

2022 YunTech SUSTAINABILITY REPORT





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About the Report

GRI correspondence:
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This report follows the disclosure guidelines of the Global Reporting Initiative (GRI) and is compiled based on the four principles of inclusivity, materiality, responsiveness, and impact as outlined in the AA1000 Accountability Principles (2018). Additionally, it adheres to the Sustainability Accounting Standards Board (SASB) standards - Education, for disclosing sustainable information. The report aims to communicate YunTech's performance in four dimensions: institutional governance, talent development, environmental sustainability, and social inclusion. It presents the vision and development strategies, addressing sustainable issues that stakeholders are concerned about. If the information is re-edited, it shall be explained in the chapter notes.

● Reporting Scope and Period

The scope of this report covers the National Yunlin University of Science & Technology (YunTech). Because the school operates on an academic year system, the main disclosure period of this report covers the 2021 academic year (August 1, 2021, to July 31, 2022). The annual data is presented based on 2022 (January 1, 2022, to December 31, 2022), and some data cover one to three academic years or one to three years.

Meanwhile, the school shall also publish its specific practices and performances covering the “**Environmental (E)**”, “**Social (S)**,” and “**Governance (G)**” aspects.

● Report Issuance Day

This report is issued once a year in August each year.

Current report publication date: August 2023

Previous report publication date: August 2023

● Report Quality Management Process



● Contact Information

If you have any suggestions or questions, you are welcome to contact us through the following channels. Thank you.

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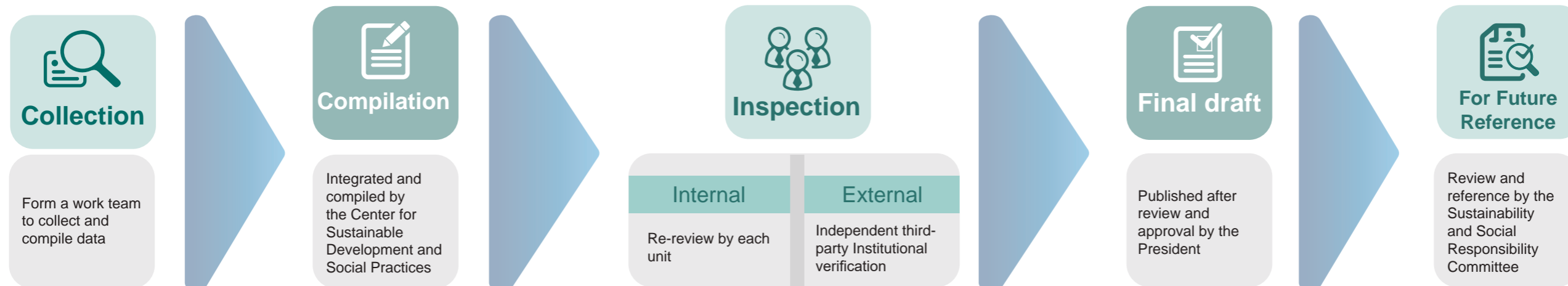
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● Report Verification

In July 2023, this report was verified by an independent third-party impartial organization called the British Standards Institution (BSI) Taiwan Branch to ensure the report complies with the GRI standard core option disclosure and AA1000 assurance standard v3 type 1 medium assurance level. The assurance statement is attached in the appendix to this report.





Performance Highlights_Sustainable Governance

1 Sustainability Forecast

2 School Governance

3 Harmonious Campus

4 Academic Performance

5 Environment Performance

6 Social Inclusion



Economy

- *Government subsidy income: **1.318** billion (+)
- *Total business revenue: **2.786** billion (+)
- *Average salary of students: **46** thousand (+)
- *Industry/Academia Cooperation Performance
 - Quantity: **914** (+)
 - Amount: **1.465** billion (+)
- *Local supplier ratio: **100%**
- *Local supplier procurement expenditure ratio: **100%**



Environment

- *The first campus in Taiwan with a sewage treatment plant
- *No environmental regulation violation
- *Power saving rate%: **0.27%** (-)
- *Total energy consumption: **64,694.GJ** (-)
- *Wastewater Recovery Rate: **49.26%** (+)
- *Tap Water Recovery Rate%: **31.59%** (+)
- *Green area: ratio to campus area **79%**
- *Five green buildings
- *Priority procurement amount: > **5%** (+)
- *Green procurement rate: > **95%** (-)



Society

- *Number of employees: **734** (-)
- *Number of students: **9,700** (+)
- *Number of academic papers published: **1089** (+)
- ***100%** of project assistants have ethics certification
- *Invested **10.22 million** to implement social integration and local creation (+)
- *Accomplished USR practice bases in Taiwan: **52** places
- *Number of foreign awards won by students: **92** (+)
- *No corruption incidents
- *No employee grievance
- *No discrimination incidents
- *No personal data breaches
- *No data security protection or threat attack events
- *Student aid measures
- *The total number of beneficiaries is **4,554** (+)
- *The benefit amount is **81.46** million (+)

*Annual target achievement status is based on a comprehensive comparison of performance in previous years
 (+): growth (-): decline





Performance Highlights_Academic Units

YunTech is committed to fulfilling its social responsibility by integrating internal resources and fostering collaboration across all colleges to advance Sustainable Development Goals (SDGs) development projects. These projects are specifically aligned with curriculum development, academic publications, and the effectiveness of industry-academic collaborations. In terms of performance in 2022, the various colleges across the university are **most active**  in addressing **SDG3, SDG4, SDG7, SDG8, SDG9, SDG11, SDG12, and SDG13**. This alignment reflects the university's emphasis on governance priorities such as "Higher Education Implementation," "Net Zero Carbon Emission," "Industry-Academia Collaboration," "Local Development Linkages," and "International Exchange."

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Teaching courses (Number of Classes)	134	87	347	695	279	199	319	759	513	286	391	382	295	67	104	280	224
Industry/Academia Research (Number of Cases)	20	12	19	48	10	12	21	29	111	15	86	75	68	9	16	13	64
Academic Publication (Number of Publications)	14	9	65	58	10	33	80	36	254	35	79	122	129	12	32	19	72
Total for the Entire School	168	108	431 	801 	299	244	420 	824 	878 	336	556 	579 	492 	88	152	312	360



International Honors

- *2022 Times Higher Education (THE)
 - <World University Rankings> 1001-1200
 - <Academic Ranking of World Universities> 11
 - <Impact Rankings> 201-300
 - <Emerging Economies University Rankings> 201-250
 - <Young University Rankings> 301-350
 - <Asia University Rankings> 251-300
- *2022 UI GreenMetric World University Rankings No. 59 (Top 5.62% in the world)
- *2022 Asia-Pacific Sustainability Action Awards 1 golden medal, 1 silver medal, and 1 bronze medal
 - <Sustainability transformation across industries through intelligent identification technology > Golden Medal
 - <Emerging New Circular Economy of Food and Agriculture for Green and Sustainable development of Taiwan> Silver Medal
 - <Mutual Prosperity and Sustainable Cultural Development of Taiwanese and Japanese Tribes> Bronze Medal
- *2022 GCSA Global Corporate Sustainability Awards - Sustainability Report bronze prize



Domestic Recognition

- *In 2022, our university was awarded the National Sustainable Development Award in the education category under the "National Sustainable Development Award Selection and Commendation Program."
- *2022 Taiwan Corporate Sustainability Award
 - <Comprehensive Performance> Taiwan Sustainability Model University Award
 - <Sustainability Report> Platinum Level University
 - <Sustainable Individual Performance> Social Inclusion Leadership Award
- *In 2022, Taiwan Sustainable Action Awards (TSAA) received 5 silver and 1 bronze awards, including the Outstanding Youth Award.
 - <Upgraded Road Safety for Sustainable Transportation> Silver Medal
 - <Comprehensive Solar Power Detection> Silver Medal
 - <Local Community-Centered Sustainable Innovation> Silver Medal
 - <Air Micro-Monitoring for Sustainable Environment> Silver Medal
 - <Tree-Planting Eco-Circle for Sustainable Value Chain> Silver Medal
 - <Smart Recognition for Upgraded Sustainable Transformation> Bronze Medal
 - <Guilin Shallow Mountain USR Team, Project Assistant Wu Xiang-Yu> Outstanding Youth for Sustainability Award
- *In 2022, "CommonWealth Magazine" USR University Social Responsibility Award <Industry Co-Creation Category> Model Award
- *In 2022, "CommonWealth Magazine" USR University Citizen Survey -Among public technical and vocational colleges No. 3
- *In the 2022 Ministry of Education announcement of the 2020 average industry-academia funding per faculty member, ranked 2nd nationwide and 1st among technical and vocational colleges
- *2022 1111 Human Bank surveys for favorite universities of companies - technical vocational system No. 4
- *In the 2022 Sustainable Teaching Practices and Achievements Competition - "Social Dreamer" No. 3



Student Awards (International)

- *Awarded the 2022 CROATIAN ONE MINUTE FILM FESTIVAL "1st Award" & "TOP 10 FILMS" .
- *2022 Red dot design award, awarded 5 "winner" prizes.
- *2022 iF Design Talent Award, awarded 2 "winner" prizes.
- *Awarded by New York Art Directors Club Annual Awards "Young Ones ADC" Category 1 Gold Cube and 1 Merit Honor, and in the "Young Ones Student Awards" honorably obtained the 26th in global ranking (1st among the domestic competitors).
- *2022 Indigo Design Award, awarded 3 gold awards.
- *2022 Animayo International Poster Contest, awarded the 1st prize.
- *2022 IBDC (International Bicycle Design Competition), awarded the "Ment Award".
- *2022 Creative Communication Award, honorably awarded 1 "Best of Best" prize and 4 "winner" prizes.
- *2022 International Design Award (the United States), awarded 2 golden prizes and 1 honorable mention.
- *2022 WorldSkills Competition, awarded a Medallion for Excellence in the "Wall and Floor Tiling" category.
- *6 works won in 2022 International Design Competition, and received prize from Ministry of Education.
- *2022 18th International Salon of Inventions and New Technologies in Ukraine, awarded 4 gold medals and 3 silver medals.
- *2022 Geneva International Exhibition of Inventions, awarded 1 golden medal and 1 silver medal.
- *In the 25th Russia Moscow International Salon of Inventions and Innovative Technologies ARCHIMEDES held in 2022, our university was awarded 2 gold medals and 3 silver medals.
- *In the 36th Japan Tokyo International Invention Exhibition held in 2022, our university was honored with 10 gold medals and 4 silver medals.
- *In the 2022 Malaysia ITEX International Invention Exhibition, our university was awarded 2 silver medals.
- *2022 Taiwan Innotech Expo, awarded 2 silver medals.
- *2022 16th International Warsaw Invention Show, awarded 3 gold medals and 1 silver medal.
- *2022 Seoul International Invention Fair, awarded 2 gold medals, 2 silver medals, and 2 bronze medals.
- *2022 9th Hong Kong International Invention and Design Competition, awarded 1 gold medal.
- *2022 10th Macao International Innovation and Invention Expo, awarded 3 gold medals, 2 silver medals, and 2 special awards.



YunTech's Visions

01 Long Term

Promoting economic, social, and environmental sustainability through the power of education and knowledge

02 Medium Term

Become an internationally renowned university featuring innovative teaching and industry connection

03 Short-term

Comprehensively promote the sustainable development of all faculties and departments

As the President of the National Yunlin University of Science and Technology (YunTech), I am honored to present to you our Sustainability Achievement Report for the year 2022. This report reflects our university's ongoing commitment to environmental sustainability, social welfare, and good governance. It also highlights the efforts and achievements of our students, faculty, staff, and other stakeholders within our campus community.

◆ The Sustainable Mission of Higher Education:

Since its establishment, YunTech has been committed to providing quality technological education and contributing to global society. As a technological university, we recognize the responsibility to lead society towards a greener and more sustainable future. Therefore, we are dedicated to integrating our academic resources with environmental sustainability as the core principle in all our activities. We actively foster key competencies in students in this field. In recent years, we have achieved significant milestones in various areas, demonstrating a steadfast commitment to sustainability and taking concrete actions in infrastructure, energy and climate change, waste management, water resources, transportation, carbon emissions, and more.

Our efforts and achievements have gained widespread recognition domestically and internationally. In the 2022 global university rankings, we excelled in the Green University Ranking, industry-academia income, and the six categories of SDGs. In THE World University Impact Rankings, we ranked globally between 201-300, making us the top-ranked technological university in Taiwan. In the 2023 THE World University Rankings, we achieved outstanding results, ranking 29th globally in the indicators of industry and knowledge transfer.

◆ Reinforcing school governance and collaborative practices with faculty and students

We are continually advancing towards the goal of becoming a top university in sustainability, with four major objectives for institutional development: “develop teacher/student based on economy, environment, and social needs,” “make outstanding contributions to local and global welfare,” “shape an innovative, smart, friendly, and sustainable campus”; and “rank among the top 100 universities in Asia and top 1,000 universities worldwide.” In recent years, YunTech has demonstrated outstanding performance in areas such as teaching innovation, industry-academia collaboration, academic research, internationalization, and student employment. This annual report fully showcases the collective achievements of all faculty, staff, and students through their concerted efforts.

◆ Leveraging the public nature of higher education to envision a sustainable future

We will continue to adhere to the United Nations' 17 Sustainable Development Goals, integrating our long-term vision into teaching, research, and campus governance. Specifically, we will strengthen curriculum frameworks to ensure that our students acquire employment skills aligned with the needs of sustainable industries. Furthermore, we aim to enhance industry-academia collaboration, forging closer ties between the research and development capabilities of our faculty teams and industry demands to achieve more effective knowledge transfer.

Lastly, we will persist in efforts to improve teaching quality, develop school characteristics, enhance the public nature of higher education, and fulfill social responsibilities across four major dimensions. In terms of economic development, we will focus on promoting sustainable operations through the research and advancement of circular economy and low-carbon supply chains. In the realm of social inclusion, we will continue to promote research on diverse communities and international collaborative creation and design. For environmental sustainability, we strive to propagate a lifestyle that supports a healthy community environment and ecological sustainability. Our ultimate goal is to become an internationally renowned university distinguished by innovative teaching and strong connections with the industry. We express gratitude to everyone for their support and look forward to collaborating with all stakeholders in promoting the sustainable development of the world, ushering in a brighter future.

