainable development. In this survey, 12 dragon cypress trees in front of the Electrical Engineering Building were evaluated as having a high safety risk and should be prioritized for action. The field survey results identified three main factors contributing to this high risk: First, the narrow planting beds in this area restrict lateral root growth, leading to unstable tree structures; second, the edge-finishing bricks along the roadside hinder surface drainage, causing the root systems to stay waterlogged for extended periods, which results in root hypoxia and physiological stress; third, since this area is close to buildings, it can create a wind tunnel effect, where strong gusts increase the trees' swaying and tilting, further elevating the risk of lodging. Given these environmental constraints and the current condition of the trees, it is recommended to carry out staged transplantation or replacement to mitigate potential hazards. All 12 dragon cypress trees have been successfully transplanted to the flower beds in front of the international student dormitories. Post-transplantation, the environment has become more spacious with improved drainage, aiding future maintenance and helping the trees recover physiologically.

In addition to mitigating immediate safety hazards, this transplantation operation also emphasizes ecological functions and sustainability principles. By transplanting healthy plants, part of their ecological value is retained. Combined with following planting strategies that adhere to the principle of "right plant in the right place," the proportion of native species increases, improving the overall green space structure and ecological stability. Additionally, this project acts as an educational example for campus risk management and sustainable planting practices. It can be included in environmental education curricula and campus interpretive resources as a practical step to support SDG 15: "Life on Land," thus strengthening the governance effectiveness and educational impact of a sustainable campus. Furthermore, Ming Chi University of Science and Technology has long monitored campus slopes and buildings for safety and has developed a "Seismic Safety Monitoring and Early-Warning System" tailored to the campus's needs. For more details, please see Chapter 4: Low-Carbon Campus.

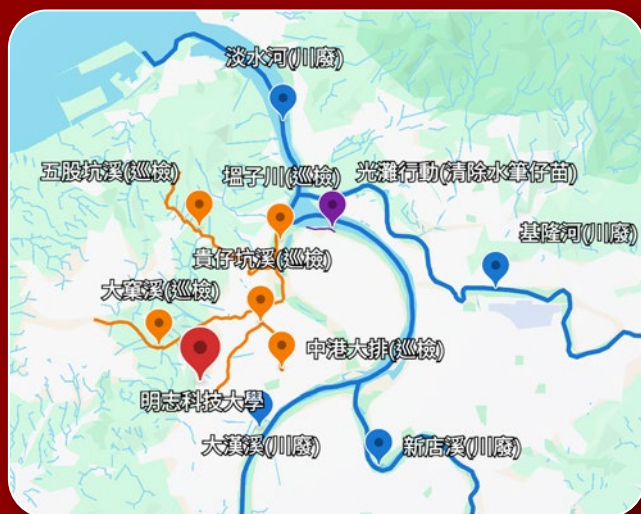


### Air Quality Testing

MCUT has set up an air quality testing station at the intersection of Gongzhuan Rd. and Nantai Road. From 2022 to 2024, the average levels of the main air pollutants measured by No. 6 station remained below environmental protection standards and steadily improved. Specifically, the daily average concentration of nitrogen dioxide stayed between 0.01 and 0.02 ppm; the eight-hour average of carbon monoxide decreased significantly; the annual highest eight-hour ozone concentration was about 0.03 ppm. The monthly average of PM2.5 ranged from 3 to 6  $\mu\text{g}/\text{m}^3$ , and the PM2.5 level was only out of range in January. The levels of VOCs and NMHC consistently stayed below regulatory limits. Overall, the monitoring results indicate that each air pollution indicator was reliably kept below environmental protection standards.

Material Topics	Value Chain		SDG Response	Impact Materiality		Operation Materiality
				Positive	Negative	
Campus Health & Safety	MCUT	Downstream	  	High	High	Medium
Biodiversity	MCUT	Downstream		Low	Low	Low

## 4. Water Environment Patrol Team and Raid River Waste Screening of MCUT Acting as Ecological Guardians and Solving Pollution Using Science and Technology



Blue markers (Rivers): Tamsui River (river waste), Keelung River (river waste),  
 Xindian River (river waste): Dahan River (river waste).  
 Purple markers (Activities): Mudflat Action (removal of *Kandelia obovata* seedlings).  
 Red marker (Landmark): MCUT.  
 Orange markers (Inspection/Patrol Points): Wugukeng Creek, Guizikeng Creek, Dake Creek,  
 Zhonggang Main Drainage, Wenzhi River.

Scope of basins under water environment maintenance	Person-times engaged in 2024	Number of activities in 2024
Water patrolling and testing: 20.7km <sup>1</sup>	Water patrolling and testing: 400 person-times	Total number of times of water patrolling: 18
River waste treatment: 283.5km <sup>2</sup>	River waste treatment: 120 person-times	Total number of times of water patrolling: 80

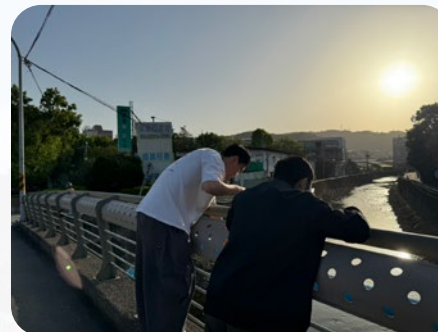
Note 1: The total length of river segments covered by water patrols and water-quality monitoring includes: Wenzhi River (塢子川); Dake Creek (大漢溪); Wugukeng Creek (五股坑溪) 13 km; Zhonggang Main Drainage (中港大排) 2.5 km; and Guizikeng Creek (貴子坑溪) 5.2 km — totaling 20.7 km.

Note 2: The river-waste watershed length is 283.5 km, according to the MCUT USR annual report.

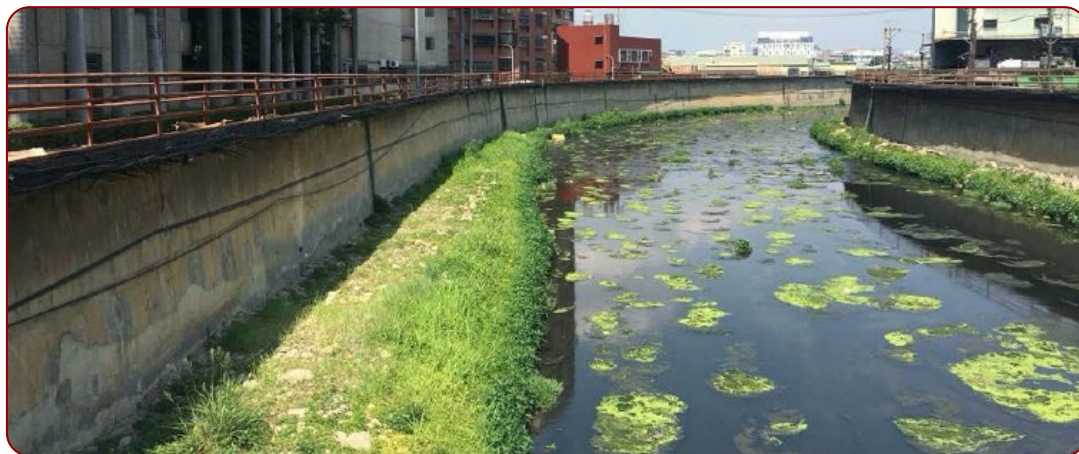
MCUT is located in Taishan District, New Taipei City, near Xinzhuang, Wugu, and Linkou. The campus is bordered by Dakekeng River and Guizikeng Creek, which meet and then flow into the Tamsui River at the border of Wugu and Luzhou. As a result, this region has diverse forest formations, hydrological, and ecological resources. Since 2020, we established a local water environment patrol team responsible for basin patrolling and water quality testing. Starting in 2021, we began promoting local community engagement to enhance residents' awareness and concern for the environment, foster harmonious coexistence between people and nature, and pass on civic responsibility through generations. In 2022, while continuing water environment patrols, MCUT encouraged students to obtain drone pilot licenses by attending relevant exams. In 2023, we collaborated with the Tamsui River basin patrol team, Taishan District, and The Society of Wilderness, leveraging relevant coursework, to conduct rapid waste screening investigations in the river. Pollution hotspot information was reported to government agencies with hopes of improving waste cleanup and transportation efficiency with limited resources.



In 2024, our plan is to sustain water environment patrols, encourage students to document pollution and ecological resources through images, and enhance rapid screening investigations of waste in Tamsui River through further collaboration with water resource patrol teams across New Taipei City districts. We aim to help local partners focus on river waste issues and deepen cooperation with public and private sectors. In terms of environmental education, we will integrate courses and ecological exploration activities that empower students to work with local organizations or schools to develop action plans suited to local conditions — improving residents' and students' understanding and scientific awareness of the local environment. This approach aims to deepen the localization of river patrol efforts and create a positive feedback loop between residents and the environment. Since March 2024, nearly 100 volunteers from the Taishan Water Patrol team, The Society of Wilderness, the Department of Environmental Protection, New Taipei City Government, Water Environment Patrol Team, Shih Chien University, and Nanya Technology have participated in rapid waste screening investigations of the Tamsui River basin, culminating in a press conference in November. During summer vacation 2024, we continued promoting environmental education and partnerships with local middle and elementary schools, organizing activities and science camps for students to foster their sense of connection to the local environment.



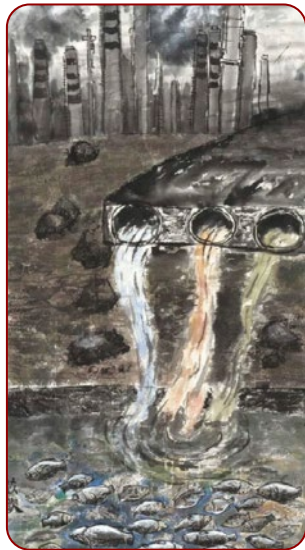




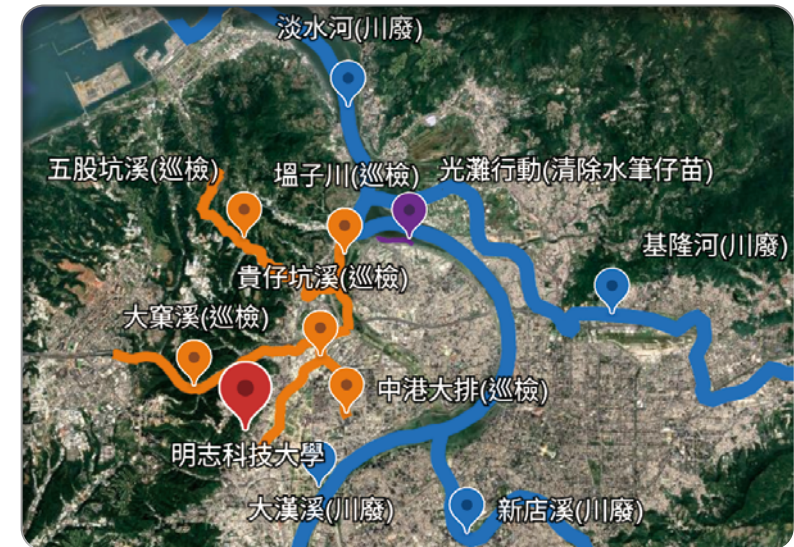
In 2024, MCUT collaborated with teachers and students from Shih Chien University and the Water Environment Patrol Team of New Taipei City to carry out a larger-scale annual survey of Tamsui River. They found that the total waste in the basin decreased by 84,000 kg. If converted to 14 kg per bag, the waste density along the riverbank dropped from 156 bags per kilometer to 72.5 bags, a reduction of over 50%. The most significant improvement was observed in the main stem of Tamsui River. A review of the waste hotspots identified in 2023 showed that the public sector increased efforts to clean the riverbanks after 24 hotspots were announced. Additionally, The Society of Wilderness and MCUT took part in multiple creek-cleaning activities along the riverbanks of Shezidao and Luzhou, achieving a cleanup rate of 58.3% and reducing 14 hotspots. The goal of river cleanup was effectively advanced through the cooperation of the public and private sectors.



In 2024, new test items, including COD and total phosphorus, were added to the river water quality testing. Although more time was needed for the testing, the causes of pollution in each river could be identified more carefully. For example, green algae were often found in the water of the Zhonggang Main Drainage Trail and Honghui Plaza, which could be mistaken for a sign of eutrophication. However, high concentrations of total phosphorus were not detected. As for COD, the cause of the high COD levels in Dakekeng River still needs further investigation. This spot is located in the upper reaches of the river, and more attention should be paid to other discharge sources. In the future, we plan to identify the pollution sources for each river, determine whether pollution is caused by human activity or natural processes. This will allow the parameters to better indicate pollution sources. Currently, the rivers tested are mainly used for domestic water convergence, flood prevention, and drainage. If the parameters' concentrations are too high, it will be necessary to check for illegal discharges. To better protect important water resources, MCUT adheres to the spirits of diligence, simplicity and social contribution, continually engages in the water quality sampling and analysis for rivers in Taishan District, and releases the results on the Facebook fans club of "**Website of Water Environment Patrol Team of Taishan District, New Taipei City**", thereby joining hands with people in Taishan District to conserve the river ecology.



As the survey expanded to more tributaries in 2024, it was discovered that the left bank of Xindian River (near Yongfu Bridge and Fuhe Bridge) and Dakekeng River also became significant waste hotspots (24 new hotspots identified). The predominant waste type remained disposable plastic food packaging, which made up 60%, clearly indicating that environmental education will be crucial for reducing river waste pollution. To achieve this, MCUT, The Society of Wilderness, and Tamsui Community University collaborated to promote a canoeing program on the Tamsui River, aiming to foster local environmental education through water sports, environmental experiences, and education, helping participants understand the importance of reducing disposable household waste. Additionally, the first "Local Sustainable Environment Forum" was held at MCUT in September 2024. During this event, public sector representatives, NGOs, schools, and other key stakeholders along the Luzhou riverbanks exchanged ideas and collaborated on strategies to reduce waste hotspots in Luzhou.



For detailed information,  
please scan the QR Code  
as above

The documentary *Listening to the Silent Wails of Rivers and Seas: A Rapid River Waste Screening Investigation* was showcased at the 2024 Eighth Taipei Golden Eagle Microfilm Festival, where 94 organizations and 183 entries participated. This initiative helps raise public awareness and encourages engagement with sustainability issues while reinforcing the message of sustainable development. The documentary documents the 2023 Tamsui River Waste Rapid Screening Investigation Project, a collaborative effort by Ming Chi University of Technology, The Society of Wilderness, and Fubon Life Insurance. A dedicated team of faculty and students traveled by bicycle and on foot, exploring northern Taiwan's Dahan River, Xindian River, Keelung River, Tamsui River, and their estuaries. They covered a total of 283.5 kilometers and collected nearly 800,000 liters of waste. Through these data, the documentary emphasizes the serious ecological threats posed by river pollution. The university hopes that the impact of this sustainability-focused microfilm will inspire the public to reflect on and address river waste issues, while fostering greater environmental awareness and sustainable practices.



• 2024 8th Taipei Golden Eagle Micro  
Movie Festival — Bronze Award



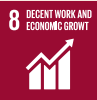








## Saving the Birds: Volunteers Clear Mangroves from Wetlands

An important wetland along the Luzhou section (designated nationally) of the Tamsui River embankment recently revealed a large mudflat due to river dredging efforts. This exposed habitat has attracted many waterbirds, including dunlins, black-faced spoonbills, and teal ducks. To protect this vital ecosystem, Ming Chi University of Technology (MCUT) partnered with the Wild Bird Society of Taipei, The Society of Wilderness, the Tenth River Management Branch of the Water Resources Agency (MOEA), the Rover Scout Interest Group, the Environmental Protection Bureau of New Taipei City Government, and the High Riverbank Construction Management Office. In September 2024, these organizations launched the "Open Mudflat Action," during which 60 volunteers worked to preserve and restore the mudflat habitat. The effort included removing invasive mangroves and uprooting hundreds of *Kandelia* seedlings, as well as collecting nearly 250 kilograms of trash from the site.

MCUT's Action-Oriented Office mobilized almost 30 faculty members and students for the project. Lecturer Chih-Lin Chen, who led the team, emphasized, "Participating in environmental action is vital for students — not only does it offer hands-on experience in conservation, but it also deepens their understanding of the Tamsui River ecosystem and the current state of our environment." Chen also mentioned that MCUT will continue monitoring the Luzhou mudflat area and, through its University Social Responsibility (USR) program, will provide on-going support to promote long-term wetland conservation.



Material Topics	Value Chain			SDG Response	Impact Materiality		Operation Materiality
					Positive	Negative	
USR Practice		MCUT	Downstream	  	High	Medium	High
Biodiversity	Upstream	MCUT	Downstream	  	Medium	Medium	High
Hazardous Substance Management		MCUT	Downstream	 	Medium	Medium	Low



## Address from the President

Scientific and technological progress has fueled rapid growth in Taiwan's industries, making universities' missions of talent training and knowledge innovation increasingly vital. As "a university focusing on research and development through industry-academic cooperation," MCUT consolidates faculty R&D teams to enhance teachers' practical R&D capabilities and impact. Additionally, through a sandwich-style teaching model and leveraging practical internship features, the university has integrated practical achievements, knowledge, and experience into its curriculum, deepening the meaning of hands-on training. Moreover, MCUT values diverse social principles and actively fosters a creative and inspiring learning environment. To clarify shared goals, MCUT has drafted medium- and long-term plans to support comprehensive improvements in teaching, research, and counseling. Furthermore, by implementing the Higher Education Sprout Project and University Social Responsibility Project, MCUT promotes innovative practical teaching, encourages social diversification and co-prosperity, and strengthens both international and local connections.