National Yunlin University of Science and Technology President |

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1 Sustainability Forecast

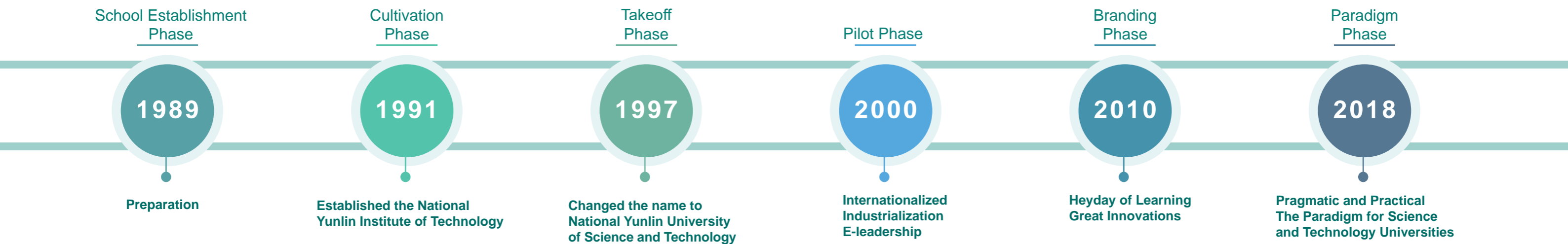
Major Topics of this Chapter/ Stakeholder Communication

1-1 School History and Organizational Framework	09
1-2 School Development Vision, Goals, and Strategies	12
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1-4 Stakeholder Inclusion	16
1-5 Identifying Material Topics	19



1-1 School History and Organizational Framework

GRI correspondence: 2-1, 2-2, 2-6, 2-7, 2-8
 SDGs correspondence: 4.3
 SASB correspondence: SV-ED-000.A



National Yunlin University of Science & Technology (YunTech) was formerly known as the National Yunlin Institute of Technology. It was established in 1991 to “provide higher vocational and junior college education to cultivate senior engineering management and technical specialists.” Due to its immense success, the school was renamed to National Yunlin University of Science & Technology on August 1, 1997, with approval from the Ministry of Education.

The school has over three decades of history, from its establishment, cultivation, takeoff, pilot, and branding to paradigm phases. When the school was first established, it was necessary to incorporate the vast sugarcane fields and the old buildings of the former Yunlin Middle School. There were a million school matters to attend to. Fortunately, our founding employee was able to embrace the ideas, work hard, and dedicate their efforts each step to gradually construct YunTech's vast campus that you see today. Past Presidents and current President Neng-Shu Yang's leadership have achieved numerous amazing successes, allowing YunTech to excel in four areas: student cultivation, teacher development, university contribution, and international influence.

Taiwan's higher education is facing challenges due to a declining birthrate, and the enrollment environment for technical universities in the future is even more challenging. In this severe situation, YunTech will be more courageous in pursuing innovation, facing challenges, and striving for breakthroughs. In the future, the school aspires to be “an internationally renowned university featuring innovative teaching and industry connections” by achieving “teacher/student developments based on economy, environment, and social needs”; “making outstanding contributions to local and global welfare”; “shaping an innovative, smart, friendly, and sustainable campus”; and “ranking among the top 100 universities in Asia and top 1000 universities worldwide.” Our missions are to become one of the best science and technology universities in Taiwan for cultivating talents for the industry by assisting students in finding high-quality employment, developing local and international high-quality talents for national strategic industries, and establishing a model education for Taiwan's science and technology universities.

School Name	National Yunlin University of Science and Technology
School Address	No. 123, Sec. 3, University Road, Douliu City, Yunlin County, 64002
President	Professor Neng-Shu Yang
Website	https://www.yuntech.edu.tw
CSR Section	Chinese version: https://www.yuntech-csr.tw/ English version: https://www.yuntech-csr.tw/en
Number of full-time teachers	405 people
Number of part-time teachers	199 people
Number of foreign teachers	21 people
Number of employee	329 people
Project Planning Personnel	504 people
Number of students	9700 people
Number of colleges	5 colleges
Number of departments	24 departments (including 5 degree programs)
Number of institutes	28 master programs (including 1 degree program)15in-service master programs (including 1 degree program)13doctoral programs (including 1 degree program)
Total operation revenue in 2022	NTD 2,786,695,709
Total operation spending in 2022	NTD 2,943,000,998
2022 surplus and deficit	Deficit NTD 156,305,289
2022 cash and cash equivalents	NTD 920,159,86

Note: Project personnel will be hired according to the project schedule as needed. They will be considered as flexible or temporary staff based on project requirements.

Organizational Structure

YunTech offers higher education in the education service industry. It is under the jurisdiction of the Technical Vocational Division of the Ministry of Education and is a national technical college, so there is no board of directors. The organization rules provide one President, who shall manage the school affairs comprehensively, take responsibility for school affairs development, and represent the school externally. Three Vice-presidents shall be established to assist the President in handling school affairs. There were no major changes to the organization or its supply chain during the reporting period.

Administrative Units



Academic Units



Research Units



Teaching unit

College of Engineering		College of Management		College of Design		College of Humanities and Applied Sciences		College of Future	
Institute of Engineering Science and Technology	Doctoral Programs are Divided into Engineering Technology Division and Industrial Practice Division	International Institute for Artificial Intelligence Management	Master's Program	Graduate School of Design	Including Master's and Doctoral Program	Graduate School of Technological and Vocational Education	Master's and Doctoral Program	Bachelor's Program in Interdisciplinary Studies	
Department of Mechanical Engineering	Including Master's and Doctoral Program	Department of Industrial Engineering and Management	Including Master's Program, Doctoral Program, and In-service Special Class for Master's Program in Health Industry Management	Department of Industrial Design	Including Master's Program	Graduate School of Leisure and Exercise Studies	Master's Program	Bachelor's Program in Industrial Projects	
Department of Electrical Engineering	Including Master's Program	Department of Business Administration	This department includes Master's and Doctoral programs. The Master's programs are divided into the Department of Business Administration, Department of International Business Administration, and Master Program in Entrepreneurial Management.	Visual Communication Design	Including Master's Program	Graduate Institute of Applied Chinese Studies	Master's Program	General Education Center	
Department of Electronic Engineering	Including Master's and Doctoral Program			Department of Information Management	Including Master's and Doctoral Program	Department & Graduate School of Architecture & Interior Design	Divided into Architecture Division and Interior Division Includes Master's Program (Including Master's Program)	Graduate School of Science and Technology Law	Master's Program
Department of Information Engineering	Including Master's Program	Department of Finance	Including Master's and Doctoral Program	Department of Digital Media Design	Local Creation Smart Design Master's In-service Program (including master's program)	Graduate School of Material Science	Master's Program	Bachelor's Program in Industrial Technology	
Department of Environmental Safety and Health Engineering	Including Master's Program, Doctoral Program, and In-service Special Class for the Master's Program in Environmental Safety Technology and Management	Department of Accounting	Including Master's and Doctoral Program	Graduate School & Department of Creative Design	Including Master's Program	Technology Department of Cultural Heritage Conservation	Master's Program	Graduate School of Intelligent Data Science	
Department of Chemical and Materials Engineering	Including Master's and Doctoral Program	Doctoral Program in Industrial Management		Bachelor Program in Interdisciplinary Integrated Design		Department of Applied Foreign Languages	Master's Program	Future Technology Research Center	
Department of Civil and Construction Engineering	Including Master's Program	Executive Master Program in Business Administration	Master's In-service Program			Teacher Education Center			
		Bachelor of International Management							
		Bachelor's Program in Business Management	Undergraduate Program-Night School						



Yun Tech





Administrative Units

Academic Affairs Office

Registration Division
Curriculum and Teaching Division
Admission Division
Teaching Excellence Center

Student Affairs Office

Student Assistance Division
Extra-Curricular Activities Division
Health Care Division
Service Learning Division
Military Education Division

Office of General Affairs

Documentation Division
General Service Office
Cashier Division
Construction and Maintenance Division
Asset Management Division

Office of Research and Division

Research Planning Division
Innovative Technology Management Division
Employment and Alumni Services Center

Office of Industry-Academia

Technology Promotion Division
Center of Academia-Industry Collaboration
International Industry/Academia Alliance Center

Office of International Affairs

International Exchange and Collaboration Division
International Education Division
International Students Division

1 Sustainability Forecast

2 School Governance

3 Harmonious Campus

4 Academic Performance

5 Environment Performance

6 Social Inclusion

Library

Technical Services Division
Readers Services Division
Promotion Services Division

Information Technology Services Center

Networking Division
Systems Division
Media and Service Division

Counseling Center

Continuing Education Center

Language Center

Environmental Safety Technology Center

Safety and Health Division
Environmental Protection Division

Institutional Research and Planning Center

Institutional Research Division
Institutional Planning Division

Sustainable Development and Social Practice Research Center

Center for Advanced Processing and Analysis

Secretary Office

Administrative Management Division
Public Relations Division

Auditing Office

Personnel Office

The First Division
The Second Division

Accounting Office

The First Division
The Second Division
The Third Division

Physical Education Office

Venue Operations Division
Event Management Division

Industry-Academia Office Integration

Incubation Center for Industry-Academia
Collaboration and Intellectual Property

Office of Research and Development Integration

Center for Regional Industry-Academia Collaboration
Center for Emergency Response Information
Center for Power Electronics and Sustainable Energy
Sustainable Development and Social Practice
Research Center
Center for Hakka Studies
Idea Factory (IDF)

Committees

Faculty Review Committee
Teacher Grievance Review Committee
employee Selection Committee
Student Rewards and Punishment Review Committee
Student Grievance Review Committee
Curriculum Committee
General and Common Education Committee
Gender Equality Education Commission
Industry-Academia Cooperation Committee

1-2 School Development Vision, Goals, and Strategies

SDGs correspondence: 4.3, 4.7, 8.2, 8.3, 11.7, 11.a, 17.6, 17.16

Become an internationally renowned university featuring innovative teaching and industry connection

From 2020 to 2024, our university has adopted a strategy focusing on "Characterization, Academization, Industrialization, Internationalization, and Smartization" to comprehensively promote administrative and academic units according to this strategy. In 2022, the main emphasis is on achieving excellence in student cultivation, faculty development, university contributions, and international impact. To realize this vision, YunTech aligns the development of faculty and students with the economic, environmental, and social sustainability needs. The university aims to make significant contributions to local and global well-being, shaping an innovative, intelligent, friendly, and sustainable campus. The goal is to rank among the top 100 in Asia and the top 1,000 in the world, moving towards the vision of becoming an internationally renowned university with a focus on innovative teaching and industry collaboration. YunTech has adjusted its 2022-2026 mid-range development plan to combine generation and digital advancement, literacy, and sustainability. We aim to create an "internationally renowned university featuring innovative teaching and industry connection" through strategies such as "goal-oriented teaching innovation," "improving the capacity and characteristics of production and education," "contributing to sustainability," and "enhancing international prestige."

Vision

Become an internationally renowned university featuring innovative teaching and industry connection

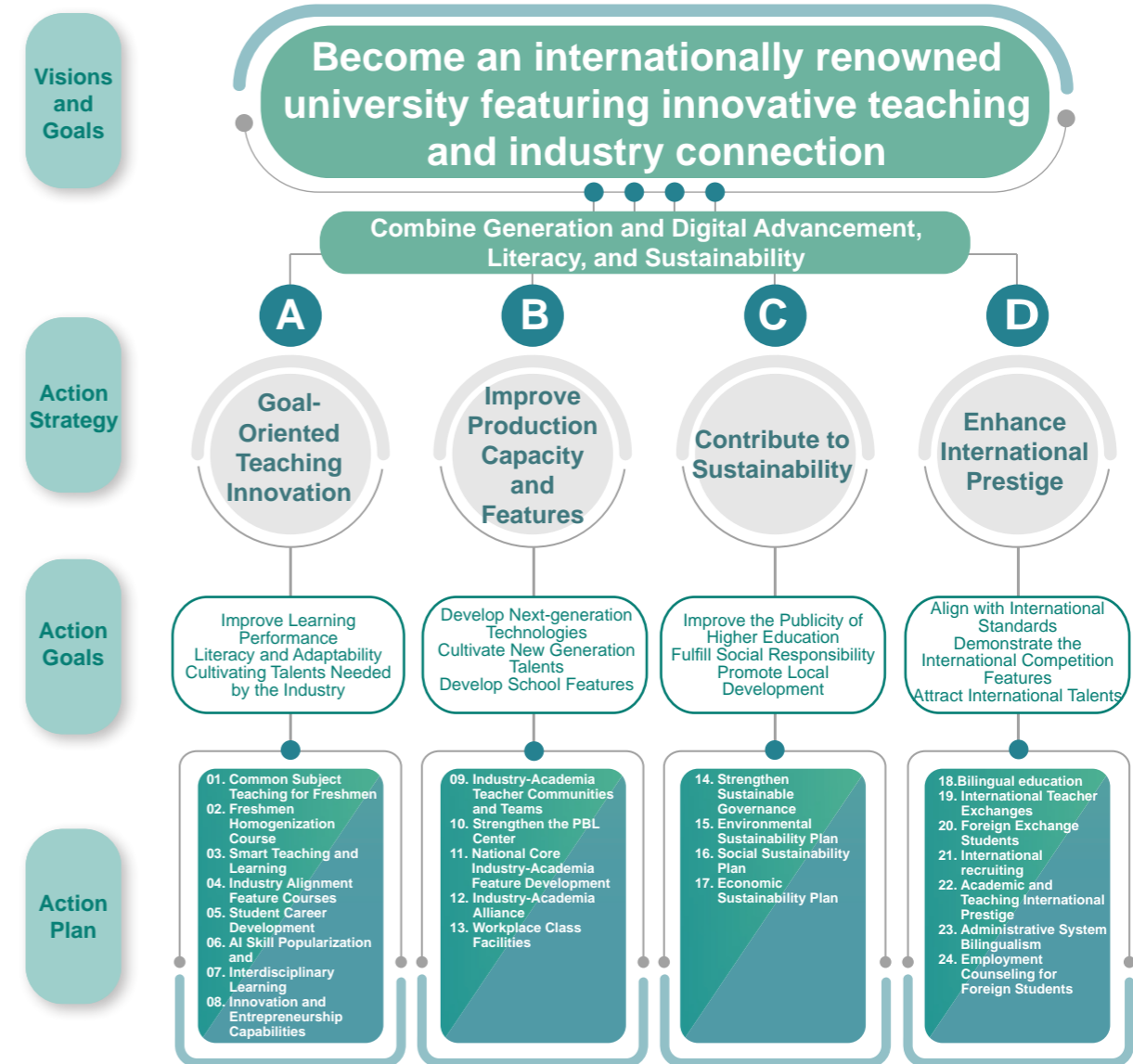
Goal

1. The teacher and student developments meet the needs of the economy, environment, and society
2. Outstanding contribution to local and global welfare
3. Shape an innovative, smart, friendly, and sustainable campus
4. Rank among the top 100 in Asia and the top 1000 worldwide

Strategy

1. Featurization: Create industry-aligning teaching and R&D features
2. Academization: Basic research aimed at the production and learning of applications
3. Industry-academia collaboration: Industry-academia cooperation for value-added industries and teaching innovation
4. Internationalization: Attract outstanding international teachers and students to join the teaching and R&D team
5. Smartization: Teaching and R&D with artificial intelligence as the connotation and form

The latest 2022-2026 mid-range development plan and the school affairs development action plan for the next five-years are as follows:



2022-2026 Five-Year Action Plan for Institutional Development Diagram

YunTech hopes to make four levels of sustainable contributions through its school development vision:

1	School Governance Aspect	Open and transparent organizational governance; prioritize protecting social, economic, and culturally disadvantaged groups; establish an efficient administrative system; enhance the publicity of higher education.
2	Students Learning Aspect	Implement innovative teaching, enhancing teaching quality, enriching sustainability literacy, fostering individual talents, and strengthening holistic education to unleash the potential of each student. This aims to promote lifelong learning and adaptability to environmental changes.
3	Industrial Economy Aspect	Connect the sustainable needs of the industry, provide sustainable technology and talents required by the industry, and develop school features.
4	Social Environment Aspect	Resolve local and global social and environmental sustainability issues, fulfill social responsibilities, and make the world a better place.

1-3 Sustainable Development Core Goals and Strategies

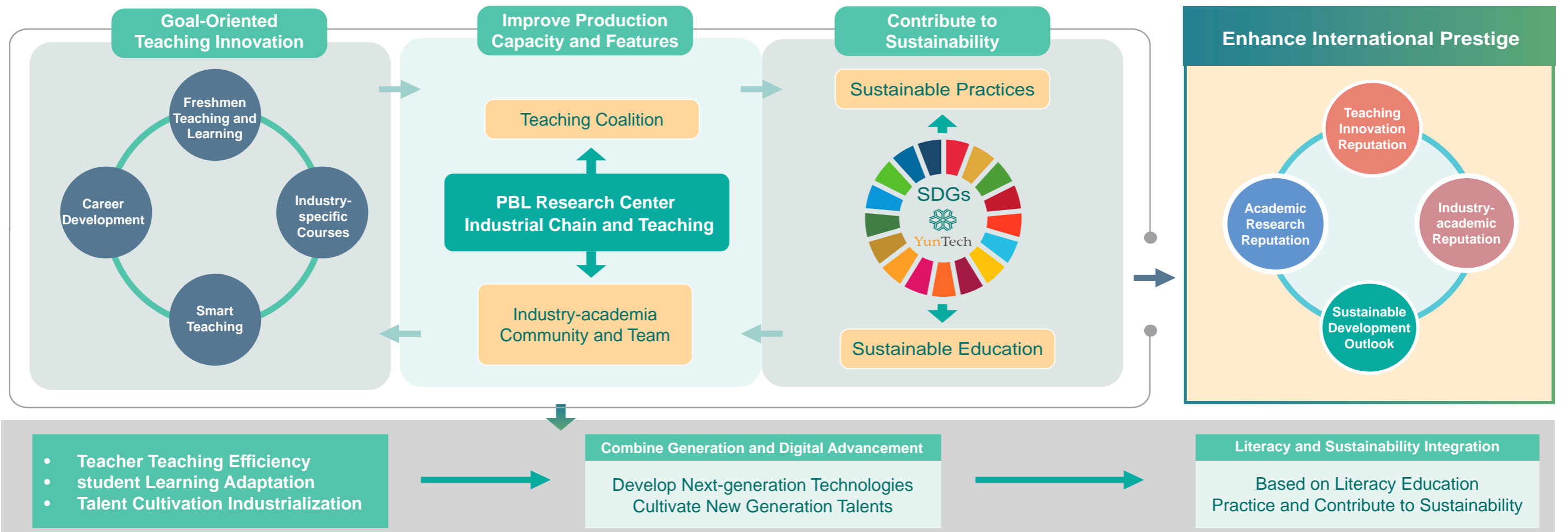
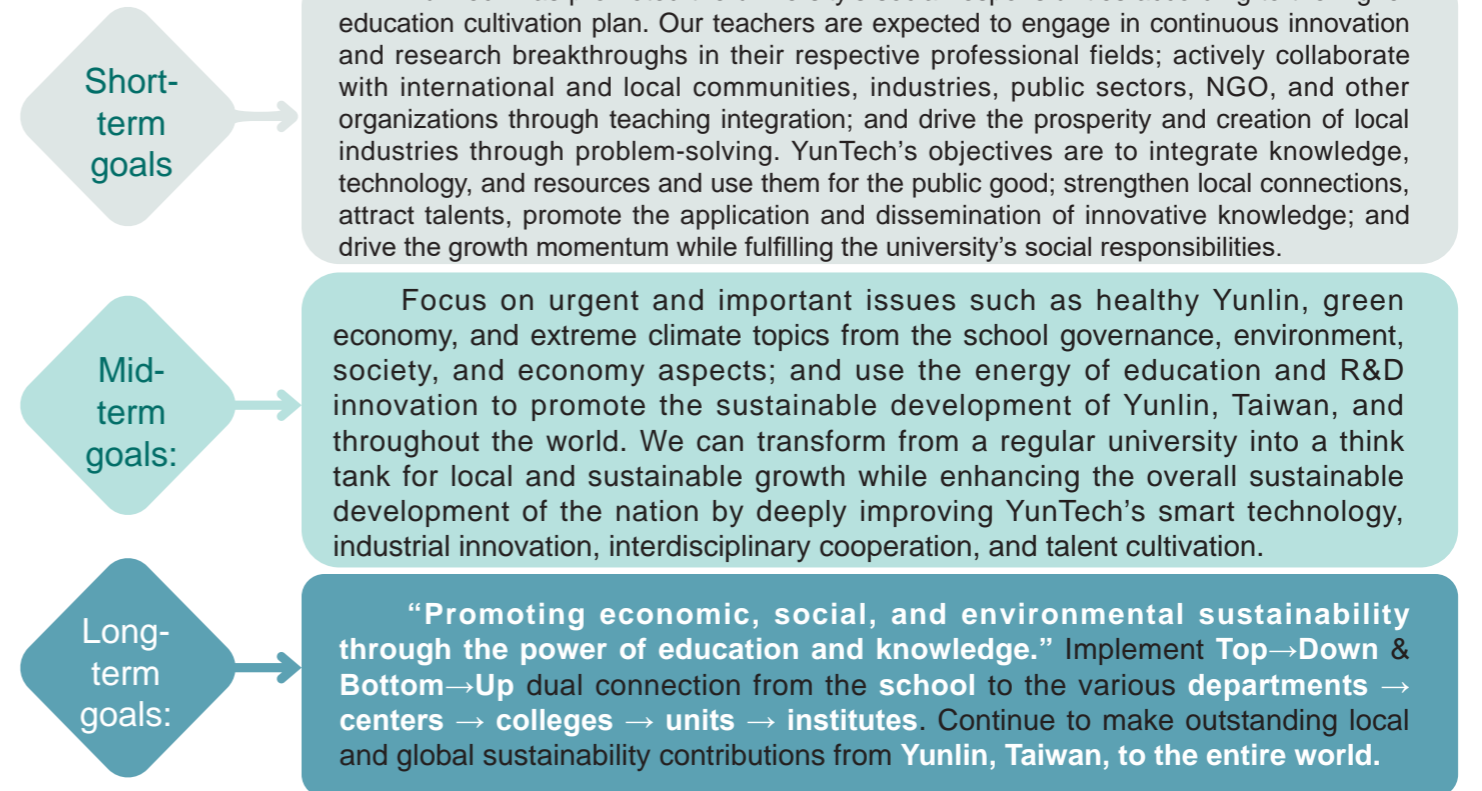
Core Values

Promoting economic, social, and environmental sustainability through the power of education and knowledge

YunTech's core sustainability principle is to "promote local and global economic, social, and environmental sustainability through the power of education and knowledge." Our strategy is to "Combine Generation and Digital Advancement, Literacy, and Sustainability" to develop a new science- and technology-integrated literacy education generation. We aim to use digital technology to advance local and global sustainable development, comply with the 17 SDGs, and cultivate talents with the necessary skills to promote local and global sustainable development.

YunTech has focused on real-world community problems to fulfill its core concepts. We have gathered the strength of teachers and students from multinational, interschool, and interdisciplinary teams as well as the school and social support systems to promote sustainability by helping to resolve the local and global environmental, economic, and social sustainability issues. We have accumulated knowledge through practical experience and passed it on to inspire teaching innovations and fulfill the core sustainability concepts by "promoting local and global economic, social, and environmental sustainability through the power of education and knowledge."

GRI correspondence: 2-9, 2-12, 2-14, 2-22
SDGs correspondence: 4.3, 4.5, 4.a, 11.3, 11.6, 11.7, 11.a, 17.6, 17.9, 17.16



► Sustainability Development and USR Pathway

YunTech's concerns extend beyond the immediate environmental changes caused by acute natural disasters. The university also addresses chronic changes such as aging populations, educational disparities, increasing crime and violence, and widening wealth gaps.

These chronic changes encompass environmental, social, and economic dimensions and fall within the scope of considerations for local resilience.

Therefore, YunTech has established a Sustainable Development Committee and, in 2022, formulated the YunTech Sustainable Development Goal Pathway. Deepening education is recognized as a key factor in achieving the Sustainable Development Goals (SDGs).

The pathway consists of three stages, including **the first stage of Higher Education Deepening Sustainability 1.0**, establishing intelligence and cooperation mechanisms, accumulating local energy, and promoting local sustainability.

The second stage involves Higher Education Deepening Sustainability 5.0, primarily aiming to stimulate distinctive energy and diffuse effective influence, enhancing cross-disciplinary cooperation in SDGs features.

The third stage aims to achieve the United Nations Sustainable Development Goals from 2028 to 2030.

YunTech is committed to addressing urgent and significant issues that link the local to the global, aiming to achieve social goals characterized by dignity, fairness, and inclusivity. The university seeks to contribute to the sustainable development of Taiwan and the world, fostering interdisciplinary collaboration and nurturing talents in the process.

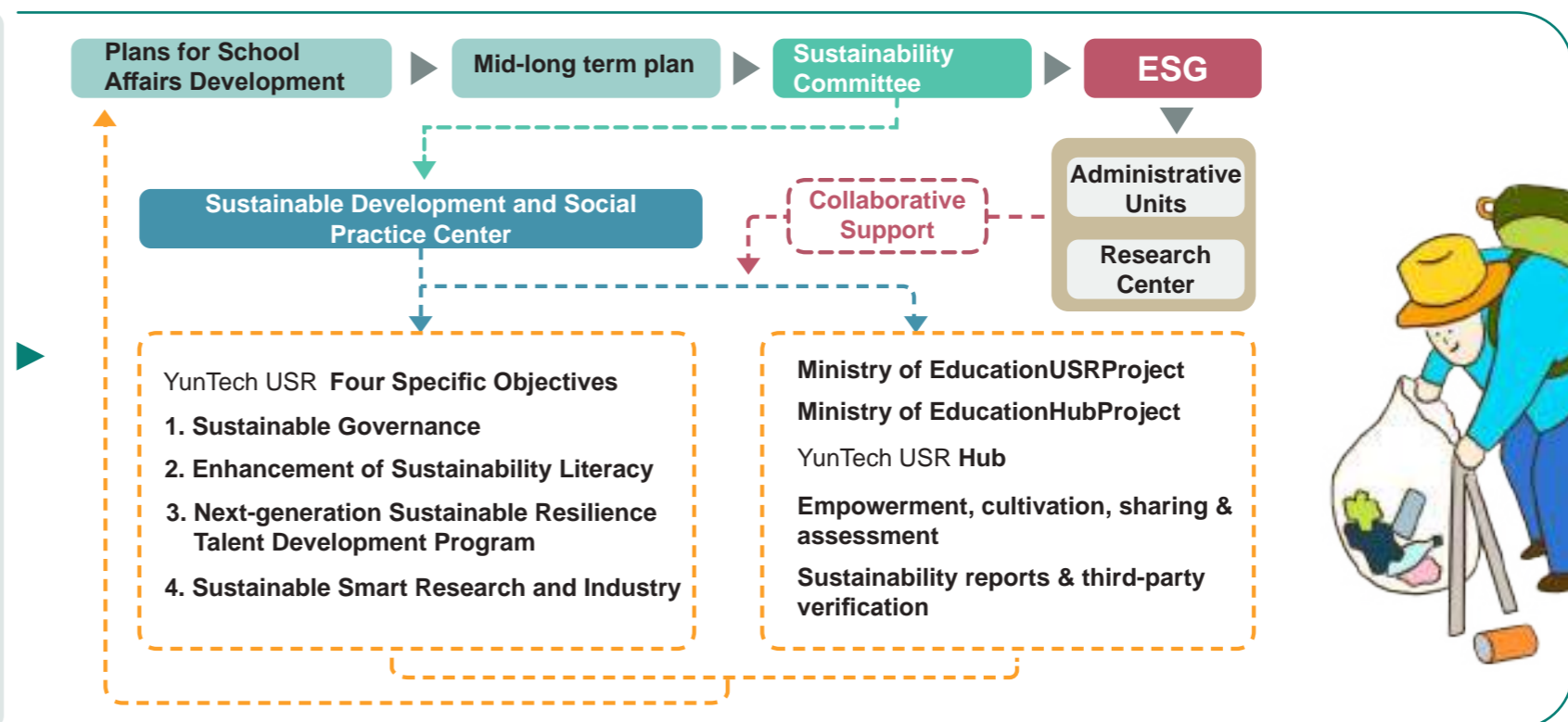


YunTech's Sustainable 5.0 Roadmap for 2018-2030

► Practice Sustainable Operation and Management Mechanisms

YunTech aims to integrate the spirit of **sustainability into teaching innovation, academic research, industry-academia R&D**, and contribute to local and global sustainability by adhering to the core principle of "promoting economic, social and environmental sustainability through the power of education and knowledge." The "Sustainability and Social Responsibility Committee" was established to provide sustainable planning and management to achieve this vision and goal. The "**Sustainable Development and Social Practice Research Center**" was established to integrate the resources of the entire school to promote the sustainability vision and goals planned by the "**Sustainability and Social Responsibility Committee.**"

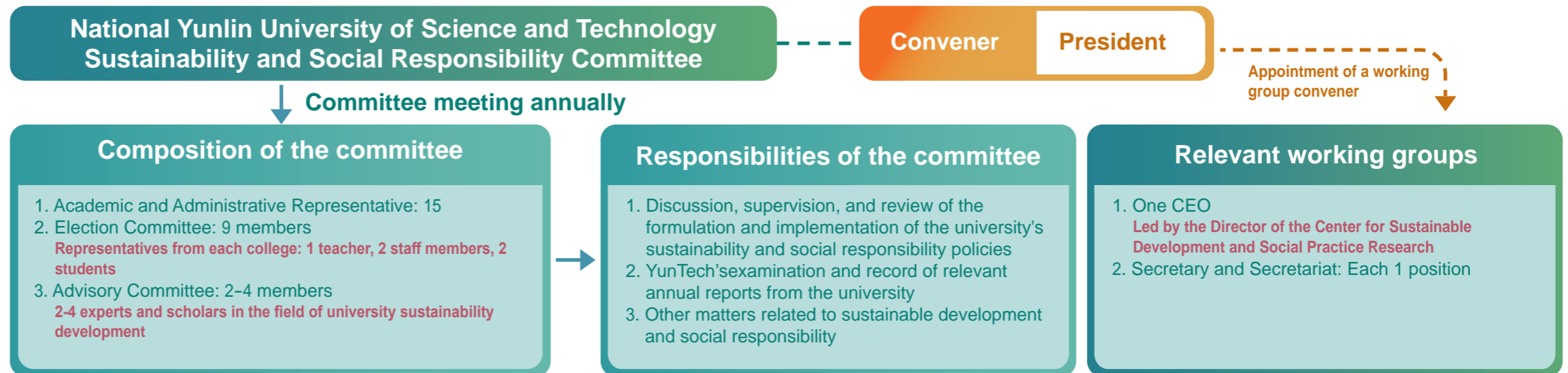
Relevance of overall planning for USR in academic affairs