Regarding practical research and development, MCUT has established ten research centers focused on issues such as green-energy batteries, environment and health, pollution prevention and control, intelligent monitoring, and intelligent vehicles. The university also collaborates with relevant industries, strengthening industry-academia cooperation, patents, technology transfer, SCI papers, and other R&D achievements. Currently, MCUT is actively developing factories for trial and mass production, along with derivative enterprises. In terms of environmental sustainability, the university promotes activities like beach cleaning, river waste removal, and plastics reduction to protect biodiversity and campus ecology. Additionally, it has set a goal to achieve Net Zero by 2050, implementing measures for water and electricity saving, solar power generation, waste sorting and recycling, and reporting on its water and energy consumption and waste reduction efforts. Through green procurement, the university encourages vendors to prioritize environmental issues as well. To evaluate its environmental performance, MCUT has continuously obtained ISO 14064-1 greenhouse gas inventory verification, ISO 14001 Environmental Management System certification, and ISO 50001 Energy Management System certification, regularly participating in green university rankings, the Times Higher Education World University Rankings, discipline-specific rankings, and influence rankings. Furthermore, the university consistently publishes sustainability reports and periodically updates information about university affairs and finances on its official website to promote public awareness of its development progress.

Regarding social care, MCUT offers relevant benefits, including scholarships for students from remote rural areas, educational assistance for disadvantaged students, and free accommodation for undergraduates to ease their financial burden and ensure that economically disadvantaged students can study securely. Additionally, the university collaborates with local middle and elementary schools to promote teaching cooperation and deepen mutual benefits in education. Furthermore, we continue to hold activities to promote healthy living among the new second generation and foreign migrant workers, helping new residents and the second generation better integrate into Taiwanese society. For practical education, the university provides SDG-related courses, internships, interdisciplinary programs, and government-supported student systems to enhance students' competitiveness in the workplace. Regarding humanities and mindset, starting from the concept of holistic education, we help students cultivate a positive attitude through academic programs, mindful learning, club activities, and residential experiences. Moreover, based on local arts, culture, and environmental groups, the university organizes activities to preserve local memory and has formed a water environmental patrol team to promote rapid waste screening and investigation of the Tamsui River, thereby deepening our understanding of environmental and local education.

Regarding diverse partnerships, MCUT has joined T5-GIP to strengthen communication networks with higher education institutions. We promote bilingual education to enhance local students' foreign language skills and expand cooperation with overseas sister schools. We recruit international students, hire more foreign teachers, and encourage both teachers and students to participate in overseas exchanges to increase campus diversity and inclusiveness. In university governance, we prioritize the work environment and campus safety, offer fair and reasonable salaries and promotion opportunities, and have consistently received the "Green Procurement Excellence Award" from the New Taipei City Government. We also disclose research and university governance information to establish a fair, transparent system, improving efficiency and service quality. Moreover, to align with the international education standards, all departments and institutes at MCUT have achieved IEET or AACSB accreditation, and we have continually received the TCSA Sustainability Report Gold Award. Looking ahead, we recognize that the social mission of technological universities is more vital than ever. In addition to our core missions of talent training and knowledge innovation, social responsibility and environmental sustainability have become increasingly important. As a technological university dedicated to teaching, research, and industry collaboration, MCUT will continue to build on our current strengths while integrating issues like sustainability and social responsibility to enhance our positive impact on industry, society, and the environment through ongoing improvement.



President **Thu-Hua Liu**

# MCUT Sustainable Highlights



**Times  
Higher  
Education**

MCUT presented remarkable performance in the rankings of Asian universities by Times Higher Education. It ranked the 251st-300th place, the best performance since its establishment.



The average expenditure spent for every student reached approximately NT\$ 352,000/year (increased by NT\$ 19,000) in the last three academic years.



MCUT's "Listening to the Silent Wails of Rivers and Seas – A Rapid River Waste Screening Investigation" Wins Grand Prize at the Taipei Golden Eagle Microfilm Festival

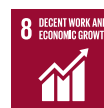
## Governance

- MCUT's Sustainability Report won the Gold Award from TCSCA.
- The teaching quality was maintained with a student-teacher ratio of 21:1:1. MCUT performed outstandingly with a new student enrollment rate of 98.48%.
- MCUT ranked in the 549th place globally and the third place among all universities of technology in Taiwan in the world university ranking of "Research Environment" published by THE in 2025. MCUT's ranking in industry-academia collaboration improved from 863rd to 542nd globally, and its research environment ranking also increased from 607th to 550th worldwide. In science disciplines, it ranks 8th among all universities in Taiwan and 1st among all technology universities in Taiwan.
- The MCUT university endowment fund ranked first in Taiwan, showcasing the institution's commitment to sustainable development.
- According to Global Views Monthly's "Best University Rankings in Taiwan," MCUT ranked 13th among all universities in Taiwan in 2024. For the ranking of technical universities in Taiwan, MCUT improved its ranking to 3rd place. It consistently ranked in 1st place among all private universities of technology in Taiwan. Specifically, it was ranked 9th among comprehensive universities in Taiwan in this regard.
- A total of 569 academic papers were published on SCI/SSCI, and the number of papers published per capita reached 2.76, ranking first among technology universities in Taiwan.



## Social

- MCUT has spent an average of NT\$ 352,000 per year for each student in the past three years (+NT\$19,000).
- The monthly average salary of junior interns reached NT\$ 31,000.
- MCUT's Department of Industrial Design, in the 2024 graduating class, won the Young Pin Design Award, with 67 entries advancing to the national finals, the highest number in the competition.
- MCUT's employment matchmaking rate was approximately 42% (+2%) at the New Taipei City Campus Employment Expo.
- The employment rate of students in the Bachelor's Department was 93.1%, while that of master's students was 88.2%.
- The industry-academia cooperation involved an amount of NT\$195.09 million, and the number of technology transfer projects increased from 14 to 20, representing a growth rate of 42%.
- Graduate employer satisfaction reached 86%.



## Environment

- MCUT announced that they have achieved the goal of "Carbon Neutrality" by 2050.
- MCUT has completed the third-party verification of its ISO 14064-1 greenhouse gas inventory.
- Solar power generation capacity reached 454,976.7 kWh in 2024.
- MCUT has developed next-generation new energy technology, and Formosa Smart Energy has invested in MCUT's research and development of all-solid-state lithium-ion batteries.
- MCUT has actively developed lithium ion battery technology and Lithium Ion Battery Recycling with MCUT.
- MCUT partnered with FrontMaterials Co. Ltd. to establish a joint research center.
- MCUT accelerated technological implementation, establishing trial and volume production factory bases with Formosa Biomedical Technology Corp. and Wisechip Semiconductor Inc.
- MCUT achieved 97.35% local procurement (+0.52%).
- MCUT has safeguarded the ecology of Guizikeng Creek and fulfilled the environmental conservation responsibilities of a local university. The documentary on Tamsui River waste won the Taipei Golden Eagle Micro Award.
- MCUT implemented safety monitoring of campus side slopes and dormitories, fostering resilience against extreme climate.





# About This Report

## Issuance Frequency

Ming Chi University of Technology (hereinafter referred to as MCUT) publishes its fifth sustainability report in 2025 to communicate our role, initiatives, and achievements to all stakeholders interested in MCUT. The report is prepared in accordance with the GRI Sustainability Reporting Standards (GRI Standards 2021) and the AA1000 Accountability Principles, and it also references the Task Force on Climate-related Financial Disclosures (TCFD). MCUT will continue to proactively share relevant information regarding the university's sustainable development with the public each year. The next Chinese version of the sustainability report will be released in August 2026.

## Reporting Boundary and Scope

The boundary and scope of this report all relate to MCUT. Since the school follows an academic year system, the reporting period is for the 2024 academic year (January 1, 2024, to December 31, 2024), while the information covers the period from August 1, 2023, to July 31, 2024. The comparative data is presented over one to three academic years or one to three years. The content disclosed focuses on major issues and their impact on the school's sustainable development, covering economic, environmental, and social aspects with significant influence.

## Contact Information

If you have any feedback or questions about Ming Chi University's 2024 Sustainability Report, please contact us through the channels listed below.

- Department: Sustainable Development Office of MCUT
- Address: No. 84, Gongzhuan Road, Guizi Village, Taishan District, New Taipei City
- TEL: 886-2-2908-9899 #2063, Mr. Chao
- FAX: 886-2-2904-1914
- Mailbox: mcut\_sustainability@mail.edu.tw
- Website: <https://sustainability.mcut.edu.tw>

## Report Preparation and Approval Process

Process	Method	Responsible Department/ Position
Compilation	The Office of Sustainable Development is responsible for the overall planning of this report. Data information, strategic objectives, and performance indicators disclosed in the report are provided by relevant departments and reviewed by the Office of Sustainable Development.	Sustainable Development Office
Internal Review	This report must be approved by each department and verified by the director of the Sustainable Development Committee.	Sustainable Development Office
External Assurance	<p>To enhance the accountability of the report:</p> <ul style="list-style-type: none"> <li>• AFNOR Asia Ltd., as a third-party assurance provider, assures compliance with the GRI Standards and AA1000AP (2018) based on Type 1 and Moderate Assurance, and accountability as specified in AA1000AS v3. Please refer to the appendix for the independent assurance statement.</li> <li>• Some of the data disclosed in the report has been approved by external assurance:               <ul style="list-style-type: none"> <li>▶ The financial data in the annual financial statements shall be verified and certified by Ernst &amp; Young.</li> <li>▶ TÜV SÜD Verification Agency verified the greenhouse gas inventory data in accordance with the "ISO 14064-1: 2018" international standard.</li> <li>▶ Other international standards and verifications include: ISO 14001 Environmental Management System (verified and passed by TÜV SÜD), ISO 45001 Occupational Safety and Health Management System (verified and passed by TÜV SÜD), ISO 27001 Information Security Management System (verified and passed by SGS-Taiwan).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• AFNOR Asia Ltd.</li> <li>• Ernst &amp; Young</li> <li>• TÜV SÜD Verification Agency</li> <li>• SGS Taiwan Ltd.</li> </ul>
Finalization	Finally, the report is submitted to the Sustainable Development Committee for review and finalization.	Sustainable Development Office





# 1

## Chapter

### Sustainable MCUT

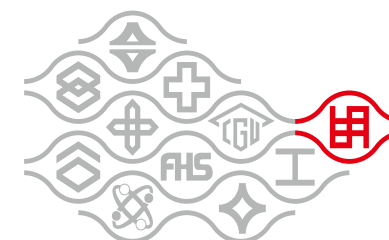
1.1 About Us	21
• Our History and Features	21
• Department Overview	22
1.2 Sustainable Development Vision and Goals	23
1.3 Stakeholder Communication	24
1.4 Analysis and Identification of Material Topics	27
1.5 Management of Material Topics	31



# 1.1 About Us

## Our History and Features

Ming Chi University of Technology, previously known as "Ming Chi Technical College," was founded in 1963 by Mr. Yung-Ching Wang and Mr. Yung-Tsai Wang. The name "Ming Chi" was chosen to inspire both teachers and students to embody the wisdom and virtues of the sages. Over the years, with strong support from the Board of Directors and the dedicated efforts of the university staff, we have continuously attracted outstanding researchers, integrated internal research teams, and fostered collaborations with the Innovation and Incubation Center and nearby industrial parks. Together, we have established a regional industry-academia collaboration platform that contributes to cultivating professionals in science and technology for Taiwan. To date, we proudly serve as the alma mater of more than 35,000 alumni. For more information on the university's development, please refer to the Introduction to **MCUT**.



**明志科技大學**  
 MING CHI UNIVERSITY OF TECHNOLOGY

### MCUT Evaluation and Rankings in 2024



Ranked as Taiwan's Best University by Global Views Monthly Magazine

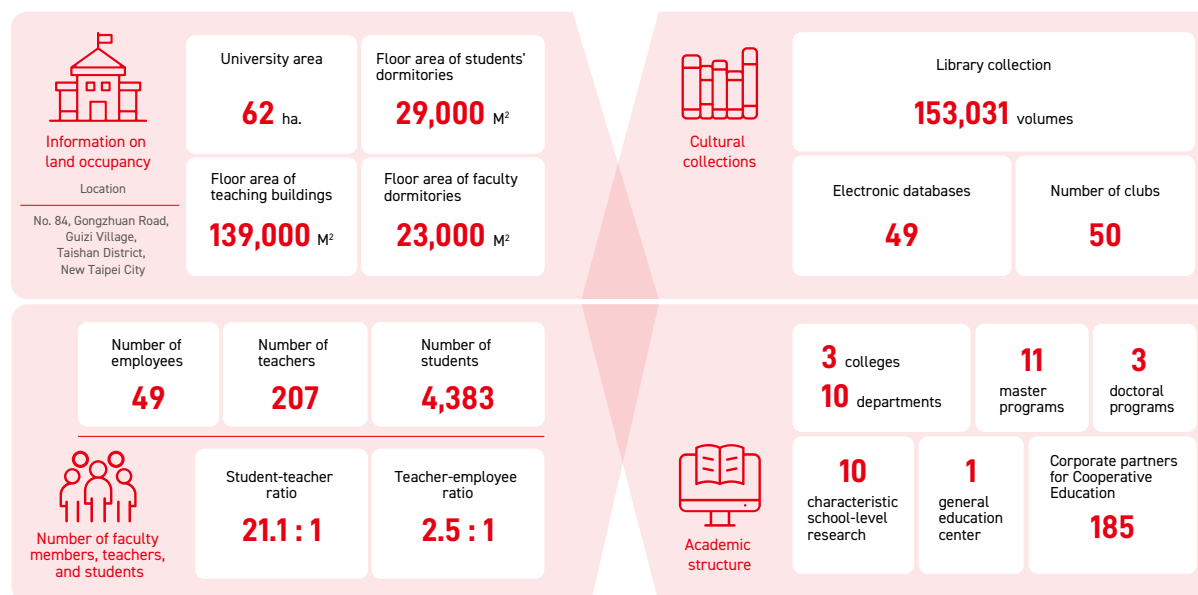
- Ranked 9th among Taiwan's comprehensive universities, 3rd among national universities of technology, and 1st among private universities of technology.



Times Higher Education World University Rankings

- Results of 2025 rankings (announced in 2024): 606th place among physical science universities

### MCUT's Profile





## Department Overview

The teaching units include **3** colleges, i.e., College of Engineering, College of Environment Resources, and College of Management and Design, with **10** departments, **11** research institutes, **3** doctorate programs, and **1** general education center.



### College of Engineering



The College of Engineering currently employs 59 full-time faculty members. Among them, 55 are assistant professors or higher with doctoral degrees, along with 5 personnel dedicated to project research. The college offers various departments and graduate institutes, including Electrical Engineering, Electronic Engineering, and Mechanical Engineering, in addition to an International Ph.D. Program focusing on Innovative Technology in Biomedical Engineering and Medical Devices. Specifically, the departments of Electrical Engineering, Electronic Engineering, and Mechanical Engineering are well-established within the college. The Department of Engineering has already passed the "International Certification for Engineering and Technology Education" by the Institute of Engineering Education (IET).

### College of Environmental Resources



The College of Environmental Resources employs 60 full-time faculty members, including the PhD Programs in Green Energy and the Plasma and Thin Film Technologies Center. Among these, 57 faculty members hold the title of assistant professor or higher or possess a doctorate. The college comprises three departments, four institutes, a specialized class, and a program. The departments include Chemical Engineering, Safety, Health and Environmental Engineering, and Materials Engineering. Additionally, there is the Environmental Resource Interdisciplinary Practical Elite Class and a Bachelor's Program in Semiconductor Materials and Fabrication. The college boasts five school-level research centers: the R&D Center for Biochemical Engineering Technology, the Center for Chinese Herbal Medicine, the Center for Biochemical Engineering Technologies, the Center for Plasma and Thin Film Technologies, the Battery Research Center for Green Energy, and the Center for Environmental Sustainability and Human Health. All departments within this college have received the "International Certification for Engineering and Technology Education."

### College of Management and Design



The College of Management and Design currently employs 54 full-time faculty members, with 51 holding the title of assistant professor or higher, or possessing a PhD. The college comprises several departments, including Industrial Engineering and Management, Business and Management, Industrial Design, and Visual Communication Design, as well as the IMBA program, a Bachelor's degree in Digital Marketing Design, and specialized programs in international management and design. Notably, the Industrial Engineering and Management Department has received certification from IET for its "International Certification for Engineering and Technology Education," while both the Industrial Design and Visual Communication Design Departments are also IET certified for "International Certification for Design Education." Additionally, the Department of Business and Management is accredited by ACCSB for the "Accreditation of Chinese Collegiate School of Business."