Sustainability and Social Responsibility Committee

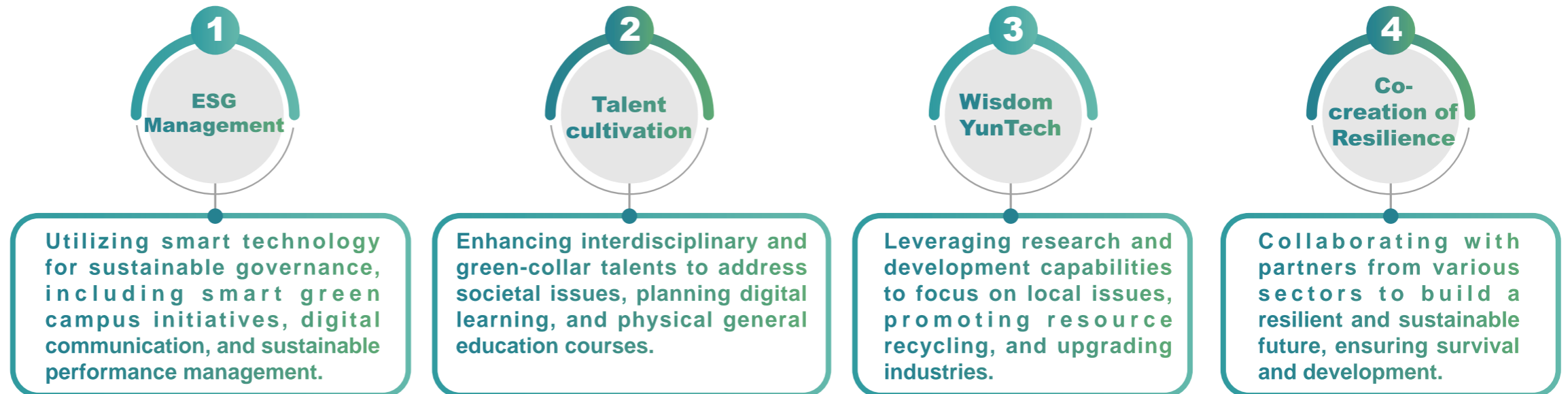


YunTech established the "Sustainability and Social Responsibility Committee" in 2019 as the highest decision-making body for sustainability governance. Its mission is to implement the planning and management of sustainability and social responsibility, create a culture of sustainability on campus, and integrate the United Nations' Sustainable Development Goals (SDGs) into education, research and development, operations, and community service. The committee members include representatives from academic and administrative executives as ex-officio members. Elected members and advisory committee members are nominated based on the list proposed by the school affairs council and then submitted to the president for selection. The advisory committee recommends 2-4 experts in the field of sustainable development to the president for selection. By involving committee members, we aim to provide a more comprehensive and macroscopic perspective, helping to implement key sustainability policies at the university. The committee convenes once a year, with the president serving as the convener. If necessary, ad-hoc meetings can be called at any time. The committee reports directly to the highest governance unit.



Strategic Direction

Using Education to Facilitate the Achievement of SDGs



Sustainable Development and Social Practice Research Center



YunTech established the Sustainable Development and Social Practice Research Center in September 2019. Its mission is to serve as a communication link between the school's teachers and students and the public, for-profit, and non-profit sectors. The center also transforms the United Nations Sustainable Development Goals (SDGs) into various action and practice services. We hope to become an important promoter of local and global sustainable development by putting the university's academic, faculty talent, and student resources into practice through "talent cultivation" and "local/global connections." The goal is to discover and resolve problems together and propose innovative solutions. We want our teachers and students to learn something useful, apply their knowledge in society, learn alongside society, communicate and collaborate, allow the university to have a positive impact, and work together to achieve a sustainable life. The center plays a crucial role as a pivotal hub connecting various initiatives across the university, including recruiting teacher teams for annual sustainability projects, planning general education courses, developing digital tools, board games, and card teaching aids, as well as operating the sustainability network for YunTech. These efforts comprehensively enhance the awareness of sustainability development among the university's faculty, staff, and students, serving as the focal point for sustainability initiatives.

1-4 Stakeholder Inclusion

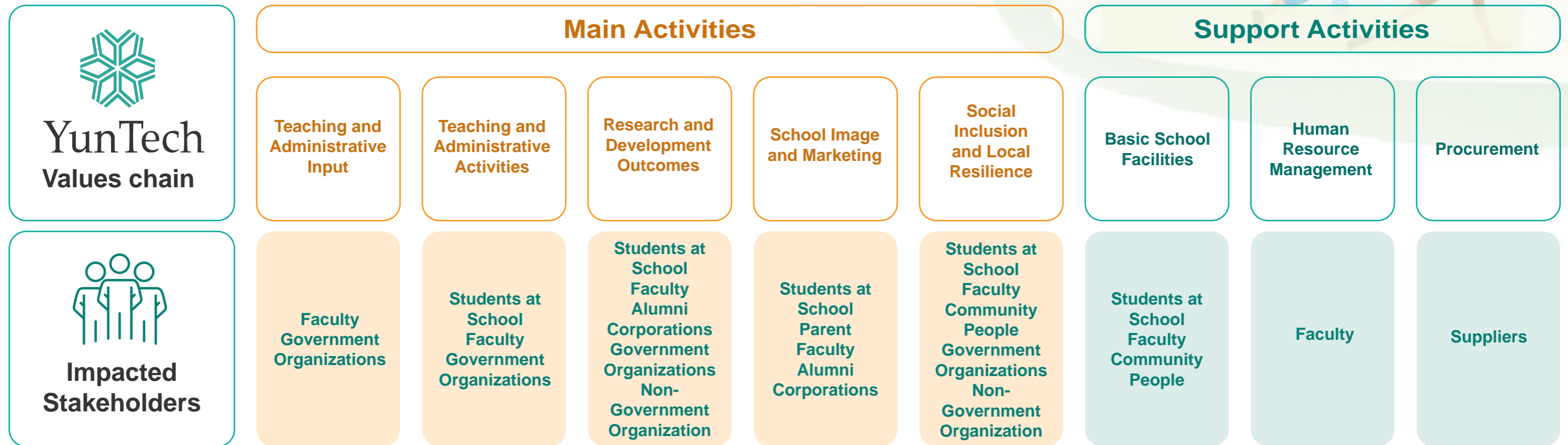
- 1 Sustainability Forecast
- 2 School Governance
- 3 Harmonious Campus
- 4 Academic Performance
- 5 Environment Performance
- 6 Social Inclusion

GRI correspondence: 2-26, 2-29
SDGs correspondence: 12.6



Stakeholder Identification

The university identifies key stakeholders as individuals or organizations that are directly or indirectly affected by the university or have an impact on the university. This is determined through meetings and resolutions of the Sustainability and Social Responsibility Committee.

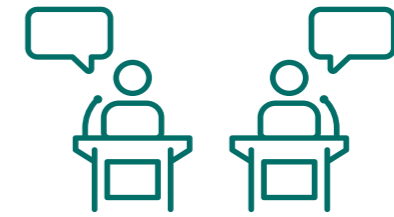


YunTech 9 Major Stakeholders









Stakeholder Communication

The school attaches great importance to communication with stakeholders and uses a variety of communication channels. The Sustainable Development and Social Practice Research Center also publishes a sustainability report every August and runs the relevant activities, meetings, and surveys. The School Affairs Development Center publishes an accountability report on the current state of school affairs in December every year and works on the maintenance of YunTech Sustainability. The center established various communication channels to benefit stakeholders' opinions and feedback, such as regular information disclosure via YunTech's sustainable network.



Identity	Meaning to YunTech	Focused topics	Communication channels	Communication frequency
<p>Students at School</p>	<p>Our current students are the core community of our school, and we are dedicated to providing a high-quality education and academic environment. This commitment ensures that students have access to excellent academic knowledge and practical skills.</p>	<p>Waste Management Internships and Employment Campus Safety and Health Information Security Teaching Quality and Effectiveness</p>	School Affairs Advice System	Any Time
			Student Grievance	Any Time
			E-mail boxes of each unit	Any Time
			Tutor Time	Unscheduled
			School Meetings	Once Per Semester
			Service Satisfaction Survey	Once Per Semester
			Teaching Assessment	Once Per Semester
			Mentor System Implementation Satisfaction Survey	Once Per Semester
			Current State Accountability Report	Once Per Year
			Appointment with School President	Once Per Year
<p>Parent</p>	<p>Parents are concerned about their child's education and development. We establish communication and cooperation mechanisms with parents to ensure they understand the school's educational philosophy, curriculum, and student progress.</p>	<p>Academic and Integrity Ethics Internships and Employment Teaching Quality and Effectiveness Teaching Environment</p>	School Webpage	Any Time
			E-mail boxes of each unit	Any Time
			New Student Parent Symposium	Once Per Semester
			Current State Accountability Report	Once Per Year
<p>Faculty</p>	<p>The faculty is responsible for teaching, research, and administrative work, exerting significant influence on the school. We establish a two-way cooperative relationship with the faculty to ensure a positive working environment and mutual support.</p>	<p>Talent Attraction and Retention Academic and Integrity Ethics Waste Management Care for the Underprivileged Teaching Quality and Effectiveness</p>	School Affairs Advice System	Any Time
			E-mail boxes of each unit	Any Time
			Faculty Grievance	Any Time
			All-Teacher Teaching Meeting	Once Per Semester
			All-Teacher Meeting	Once Per Semester
			School Meetings	Once Per Semester
			Current State Accountability Report	Once Per Year
			Consensus Camp	Once Per Year

Identity	Meaning to YunTech	Focused topics	Communication channels	Communication frequency
 Community People	The campus is located in an area with the surrounding community residents. YunTech is committed to establishing positive relationships with the local community, such as collaborating on events, providing community services, and ensuring that the campus environment and safety do not have negative impacts on the community residents.	Internships and Employment School Governance International Links	Secretary Office	Any Time
			School Webpage	Any Time
			Current State Accountability Report	Once Per Year
 Alumni	Alumni are concerned about the development and reputation of YunTech. YunTech has established channels of contact and communication with alumni to maintain a good alumni relationship.	Internships and Employment Teaching Quality and Effectiveness Academic and Integrity Ethics Talent Attraction and Retention International Links	School Affairs Advice System	Any Time
			School Webpage	Any Time
			Alumni Services Platform	Any Time
			E-mail boxes of each unit	Any Time
			Current State Accountability Report	Once Per Year
			Graduate Students Flow Survey	1, 3, & 5 Years After Graduation
 Corporations	We have established close partnerships with businesses for industry-academia collaboration, internship opportunities, and research cooperation.	Academic and Integrity Ethics School Reputation Internships and Employment Waste Management	Office of Research and Division	Any Time
			School Webpage	Any Time
			Current State Accountability Report	Once Per Year
			Employer Satisfaction Survey	Once Per Year
 Government Organizations	We frequently collaborate with government organizations to jointly promote local economic development, social progress, and technological innovation. Government may provide financial resources to support the school's development.	Sustainable Natural Ecological Resources cultivation. Climate Change Adaptation Low-Carbon Environment Care for the Underprivileged	Secretary Office	Any Time
			School Webpage	Any Time
			Teaching Evaluation	Unscheduled
			Accreditation of Various Professional Institutions	Unscheduled
			Current State Accountability Report	Once Per Year
 Non-Government Organizations	NGOs often aim to promote social welfare and address specific issues. Through collaboration with NGOs, we can better respond to the needs of society.	University's Social Responsibility Practices Teaching Quality and Effectiveness Waste Management Human Rights Protection Care for the Underprivileged	Secretary Office	Any Time
			School Webpage	Any Time
			Current State Accountability Report	Once Per Year
 Suppliers	The collaboration between the school and suppliers helps ensure the smooth operation of the school and the efficient utilization of resources.	Internships and Employment Energy Management and Conservation Measures Human Rights Protection Talent Attraction and Retention	General Service Division	Any Time
			School Webpage	Any Time

1-5 Identifying Material Topics

GRI correspondence: 2-12, 2-13, 2-14, 3-1, 3-2, 3-3

The identification of significant themes is of great significance for the organization's risks and opportunities, becoming a key factor in the school's strategy and decision-making. Following the latest publication of the GRI Standards (2021) and the four steps in determining significant topics, YunTech has redefined the method of identifying significant topics that align with the school's operations. This involves utilizing questionnaires and various methods to engage with stakeholders, followed by assessments by senior executives and CSR professionals to identify 15 significant themes that are perceived as moderately to highly important by both stakeholders and the organization itself. This identification method is expected to be conducted annually, serving as a review and optimization process for the sustainability operation of our university.





Table of Material Topics

- 1 Sustainability Forecast
- 2 School Governance
- 3 Harmonious Campus
- 4 Academic Performance
- 5 Environment Performance
- 6 Social Inclusion

Based on current domestic and international sustainability trends, surveys, and recommendations from internal experts, a comprehensive collection of 25 sustainability issues related to the university's operations has been compiled.



Governance

- 01 Teaching Quality and Effectiveness
- 02. Teaching Environment
- 03. Academic and Integrity Ethics
- 04. School Reputation
- 05. Stakeholder Communication
- 06. Internships and Employment
- 07. Financial Governance
- 08. School Governance



Environment

- 09. Environment Education
- 10. Sustainable Natural Ecological Resources
- 11. Climate Change Adaptation
- 12. Low-Carbon Environment
- 13. Waste Management
- 14. Water Resources Management
- 15. Energy Management and Conservation Measures












Society

- 16. Human Rights Protection
- 17. Care for the Underprivileged
- 18. Employee Career Development and Training
- 19. Talent Attraction and Retention
- 20. Workplace and Gender Equality
- 21. Employment
- 22. Information Security
- 23. Campus Safety and Health
- 24. University's Social Responsibility Practices
- 25. International Links



Sorting stakeholders by their level of importance

(1) Survey Analysis: A total of 190 valid responses were obtained from the survey, assessing the stakeholders' level of concern regarding sustainability issues. Scores for each issue were calculated based on the survey results. Additionally, adjustments were made to the weights according to the proportion of responses from different stakeholder groups, aiming to align with the authenticity of the sample. The analysis also considered understanding the specific issues of concern within each demographic group.

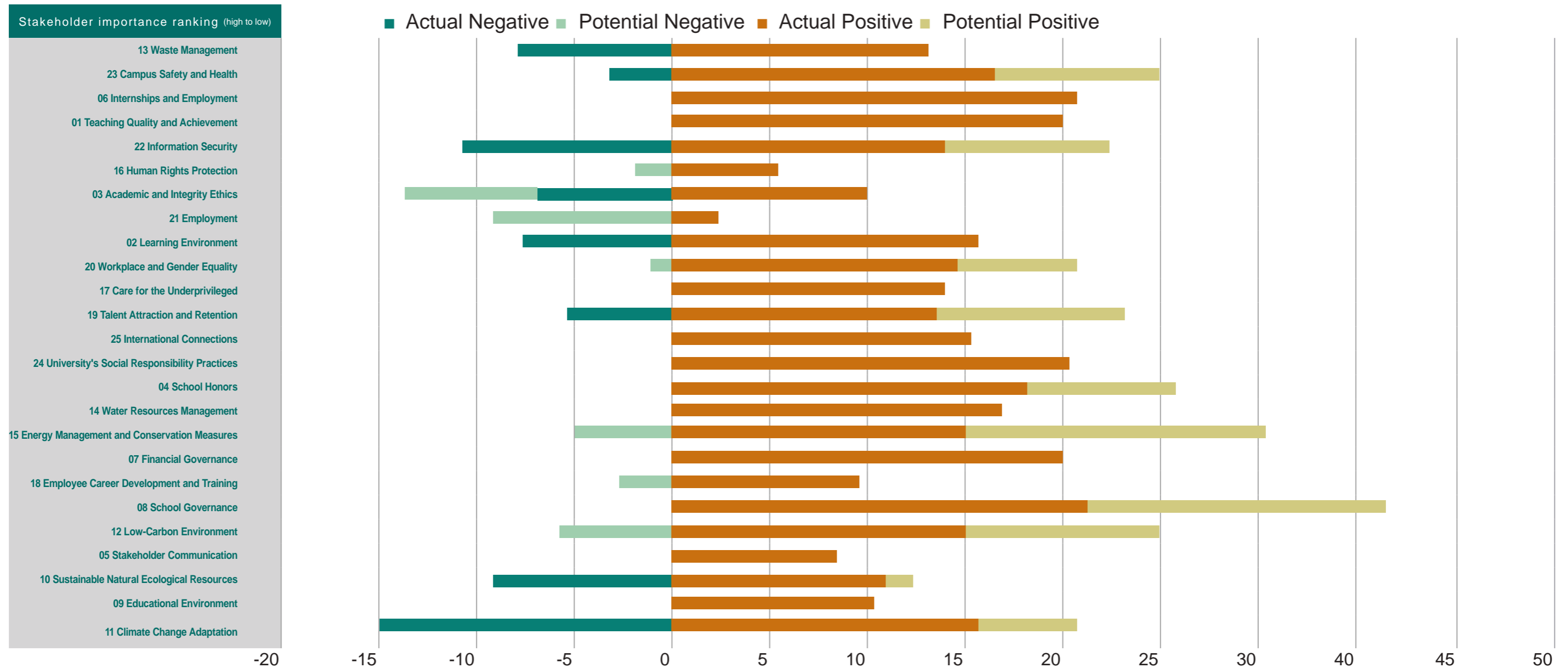
Stakeholders	Percentage of responses	Prioritizing issues from high to low importance	Stakeholders	Percentage of responses	Prioritizing issues from high to low importance	Stakeholders	Percentage of responses	Prioritizing issues from high to low importance
 Students at School	48.5%	Waste Management Internships and Employment Campus Safety and Health Information Security Teaching Quality and Effectiveness	 Non-Government Organizations (NGO)	3.3%	University's Social Responsibility Practices Teaching Quality and Effectiveness Waste Management Human Rights Protection Care for the Underprivileged	 Community People	2.7%	Internships and Employment School Governance International Links
 Faculty	26.4%	Talent Attraction and Retention Academic and Integrity Ethics Waste Management Care for the Underprivileged Teaching Quality and Effectiveness	 Corporations	4.7%	Academic and Integrity Ethics School Reputation Internships and Employment Waste Management	 Parent	2.2%	Academic and Integrity Ethics Internships and Employment Teaching Quality and Effectiveness Teaching Environment
 Alumni	6.3%	Internships and Employment Teaching Quality and Effectiveness Academic and Integrity Ethics Talent Attraction and Retention International Links	 Government Organizations	3.7%	Sustainable Natural Ecological Resources cultivation. Climate Change Adaptation Low-Carbon Environment Care for the Underprivileged	 Suppliers	2.2%	Internships and Employment Energy Management and Conservation Measures Human Rights Protection Talent Attraction and Retention Workplace and Gender Equality

Assessment and ranking of impact significance

(1) Quantifying Impact: Internal executives and experts were invited to review the prioritization of sustainability issues by stakeholders in the previous stage, qualitative feedback, and considering the comprehensive aspects of campus operations. Significant issues were then assessed in terms of actual and potential positive and negative impacts, assigning scores for impact severity and likelihood on a scale of 1 to 5. The Sustainability Development Committee's working group consolidated the assessments. An example is provided below:

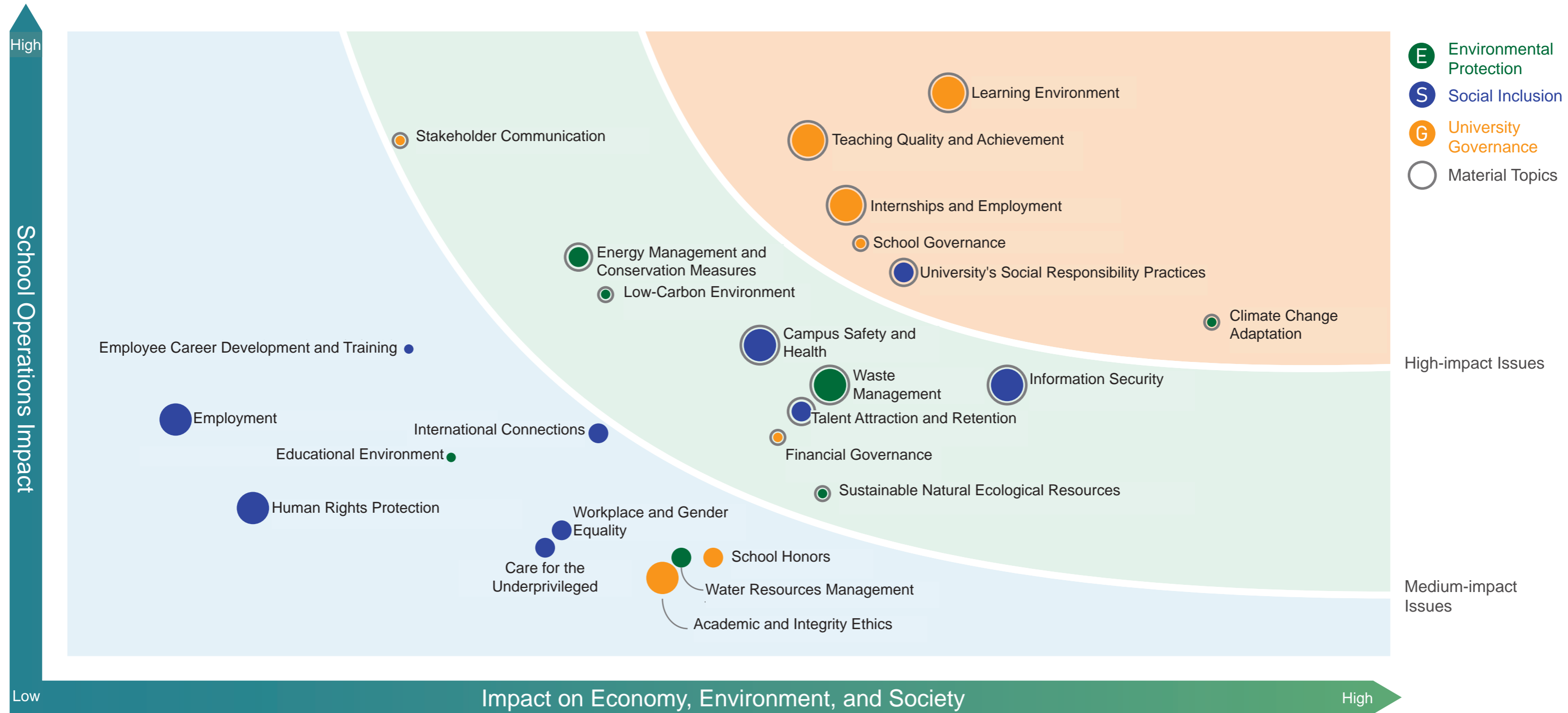
Material Topics	Potential Negative Impact			Actual Negative Impact			Potential Positive Impact			Actual Positive Impact		
	Severity	Likelihood	Significance	Severity	Occurrence Frequency	Significance	Impact Magnitude	Likelihood	Significance	Impact Magnitude	Occurrence Frequency	Significance
Campus Safety and Health	-	-	-	2.00	1.50	3.00	3.00	3.00	9.00	4.00	4.00	16.00
Information Security	-	-	-	4.00	3.00	12.00	3.00	3.00	9.00	5.00	2.70	13.50
Academic and Integrity Ethics	3.70	1.70	6.29	3.50	2.00	7.00	-	-	-	4.00	2.50	10.00
Teaching Environment	1.00	4.00	4.00	4.00	2.00	8.00	-	-	-	4.20	3.80	15.96
Talent Attraction and Retention	-	-	-	3.00	2.00	6.00	3.00	3.00	9.00	4.00	3.50	14.00

Preliminary Quantitative Results of Sustainability Issue Impacts



(2) Impact Ranking:

Calculating impact and ranking based on actual positive and negative impacts, taking into account operational considerations, the matrix of significant issues is arranged using a dual-significance principle. After deliberation by the Sustainability and Social Responsibility Committee, 15 highly significant major themes were identified, aligned with GRI thematic guidelines, revealing the management and performance of these major themes.



(3) Explanation for changes in major topics:

Compared to the 2021 Sustainability Report, the major themes and theme boundaries in this report have been adjusted in response to the reevaluation of significant themes in the new version of GRI. New themes include Student Internships and Employment, Institutional Governance, Teaching Environment, Talent Attraction and Retention, Financial Governance, and Sustainable Management of Natural Ecosystem Resources, totaling six significant themes. Four themes have been removed: Employee Job Environment and Opportunities, COVID-19 Outbreak and Response, Research and Industry-Academia Cooperation Performance, and International Linkages. Additionally, there were adjustments in reporting boundaries and names for three major themes: Low-Carbon Environment (formerly Net Zero Carbon), University Social Responsibility Practices (formerly Social Prosperity and Local Revitalization), and Waste Management (formerly Waste and Wastewater Management).



Major Themes in Management List

1 Sustainability Forecast




2 School Governance

3 Harmonious Campus

4 Academic Performance

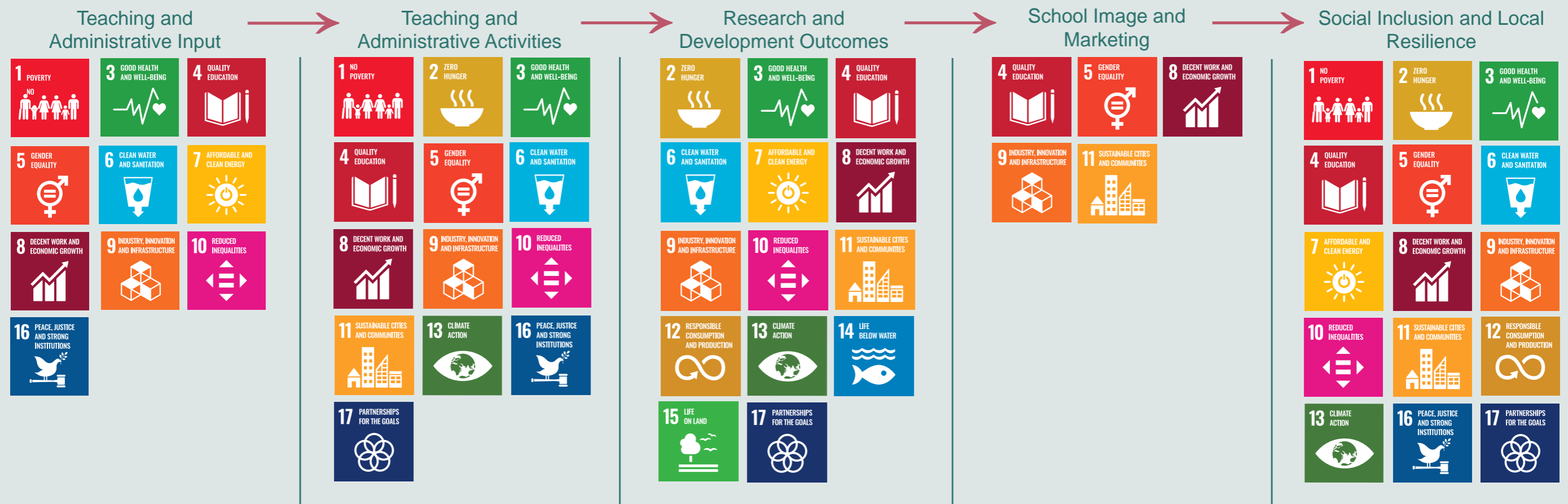
5 Environment Performance

6 Social Inclusion

	2022 Material Topics	GRI Guidelines	Disclosure Sections and Management	Impact Hotspots and Explanations in the School's Value Chain					Description
				Investment in Teaching Administration Resources	Operation of Teaching Administration Activities	Research and Development Output	School Image Marketing and Promotion	Broadening Social Influence	
				● Direct Impact ○ Indirect Impact					
 Governance	Teaching Quality and Effectiveness Workplace and Gender Equality	Custom Issues	Chapter 4 Chapter 4-1	●	●	●	●	●	Teaching is the foundation of university operations, and at YunTech, existing teaching resources are effectively utilized. Through continuous efforts in teaching innovation and the integration of digital technologies, the university aims to enhance both the effectiveness of teaching by faculty and the learning outcomes of students.
	Teaching Environment Human Rights Protection	Custom Issues	Chapter 4 Chapter 4-1	●	●	●	●		YunTech focuses on the teaching environment and facilities on campus. The university engages in intelligent transformations to enhance learning spaces for both faculty and students. Each college works on creating specialized and distinctive classrooms. In recent years, in response to the challenges posed by the pandemic, YunTech has actively promoted remote learning and hybrid teaching approaches.
	Stakeholder Communication Care for the Underprivileged	GRI 2-29 Stakeholder Consensus Policy	Chapter 1-4		●		●	●	The university maintains close communication with individuals or organizations directly or indirectly affected by school activities. It provides channels to collect feedback and suggestions from faculty and staff through which the university actively responds.
	Internships and Employment Employment	Custom Issues	Chapter 4 Chapter 4-2		●	●		●	Vocational education emphasizes industry alignment and reducing the gap between learning and employment. To enhance students' workplace adaptability and competitiveness, YunTech has introduced an industry internship mechanism during the academic period. Additionally, the university organizes job fairs to facilitate connections between businesses in the central and southern regions and outstanding talents from the university.
	Financial Governance School Reputation	GRI 201 Economic performance	Chapter 2-3	●		○			The university strives for comprehensive financial planning and allocation to ensure stable operations, safeguard the rights and interests of faculty and students, and maintain transparency in financial information, available for scrutiny and review.
	School Governance International Links	Custom Issues	Chapter 1-2 Chapter 2-1	●			●		The university formulates short and medium-term development strategies based on its institutional goals and changes in the external environment. It aims to stay current and construct a future blueprint.
 Environment	Sustainable Natural Ecological Resources	Custom Issues	Chapter 5 Chapter 5-3		○	○		●	Programs for the development of teaching, administration, industry-academia collaboration, and resources that are environmentally beneficial.
	Climate Change Adaptation Water resources management	GRI 302 Energy	Chapter 5 Chapter 5-1		●	●	○	●	Evaluate climate change risks and opportunities to enhance the school's disaster prevention and adaptation capabilities.
	Low-Carbon Environment Campus Safety and Health	GRI 305 Emissions	Chapter 5 Chapter 5-2		●	●	○	●	Supporting the transition of the economy towards low-carbon, high-efficiency technological improvements and innovations, and implementing a green campus.
	Waste Management cultivation.	GRI 306 Waste	Chapter 5 Chapter 5-2		○		○		Proper disposal of campus waste to avoid environmental pollution or potential hazards to faculty and students.
	Energy Management and Conservation Measures	GRI 302 Energy	Chapter 5 Chapter 5-2	●	●		○		Creating a smart campus to enhance the safety of on-campus activities and efficiently manage resources for conservation and control.
 Society	Talent Attraction and Retention Employee Career Development and Training	GRI 202 Market presence GRI 401 Employment GRI 405 Diversity and equal opportunity GRI 406 Non-discrimination	Chapter 3 Chapter 3-1	●	●	●	●	●	Establishing a high-quality workplace environment involves providing competitive compensation and benefits, enhancing employee morale, and ensuring operational stability.
	Information Security	GRI 418 Customer privacy	Chapter 2-6	●	●				Establishing a secure and trustworthy information environment to protect personal data and safeguard the security of school assets.
	Campus Safety and Health	Custom Issues	Chapter 3 Chapter 3-2		●				Enhancing safety and health awareness among the faculty, staff, and students on campus to promote overall well-being.
	University's Social Responsibility Practices Academic and Integrity Ethics	GRI 203 Indirect economic impact	Chapter 6 Chapter 6-1	●	●	●	●	●	Promoting on-campus social practices to enhance social engagement and cultivate talent.