### General Education Center



The General Education Center at MCUT has established sections for Mandarin Chinese, Foreign Languages, Physical Education, and Sociology. These sections are responsible for planning, executing, reviewing, and enhancing the general education courses. The Center is supervised by a director who manages the administrative affairs. Currently, the General Education Center has 24 full-time teachers, 18 of whom hold the title of assistant professor or higher or possess a PhD degree.

## 1.2 Sustainable Development Vision and Goals

### ○ Sustainable development goals and vision

Aspect/Vision	SDGs	Goals and Commitments	Main Institutional Development Goals (Medium-Long Term Plans)
<b>1. Talent cultivation</b> Cultivate professionals who are practical and skilled in hands-on, interdisciplinary collaboration.		<ul style="list-style-type: none"> <li>Align with diverse industry needs, foster innovative teaching, and continually enhance teaching quality.</li> <li>Embrace a culture of sustainability, prioritize professional and interdisciplinary skills, and nurture talents that align with industry demands.</li> <li>Expand students' international perspectives, foster artistic and egalitarian literacy, and cultivate global citizenship supporting liberal arts.</li> </ul>	<ul style="list-style-type: none"> <li>Engage in strategic partnerships with industries to advance hands-on, practical education.</li> <li>Drive educational innovation and implement diverse, cross-disciplinary approaches to teaching.</li> <li>Establish a Holistic Academy to spearhead global citizenship education initiatives.</li> </ul>
<b>2. Knowledge Innovation</b> Actively implement knowledge innovation and practically develop farsighted technology and industry-university collaboration.		<ul style="list-style-type: none"> <li>Optimize the R&amp;D environment, emphasize academic ethics, and promote farsighted R&amp;D to achieve remarkable results.</li> <li>Align with the needs of various industries, establish industry-university partnerships, and foster sustainable development and industry-university collaboration.</li> <li>Establish an advisory group for industry-university entrepreneurship to promote innovation and entrepreneurship. Give guidance on improving and innovating commoditization.</li> </ul>	<ul style="list-style-type: none"> <li>Create a high-quality and sound R&amp;D environment.</li> <li>Gather energy to implement industry-university partnerships.</li> <li>Cooperate with enterprises to develop industry-university collaboration.</li> </ul>
<b>3. Social Service</b> Cultivate the concept of social care, pursue Inclusive Education, and co-prosperity with society.		<ul style="list-style-type: none"> <li>Encourage social participation, delve into the issues concerning the local, and fulfill the university's social responsibilities as much as possible.</li> <li>Incubate the seeds of social care practices and popularize the concepts of local identification and social care.</li> <li>Provide equal opportunities to study and career guidance so students can study without worries and use what they have learned.</li> </ul>	<ul style="list-style-type: none"> <li>Promote the concepts of social responsibility, care and services.</li> <li>Popularize social care and social participation.</li> <li>Offer assistance to students to let them study without worries and give them employment advice.</li> </ul>
<b>4. Sustainable Green University</b> Promote green environmental protection and be committed to health, safety, and sustainable development.		<ul style="list-style-type: none"> <li>Emphasize energy and water conservation, waste reduction, emission reduction, and zero occupational hazards and pollution.</li> <li>Implement effective campus management practices, enhance the health and well-being of faculty and students, prioritize campus safety, and create a secure and joyful working and learning environment.</li> <li>Enhance environmental and local education, focusing on certifications and ratings for environmental, energy, water resources, and green university initiatives.</li> <li>Conduct a carbon inventory, promote net-zero and emission reduction solutions, and transform MCUT into a sustainable green university.</li> </ul>	<ul style="list-style-type: none"> <li>Promote net zero and carbon emission reduction and obtain environmental certifications.</li> <li>Promote a healthy, safe, and sustainable campus.</li> <li>Promote sustainable environmental activities and environmental education.</li> </ul>
<b>5. Institutional Governance</b> Cultivate a culture of thorough inquiry and fact-based decision-making to enhance institutional governance.		<ul style="list-style-type: none"> <li>Increase international exchange opportunities, cultivate an internationally welcoming campus, and broaden students' global perspectives.</li> <li>Develop a smart campus to provide fast, fair digital learning resources and opportunities.</li> <li>Promote green procurement, implement financial management, conduct in-depth institutional research, strengthen institutional management, and implement self-accountability.</li> <li>Publicize institutional information and improve administrative services. Implement sustainable governance to make MCUT a model for Taiwan's science and technology universities.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an internationalized bilingual campus.</li> <li>Implement information disclosure and institutional publicity.</li> <li>Strengthen financial management and develop a sustainable campus.</li> </ul>

## 1.3 Stakeholder Communication

Ming Chi University of Technology has developed a comprehensive communication strategy designed to understand the expectations and concerns of its stakeholders. This strategy acts as a catalyst for continuous improvement and enhancement. We employ the SES:2015 (Account Ability 1000 Stakeholder Engagement Standard:2015) as a quantitative framework for evaluating the impact of stakeholders on the university, based on five key principles: Dependence, Accountability, Influence, Diversity of Perspectives, and Tension. This evaluation led various team members to collaboratively identify seven primary stakeholder groups: students, faculty and staff, parents, alumni, internship organizations, suppliers, and the community

Stakeholder	Topics of concern	Significance for MCUT	Communication Channel	Communication Frequency	2024 Significant Results
Students	<ul style="list-style-type: none"> <li>Education Opportunities &amp; Accessibility</li> <li>Industry-Academia Cooperation &amp; Exchange</li> <li>Learning Environment &amp; Effectiveness</li> <li>USR Practice</li> <li>Campus Greening</li> </ul>	<p>As the principal component of MCUT, students not only focus on the teaching quality at MCUT but also expect a high level of competitiveness offered by the university to the graduates seeking jobs after graduation. MCUT pays attention to students' expectations and offers communication channels for each office and department, allowing students to conveniently communicate with the university.</p>	Office of International Affairs	Annually	<ul style="list-style-type: none"> <li>In 2024, MCUT's sister schools grew to 37.</li> <li>254 students went abroad for exchanges.</li> <li>MCUT has been admitting international students through various channels since 2013. In the 2023 academic year, the university welcomed 99 new international students. Overall, MCUT has enrolled 448 international students pursuing degrees, which includes 382 international students, 16 overseas Chinese students, 8 from Hong Kong and Macao, and 42 from mainland China.</li> <li>MCUT signed transnational program agreements with sister schools to admit overseas students to participate in 3+2 and 5+1 Bachelor-Master programs starting in 2019. In the 2023 academic year, the number of overseas students admitted reached 53. To date, the university has enrolled 75 overseas students.</li> </ul>
			Division of Internship and Career Services		In the 2023 academic year, 835 junior students participated in one-year work-study internship courses.
			Student Assistance Division	<ul style="list-style-type: none"> <li>Irregularly</li> <li>Annually</li> <li>At any time</li> </ul>	<ul style="list-style-type: none"> <li>MCUT holds a "Teacher-student Symposium" in the second semester of each academic year. In the 2023 academic year, 70 teachers and students participated in the symposium, achieving an average satisfaction level of 97%.</li> <li>Tutors visited students' dormitories for counseling at night 1,020 times, allowing them to understand students' learning and living conditions and helping students adapt to university life.</li> <li>Dormitory Management Committee meetings are conducted once per semester, and orientation sessions on microwave oven usage take place at the beginning of each academic year.</li> <li>Assistance is available to cover students' living expenses, and service supervisors provide support at any time during their duty hours.</li> </ul>
			Student Activity Division		<ul style="list-style-type: none"> <li>MCUT holds a club instruction symposium every academic year.</li> <li>MCUT conducts association bulleting eight times every academic year.</li> </ul>



Stakeholder	Topics of concern	Significance for MCUT	Communication Channel	Communication Frequency	2024 Significant Results
Students	<ul style="list-style-type: none"> <li>Education Opportunities &amp; Accessibility</li> <li>Industry-Academia Cooperation &amp; Exchange</li> <li>Learning Environment &amp; Effectiveness</li> <li>USR Practice</li> <li>Campus Greening</li> </ul>	As the principal component of MCUT, students not only focus on the teaching quality at MCUT but also expect a high level of competitiveness offered by the university to the graduates seeking jobs after graduation. MCUT pays attention to students' expectations and offers communication channels for each office and department, allowing students to conveniently communicate with the university.	Teacher-student symposium	Annually	Each academic year, MCUT organizes a month-long attendance banquet for new students who have been at the university for one month. During this event, the President, Vice Presidents, Chief Secretary, level 1 supervisor from each administrative unit, and teachers from the Office of Student Affairs are invited to share a dinner together, engage in discussion, and exchange friendly opinions. In the 2023 academic year, approximately 84 people participated in the banquet, achieving an average satisfaction level of 97.40%.
			Complaint-related cases	At any time	In 2024, a total of two complaints related to student housing were received. Investigations and resolutions were conducted in accordance with legal procedures, and no further appeals were filed. Additionally, there were four gender equity complaints. All cases were promptly reported to the appropriate authorities. Following investigation, two cases were dismissed, while the other two were substantiated and addressed with disciplinary actions pursuant to relevant regulations.
Parents	<ul style="list-style-type: none"> <li>Learning Environment &amp; Effectiveness</li> <li>Industry-Academia Cooperation &amp; Exchange</li> <li>Campus Health &amp; Safety</li> <li>Education Opportunities &amp; Accessibility</li> <li>Academic Affairs and Administrative Quality</li> </ul>	Parents entrust MCUT with their children for a favorable and promising educational environment.	Parent-teacher symposium	Annually	Every year, before the start of the school year, a parent-teacher symposium is held. During this event, new students and their parents are invited to participate. In the 2023 academic year, approximately 1,108 people attended the symposium; the average satisfaction level was 97.46%.
			Parent telephone or face-to-face coordination meeting	At any time	<ul style="list-style-type: none"> <li>Held Six coordination meetings were held to address issues related to students' emotions, learning, and interpersonal relationships.</li> <li>55 person-times students "Individualized Support Plan (ISP) meetings" and 14 "Individualized Transition Plan (ITP) meetings" were held to coordinate the special education needs of students with physical and mental disabilities.</li> <li>Irregular counseling is provided for students with special needs or those who have violated rules, and interviews with their parents are conducted.</li> </ul>
Alumni	<ul style="list-style-type: none"> <li>Industry-Academia Cooperation &amp; Exchange</li> <li>Campus Health &amp; Safety</li> <li>R&amp;D Achievements</li> <li>Learning Environment &amp; Effectiveness</li> <li>Campus Greening</li> </ul>	University alums are critical interpersonal networks for students of MCUT after graduation. The positive cycle of alums paying back resources to their university will give them competitiveness in Taiwan's society	<ul style="list-style-type: none"> <li>Alumni conference</li> <li>Email</li> <li>Official website</li> <li>Social website</li> <li>Social software</li> <li>Alumni newsletters</li> </ul>	<ul style="list-style-type: none"> <li>Annually</li> <li>At any time</li> <li>At any time</li> <li>At any time</li> <li>At any time</li> <li>Monthly</li> </ul>	<ul style="list-style-type: none"> <li>At the annual alumni conference, the President and Chairman will report on university affairs and conference matters, and listen to alumni suggestions on the university.</li> <li>Publicity of activity information by email, websites, and social software.</li> <li>The monthly alumni newsletters introduce the activities of the university and the alumni. In 2024, 12 issues were published.</li> <li>In 2024, the university organized 7 alum activities attended by 995 person-times.</li> </ul>

Stakeholder	Topics of concern	Significance for MCUT	Communication Channel	Communication Frequency	2024 Significant Results
<b>Faculty and Staff</b>	<ul style="list-style-type: none"> <li>Learning Environment &amp; Effectiveness</li> <li>Information Security &amp; Privacy Protection</li> <li>Campus Health &amp; Safety</li> <li>Academic Affairs and Administrative Quality</li> <li>Human Rights &amp; Labor Practices</li> </ul>	The faculty and staff of MCUT shoulder the vital responsibility for campus administration and teaching knowledge to students. MCUT attaches importance to instant communication with faculty and staff, providing them with abundant research resources and institutional support, thereby becoming a powerful backup for its faculty and staff.	<ul style="list-style-type: none"> <li>President's mailbox</li> <li>Email</li> <li>Official website</li> <li>Social website</li> </ul>	<ul style="list-style-type: none"> <li>At any time</li> <li>At any time</li> <li>Irregularly</li> <li>Irregularly</li> </ul>	<ul style="list-style-type: none"> <li>The President's mailbox receives responses and replies from faculty and staff.</li> <li>Activities are promoted through email, the official website, and social media.</li> <li>In 2024, one letter of complaint from faculty and staff was received in the university mailbox.</li> </ul>
<b>Internship Organizations</b>	<ul style="list-style-type: none"> <li>Industry-Academia Cooperation &amp; Exchange</li> <li>Learning Environment &amp; Effectiveness</li> <li>Information Security &amp; Privacy Protection</li> <li>R&amp;D Achievements</li> <li>Human Rights &amp; Labor Practices</li> </ul>	Industry-academia Cooperation is a crucial aspect of MCUT's operations, and maintaining clear communication with internship organizations is essential to sustaining MCUT's efforts.	Division of Internship and Career Services <ul style="list-style-type: none"> <li>Internship instructors</li> <li>Division of Internship and Career Services</li> </ul>	<ul style="list-style-type: none"> <li>Once every three months</li> <li>Irregularly every year</li> </ul>	<ul style="list-style-type: none"> <li>967 instances of contact between internship instructors and supervisors of internship organizations</li> <li>200 sessions of internship matchmaking interviews</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Sustainable procurement</li> <li>Climate Change Response</li> <li>Biodiversity</li> <li>Campus Health &amp; Safety</li> <li>Industry-Academia Cooperation &amp; Exchange</li> </ul>	The stable cooperation between MCUT and suppliers of the parent group will ensure the university's overall procurement quality remains high.	<ul style="list-style-type: none"> <li>Email</li> <li>Official website</li> </ul>	At any time	<ul style="list-style-type: none"> <li>Relevant information is announced via email and on the website.</li> <li>Supplier response and inquiry channels offered by the Procurement Division of Formosa Plastics Group</li> </ul>
<b>Community/ Other</b>	<ul style="list-style-type: none"> <li>Sustainable procurement</li> <li>Energy consumption and management</li> <li>Academic Affairs and Administrative Quality</li> <li>Hazardous Substance Management</li> <li>R&amp;D Achievements</li> </ul>	MCUT is situated next to the site of the first academy in northern Taiwan. Consequently, the university holds a responsibility to uphold and enhance the local community's culture and education. Listening to the local community and engaging in communication is a fundamental aspect of MCUT's commitment to university social responsibility.	<ul style="list-style-type: none"> <li>Email</li> <li>Official website</li> </ul>	At any time	<ul style="list-style-type: none"> <li>Activities are promoted on official websites and social media.</li> <li>Relevant opinions are shared at the district or village office.</li> <li>MCUT implements a university social responsibility (USR) practice plan, develops five foundational plans (USR Hub), and promotes cross-domain and cross-school discussions. In 2024, the local promotion achievements of the university included:               <ol style="list-style-type: none"> <li>Promoting 20 multicultural courses and 12 club courses.</li> <li>Promoting supplementary teaching materials written in Southeast Asian languages to 291 middle and elementary schools in Taiwan.</li> <li>Encouraging students to take part in 80 missions with the Society of Wilderness and River Patrol, conduct 18 water checks, and attend 10 field day sessions.</li> </ol> </li> </ul>



## 1.4 Analysis and Identification of Material Topics

MCUT has identified its main Material Topics related to sustainability using the GRI and SASB frameworks, in accordance with the GRI Standards 2021. The company has disclosed the impact status, management strategy, and practical conditions of each Material Topic to enhance the effectiveness of external communication. This Sustainability Report has been prepared according to AA1000 AccountAbility Principle, 2018, and adheres to four major principles: inclusivity, materiality, responsiveness, and impact. These principles govern the entire process from identifying Material Topics to reporting on and responding to their content. Additionally, the university has consistently highlighted its achievements in promoting sustainability commitments.