Comparison between the School's Operational Value Chain and the Content of SDGs Projects

Main Activities: Activities related to the overall operation of the school's teaching and academic services.

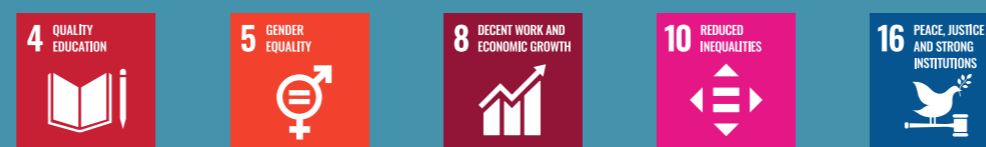


Supporting Activities: Providing comprehensive functional support to the main activities.

Basic School Facilities



Human Resource Management



Procurement



This report contrasts its chapters with the content of SDGs projects.

YunTech aims to promote economic, social, and environmental sustainability through the power of education and knowledge, and to integrate the spirit of sustainability into the school's vision, goals, and strategies. **Our mission is to focus on education (SDG4) supplemented by diverse partnerships (SDG17) and practice the 17 sustainable development goals.** Among them, **SDG3, SDG8, SDG9, SDG11, SDG12, and SDG16 have excellent degrees of contribution.** We will continue to maintain their contribution in the future and actively expand other sustainable projects.

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
01 YunTech Sustainable Outlook				4.3 4.5 4.7 4.a				8.2 8.3	9.4		11.3 11.6 11.7 11.a						17.6 17.9 17.16
02 School Organization Governance				4.3 4.5 4.4	5.1 5.5 5.b 5.c			8.5 8.6 8.8				12.6				16.5 16.6 16.7 16.10 16.b	17.6 17.9 17.16
03 Creating a Harmonious Campus	1.3		3.4 3.d	4.3 4.5 4.a			8.2 8.6				11.7 11.a						
04 Dedicated to Academic Performance		2.1 2.3 2.4	3.3 3.4 3.5 3.d	4.3 4.5 4.7 4.a		6.3 6.b		8.2 8.3 8.5 8.6	9.4	10.2 10.3	11.2 11.3 11.6 11.7	12.2 12.5	13.3	14.2	15.4		17.6 17.16
05 Environment Sustainability Performance			3.3	4.a		6.3 6.a 6.b	7.3 7.a	8.4 8.8	9.4		11.2 11.3 11.6 11.7	12.4 12.5 12.7	13.1 13.2 13.3				
05 Social Inclusion Sustainability	1.2		3.4 3.d	4.a 4.1 4.4 4.5 4.7				8.2 8.3 8.9	9.3 9.4 9.C	10.2	11.4 11.7 11.a		13.3			16.10	17.6 17.14 17.17
06 Number of SDGs Detailed Item Targets (Items)	2	3	9	20	4	5	2	16	6	3	17	6	5	1	1	6	11

2

School Governance

Major Topics of this Chapter/

School Governance
Financial Governance
Information Security

2-1 Governance Procedures	27
2-2 Risk Analysis and Internal Control System	29
2-3 Financial Plan and Operating Performance	31
2-4 Supply Chain Management	36
2-5 Academic and Integrity Ethics	37
2-6 Information Security	38



2-1 Governance Procedures

Top Management Unit

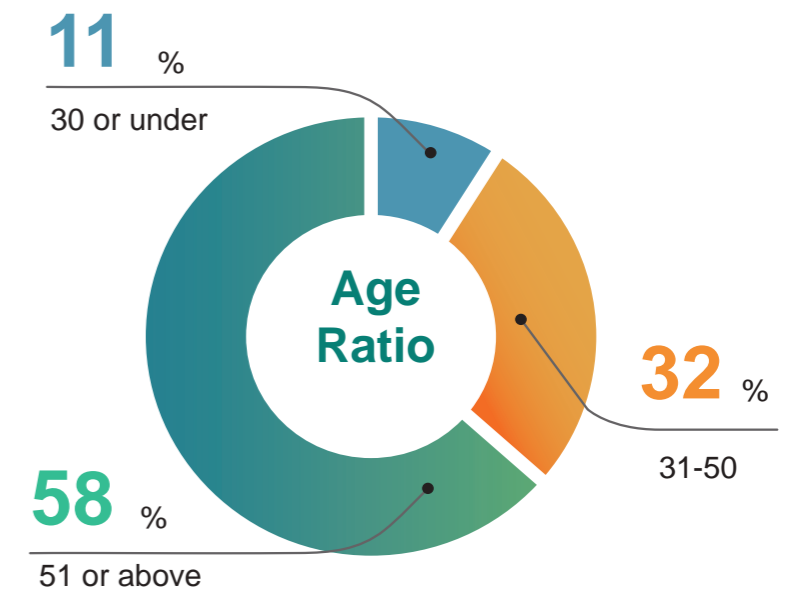
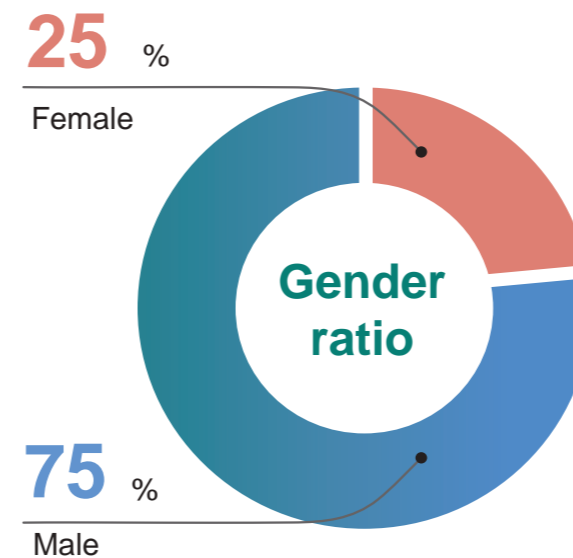
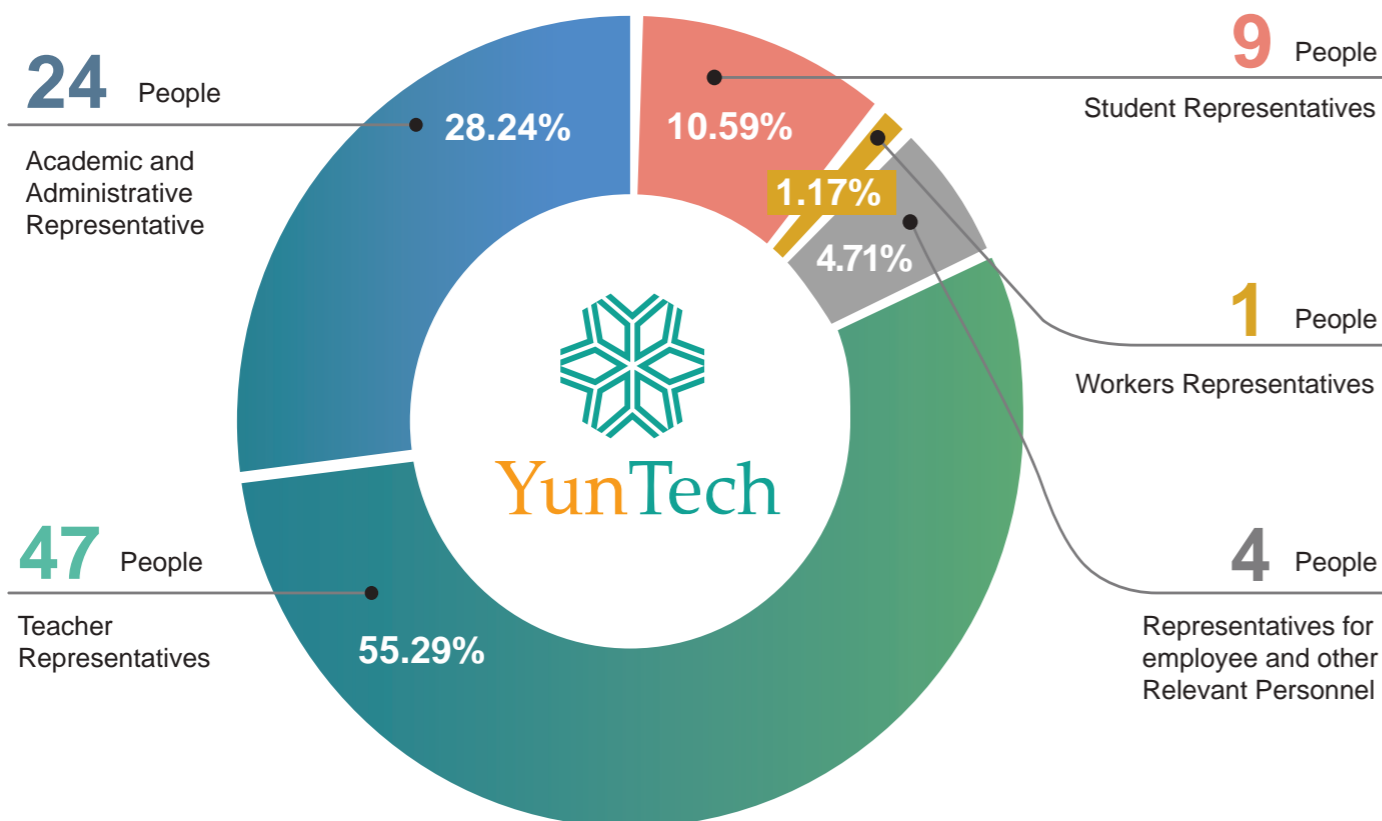
GRI correspondence: 2-9, 2-10, 2-11, 2-16, 2-17, 2-18, 2-28
 SDGs correspondence: 4.3, 4.5, 5.5, 16.6, 16.7, 17.6, 17.9, 17.16

School Meetings

The school is a national technical college without a board of directors. So the school council is its highest authority. According to the school's organization rules, the school council is the highest decision-making organization in determining important school affairs. The chairman of the council is the school president, and the council members include the representatives of academic and administrative directors, teachers, researchers, employee, and other related personnel, workers, or students. The council is responsible for reviewing school development plans and budgets, organizational regulations, and various important regulations, the establishment, change, and suspension of educational affairs for departments, institutes, departments, and affiliated institutions; as well as student affairs, general affairs, research, and other important matters on campus. The council also discusses teaching evaluation methods, committee or task force resolutions established by the school council, meeting proposals, or issues proposed by the president.

The term of office for the school council representatives is one academic year except for the academic and administrative supervisor representatives, whose term of office is based on their positions. In the academic year 2021, there were 18 items reviewed by the School Meetings, all of which involved ESG issues related to the environment, social responsibility, and corporate governance. However, there was no performance evaluation for the execution of performance items by the members of the School Meetings. Nevertheless, there was tracking and consideration of the resolutions and implementation results of the meetings.

2021 Academic Year School Affairs Meeting Composition



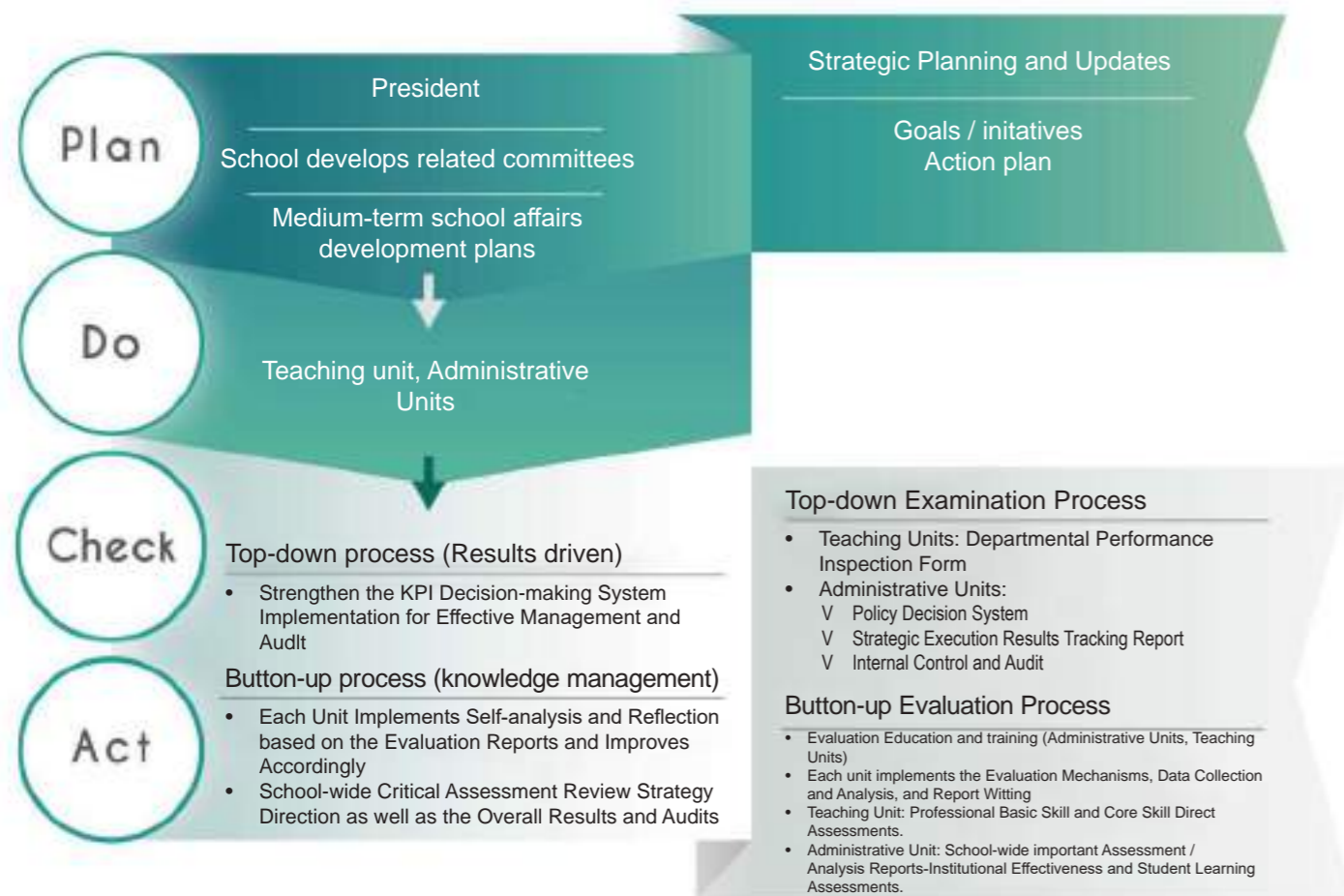
To implement its mid-range development plan and execute the Plan-Do-Check-Act (PDCA) gradual improvement mechanism, YunTech's school affairs development is extended into five parts according to the school governance principle. They include academic administration; education administration; administrative support, energy conservation, and carbon reduction; industry-academia cooperation; and international cooperation and exchange. Under the Top-down procedure, the six leading units and their related divisions collaborate to develop management and examination index values, target values, and short- and medium-term development plans. The Bottom-up evaluation procedure executes regular examinations to achieve benefits. It is ultimately supplemented by audit and internal control to achieve the school governance visions and goals.

In the 2022 academic year, the consensus camp activity theme for administrators is based on "Yunlin University of Science and Technology's Institutional Development Implementation Plan - Vision, Goals, Strategies, Action Plans, and Budget Allocation." Each of the six divisions and five colleges should propose a five-year/annual development vision, goals, strategies, and execution plans in accordance with the university's institutional development plan. Key directions include: **(1) Goal-oriented teaching innovation, (2) Enhancing industry-academia capacity and characteristics, (3) Promoting sustainable development, (4) Enhancing international reputation, (5) Administrative management innovation, digital transformation, and precision education, and (6) Improving enrollment effectiveness.**

Participating in the consensus camp, supervisors strengthen their capabilities through learning and sharing. The main focus includes the basic operation of the school affairs, incorporating sustainable development issues that have garnered social attention in recent years. The opening presentation invited Director Zhou, Wen-Hui from the Center for Sustainable Development and Social Practice Research to share insights on "University Social Practice and Sustainable Development," illustrating the major sustainability issues at our university and globally. This encourages all faculty members to engage in sustainability efforts. In the afternoon discussion session, unit leaders explored and explained the importance of sustainability in academic and administrative development. The goal of the activity is to facilitate consensus-building among leaders regarding the university's future vision and goals. This, in turn, enhances the efficiency of teaching and administrative services under the leadership of supervisors, familiarizes them with sustainable development knowledge, and fosters mutual understanding among the leaders to strengthen cohesion.



Consensus Camp Activity Theme for 2022



In addition to continuing to strengthen the school's basic operational efficiency and effectiveness, YunTech will also focus on the deep cultivation plan for higher education in the short term and respond to national development policies, industrial technology needs, globalization trends, and the needs of school affairs development in the medium term. The goal is to timely adjust the program content to achieve school-wide consensus and develop a policy to pool the collective resources. We also aim to enhance YunTech's competitiveness and set the school into a model of a pragmatic and practical university of science and technology that focuses on the "students' adaptive development, teachers' interdisciplinary cooperation, application-oriented R&D, as well as international influence in technical and vocational education, practical problem solving, and basic research."

► Participation in Association Organizations

YunTech has actively participated in interschool, intraschool, and public associations in response to the rapid changes in the higher education environment. They include the Green University Union of Taiwan, Yunlin County Government-Academia Cooperation Contact Platform, Ministry of Education's Regional Industry-Academia Cooperation Center and Industry-Academia Connection Executive Office, Academia-Industry Consortium for Science Parks in Central Taiwan, Institute of Engineering Education Taiwan (IEET), Association of National Universities of Science and Technology of Taiwan, RICELOHAS, Central District Technical College Intercollegiate Alliance, Taiwan Higher Education Society, Association of National Universities of Taiwan, Taiwan Academia Industry Consortium, Academia-Industry Consortium of Taichung Software Park in Taiwan, Yunlin National University System, 10th UN Convention on Biological Diversity (COP 10), and the International Partnership for the Satoyama Initiative proposed by the Japanese government and UNU-IAS. The strategic alliances between these organizations can help to integrate resources, exert complementarity, share resources to achieve mutual benefits, and establish interschool-friendly alliances to improve YunTech's educational quality and academic standards.

Organization	Qualification
Green University Union of Taiwan	Chairman
Academia-Industry Consortium for Science Parks in Central Taiwan	Council Member
Institute of Engineering Education Taiwan (IEET)	Council Member
Association of National Universities of Science and Technology of Taiwan	Chairman, Supervisor
Taiwan Higher Education Society	Council Member
Association of National Universities of Taiwan	Council Member
Academia-Industry Consortium of Taichung Software Park in Taiwan	Union School
Yunlin National University System	Union School
Yunlin County Government-Academia Cooperation Contact Platform	Union School
Ministry of Education's Regional Industry-Academia Cooperation Center and Industry-Academia Connection Executive Office	Regional Industry-Academia Cooperation Center Established by the Ministry of Education
Central District Technical College Intercollegiate Alliance	Cooperation Pavilions

2-2 Risk Analysis and Internal Control System

GRI correspondence: 2-14, 2-24
SDGs correspondence: 4.3, 16.5, 16.6, 16.7

► Our country's higher education development is facing three major external variable challenges in the overall educational environment (From the university's medium to long-term plan)

Variable 1	Demographic Decline Impact	The lack of enrollment and the decline in the quality of students have become increasingly severe in schools.
Variable 2	Impact of Technological Change and Generational Differences	The changing social structure and the impact of new technological developments have led the new generation of students to adopt learning methods and attitudes that differ from the past. When entering the workforce, they face challenges distinct from those encountered by previous generations.
Variable 3	Impact of Global Sustainability Issues	The ongoing intensification of global social, economic, and environmental sustainability issues is impacting the functioning of society, industries, and talent demand. Universities must respond to these issues.

► Response Actions

In light of the 3 major factors mentioned above, YunTech has been devoted to sustainable education as well as academic and industrial development in the past few years under teaching excellence, exemplary HKUST projects, and the latest deep higher education cultivation trend. In light of the six external factors mentioned above, YunTech has also conducted a SWOT analysis as the cornerstone of the school's future development conditions. In terms of coping actions, medium and long-term approaches are included in the key consideration items for the mid-range school affairs development plan for 2022 - 2026. The current mid-term plan has been developed under the five key strategies (specialization, academicization, Industry-academia collaboration, internationalization, and intellectualization). To develop YunTech into "an internationally renowned university with innovative teaching and industry connections", the school has implemented a rolling adjustment mechanism for school affairs development in terms of its schools, colleges, and departments (**Top-Down-achievement aspect and Bottom-Up-knowledge aspect**). This report will also explain YunTech's 2022 response strategy for the three external factors.

Furthermore, an analysis of the strengths, weaknesses, opportunities, and threats regarding the future development conditions of our university is as follows:

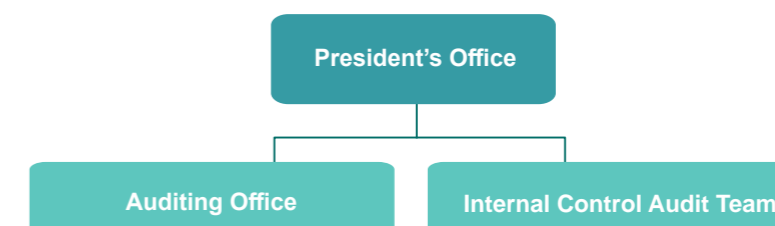
S	Strengths	W	Weakness
	<ul style="list-style-type: none"> Industry-academia R&D Achievements Gradual improvement in global university rankings. Promote the International Integration of IIEET and AACSB Certifications Excellent Teacher Quality, No. 1 Science and Technology University for the Central Region Ranked as a Highest Potential Young University by Enterprises Teaching Innovation Deepening commitment to digital learning. Excellent Industrial Strength and Comprehensive Industrial Chain High Employment Rate for the University of Science and Technology High-value Entrance Merit Scholarship Financially Sound and Stable Growth Rich Book Resources Well-planned Campus and High-quality Learning Environment 		<ul style="list-style-type: none"> Smaller scale of industrial and commercial activities within the geographical location. Difficult for the School to Raise Funds because the School is Young Relatively few Faculty Posts, which Affects Academic Competitiveness Insufficient International Environment Results in Difficult International Expansion Impending retirement wave affecting the university staff.
O	Opportunities	T	Threats
	<ul style="list-style-type: none"> Emerging need for new types of talent due to advancements in technology. Sustainability issues creating new demands for talent. Continues to Subsidize the Ministry of Education's Higher Education Deep Cultivation Program International AI Programs Desperately need International Talents Actively Recruit International Talents as International/cross-strait Admissions are Loosened Ministry of Education Subsidizes Project Teacher Appointments to Optimize the Student-Teacher Ratio Bridge the Industry PBL Research Center with Industry Demands Innovative Dual-track Structure Creates Adaptability and Promotes Talents Aging Society Trend 		<ul style="list-style-type: none"> Student Number Plummeted due to Low Birthrate Intense Academic Competition at Home and Abroad Asian Countries have Developed Flagship Universities International Trend, Global Competition Student Source for Technical Vocational System is Rapidly Draining from the General System

External Variables	Chapters revealed in YunTech's Response Strategy Report According to SWOT Analysis
Factor 1: Demographic Decline Impact	01 YunTech Sustainable Outlook 02 School Organization Governance 03 Creating a Harmonious Campus 04 Dedicated to Academic Performance
Impact 2: Impact of Technological Change and Generational Differences	01 YunTech Sustainable Outlook 02 School Organization Governance 04 Dedicated to Academic Performance
Impact 3: Impact of Global Sustainability Issues	05 Environment Sustainability Performance 06 Social Sustainability and Inclusion

► Internal Control System

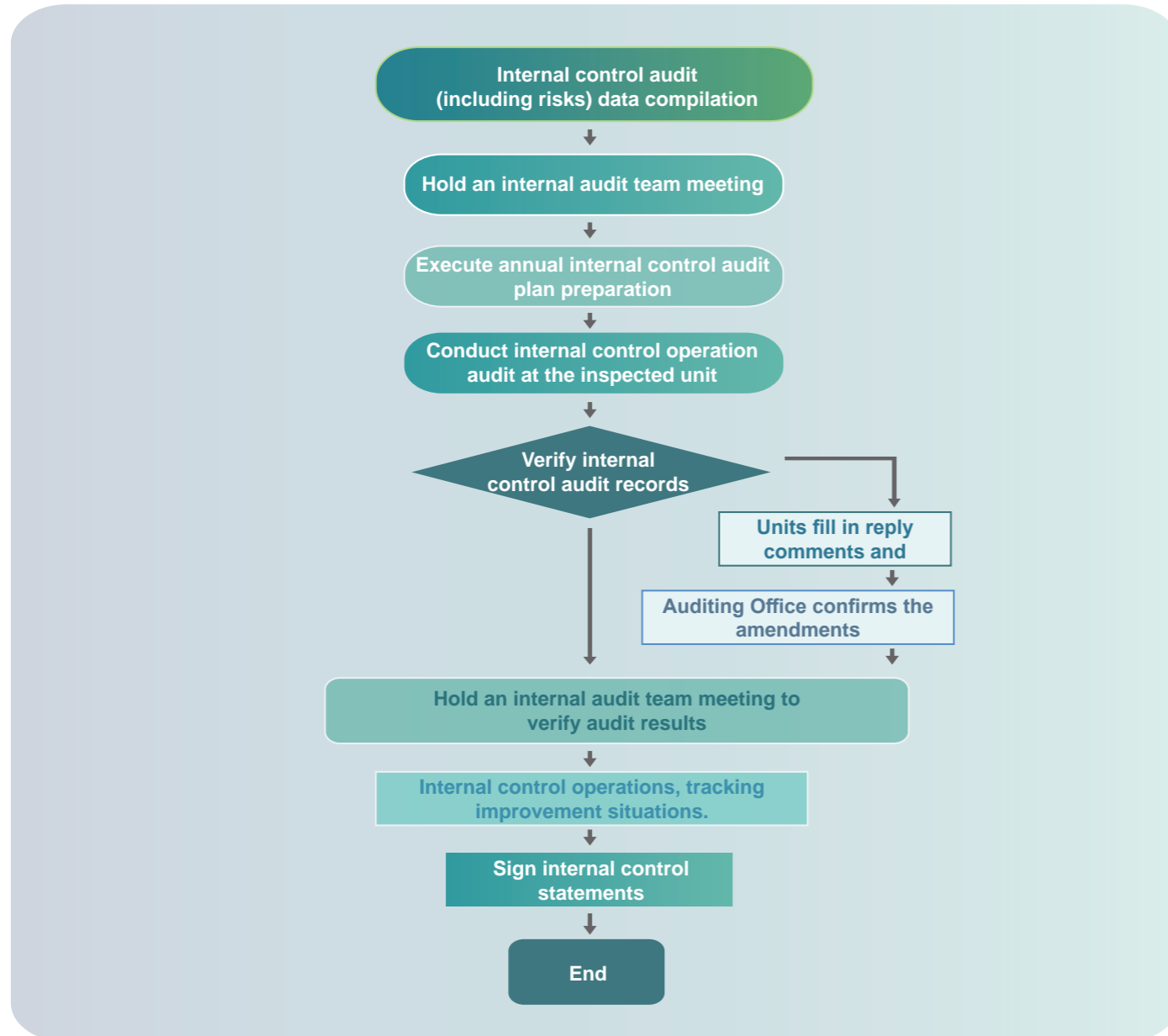
YunTech developed the "Key Points for Establishing the Internal Control Task Force" to strengthen and ensure the continuous and effective operation of the internal control system, improve governance efficiency, administer according to the law, and prevent financial malpractice. A meeting is held every semester to review the implementation of internal control in each unit. The internal control project team reviews the internal control system operation project report for each business unit and provides suggestions for improvement to reduce operational risks.

The Auditing Office was established as a dedicated audit unit, and the "National Yunlin University of Science & Technology Internal Control Audit Team" was established to assist each unit in monitoring and reviewing the implementation of the internal control system.



YunTech's internal audit unit shall implement a self-supervision mechanism, urge each unit to achieve administrative goals, and improve operational efficiency. The audit plan was created using a risk coefficient table that was compiled for various control operations of each unit based on the operation items determined to have high-risk levels.

There were 22 audit project items in 2022, and 19 improvement measures or specific reform suggestions were proposed. We shall continue to track whether each unit has completed the improvement items in 2023. Regarding the tracking of improvements, the Audit Office conducted audits on 21 items of work in 2021. Out of these, 20 items had a total of 36 improvement measures or specific reform suggestions proposed. The tracking and improvement rate for 2022 was 86%. Any outstanding items will be continuously monitored by the Audit Office until improvements are completed. To strengthen the internal control operations, the Auditing Office assisted the management team in conducting an on-site property inventory review and supervised the maintenance team in 2022. The Auditing Office also participated in the engineering, financial, and labor procurement operations handled by the General Services division to improve auditing efficiency. To improve the internal control system performance, the Auditing Office also reviews the internal control self-assessment work performed by each unit of the school to ensure smooth system operations.