### Identification processes of MCUT's Material Topics

Engagement of <b>7</b> categories of stakeholders	Collection of <b>23</b> sustainability issues	Survey of <b>32</b> Double materiality questionnaires	Survey of <b>491</b> concern questionnaires	Analysis and sorting of issues in <b>4</b> aspects	Establishment of <b>15</b> Material Topics
<ul style="list-style-type: none"> <li>In accordance with the SES standards outlined in AA1000, MCUT has recognized the key communication elements of its Sustainability Report, categorizing them into seven stakeholder groups: Students, faculty and staff, parents, alumni, internship organizations, suppliers, and the community.</li> <li>MCUT uses various daily communication channels for instant interaction and feedback to address stakeholder concerns.</li> </ul>	<ul style="list-style-type: none"> <li>MCUT focuses on 23 sustainability issues based on GRI and SASB standards, as well as relevant industrial considerations like campus evaluation/appraisal, reports from domestic and foreign universities, and campus development plans.</li> <li>The questionnaire design incorporated the 23 issues as question items, with Questionnaire A intended for an internal survey and Questionnaire B designed for an external survey.</li> </ul>	<ul style="list-style-type: none"> <li>The internal senior officers and colleagues responsible for sustainability-related work should complete a Materiality Evaluation Questionnaire on Sustainability Issues for impartial assessment. A total of 32 questionnaires were collected.</li> <li>Aspects assessed: <ol style="list-style-type: none"> <li>Level of positive/negative impact</li> <li>Level of financial/operational impact</li> </ol> </li> </ul> <p>The double materiality of ESG external impact and university finance was assessed. The threshold for selecting Material Topics this year was based on the condition that the materiality threshold of positive or negative impact assessed should be "High" (4 points on a scale of 1-5). Those meeting the aforementioned criteria would be chosen as the Material Topics of MCUT.</p>	<ul style="list-style-type: none"> <li>MCUT distributed a Sustainability Issue Concern Assessment Questionnaire to stakeholders for assessing concerns. A total of 544 questionnaires were collected, with 491 valid responses after excluding invalid ones. <ol style="list-style-type: none"> <li>Students: 236 questionnaires (48.1%)</li> <li>Faculty and staff: 73 questionnaires (14.9%)</li> <li>Parents: 67 questionnaires (13.6%)</li> <li>Alumni: 37 questionnaires (7.5%)</li> <li>Internship organizations: 23 questionnaires (4.7%)</li> <li>Suppliers: 16 questionnaires (3.3%)</li> <li>Community: 39 questionnaires (7.9%)</li> </ol> </li> <li>If the concern score exceeds 4 points, it is deemed highly concerning. The top 3 to 5 issues will be prioritized as the most concerning (no more than 5 items).</li> </ul>	<ul style="list-style-type: none"> <li>After analyzing the results from the questionnaire surveys, both with equal weighting and weighted methods, we assessed the materiality of each issue's positive, negative, and financial impacts, as well as stakeholder concerns. We then quantified these values and organized them accordingly.</li> <li>After establishing threshold standards for double materiality, as well as for positive impact, negative impact, and Material Topics identified by stakeholders, MCUT consulted with both internal and external experts. The organization then conducted a thorough analysis of survey results from two questionnaires. This assessment helped determine the annual Material Topics. The overall double materiality score was calculated to be 256 points (16 * 16).</li> </ul>	<ul style="list-style-type: none"> <li>After discussions at the University Affairs Meeting and approval by the President, the integrity, inclusivity, and overarching nature of 15 Material Topics were confirmed, along with their alignment with MCUT's sustainable development strategy</li> <li>In 2024, 15 material topics were established, and their relevant content, including management policy and performance, was disclosed individually.</li> </ul>

○ 23 sustainability issues concerned by MCUT (bold indicates 2024 material topics)



### Economic/Governance Aspect

1. **University Governance**
2. Academic ethics and norms
3. **Marketing & Admission Measures**
4. **Academic Affairs and Administrative Quality**
5. **Learning Environment & Effectiveness**
6. **R&D Achievements**
7. **Industry-Academia Cooperation & Exchange**
8. **Information Security & Privacy Protection**
9. Sustainable procurement



### Environmental Aspect

10. Climate Change Response
11. **GHG Emission**
12. Energy consumption and management
13. **Hazardous Substance Management**
14. Water Consumption & Sewage Discharge
15. Waste Management
16. **Biodiversity**
17. Campus Greening



### Social Aspect

18. Human Rights & Labor Practices
19. **Talent Attraction and Retention**
20. Talent Training & Development
21. **Education Opportunities & Accessibility**
22. Campus Health & Safety
23. **USR Practice**



## Matrix graph of issues of MCUT with double materiality



Note: For the level of sustainability impact, the higher value of the positive or negative impact should be adopted.

## Material Topics of different aspects (bold indicates 2024 material topics)

Order	Double Materiality	Priority Topics of Stakeholders	Issues of long-term concern for the university	Order	Double Materiality	Priority Topics of Stakeholders	Issues of long-term concern for the university
1	Industry-Academia Cooperation & Exchange			13	Talent Training & Development		
2	University Governance			14	<b>Academic Ethics and Norms</b>		
3	R&D Achievements			15	Waste Management		
4	Talent Attraction and Retention			16	Water Consumption & Sewage Discharge		
5	Marketing & Admission Measures			17	Campus Greening		
6	Learning Environment & Effectiveness			18	<b>Energy Consumption and Management</b>	✓	
7	Academic Affairs and Administrative Quality			19	GHG Emission		✓
8	Information Security & Privacy Protection			20	<b>Hazardous Substance Management</b>	✓	
9	Campus Health & Safety			21	USR Practice		✓
10	<b>Education Opportunities &amp; Accessibility</b>	✓		22	Climate Change Response		
11	Human Rights & Labor Practices			23	<b>Biodiversity</b>		✓
12	Sustainable Procurement						

Note 1: Topics are prioritized based on the results of the double materiality assessment. This includes those issues that surpass the concern threshold for more than three categories of stakeholders, along with those that represent long-term concerns for the university. These topics have been designated as material for management. The final selection was confirmed during the University Administrative Meeting on April 1, 2025, following consultations with both internal and external experts. The threshold criterion consists of a dual materiality score of 256 points, calculated as 16 points for positive impact multiplied by 16 points for negative impact.

Note 2: Issues concerning categories 1-2 stakeholders. Although issues that appear insignificant in the impact analysis were not included as Material Topics for management, relevant content has still been disclosed in the report, and the significance of these issues, including Academic Affairs and Administrative Quality, Sustainable Procurement, and Climate Change Response, will be continually observed.

## 1.5 Management of Material Topics

In 2024, the number of Material Topics determined by MCUT for reporting changed from 16 to 15. The impact scope and management policies for each issue have been disclosed in this report.

























Order	2024 Finalized Material Topics	2024 Material Topics	Order	2024 Finalized Material Topics	2024 Material Topics
1	Industry-Academia Cooperation & Exchange	University Governance	9	Campus Health & Safety	USR Practice
2	University Governance	Talent Attraction and Retention	10	<b>Education Opportunities &amp; Accessibility</b>	Campus Health & Safety
3	R&D Achievements	Industry-Academia Cooperation & Exchange	11	Energy Consumption and Management	Information Security & Privacy Protection
4	Talent Attraction and Retention	R&D Achievements	12	<b>Hazardous Substance Management</b>	Human Rights & Labor Practices
5	Marketing & Admission Measures	Education Opportunities & Accessibility	13	Biodiversity	Campus Greening
6	Learning Environment & Effectiveness	Learning Environment & Effectiveness	14	<b>GHG Emission</b>	Academic Ethics and Norms
7	Academic Affairs and Administrative Quality	Marketing & Admission Measures	15	USR Practice	Biodiversity
8	Information Security & Privacy Protection	Energy Consumption and Management	16		GHG Emission

Note 1: In 2024, items ranked 1 to 9 represent significant topics that meet the threshold for double materiality. Items ranked 10 to 15 include notable positive and negative issues, topics of concern to more than three stakeholder categories, as well as long-term issues added on April 1 that are of concern to the university.





















Note 2: In 2023, two material topics were introduced but not carried over into 2024. These are "Campus Greening" and "Academic Ethics and Norms," both of which failed to meet the significance threshold for 2024.



## ○ Significance of Material Topics of MCUT


Aspect	Material Topics	Issues and Explanation	Significance for MCUT (Main institutional development strategy)					Corresponding GRI & SASB topic	Corresponding Chapter
			Talent Cultivation	Knowledge Innovation	Social Service	Sustainable Green University	Institutional Governance		
Economic/Governance	Industry-Academia Cooperation & Exchang	This topic examines the cooperation plans between academia and industry implemented by the university in collaboration with industrial units such as companies, enterprises, and re-search institutions. It also includes arrangements for student internships and the exchange of industry information.						Customized theme SV-ED-270a.3	ESG Edition 1 ESG Edition 2 Industry-Academia Cooperation
	University Governance	This topic addresses the management of the university's operational planning effectiveness, operational finance, and profit distribution etc.						201: Economic Performance 2016	2.6 Financial Performance 4.1 Climate Change Management 5.3 Remuneration, Welfare, and Rights and Interests
	R&D Achievements	This topic addresses the university's R&D expenses, achievements in technological innovation, certified patents, and technology transfer activities conducted by professors, teachers, and students.						Customized theme	3.5 Innovative Research and Development Achieve- ments
	Marketing & Admission Measures	This topic addresses the university's admission measures and systems, as well as the promotion of administrative management practices through advertising and marketing, to prevent misleading publicity of false content. The Ming Chi University of Technology Admissions Information Website and the Office of International Affairs Website ensure that all fees and related outcomes are clearly communicated to students before any payments are collected or decisions are made.						Customized theme SV-ED-270a.2 SV-ED-000.A SV-ED-000.B	ESG Edition 1 3.1 Admission and Enrollment Information
	Learning Environment & Effectiveness	This topic discusses the supportive and resourceful learning environment offered by the university, including software, hardware, teacher resources, course planning, and more, aimed at helping students achieve effective learning outcomes and job opportunities.						Customized theme SV-ED-260a.1 SV-ED-260a.2 SV-ED-260a.6	ESG Edition 1 3.2 Teaching quality 3.3 Student Counseling 3.4 Cooperation & Exchange
	Information Security & Privacy Protection	This topic addresses the university's information security and privacy protection. By enhancing information security awareness and implementing relevant measures, the university effectively safeguards privacy and sensitive information while preventing losses from information breaches.						418: Customer Privacy 2016 SV-ED-230a.1 SV-ED-230a.2 SV-ED-230a.3	2.5 Information Security & Privacy Protection
	Academic Affairs and Administrative Quality	The university applies management measures and quality assurance mechanisms in teaching, learning resource provision, and administrative services to ensure that overall operations effectively support the achievement of educational objectives and address the needs of all stakeholders.						Customized theme	ESG Edition 1 3.2 Teaching quality

Note: In accordance with the relevance of Material Topics, some GRI topics correspond to several metrics: University Affairs Management (201-1, 201-3, 201-4); for the topic of biodiversity, the latest GRI standard of GRI 101: Biodiversity 2024 is used as the Material Topics compliance standard; for the Material Topics of GHG emission, provisions related to GHG gases (305-1~305-5) in GRI 305: Emissions 2016 are used; USR Practice (203-1, 413-1). The complete GRI disclosure items for each topic are shown in Appendix "GRI Index."

Aspect	Material Topics	Issues and Explanation	Significance for MCUT (Main institutional development strategy)					Corresponding GRI & SASB topic	Corresponding Chapter
			Talent Cultivation	Knowledge Innovation	Social Service	Sustainable Green University	Institutional Governance		
Environment	consumption and management	This topic addresses the university's consumption of various energy sources (electric power, natural gas, coal, etc.), the utilization rate of renewable energy, and the implementation of energy-saving measures, as well as their effectiveness.						302: Energy 2016	Energy consumption and management
	Hazardous Substance Management	The university has established safety regulations for handling various hazardous chemicals used in laboratories, workshops, and throughout the campus. These regulations include personnel training, risk assessment, protective measures, emergency response procedures, and compliance with relevant laws and regulations.						Customized theme	ESG Edition 4 Industrial Waste Treatment (Laboratory Waste Liquid) 5.4 Campus Health & Safety
	Biodiversity	This topic addresses the protection of the natural ecological environment and the maintenance of the ecological balance within communities around or near the campus, focusing on management measures designed to promote biodiversity and manage advocacy activities.						101: Biodiversity 2024	ESG Edition 3 ESG Edition 4 4.5 Biodiversity
	GHG Emission	This topic discusses the outcomes of the university's inventory of GHG emissions and the reduction practices implemented for energy conservation and carbon reduction, along with the effectiveness of these measures.						305: Emissions 2016	4.1 Climate Change Management GHG Emissions
Social	Talent Attraction and Retention	Measures for faculty and staff recruitment, job rotation, promotion systems, career development, education and training, remuneration, welfare, and more.						401: Employment 2016 SV-ED-000.D	Turnover 5.3 Remuneration, Welfare, and Rights and Interests
	Education Opportunities & Accessibility	Ensure that diversified and equitable educational opportunities are provided to achieve a fair distribution of teaching resources, allowing more individuals to access educational opportunities with reasonable costs, scholarship support, or the provision of free teaching materials.						Customized theme SV-ED-260a.6 SV-ED-270a.1	ESG Edition 1 3.1 Admission and Enrollment Information
	USR Practice	Utilize the university's social responsibility to engage its resources in promoting education, community services, and participation in public welfare initiatives.						203: Indirect Economic Impacts 2016 413: Local Communication 2016	ESG Edition 2 ESG Edition 4 Chapter 6 Social Co-prosperity
	Campus Health & Safety	This topic addresses management measures that ensure the health and safety of students, as well as the occupational health and safety of faculty, staff, and related workers, to prevent workplace injuries and unforeseen disasters while promoting the well-being of both teachers and students.						403: Occupational Health and Safety 2018 406 Non-discrimination 2016 404 Training and Education 2016	ESG Edition 3 Occupational Safety Management System 5.4 Campus Health & Safety

Note: In accordance with the relevance of Material Topics, some GRI topics correspond to several metrics: University Affairs Management (201-1, 201-3, 201-4); for the topic of biodiversity, the latest GRI standard of GRI 101: Biodiversity 2024 is used as the Material Topics compliance standard; for the Material Topics of GHG emission, provisions related to GHG gases (305-1~305-5) in GRI 305: Emissions 2016 are used; USR Practice (203-1, 413-1). The complete GRI disclosure items for each topic are shown in Appendix "GRI Index."





## Appendix

External Engagements	118
GRI Standards Index	119
Sustainability Accounting Standard	128
ESG Indicators	131
• MCUT's Management of Material Topics	131
• Campus Information Security Management	137
Measures of MCUT	
External Assurance Statement	146



## External Engagements

To enhance the quality of higher education and respond to rapid changes in the external environment, MCUT has not only signed memoranda of understanding with enterprises and joined alliances of school libraries to facilitate inter-library borrowing, but also actively participated in external associations or societies to strengthen its academic standing, collaborate on vocational education development, and cultivate professionals with specialized vocational skills based on cooperation and mutual benefit.

### MCUT's participation in public associations and organizations in 2024

Organization	Strategic significance	Qualification
<b>Taiwan Institute of Engineers</b>	The Taiwan Institute of Engineers is the oldest and largest engineering academic organization in Taiwan. For many years, the institute has been dedicated to enhancing communication and cooperation among Taiwan's engineering talents and international peers. Additionally, the institute promotes industry-academia collaboration and the development of technical personnel. It has established awards for outstanding public and private enterprises and schools in industry-academia cooperation to advance the industry-academia partnership in Taiwan.	Group member
<b>Association of Private University and Colleges of Technology, APUCT</b>	APUCT safeguards the development of private schools, ensures the coordination platform mechanism with the Ministry of Education remains unimpeded, and supports the Ministry in achieving relevant goals. These include promoting the re-integration planning of higher education resources, developing diverse operational models in colleges and universities, and transforming business approaches through industry-academia cooperation, international partnerships, and experimental education. Additionally, it aims to establish unique qualities of high-quality technical and vocational schools, enhance communication among higher technical and vocational institutions, and increase the enrollment of overseas students in Taiwan.	Group member
<b>Taiwan Higher Education Society</b>	The society aims to strengthen higher education research, practices, and policies, and promote the growth of higher education based on the expertise of scholars and specialists in the field.	Annual member
<b>Institute of Engineering Education Taiwan, IEET</b>	The Institute of Engineering Education Taiwan is a recognized professional evaluation agency accredited by the Ministry of Education. It promotes the IEET engineering and technological education certification, an internationally respected system. This review mechanism focuses on students' learning outcomes, ensuring and improving departmental and institute educational quality while boosting MCUT's global reputation. For instance, the IEET engineering education certification aligns with the Washington Accord, allowing graduates' educational backgrounds to be recognized by other member countries.	Group member
<b>Association of Technological and Vocational Education in Republic of China</b>	The association emphasizes the importance of technical and vocational education, highlights innovative thinking, humanities and arts, interdisciplinary collaboration, and lifelong learning. It also prioritizes hands-on skills and problem-solving abilities to cultivate students' "influence, sustainability, global competence, competitiveness, future power, and practicability."	Group member
<b>Green University Union of Taiwan</b>	By integrating the power of each university that has joined the union, the Green University Union of Taiwan further cooperates with the government, enterprises, and non-governmental organizations to promote academic and practical communication and aligns with the international community to improve the sustainable development of university affairs and achieve the goal of green universities.	Permanent member

## GRI Standards Index

Statement of use	GRI 1 Version	GRI Sector Standard
Ming Chi University of Technology (MCUT) discloses specific sustainability information from January 1, 2024, to December 31, 2024, as well as some information covering the 2023 academic year (August 1, 2023, to July 31, 2024), according to GRI Standards.	GRI 1: Foundation 2021	N/A (There is no applicable standard according to the industry)

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>GRI 2 : General Disclosures</b>					
<b>GRI 2: General Disclosures 2021</b>	2-1	Organizational details	About us	21	
	2-2	Entities included in the organization's sustainability reporting	About this report	19	
	2-3	Reporting period, frequency and contact point	About this report	19	
	2-4	Restatements of information	No restatements of information		
	2-5	External assurance	About this report	19	
			External Assurance Statement	146	
	2-6	Activities, value chain and other business relationships	About us	21	
			Sustainable procurement	41	
			Chapter 3 Education Performance	48	
	2-7	Employees	Employee Structure	90	
	2-8	Workers who are not employees	Employee Structure	90	

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>GRI 2 : General Disclosures</b>					
<b>GRI 2: General Disclosures 2021</b>	2-9	Governance structure and composition	Structure and Operation of the Board of Directors	35	
	2-10	Nomination and selection of the highest governance body	Structure and Operation of the Board of Directors	35	
	2-11	Chair of the highest governance body	Structure and Operation of the Board of Directors	35	
	2-12	Role of the highest governance body in overseeing the management of impact	Sustainable Development Committee	37	
			Internal Control System	40	
	2-13	Delegation of responsibility for managing impacts	Sustainable Development Committee	37	
	2-14	Role of the highest governance body in sustainability reporting	About this report	19	
	2-15	Conflicts of interest	Structure and Operation of the Board of Directors	35	
	2-16	Communication of critical concerns	Structure and Operation of the Board of Directors	35	
	2-17	Collective knowledge of the highest governance body	N/A		Reason for omission: Not applicable The issue of governance of the board of directors does not apply to MCUT. Moreover, MCUT was established by Formosa Plastics Group, and its Board members come from the boards or management of related companies who have already accepted measures aimed at increasing knowledge about sustainable development.
	2-18	Evaluation of the performance of the highest governance body	N/A		Reason for omission: Not applicable MCUT was founded through a donation from the Formosa Plastics Group, and its Board of Directors includes members from related companies' boards or management. Additionally, no compensation is provided to Board members.
	2-19	Remuneration policies	N/A		Reason for omission: Not applicable No remuneration is paid to the members of the MCUT Board of Directors.



GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>GRI 2 : General Disclosures</b>					
<b>GRI 2: General Disclosures 2021</b>	2-20	Process to determine remuneration	N/A		Reason for omission: Not applicable No remuneration is paid to the members of the MCUT Board of Directors.
	2-21	Annual total compensation ratio	Remuneration, Welfare, and Rights and Interests	98	
	2-22	Statement on sustainable development strategy	Letter from the President	17	
			Sustainable Development Goals and Vision	23	
	2-23	Policy commitments	Norms and Complaint Mechanism	38	
			Internal Control System	40	
			Declaration of Human Rights	89	
	2-24	Embedding policy commitments	Decision-Making on University Affairs and Development Planning	23	
	2-25	Processes to remediate negative impacts	Stakeholder Communication	24	
			Norms and Complaint Mechanism	38	
	2-26	Mechanisms for seeking advice and raising concerns	Stakeholder Communication	24	
			Norms and Complaint Mechanism	38	
	2-27	Compliance with laws and regulations	Compliance with laws and regulations	39	
	2-28	Membership associations	External Engagements	118	
	2-29	Approach to stakeholder engagement	Stakeholder Communication	24	
	2-30	Collective bargaining agreements	N/A		Reason for omission: Not applicable Because MCUT currently lacks a trade union, it has not entered into any collective bargaining agreements.

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>Material Topics</b>					
<b>GRI 3: Material Topics 2021</b>	3-1	Process to determine material topics	Analysis and identification of material topics	27	
	3-2	List of material topics	Material Topics Management	31 131	
<b>University Affairs Management</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>GRI 201: Economic performance 2016</b>	201-1	Direct economic value generated and distributed	Financial Performance	45	
	201-2	Financial implications and other risks and opportunities due to climate change	Climate Change Management	71	
	201-3	Defined benefit plan obligations and other retirement plans	Remuneration, Welfare, and Rights and Interests	98	
	201-4	Financial assistance received from government	Financial Performance	45	
<b>Industry-Academia Cooperation &amp; Exchange</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>Enhanced Disclosure by MCUT</b>	-	This topic covers industry-academia collaboration plans carried out by the university with industrial entities such as companies, enterprises, and research institutions, including arrangements for student internships and sharing industry information.	Industry-academia cooperation	61	
<b>Innovation and Technological Research and Development</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>Enhanced Disclosure by MCUT</b>	-	Achievements in technological innovation, R&D investments, patent certifications, and technology transfers.	Innovative Research and Development Achievements	68 141	

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
Learning Environment & Effectiveness					
GRI 3: Material Topics 2021	3-3	Material Topics Management	Material Topics Management	31 131	
Enhanced Disclosure by MCUT	418-1	This topic discusses the positive, supportive, and guiding learning environment provided by the university, including software and hardware, teacher resources, and course planning, to help students achieve effective learning and job opportunities.	Teaching Quality	77	
			Student Counseling	55	
			Cooperation and Exchange	56	
Marketing & Admission Measures					
GRI 3: Material Topics 2021	3-3	Material Topics Management	Material Topics Management	31 131	
Enhanced Disclosure by MCUT	-	This topic covers the admission policies and systems used by the university, as well as the publicity of administrative management measures through advertising and marketing, to prevent misinformation.	Admission and Enrollment Information	49	
Information Security & Privacy Protection					
GRI 3: Material Topics 2021	3-3	Material Topics Management	Material Topics Management	31 131	
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and loss of customer data	Information Security & Privacy Protection	42	
Academic ethics and norms					
GRI 3: Material Topics 2021	3-3	Material Topics Management	Material Topics Management	31 131	
Enhanced Disclosure by MCUT	-	This topic covers management practices to ensure that faculty, staff, and students do not violate academic ethics and norms due to conflicts of interest, as well as compliance with relevant regulations and the promotion of legal education.	Norms and Complaint Mechanism	38	



GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>Energy consumption and management</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>GRI 302: Energy</b>	302-1	Energy consumption within the organization	Energy consumption and management	77	
	302-2	Energy consumption within the organization	Information not available		Reason for omission: Information not available. Currently, energy data outside the organization cannot be collected.
	302-3	Energy intensity	Energy consumption and management	77	
	302-4	Reduction of energy consumption	Energy consumption and management	76	
	302-5	Reductions in the energy requirements of products and services	N/A		Reason for omission: Not applicable MCUT is engaged in education; it does not manufacture and sell products.
<b>Campus Greening</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>Enhanced Disclosure by MCUT</b>	-	Enhancing efforts to promote campus environmental greening and beautification, creating a fresh and green office and teaching environment, as well as improving public spaces.	MCUT based on the Environmental Management System, has established a comprehensive environmental strategy for both the campus interior and exterior	82	
<b>Biodiversity</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>GRI 101: Biodiversity</b>	101-1	Policies to halt and reverse biodiversity loss	Biodiversity	83	We will adopt the "Kunming-Montreal Global Biodiversity Framework" (GBF) to reverse biodiversity loss and achieve sustainability for all.

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>Biodiversity</b>					
<b>GRI 101: Biodiversity</b>	101-2	Management of biodiversity impacts	Biodiversity	84	By utilizing technologies from its departments, MCUT continually monitors water quality in Taishan District, Wugu District, and Xinzhuang District, based on data from water environment patrolling teams responsible for these areas, thereby maintaining the water quality of the Tamsui River.
	101-3	Access and benefit-sharing	N/A		MCUT's operations do not directly involve the acquisition or benefit sharing of genetic resources.
	101-4	Identification of biodiversity impacts	Biodiversity	83	
			Inventory of Biodiversity Hotspots around the Campus	84	
	101-5	Locations with biodiversity impacts	Inventory of Biodiversity Hotspots around the Campus	84	
			Water Environment Patrol Team and Raid River Waste Screening of MCUT Acting as Ecological Guardians	12	
	101-6	Direct drivers of biodiversity loss	Water Environment Patrol Team and Raid River Waste Screening of MCUT Acting as Ecological Guardians	12	
	101-7	Changes to the state of biodiversity	Inventory of Biodiversity Hotspots around the Campus	84	
<b>GHG emissions</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31	
<b>GRI 305: Emissions 2016</b>	305-1	Direct (Scope 1) GHG emissions	Greenhouse Gas Emissions	75	
	305-2	Energy indirect (Scope 2) GHG emissions	Greenhouse Gas Emissions	75	
	305-3	Other indirect (Scope 3) GHG emissions	Greenhouse Gas Emissions	75	
	305-5	Reduction of GHG emissions	Greenhouse Gas Emissions	75	

GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
<b>Talent Attraction and Retention</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31	
<b>GRI 401: Employment 2016</b>	401-1	New employee hires and employee turnover	Turnover	90	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Remuneration, Welfare, and Rights and Interests	98	
	401-3	Parental leave	Remuneration, Welfare, and Rights and Interests	98	
<b>GRI 404: Training and Education 2016</b>	404-1	Average annual training hours per employee by gender and employee category	Talent Attraction and Retention	94	
	404-2	Programs for upgrading employee skills and transition assistance programs	Talent Attraction and Retention	94	
	404-3	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Talent Attraction and Retention	94	
<b>Educational Opportunities and Accessibility</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>Enhanced Disclosure by MCUT</b>	-	Ensure the provision of diversified and equal educational opportunities, fair distribution of learning resources, and provide educational opportunities to the public with reasonable fees, scholarships, or free teaching resources	Admission and Enrollment Information	49	
<b>USR Practice</b>					
<b>GRI 3: Material Topics 2021</b>	3-3	Material Topics Management	Material Topics Management	31 131	
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1	Infrastructure investments and services supported	MCUT's Social Impact and SROI Results	8	
			Chapter 6 Social Co-prosperity	11	
<b>GRI 413: Local communities 2016</b>	413-1	Operations with local community engagement, impact assessments, and development programs	Chapter 6 Social Co-prosperity	11 1	The site with the plan already executed is the campus of MCUT, accounting for 100%. The university's social responsibility (USR) plan, based on local community demand, has been implemented.



GRI Topic Standards	Disclosure	Title	Chapter	Page	Remark/ Reason for omission
Campus Health & Safety					
GRI 3: Material Topics 2021	3-3	Material Topics Management	Material Topics Management	31 131	
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Occupational safety management system	101	
	403-2	Hazard identification, risk assessment, and incident investigation	Occupational safety management system	101	
			Environmental management system	105	
	403-3	Occupational health services	Employee and Student Health	108	
	403-4	Worker participation, consultation, and communication on occupational health and safety	Campus Health & Safety	100	
	403-5	Worker training on occupational health and safety	Occupational safety management system	101	
	403-6	Promotion of worker health	Employee and Student Health	108	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Campus Health & Safety	100	
	403-8	Workers covered by an occupational health and safety management system	Occupational safety management system	101	
	403-9	Work-related injuries	Campus Health & Safety	100	
	403-10	Work-related ill health	Campus Health & Safety	100	
Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	Compliance with laws and regulations	38	There were no reported incidents of discrimination at MCUT in 2024.
GRI 404: Training and Education 2016	GRI 404-1	Average annual training hours per employee by gender and employee category	Talent Attraction and Retention	94	
	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	Talent Attraction and Retention	94	
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Talent Attraction and Retention	94	

## Sustainability Accounting Standard

Accounting metric			
Topic	Indicator	SASB Code	Data/Description
Data Security	Description of approach to identifying and addressing data security risks	SV-ED-230a.1	<ul style="list-style-type: none"> <li>OLIS promotes the school's information security policy by sharing relevant information and identifying gaps in the National University ISMS for the school's members. Social engineering drills are also conducted to strengthen information security awareness security.</li> <li>Regarding the university affairs systems we have developed, we ensure the security during their development, testing, and maintenance processes in accordance with "IS-02-012 Information System Management Procedure" established by MCUT's ISMS. This includes the security of operations such as system requirements analysis, system testing, modifications, maintenance, launch changes, and storage.</li> <li>We provide over four Information and Communication Security and Personal Data Protection training courses each year.</li> </ul>
	Description of policies and practices relating to collection, usage, and retention of student information	SV-ED-230a.2	<ul style="list-style-type: none"> <li>In 2016, MCUT formulated the "Statement of Personal Data Protection and Management Policy".</li> <li>In 2026, MCUT developed "Regulations on Establishing a Personal Data Protection Management Committee" (<a href="https://secretary.mcut.edu.tw/var/file/2/1002/img/1261/818540157.pdf">https://secretary.mcut.edu.tw/var/file/2/1002/img/1261/818540157.pdf</a>) and implemented comprehensive personal data protection measures.</li> </ul>
	Number of data breaches		
	Percentage involving personally identifiable information (%)	SV-ED-230a.3	<ul style="list-style-type: none"> <li>No data breaches occurred in 2024.</li> </ul>
	Number of students affected		

Topic	Indicator	SASB Code	Data/Description
<b>Education, Quality of Education &amp; Gainful Employment</b>	Graduation rate <sup>1</sup>	SV-ED-260a.1	Graduation Rate in academic year 2023: <ul style="list-style-type: none"> <li>Undergraduate: 84.7%</li> <li>Master Program: 76%</li> <li>PhD Program: 13.6%</li> <li>Overall Graduation Rate: 78.4%</li> </ul>
	On-time completion rate <sup>2</sup>	SV-ED-260a.2	On-time completion rate in academic year 2023: <ul style="list-style-type: none"> <li>Undergraduate: 74.4%</li> <li>Master Program: 54.1%</li> <li>PhD Program: 0%</li> <li>Overall on-time completion rate: 69%</li> </ul>
	Job placement rate <sup>3</sup>	SV-ED-260a.3	<ul style="list-style-type: none"> <li>Excluding continuing studies and military service, in 2024, 91.9% of graduates are in the workforce after 1 year of graduation; 94.8% after 3 years; and 97.7% after 5 years</li> </ul>
	Description of policies relating to student indebtedness and programme loan defaults	SV-ED-260a.6	<ul style="list-style-type: none"> <li>For detailed policy on policies relating to student indebtedness and program loan defaults, please refer to the dedicated section of Bank of Taiwan for student loans (<a href="https://sloan.bot.com.tw/customer/login/SLloanLogin.action">https://sloan.bot.com.tw/customer/login/SLloanLogin.action</a>).</li> </ul>
<b>Marketing &amp; Recruiting Practice</b>	(1) Description of policies to ensure disclosure of key performance statistics to prospective students in advance of collecting any fees and (2) discussion of outcomes	SV-ED-270a.1	<ul style="list-style-type: none"> <li>Prospectus and website of the Office of Academic Affairs and Office of International Affairs</li> <li>MCUT's Admission Information Network</li> <li>MCUT's Office of International Affairs</li> </ul>
	Total amount of monetary losses as a result of legal proceedings associated with advertising, marketing, and mandatory disclosures	SV-ED-270a.2	<ul style="list-style-type: none"> <li>None</li> </ul>
	Instruction and student services expenses	SV-ED-270a.3	<ul style="list-style-type: none"> <li>For the charging standards of tuition and fees in academic year 2023, please refer to "Information of Tuition and Fees" released by MCUT's Accounting Office.</li> <li>Charging standards for tuition and fees are specified in the "Regulations on the Collection of Tuition and Fees of Schools above the Level of Technical College" and the "Regulations on the Collection of Fees from Students by Schools above the Level of Technical College."</li> <li>The miscellaneous fees include tuition fees, miscellaneous charges, tuition and miscellaneous base fees, and credit fees.</li> </ul>
	Marketing and recruiting expenses		<ul style="list-style-type: none"> <li>Expenses for recruitment ads and printed matters in 2023: NT\$3,856,678</li> <li>Expenses for shooting of school image promotion videos, news and magazines in academic year 2023: NT\$2,049,500.</li> </ul>



Topic	Indicator	SASB Code	Data/Description
<b>Marketing &amp; Recruiting Practice</b>	Revenue from: 1. government-funded student aid and 2. private student loans	SV-ED-270a.4	N/A

Note1: Graduation rate is calculated by dividing the number of graduates in the academic year 2023 by the total number of officially enrolled students from the university's institutional database. The denominator includes students in their 4th year or above who have paid tuition and fees in full for the Bachelor Program; students in their 2nd year or above who have paid tuition and fees in full for the Master Program and Special Master Program; and students in their 2nd year or above who have paid tuition and fees in full for the PhD Program.

Note2: On-time completion rate: Definition of fresh graduates: For the Bachelor Program, fresh graduates are those who graduate after completing 4 years of study; for the Master Program and the PhD Program fresh graduates are those who graduate after completing 2 years of study. The initial number of students in the Bachelor Program refers to the number of students enrolled in the 2020 academic year; the initial number of students in the Master Program and Special Master Program refers to the number of students enrolled in the 2021 academic year.

Note3: Statistics of job placement rate: Since it was difficult to track graduates who were already employed within 180 days after graduation in 2024 and worked for 13 weeks, the disclosed statistical data reflects the job placement rate of graduates who completed their degree within a one-year period from July to November 2024.

Note4: Calculation method of liability-income ratio: The amount of student loans taken by currently enrolled students over 8 semesters (4 years of study) is used as the disclosed liability amount. Additionally, liabilities are considered paid off 1 year after graduation as the basis for calculation. The liability-income ratio, which is the total amount of students with student loans (approximately 23.9%) (about NT\$402,644 per student during school) divided by the income of students 1 year after graduation (about NT\$498,000 per student as the median), was 80.9%.

Activity Metric	SASB Code	Data/Description
<b>Number of students enrolled</b>	SV-ED-000.A	<ul style="list-style-type: none"> <li>Number of students enrolled in the academic year 2024: 1,009.</li> <li>805 Bachelor's degree.</li> <li>193 master's students.</li> <li>7 part-time master's students.</li> <li>4 doctoral students.</li> </ul>
<b>Number of applications received for enrollment</b>	SV-ED-000.B	<ul style="list-style-type: none"> <li>Number of applicants in the 2024 academic year (excluding additional quotas).</li> <li>Bachelor's degree: Since there are multiple enrollment channels for bachelor's programs, it's impossible to calculate the number as part of the applications, as some come from the national joint recruitment.</li> <li>489 master's students.</li> <li>9 part-time master's students.</li> <li>7 doctoral students.</li> </ul>
<b>Average registered credits per student, percentage online</b>	SV-ED-000.C	N/A
<b>Number of: (1) teaching staff (2) all other staff</b>	SV-ED-000.D	(1) 207 (2) 644

Note 1: The data source for "number of students enrolled" is the data source for "Number of Admissions": the column titled "Actual Registration Number of New Students Admitted within the Total Quota of NDHU" for the 11110 Academic Year 24-2. Also referenced is the "Registration Rate of New Overseas Students within the Total Quota" in NDHU's approved enrollment. Please see the attachment on the Office of Academic Affairs' website.

## ESG Indicators

### MCUT's Management of Material Topics

Aspect	Major Issue	Impact Analysis		Impact boundary and Level of Involvement								
		Positive Impact	Negative Impact	MCUT Operation	Natural Ecosystem	Students	Faculty and Staff	Parents	Alumni	Internship Organizations	Suppliers	Community
Economy/Governance	University Affairs Management	To enhance management efficiency, achievements, and actual performance, and to support the growth of the university's brand reputation and sustainable management.	Ineffective operation can cause financial difficulties, waste, improper resource use, or even shutdown.	●	○	○	●	○	○	○	○	○
	Industry-Academia Cooperation & Exchange	To enhance industry communication, support talent cultivation and development, and promote economic growth and innovation.	If industry-academia partnership and establishment principles are not properly managed, the interests of students, the university, or internship organizations may be harmed, or relevant conflicts or disputes may arise.	●	○	●	●		●	○		
	Innovation and Technological Research and Development	Technology transfer and business cooperation promote the development of new industries and job opportunities.	Inappropriate research direction or losing achievements can result in wasted resources or slow technological progress.	●	○	○	●		○	●		○
	Learning Environment & Effectiveness	To improve students' learning effectiveness and benefit the enhancement of human capital and competitiveness.	If the learning environment is unfavorable, learning effectiveness might not be achieved, and students' psychological health and academic growth could be impacted.	○		●	●	○	○	○		
	Marketing & Admission Measures	To improve familiarity and admission capacity and to benefit the increases in the university's income and influence.	False publicity or admission crises can damage the university's reputation and stability in admissions.	●		●	●	○		○		
	Information Security & Privacy Protection	To effectively protect teachers' and students' information and benefit the safeguarding of privacy and trust, and the stabilizing of the daily operation of the university.	Information security risks or unauthorized use of sensitive information may result in damage to the information system, loss of data, or disclosure of personal data.	○		●	●	○	●	○		
	Academic Affairs and Administrative Quality	The University aligns teaching, learning resources, and administrative services to effectively achieve educational goals and address stakeholder needs.	Inadequate operational management and quality assurance could adversely affect stakeholders and, in turn, damage the University's reputation.	●		●	●	○	○	●		

Note: ● : Direct impact / ○ : Indirect impact.

## MCUT's Management of Material Topics

Aspect	Major Issue	Impact Analysis		Impact boundary and Level of Involvement								
		Positive Impact	Negative Impact	MCUT Operation	Natural Ecosystem	Students	Faculty and Staff	Parents	Alumni	Internship Organizations	Suppliers	Community
Environment	Energy consumption and management	Energy conservation and carbon reduction measures improve energy efficiency, reduce operational costs, and lower GHG emissions.	Energy waste can lead to resource depletion or ecological harm. Partial energy combustion may also cause a risk of environmental pollution.	●	●							
	Hazardous Substance Management	The University implements safety controls for all hazardous chemicals used in laboratories, workshops, and across campus to reduce risk.	Risk: Lapses in hazardous-chemical safety management could cause safety incidents and environmental damage.	●	●	●	●				●	
	Biodiversity	To protect biodiversity and maintain ecological balance.	If the surrounding natural environment is not emphasized, ecological or biological habitats may be damaged, or the ecosystems affected.	○	●							○
	GHG emissions	To reduce GHG emissions and benefit the response to climate change mitigation and environmental protection.	If GHG emissions are not controlled, the effect of global warming may be worsened, together with the aggravation of the impact of climate change.	○	●							
Social	Talent Attraction and Retention	To improve the university's competitiveness and education quality through the recruitment of professional teaching and faculty talents, and benefit the talent cultivation and promotion of stable operation.	The outflow of talent or competitive weakness may result in the loss of professional skills, and therefore, the talent is insufficient to impact student education quality.	●		○	●	○		○		
	Educational Opportunities and Accessibility	To provide widespread and equal education opportunities and benefit social fairness and human rights protection.	If education resources or opportunities are uneven, social unfairness or resource waste may result.	○		●		○		○		
	USR Practice	Harness the university's social responsibility by engaging in community service and public welfare activities, and forming diverse partnerships.	A lack of social responsibility or uncommunicated and inappropriate social service participation can lead to public distrust or social dissatisfaction.	○		●	○	○				●
	Campus Health & Safety	To enhance campus safety and create a healthy environment, ensure the health and safety of teachers and students, and promote improvements in quality of life and happiness.	Potential safety hazards or health risks can lead to a health crisis or panic, and may even impact personal health and safety when the situation is severe.	○		●	●	○		○	●	

Note: ● : Direct impact / ○ : Indirect impact.



## Management goals of material topics of MCUT (economic and governance)

Major issue	Management responsibilities and responsive measures for positive and negative impacts (GRI 3-3)	Goal/evaluation mechanism	Achievement in 2024	Short-/medium-/long-term future goals
University Affairs Management	Each office and department regularly holds University Affairs Meetings to ensure the smooth operation of university meetings, reasonable budget allocation, and effective implementation. At the same time, we pay attention to the world rankings of MCUT as a reference for education quality and the degree of sustainable development.	<ul style="list-style-type: none"> <li>Financial revenue and expenses.</li> <li>World University Rankings by THE.</li> <li>Impact Rankings by THE.</li> </ul>	<ul style="list-style-type: none"> <li>Ranking in 1,089th place in the World University Rankings by THE in 2025 (↑ 63 places). Ranking 401st~600th place in Impact Rankings in 2024.</li> <li>The total revenue and expenditure of the university reached NT\$2,093,280,000 and NT\$2,218,580,000, respectively, in the academic year 2023, presenting a surplus of NT\$125,300,000 (+5.65%).</li> </ul>	World University Rankings by THE: <b>Short-term:</b> 1240th; medium-term: 1220th. <b>Long-term:</b> Continual maintenance of the stable operation of university affairs.
Industry-Academia Cooperation & Exchange	Promote the Double I plan for all staff members, initiate subsidies for academic research, coach teachers to implement NSTC plans, and foster close industry-academia cooperation with enterprises. Enhance industry-academia collaboration for research centers in key fields by utilizing technical consulting services, discussing and proposing co-operation plans, authorizing technology transfers, and promoting intellectual property. Implement sandwich-style "Theory-Practice-Theory" education for junior students' internships, aimed at enhancing practical application skills employability.	<ul style="list-style-type: none"> <li>Number of industry-academia plans, total amount, and amount per capita.</li> <li>Number of cooperative vendors for the internship and the number of interns.</li> <li>Ratio of excellent interns recommended.</li> <li>Results of the satisfaction ratio survey of cooperative vendors.</li> </ul>	<ul style="list-style-type: none"> <li>176 industry-academia plans; total amount: NT\$ 195,000,000; amount per capita: NT\$ 950,000</li> <li>185 cooperative vendors for internship; 835 interns</li> <li>Ratio of excellent interns recommended: 24.2%</li> <li>85.82% of cooperative vendors are satisfied with students' overall performance in meeting corporate needs.</li> <li>According to the survey in Cheers Special Issue No. 238, 2025, MCUT ranks first in industry-academia funds per capita for teachers from private technical and vocational institutions.</li> </ul>	Establish a comprehensive industry-academia R&D ecosystem, deepen technological maturity, and provide integrated services for innovation, technology transfer, product development, and commercialization at MCUT to promote spin-off companies. We aim for MCUT to continuously and actively partner with industries across Europe, America, and Asia to encourage more technological collaborations and participate in international R&D projects, fostering transnational development of new technologies and achieving real-world application and commercialization. Additionally, we will collaborate with industry partners to establish research centers and pilot and large-scale production bases to enhance technological maturity and commercial readiness, transforming MCUT into an industry-academia R&D-focused university with an international outlook.
Innovation and Technological Research and Development	<ul style="list-style-type: none"> <li>Improve the R&amp;D achievements through advocacy, promotion and coordination of the research performance rewarding mechanism.</li> <li>Improve teachers' patent performance points, strive for school funds from NSTC T5-GIP to subsidize the patent application fees, and encourage teachers to submit patent applications.</li> <li>Increase the number of technology transfer cases at MCUT by implementing measures that provide subsidies to research centers co-developed with enterprises, as well as pilot production and large-scale manufacturing facilities. Additionally, revise early-stage technology transfer contracts to enhance industry-academic collaboration.</li> </ul>	<ul style="list-style-type: none"> <li>Number of papers published on periodicals SCI/SSCI/AHCI.</li> <li>Number of patents.</li> <li>Technology transfer amount.</li> </ul>	<ul style="list-style-type: none"> <li>491 papers published on periodicals SCI/SSCI/AHCI.</li> <li>Number of patents: 50.</li> <li>Technology transfer amount: NT\$18,900,000.</li> </ul>	<ul style="list-style-type: none"> <li>Hold domestic and international seminars to improve paper quality.</li> <li>Hire more outstanding patent firms to offer professional services to teachers, thereby increasing the success rate of patent applications. Collaborate with NSTC T5-GIP universities to promote patent courses and related activities.</li> <li>Enhance the value of MCUT's technology transfer and equally prioritize the effectiveness of industry-academia collaboration through early technological partnerships and industrial cooperation.</li> </ul>

Note: Short-, medium- and long-term goals: Short-term goals (2023-2025); medium-term goals (2026-2028); long-term goals (after 2028).

Major issue	Management responsibilities and responsive measures for positive and negative impacts (GRI 3-3)	Goal/evaluation mechanism	Achievement in 2024	Short-/medium-/long-term future goals
Learning Environment	By enhancing incentive measures for professional licenses, we encourage students to obtain high-value professional competency licenses (specialty, language, and information) recognized in the industry based on the requirements of practical professional skills. Assist students in learning personal career interest and emphasizing work values through the handling of career counseling lectures, workshops, and career tests.	<ul style="list-style-type: none"> <li>Number of high-value professional licenses obtained by recent graduates per capita.</li> <li>Pass rate of the TOEIC 500 Points English test.</li> <li>Number of person-times participating in career counseling activities and tests.</li> <li>Graduation rate and employment rate.</li> </ul>	<ul style="list-style-type: none"> <li>Number of professional high-value licenses acquired by fresh graduates per capita: 1.08.</li> <li>Pass rate of TOEIC 500 Points English test: 20%.</li> <li>Number of person-times participating in career counseling activities in academic year 2023: 229.</li> <li>Career test and interpretation in the 2023 academic year: 1,846 person-times.</li> <li>Graduation rate: 78.4%; employment rate: 91.9%.</li> </ul>	<ul style="list-style-type: none"> <li>Pass rate of the TOEIC 500 Points English test: <b>Short-term:</b> 20%; <b>medium-term:</b> 24%.</li> <li>Graduation rate: <b>Short-term:</b> 93%; <b>medium-term:</b> 94%.</li> <li>Number of high-value professional licenses obtained by recent graduates per capita: <b>Short-term:</b> 1.4; <b>medium-term:</b> 1.44.</li> </ul>
Marketing & Admission Measures	Enhance the honors and scholarship programs aimed at cultivating industrial leaders and attracting top students. Strengthen the scholarship system designed for students from remote areas and improve the public nature of the university. Integrate admission strategies and strengthen professional internal and external admission and marketing efforts.	<ul style="list-style-type: none"> <li>Total amount of tuition and fees.</li> <li>Marketing and admission expenses.</li> <li>Admission scholarship expenses and the number of students rewarded.</li> </ul>	<ul style="list-style-type: none"> <li>The total amount of tuition and fees reached NT\$389,414,143.</li> <li>The total actual amount of marketing and admission expenses incurred in academic year 2023 reached NT\$3,853,678.</li> <li>In the 2023 academic year, 657 students were awarded admission rewards, including 574 students who received honorable scholarships and 83 students who received scholarships for those from remote areas. The total amount of bonus expenses reached NT\$18,397,780.</li> </ul>	<p>Short-term goal of university affairs: In response to relevant government policy, all students' accommodation fees will be fully exempted, and tuition and fees of NT\$33,260 per capita would be subsidized for public universities next year; Registration rate of master's programs: Short-term: 85%; medium term: 87%.</p> <p>Percentage of joint registration distribution scores for day schools of four-year technical colleges among the top: Short-term: 47%; medium-term: 41%; Continuity: The registration rate of day schools of four-year technical colleges was continually maintained at 99.6%.</p>
Information Security & Privacy Protection	Promote the implementation of the Information Security Management System (ISMS), and introduce the ISO 27001 international standard system for management. The scope of verification of the core system continually passes third-party auditing and verification.	<ul style="list-style-type: none"> <li>Internal cybersecurity audit and outsourced audit conducted once every year.</li> <li>2 social engineering drills a year</li> <li>Data disclosure resulting from an information security crisis shall not occur.</li> </ul>	<ul style="list-style-type: none"> <li>1 internal cybersecurity audit; 1 outsourced audit within the scope of the core system. The audit results were free from any abnormality. In August 2024, verification of the ISO 27001:2022 revision was conducted.</li> <li>2 social engineering drills required by the Ministry of Education (click-through rate: 0%; open rate: 0%) were implemented, complying with the goal of achieving a click-through rate below 6% and an open rate below 10%.</li> <li>Data disclosure resulting from an information security crisis did not occur.</li> </ul>	<p><b>Medium- and long-term goals:</b></p> <ul style="list-style-type: none"> <li>Completion of the introduction of ISMS to the university.</li> </ul> <p><b>Continuity goal(s):</b></p> <ul style="list-style-type: none"> <li>Pass third-party auditing and verification every year within the scope of the core system.</li> <li>The university handles 2 social engineering drills every year.</li> <li>Handle 4 sessions of information security education and training every year.</li> <li>Handle 2 intellectual property lecture activities every year.</li> </ul>
Academic Affairs and Administrative Quality	The University implements management measures and QA mechanisms across teaching, learning-resource provision, and administrative services to ensure operations effectively support educational objectives and meet stakeholder needs.	<p>Administrative Satisfaction Survey:</p> <ul style="list-style-type: none"> <li>Improve administrative process efficiency</li> <li>Analyze feedback for continual improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Current satisfaction: 87.5%</li> </ul>	<ul style="list-style-type: none"> <li>Target: Administrative satisfaction to exceed 90%.</li> </ul>

Note: Short-, medium- and long-term goals: Short-term goals (2023-2025); medium-term goals (2026-2028); long-term goals (after 2028).

## Management goals of material topics of MCUT (Environmental)

Major issue	Management responsibilities and responsibilities	Goal/evaluation mechanism	Achievement in 2024	Short-/medium-/long-term future goals
<b>Energy consumption and management</b>	Install a power management system to monitor energy use, regularly promote replacing old, energy-consuming equipment and encourage the purchase of high-efficiency air conditioning and energy-saving products, and improve the share of renewable energy.	<ul style="list-style-type: none"> <li>Reduce EU by 0.1 on a yearly basis.</li> <li>Ratio of renewable energy.</li> </ul>	<ul style="list-style-type: none"> <li>EUI: 92.5 (-0.41).</li> <li>Ratio of renewable energy: 3.87% (-0.17 %).</li> </ul>	<p><b>Short-term goal:</b></p> <ul style="list-style-type: none"> <li>Introduce ISO 50001 Energy Management System and electric power monitoring system.</li> </ul> <p><b>Medium-term goal:</b></p> <ul style="list-style-type: none"> <li>Install the second phase of the solar energy system.</li> </ul> <p><b>Long-term goal:</b></p> <ul style="list-style-type: none"> <li>Reduce power consumption by 5%.</li> </ul>
<b>Hazardous Substance Management</b>	The University establishes safety standards, personnel training, risk assessment and protection measures, emergency response procedures, and regulatory compliance for all hazardous chemicals used in laboratories, workshops, and on campus.	<ul style="list-style-type: none"> <li>Established the Occupational Safety and Health and Toxic &amp; Concerned Chemical Substances Management Committee.</li> <li>A 24/7 combustible-gas detection system is installed in the temporary storage area for waste liquids.</li> </ul>	100% of laboratory waste liquids temporarily stored on campus are annually consigned to licensed removal and treatment contractors for transport to National Cheng Kung University for treatment.	<p><b>Short-term goal:</b></p> <ul style="list-style-type: none"> <li>Reduce chemical expiry and discards.</li> </ul> <p><b>Medium-term goal:</b></p> <ul style="list-style-type: none"> <li>Sustain chemical management practices to lower storage risks.</li> </ul>
<b>Biodiversity</b>	MCUT pays attention to natural ecological conservation. In addition to conducting a comprehensive environmental assessment before development and construction, the university also regularly checks the trees planted on campus, tests the water quality of the Gueizikeng River, and continually promotes biodiversity issues.	<ul style="list-style-type: none"> <li>Water quality testing conditions of the Gueizikeng River.</li> <li>Number of biodiversity promotion activities organized.</li> </ul>	<ul style="list-style-type: none"> <li>The water environment patrol team carried out 18 water quality monitoring rounds and 380 water environment patrols in Taishan District and Wugu District.</li> <li>MCUT promoted environmental education through cooperation with 7 middle and elementary schools in Taishan District, Nanya Technology Corporation, the Society of Wilderness and Xinzhuang Community College, and published the Annual Report of Environmental and Ecological Education of Guanyin Mountain.</li> <li>Rapid screening and investigation of waste in the Tamsui River were conducted 30 times.</li> <li>4 beach-cleaning activities in academic year 2023-2024.</li> </ul>	<p><b>Short-term goal:</b></p> <ul style="list-style-type: none"> <li>Establish a biodiversity management policy.</li> </ul> <p><b>Continuity goal(s):</b></p> <ul style="list-style-type: none"> <li>Continually train students' ability to integrate professional knowledge with practical operations, carry out water quality testing projects in Taishan District, Wugu District, and Xinzhuang District, collaborate with water environment patrol teams in surrounding areas to initiate cross-school river protection efforts, and strengthen an alliance for mutual aid mechanism.</li> </ul>
<b>GHG emissions</b>	Continuously conduct greenhouse gas emission inventories and pass third-party verification annually. Coordinate Taiwan's net zero emission policies, and dedicate efforts to saving energy resources and developing green energy plans to achieve the carbon reduction goal.	<ul style="list-style-type: none"> <li>Total greenhouse gas emissions.</li> <li>Changing ratio of greenhouse gas emissions compared with those in the base year (2010).</li> </ul>	<ul style="list-style-type: none"> <li>Total greenhouse gas emissions in 2022: 8,768.35tCO<sub>2</sub>e.</li> <li>Changing ratio of greenhouse gas emissions compared with those in the base year (2010): ↓ 16.02 %.</li> <li>The greenhouse gas inventory results in 2023 were expected to pass third-party verification in October 2024.</li> </ul>	<p><b>Medium-term goal:</b></p> <ul style="list-style-type: none"> <li>Carbon reduction by 20% in 2026.</li> </ul> <p><b>Long-term goal:</b></p> <ul style="list-style-type: none"> <li>Achieve carbon neutrality in 2043.</li> </ul>

Note: Short-, medium- and long-term goals: Short-term goals (2023-2025); medium-term goals (2026-2028); long-term goals (after 2028).



## Management goals of material topics of MCUT (social)

Major issue	Management responsibilities and responsibilities	Goal/evaluation mechanism	Achievement in 2024	Short-/medium-/long-term future goals
<b>Talent Attraction and Retention</b>	<p>Recruit excellent talents to teach at MCUT, provide initial funding with an annual maximum amount of NT\$1.2 million and a subsidizing period of three years at most, and review it year by year.</p> <p>Provide subsidizing funds for teachers with potential in tackling academic and research challenges, with a subsidizing period of up to 3 years, and review them annually.</p> <p>Generous teacher research funds will be additionally awarded to teachers who have successfully addressed challenges for ongoing improvement. The highest amount of research fund honorably granted is NT\$5 million.</p>	<ul style="list-style-type: none"> <li>New employment rate and separation rate of faculty and staff.</li> <li>Rewards provided to teachers with excellent teaching performance.</li> <li>Total amount of welfare payments granted to faculty and staff.</li> </ul>	<ul style="list-style-type: none"> <li>New employment rate: 2.4%; separation rate: 2.05%.</li> <li>4 teachers with excellent teaching performance received rewards.</li> <li>The welfare payments reached NT\$2,500,000.</li> </ul>	<p><b>Short-term:</b> Make 4 research centers as the leading centers in the key fields in Asia.</p> <p><b>Medium-term:</b> Enhance the global competitiveness of research centers in key areas by recruiting international talent.</p> <p><b>Long-term:</b> Become the most distinctive university of technology in Asia.</p>
<b>Educational Opportunities and Accessibility</b>	<p>Consistently care for disadvantaged students, further develop their spirit of serving society, and provide them with the greatest support during their studies, following the philosophy of taking from society and using for society.</p>	<ul style="list-style-type: none"> <li>Ratio of economically and culturally disadvantaged students assisted.</li> <li>Total amount of scholarships and grants provided to economically and culturally disadvantaged students.</li> </ul>	<ul style="list-style-type: none"> <li>Ratio of economically and culturally underprivileged students assisted 100%.</li> <li>Total amount of scholarships and grants provided to economically and culturally disadvantaged students NT\$ 2,648,608.</li> </ul>	<p>Ensure that economically and culturally disadvantaged students are 100% assisted.</p> <p><b>Short-term:</b> Improve the learning progress ratio of economically and culturally disadvantaged students to 60%.</p> <p><b>Medium-term:</b> Improve the learning progress ratio of economically and culturally disadvantaged students to 70%.</p> <p><b>Long-term:</b> Support disadvantaged students and provide equal education opportunities.</p>
<b>USR Practice</b>	<p>Care for society with university spirit, recognize local characteristics and development needs, and apply the benefits of knowledge through community involvement.</p>	<ul style="list-style-type: none"> <li>Participation in clubs and social services (per 1,000 people).</li> <li>Ming Chi Art and local participating person-times.</li> </ul>	<ul style="list-style-type: none"> <li>Participation in club and social services (per 1,000 people): 460 person-times.</li> <li>Ming Chi Art and local participating person-times: 2,500 person-times.</li> </ul>	<p>Club and social services:</p> <p><b>Short-term:</b> 240 person-times (per 1,000 people)</p> <p><b>medium-term:</b> 280 person-times (per 1,000 people)</p> <p>Ming Chi Art (person-times).</p> <p><b>Short-term:</b> 2,109; medium-term: 2,379.</p>
<b>Campus Health &amp; Safety</b>	<p>Enhance campus health and safety management, continuously promote health and safety education and training, and carry out automatic inspections, audits, and supervision.</p>	<ul style="list-style-type: none"> <li>Occupational disaster cases.</li> </ul>	<ul style="list-style-type: none"> <li>Occupational disaster cases: 0.</li> <li>In 2024, MCUT held 4 health and safety education and training activities.</li> <li>In academic year 2023, we received 2 accommodation-related complaints and 4 gender equality-related complaints and later replied to complainants and implemented continual tracking based on relevant handling regulations.</li> </ul>	<p><b>Short-/medium-/long-term goals:</b> Continually prevent the occurrence of occupational disasters and conduct health and safety education and training.</p> <p><b>Continuity goal(s):</b> 0 occupational disasters.</p>

Note: Short-, medium- and long-term goals: Short-term goals (2023-2025); medium-term goals (2026-2028); long-term goals (after 2028).

## Campus Information Security Management Measures of MCUT

Information security measure	Contents
Network traffic and P2P control	For P2P services, security control is enhanced through principled control and application of access controls, preventing the disclosure of data on business computers due to improper user settings.
Access control system (ISE)	Control the administrative accounts and authorities of all network device systems.
Wireless network service security	Comprehensively install wireless networks using the ThinAP architecture, with encrypted 802.1x authentication adopted for the system. Furthermore, the authentication and bookkeeping mechanism is improved based on Radius.
Network monitoring and recording	Guarantee continual, stable network operation, and track, analyze, and resolve network abnormalities or information security incidents.
Cutting-edge information security defense system and next-generation firewall	Protect networks in teaching and administrative areas, as well as the dormitory area.
Updating of Virtual Private Network (VPN) service	Faculty and staff outside the university may safely connect and use the school systems and library resources.
Annual vulnerability scanning	Execute vulnerability scanning and analysis for the school systems and equipment, and list medium and high-level vulnerabilities as items for improvement and re-scanning.
Email system protection	Use Microsoft Outlook 365 and coordinate the use of Microsoft email security filtering mechanism.
Social aggression drill	To improve the security awareness of faculty and staff, we coordinate with the Ministry of Education to conduct social engineering drills twice a year, prior to which we would organize the drills ourselves.
Security setting of administrative computers	Install licensed antivirus software on the university's computers, change passwords every 3 months with a 12-character length, lock screens after 10 minutes of inactivity, set up WSUS, enable the firewall, synchronize system time, standardize computer naming conventions, and install VANS and EDR.
Computer room management and maintenance	The core computer room of the campus is equipped with an independent UPS and a power environmental control system, water-cooled/air-cooled air conditioning for alternate system, a gas-type firefighting system, an access control management system, 24h monitoring videos, and a remote operation system.
Electronic official document information security system management	The Office of Library and Information Services strictly maintains information security protection management, including hardware, software, and personal safety protection.
Intellectual property management	In accordance with its "Regulations on Establishing a Committee for Advocacy and Execution of Intellectual Property Protection", MCUT has established a Committee for Advocacy and Execution of Intellectual Property Protection. Each department and office of the university shall coordinate the promotion and implementation of its respective tasks. This committee shall convene meetings at least once every semester. The Office of Library and Information Services hosts 2 intellectual property advocacy activities annually and regularly requests that faculty and staff review whether public computers on campus are equipped with infringing software.
Personal data protection	To implement the protection and management of personal data, we have established the "Personal Data Protection Management Committee" and formulated the "Regulations on Establishing a Personal Data Protection Management Committee". The President serves as the convener of this committee, while the library director serves as the deputy convener. Furthermore, a personal data protection executing team has been set up under this committee to promote personal data protection work. Additionally, a personal data protection audit team has been established to conduct the personal data protection auditing operations.

### ○ Handling results of teaching assessment in the past three academic years

Program		Academy year	2021	2022	2023
Undergraduate Program	Number of courses included in teaching assessment		1,531	1458	1,504
	Number of courses with unfavorable teaching assessment results		23	26	20
	Number of teachers with unfavorable teaching assessment results		21	25	16
	Number of teachers receiving counseling		21	25	16
	Ratio of teachers receiving counseling		100 %	100 %	100 %
PhD Program and Master's Program	Number of courses included in teaching assessment		269	247	244
	Number of courses with unfavorable teaching assessment results		0	0	0
	Number of teachers with unfavorable teaching assessment results		0	0	0

Note: After excluding courses like diligence education, approximately 99% of undergraduate program courses receive teaching assessments; for the PhD and Master programs, 100% of the courses are assessed.



Amount of scholarships and grants in the past three academic years

Program		Academy year	2021	2022	2023
Grants	Grants (day school)		7,941,978	8,871,959	8,296,502
	Dormitory subsidies		16,975,175	16,724,942	15,014,757
	Joint study aid (Aiding the Study of Disadvantaged Students)		1,775,004	1,436,008	639,348
	Autonomous cadres' dormitory incentive subsidy		152,165	200,865	144,000
	Grants such as the Project for Passing the Flame to Economically Disadvantaged Students, the Elite Project, and the Project for Helping Students Achieve Their Dreams		2,076,000	1,746,000	3,432,608
	Subsidies for tuition and fees for indigenous people and children of unemployed workers		1,189,158	1,342,205	2,700,376
	Subsidies for tuition and fees of foreign master's and PhD students		9,755,160	12,167,624	9,447,228
	Grants for teacher research assistants		-	-	-
	Anti-epidemic hotel accommodation subsidies for new overseas Chinese students and overseas students		854,700	988,400	-
	Living grants		-	168,000	276,000
	Accommodation and board expense reduction or exemption for overseas students		-	743,440	107,251
	Subtotal		40,719,340	44,389,443	40,058,070
Scholarships	Scholarship for students of high qualities and excellent scholars (day school)		3,200,000	3,342,000	2,770,000
	Progress award		294,000	274,000	254,000
	Scholarship for students demonstrating fine qualities and scholarly potential (continuing education)		237,000	169,000	101,000
	Progress award		13,000	6,000	4,000

Program		Academy year	2021	2022	2023
Scholarships	Scholarship for excellent internship achievements		464,000	576,700	485,100
	Scholarship for excellent PE performance		528,300	554,744	526,000
	Scholarship for skill competition		351,230	726,200	2,438,200
	Scholarship for skill verification certificates		2,200,372	3,489,750	1,266,903
	Scholarship for perfect attendance		30,000	63,000	12,000
	Scholarship for excellent service performance		121,500	79,500	48,000
	Scholarship for admission of new students		25,562,360	37,607,498	72,210,000
	Scholarships for PhD Program and elites		3,498,000	5,315,000	8,079,000
	Scholarship for teacher research manpower		48,000	175,900	171,900
	Scholarships for the dual doctoral degree program of the National Taiwan University of Science and Technology		-	-	1,750,000
	Scholarships and grants for special education students from colleges and universities		-	-	6,000
	Junior college students of NSTC		-	-	48,000
	Subtotal		36,547,762	52,379,292	90,170,103
Total			77,267,102	96,768,735	130,228,173
Ratio of revenue from tuition and fees %			19.66 %	24.88 %	33.44 %

Note: The total amount of tuition and fees of MCUT reached NT\$389,414,143 in academic year 2023, and the ratio of scholarships and grants to the total amount of tuition and fees reached 33.44% (130,228,173/389,414,143).

### Key R&D achievements of school-level R&D centers

R&D Center	Overview	Brief introduction	R&D contents	Important research matters and achievements in the past three years	Highlights in 2024
<b>Biochemical Technology R&amp;D Center</b>	<ul style="list-style-type: none"> <li>Established in 2003</li> <li>The investment fund was approximately NT\$ 78 million.</li> </ul>	Research, development and verification of continuous biological processes.	<ul style="list-style-type: none"> <li>Output and purification of molecules.</li> <li>Establishment and analysis of biomedical detection technology.</li> <li>Net Zero emissions and green energy technology development.</li> <li>Circular economy and recycling of valuable materials.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$18.73 million.</li> <li>Authorized amount of technology transfer: NT\$984,000.</li> <li>Number of journal papers: 118.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of industry-academia cooperation plans with enterprises, involving a total amount of NT\$9.654 million</li> <li>Signing of MOUs with the research centers of Vietnam and Malaysia to promote international cooperation</li> <li>Provision of biotechnology industry technical services and participation in research work</li> </ul>
<b>Center for Plasma and Thin Film Technologies</b>	<ul style="list-style-type: none"> <li>Established in 2010.</li> <li>The investment fund was approximately NT\$ 152 million.</li> </ul>	R&D of high-vacuum plasma coating film and normal-pressure (biomedical) surface activation technology.	<ul style="list-style-type: none"> <li>High Power Impulse Magnetron Sputtering (HiPIMS) technology.</li> <li>Advanced surface functionalization technology.</li> <li>Biomedical plasma technology (Low temperature atmospheric pressure plasma).</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$ 30.32 million.</li> <li>Authorized amount of technology transfer: NT\$1.26 million.</li> <li>Number of journal papers: 121.</li> <li>Number of patents: 18.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia projects contracted with Formosa, Formosa Chemicals &amp; Fiber Corporation, Nan Ya Plastics, and Nanya Technology Corporation: NT\$13.79 million.</li> <li>Signing of MOUs with companies from Japan, South Korea, Thailand, etc. for international cooperation.</li> <li>Continual implementation of high-entropy alloy material development projects through collaboration with National Tsing Hua University, National Taiwan University, National Yang Ming Chiao Tung University, National Taiwan University of Science and Technology, and National Taipei University of Technology.</li> </ul>
<b>Chinese Herbal Medicine Center</b>	<ul style="list-style-type: none"> <li>Established in 2011.</li> <li>The investment fund was approximately NT\$152 million.</li> </ul>	Purification and volume production of effective ingredients related to the inherent TCM.	<ul style="list-style-type: none"> <li>Screening of effective ingredients in TCM.</li> <li>Product extraction, separation, and purification processes.</li> <li>Process optimization, trial, and volume production.</li> <li>Product safety and applicability evaluation.</li> </ul>	<ul style="list-style-type: none"> <li>NSTC research amount: NT\$5.33 million.</li> <li>Industry-academia research amount: NT\$55.04 million.</li> <li>Authorized amount of technology transfer: NT\$16.32 million.</li> <li>Number of journal papers: 72.</li> <li>Number of patents: 3.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia projects contracted with Formosa, Formosa Chemicals &amp; Fiber Corporation, Nan Ya Plastics, and Nanya Technology Corporation: NT\$13.79 million.</li> <li>Signing of MOUs with companies from Japan, South Korea, Thailand, etc. for international cooperation.</li> <li>Continual implementation of high-entropy alloy material development projects through collaboration with National Tsing Hua University, National Taiwan University, National Yang Ming Chiao Tung University, National Taiwan University of Science and Technology, and National Taipei University of Technology.</li> </ul>
<b>Battery Research Center of Green Energy</b>	<ul style="list-style-type: none"> <li>Established in 2012.</li> <li>The investment fund was approximately NT\$158 million.</li> </ul>	Research and development of new energy materials, as well as batteries with energy storage capacity.	<ul style="list-style-type: none"> <li>Energy material modification and analysis: Anodes, cathodes, carbon, and catalyst material.</li> <li>Development and analysis of high polymer separator membranes used for power batteries: Lithium-ion batteries.</li> <li>Fuel cells: Membrane electrode assemblies.</li> <li>Soft pack batteries: Lithium-ion batteries and all solid-state lithium-ion batteries.</li> <li>Preparation of precursor materials: LCTR reactor.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$37.906 million.</li> <li>Total of NSTC projects: NT\$9.17 million.</li> <li>Number of journal papers: 56.</li> <li>Number of patents: 5.</li> </ul>	<ul style="list-style-type: none"> <li>Formosa Smart Energy announced a NT\$220 million investment to build the "All Solid-state Lithium-ion Battery Trial Production Line" and launched industry-academia collaboration with the Battery Research Center of Green Energy at MCUT. The two parties developed a four-year R&amp;D plan with the goal of advancing next-generation lithium-ion battery technologies that have high energy density, durability, and safety. They also aim to broaden the potential for reliable and diverse new energy applications through the large-scale trial production system of advanced all solid-state lithium-ion battery materials and emerging technologies.</li> <li>Continuous cooperation with National Taiwan University and National Taiwan University of Science and Technology in the implementation of a NSTC project of "High-performance and High-safety Lithium-ion Battery Research and Development" between Federal Ministry of Education and Research, Germany and Ministry of Science and Technology, Taiwan.</li> </ul>

R&D Center	Overview	Brief introduction	R&D contents	Important research matters and achievements in the past three years	Highlights in 2024
<b>Center for Reliability Engineering</b>	<ul style="list-style-type: none"> <li>Established in 2016.</li> <li>The investment fund was approximately NT\$46 million.</li> </ul>	<p>Four primary re-research directions: "mechanical systems and elements," "sensor electronics and medical system reliability," "electric vehicle technology and battery," and "quality and big data."</p>	<ul style="list-style-type: none"> <li>AI rotor intelligent pre-diagnosis system.</li> <li>Electric vehicle battery management system (BMS).</li> <li>Battery residual life prediction and reliability.</li> <li>Design and parameter optimization technology of plastic injection molds.</li> <li>Sensor and electronic medical system reliability technology.</li> <li>AI image interpretation technology and AOI detection technology.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$29.97 million.</li> <li>Amount of NSTC/government projects: NT\$38.51 million.</li> <li>Authorized amount of technology transfer: NT\$100,000.</li> <li>Number of journal papers: 109.</li> <li>Number of patents: 8.</li> </ul>	<ul style="list-style-type: none"> <li>Rotor imbalance pre-diagnosis technology combining physical models, finite element analysis, and parameter identification.</li> <li>Rotor imbalance pre-diagnosis technology in combination of physical model, finite element analysis and adaptive parameter identification.</li> <li>Rotor imbalance pre-diagnosis technology combining physical models, finite element analysis, and accounting for model parameter uncertainties.</li> <li>Shaft crack diagnosis and monitoring technology based on vibration signals.</li> <li>Diagnosis technology for torsional vibration fatigue failure in reciprocating compressors.</li> <li>Pre-diagnosis technology for residual life of high-pressure compressor packing based on neural network technology and the concept of energy dissipation.</li> <li>Pre-diagnosis technology for the residual life of high-pressure compressor packing based on particle swarm filter and the concept of energy dissipation.</li> <li>Optimization technology for the off-peak sliding pressure operation of steam turbines.</li> <li>AI imaging technology for automatic detection of abnormal temperature events in thermal radiation images of substation switchgear.</li> <li>Technology for automatic detection of surface defects in non-planar industrial components using AI imaging technology.</li> <li>Technology for automatic detection of surface defects in non-planar glass mirrors using AI imaging technology.</li> <li>Injection molding technology for heartless plastic pallets.</li> <li>Injection molding technology for heartless PVC joints.</li> <li>Long-duration and high-reliability oxygen sensor technology based on perovskite quantum dots.</li> <li>Perovskite-based high-sensitivity ammonia gas sensor technology.</li> <li>ESD tolerance analysis and design technology for memory components on printed circuit board layers.</li> <li>Technology for judgment on lying postures with enhanced AI machine learning.</li> </ul>



R&D Center	Overview	Brief introduction	R&D contents	Important research matters and achievements in the past three years	Highlights in 2024
<b>Organic Electronics Research Center</b>	<ul style="list-style-type: none"> <li>Established in 2017.</li> <li>The investment fund was approximately NT\$83 million.</li> <li>The Center currently has 9 members with interdisciplinary engineering expertise in material science, optoelectronic technology, and sustainable energy and environment.</li> </ul>	Research on medical light sources and low-light power generation transparent display.	<ul style="list-style-type: none"> <li>Low-light power generation.</li> <li>Application of wearable devices.</li> <li>Medical light sources.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$54.4 million.</li> <li>Authorized amount of technology transfer: NT\$7.63 million.</li> <li>Number of journal papers: 149.</li> <li>Number of patents: 9.</li> <li>Successful development and application of a product called "low-light glasses".</li> </ul>	<ul style="list-style-type: none"> <li>Prof. Shun-Wei Liu, the director of the Organic Electronics Research Center, was invited to serve as KAIST jointly appointed professor.</li> <li>Prof. Yu-Ching Huang, a member of the Organic Electronics Research Center, won the 2024 Future Tech Award with "High-efficiency Semi-transparent Perovskite Solar Cell Technology".</li> <li>The Center undertook a Silicon Valley forward-looking research project with "X-RAY Light Panel Technology" for the first time.</li> <li>The Center successfully held the 2024 SDSE International Seminar with more than 330 participants. The number of posters contributed exceeded 250. Furthermore, the seminar attracted participants from over 10 countries.</li> <li>The Center facilitated a school-school MOU signing with Pusan National University, which is a world-class university with the highest ranking among all MCUT's MOU partners, revealing the excellent international influence of the research center in academic cooperation.</li> </ul>
<b>Research Center for Intelligent Medical Devices</b>	<ul style="list-style-type: none"> <li>Established in 2019.</li> <li>The Biomedical and Medical Materials PhD Program was established in 2020.</li> <li>The investment fund was approximately NT\$64 million.</li> </ul>	Research on endoscopes, biomedical materials, smart carts, and home medical care products.	<ul style="list-style-type: none"> <li>Analysis and application of medical functional materials.</li> <li>Intelligent system.</li> <li>Development of medical aids.</li> </ul>	<ul style="list-style-type: none"> <li>190 journal papers published.</li> <li>Annual average amount and number of public and private projects undertaken (including industry-academia cooperation and technology transfer): NT\$43.77 million and 533.</li> <li>The admission of the Biomedical and Medical Materials PhD Program was stable. The registration rate reached 100% in 2024, and the number of students admitted reached 39.</li> </ul>	<ul style="list-style-type: none"> <li>Wet heat therapy vest.</li> <li>International conference (SDSE2024).</li> <li>Application of electrochemical surface-enhanced Raman spectrum chips in biomedical detection.</li> <li>Development of highly sensitive testing methods for anti-psychotic and antibiotic drugs in biomedical samples.</li> <li>Excellent foreign students from the Taiwan Experience Education Program (TEEP) and internship project for foreign advanced talents in Taiwan in 2024.</li> <li>IIPP 39 PhD students.</li> </ul>
<b>Center for Artificial Intelligence &amp; Data Science</b>	<ul style="list-style-type: none"> <li>Established in 2019.</li> <li>The investment fund was approximately NT\$ 48 million.</li> </ul>	Research on process optimization, IoT, industrial and medical image recognition, intelligent operation, and education and training.	<ul style="list-style-type: none"> <li>Equipment failure prediction and preventive maintenance.</li> <li>Material combination, scheduling, and optimization of manufacturing procedures.</li> <li>Design and integration of private cloud, sensors, and IoT.</li> <li>Industrial image recognition, quality detection, and root analysis.</li> <li>Commercial intelligence and management strengthening.</li> </ul>	<ul style="list-style-type: none"> <li>Amount of industry-academia projects: NT\$120.91 million.</li> <li>Amount of NSTC projects: NT\$35.03 million.</li> <li>Amount of projects from the government, other departments, and commissions: NT\$76.33 million.</li> </ul>	<ul style="list-style-type: none"> <li>Publication of 31 SCI papers.</li> <li>NSTC and government projects: NT\$45.32 million.</li> <li>3 licensed invention patents.</li> <li>Amount of industry-academia cooperation projects and technology transfer fees: NT\$50.1 million.</li> <li>Albert Chang, VP of ASUS and alumnus of MCUT, donated ten sets of AISVision software to the Center for Artificial Intelligence &amp; Data Science and delivered a speech on the unveiling ceremony.</li> <li>Education and training: VisLab image analysis education and training course (9-hour in-person session) and coding education and training course (16-hour in-person session).</li> <li>Speeches: 3 sessions at AIOT forum and 5 sessions at AI series speeches.</li> </ul>

R&D Center	Overview	Brief introduction	R&D contents	Important research matters and achievements in the past three years	Highlights in 2024
<b>Center for Environmental Sustainability and Human Health</b>	<ul style="list-style-type: none"> <li>Established in 2019</li> <li>The investment fund was approximately NT\$56 million.</li> </ul>	Research on environmental trace analysis, circular economy, and AI environmental monitoring.	<ul style="list-style-type: none"> <li>Air quality monitoring and trace analysis technology.</li> <li>Water recycling and circular economy.</li> <li>Application of big data analysis in environmental monitoring.</li> <li>Risk exposure assessment and health promotion.</li> <li>Research on prospective green hydrogen production technology.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia research amount: NT\$28.51 million.</li> <li>Amount of NSTC projects: NT\$17.71 million.</li> <li>Amount of projects from the government, other departments, and commissions: NT\$1.98 million.</li> <li>Number of journal papers: 71.</li> </ul>	<ul style="list-style-type: none"> <li>Application of pyrolysis and thermal desorption techniques in trace analysis technology for environmentally persistent pollutants.</li> <li>Technology of deep eutectic solvent-based recovery of valuable metals from waste batteries.</li> <li>Electrocatalytic treatment of water pollutants with simultaneous hydrogen production.</li> <li>Utilization of multiple deep learning models to predict future pollutant concentration and application of AI technology and GIS to explore the features of potential contribution sources.</li> <li>Research on the improvement of hydrogen production efficiency with the next-generation catalyst preparation technology.</li> <li>International partners:               <ol style="list-style-type: none"> <li>USA-University of California, Los Angeles (hydrogen production project).</li> <li>USA-University of Delaware (circular economy).</li> <li>South Korea-Chungnam National University (battery recycling).</li> <li>Malaysia-Sunway University (water regeneration).</li> </ol> </li> </ul>
<b>Intelligent Vehicle Research and Development Center</b>	<ul style="list-style-type: none"> <li>Established in 2022</li> <li>The investment fund was approximately NT\$115 million.</li> </ul>	Localized and intelligent development of electric commercial vehicles.	<ul style="list-style-type: none"> <li>Vehicle electrification technology.</li> <li>Vehicle intelligence technology.</li> <li>5G and IoV technology.</li> <li>System design integration.</li> <li>Testing and verification.</li> </ul>	<ul style="list-style-type: none"> <li>MCUT obtained an industry-academia cooperation project worth NT\$140 million from Formosa Plastics Transport Corporation in 2022 to complete the development of a 12-ton electric utility truck and the installation of relevant testing equipment in two years.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-academia cooperation projects (with other enterprises) in 2024: NT\$32.11 million.</li> <li>Research-industry-academy projects (government projects) in 2024: NT\$7.5 million.</li> <li>Completion of POC development for two 2.5-ton vehicles and all associated technical documents for the overall vehicle design.</li> <li>Promotion of ISO 26262 functional safety system and ISO/SAE 21434 (IoV) network security and coaching of engineers to obtain relevant certificates.</li> <li>Completion of POC development of battery packs</li> <li>Completion of the establishment of the Center's regulations on contract testing and authentication services, including energy consumption testing of electric vehicles, characteristic testing of components, vehicle performance testing, and authentication and verification services for vehicles, motive power machines, and general machinery.</li> </ul>

### Statistics of full-time teachers' education background in the past three academic years

Education background	Gender	2021	2022	2023
PhD	Male	143	149	154
	Female	27	30	30
	Subtotal	170	179	184
Master	Male	19	18	18
	Female	5	4	4
	Subtotal	24	22	22
Bachelor	Male	0	0	0
	Female	0	0	0
	Subtotal	0	0	0
Junior college	Male	1	1	1
	Female	0	0	0
	Subtotal	1	1	1
Total	Male	163	168	175
	Female	32	34	34
	Subtotal	195	202	207

### Statistics of full-time teachers' ages in the past three academic years

Age	Gender	2021	2022	2023
Under 30 years old	Male	0	1	0
	Female	0	0	0
	Subtotal	0	1	0
31 to 50 years old	Male	66	65	60
	Female	14	15	12
	Subtotal	80	80	72
Above 50 years old	Male	97	102	113
	Female	18	19	22
	Subtotal	115	121	135
Total	Male	163	168	177
	Female	32	34	34
	Subtotal	195	202	207

### Statistics of club social service results in the past three academic years

Item \ Academy year	2021	2022	2023
Number of clubs participated	14	20	20
Number of activities handled	24	32	32
Person-times served	1,796	1,855	1,875

## External Assurance Statement



- ISO 14064-1: 2018 (TÜV SÜD VERIFICATION OPINION )



- ISO 14001:2018 (TÜV SÜD CERTIFICATE)

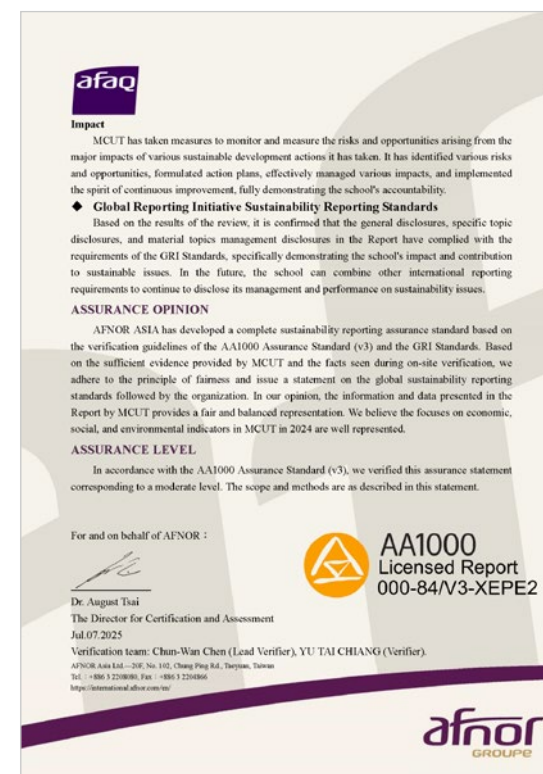
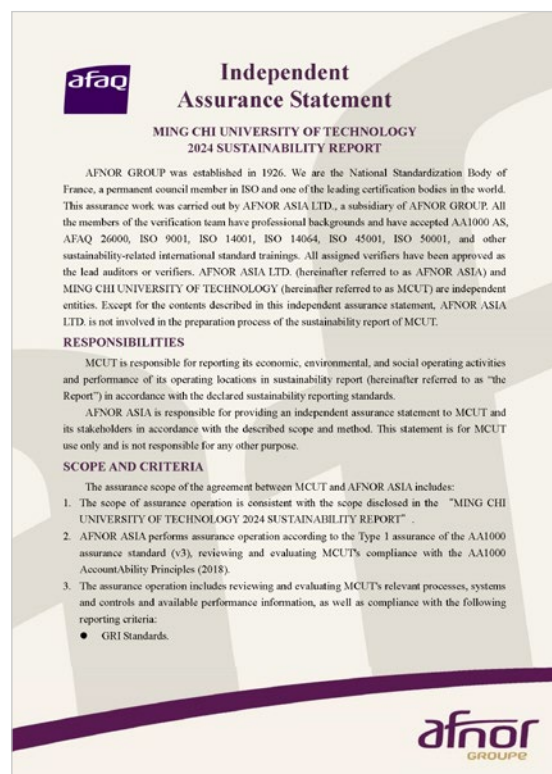


- ISO 27001: 2022 (SGS Taiwan CERTIFICATE)



- ISO 45001: 2018 (TÜV SÜD CERTIFICATE)







• ISO 50001: 2018 (IMQ S.p.A. CERTIFICATE)