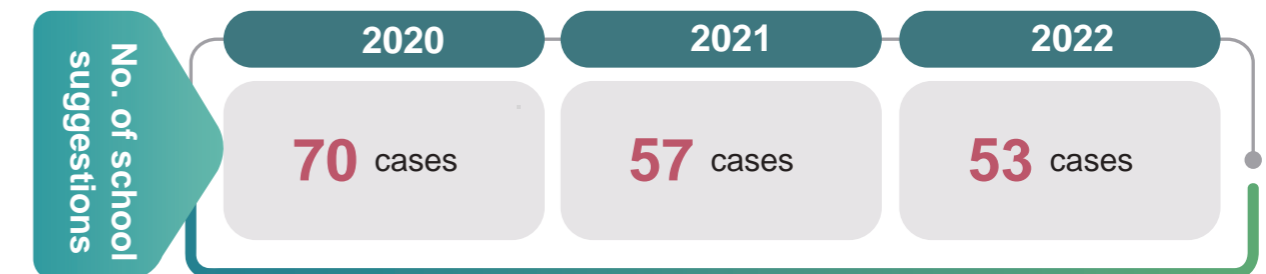


► School Affairs Advice System

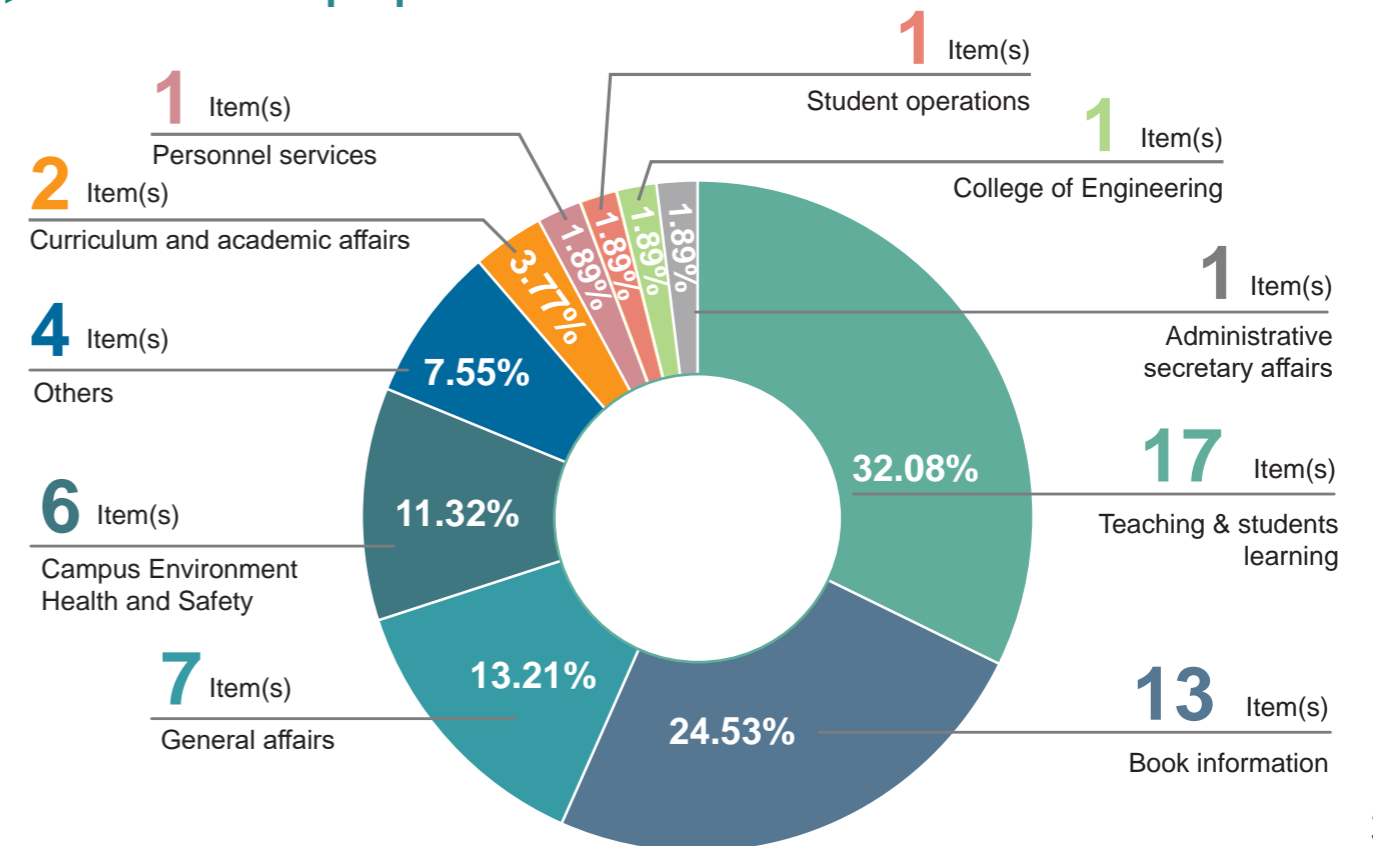


The system, initiated in 2018, received 53 cases of campus suggestions in 2022, reflecting a 7.02% decrease. After receiving a suggestion, the system ensures the confidentiality of personal information. The responsible unit then provides a response, which is reviewed and approved by the supervisor. If a response is not provided within the specified timeframe, the system will promptly track the responsible unit for a timely response and resolution. Most organizers are responsible for improvement or explanation based on the suggested contents, and a few suggestions cannot be immediately improved due to funding, regulations, or space constraints. However, the organizer has invited internal units to discuss and take relevant improvement measures.

► 2020-2022 faculty and student suggestions



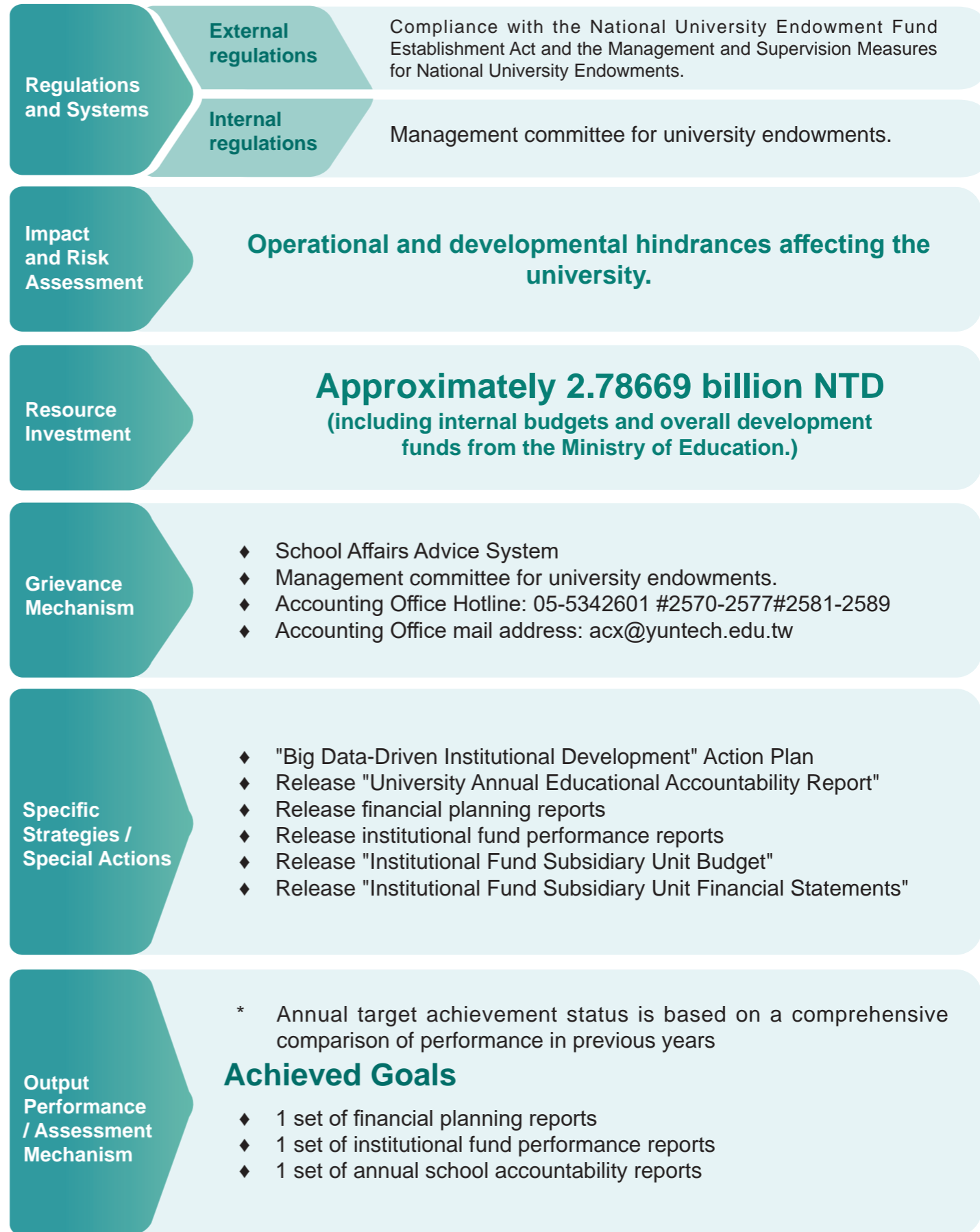
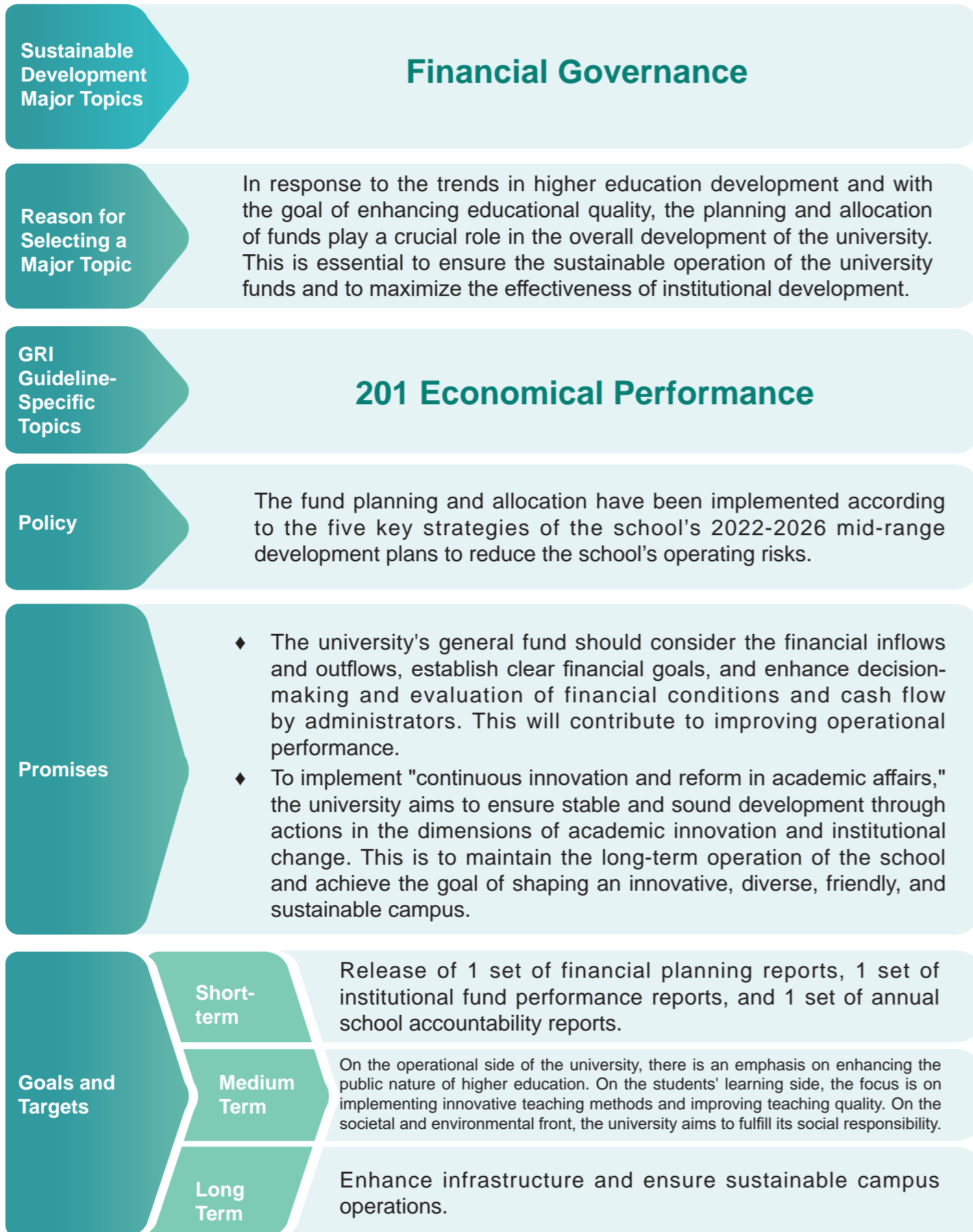
► Number and proportion of various recommendations in 2022.



2-3 Financial Plan and Operating Performance

Major Management Approach and Its Components

GRI correspondence:
2-25, 2-27

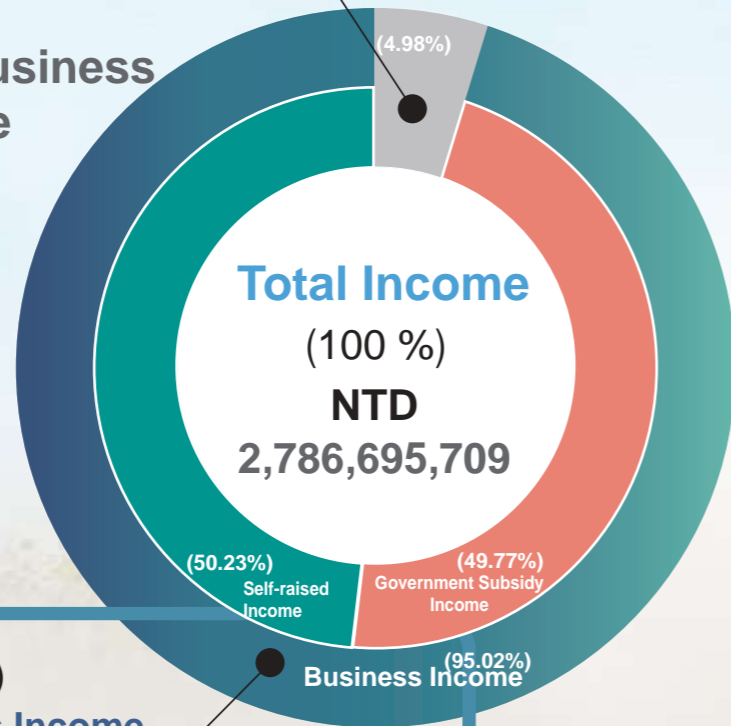


► Financial Performance

GRI correspondence: 2-2, 201-1, 201-4
 SDGs correspondence: 1.3, 4.3, 4.5, 4.a, 8.2
 SASB correspondence: SV-ED-270a.3

NTD
138,732,780

(4.98%)
**Non-business
 Income**



Total Income
 (100 %)
NTD
2,786,695,709

(95.02%)
Business Income

NTD 2,647,962,929

Self-raised Income (50.23%)

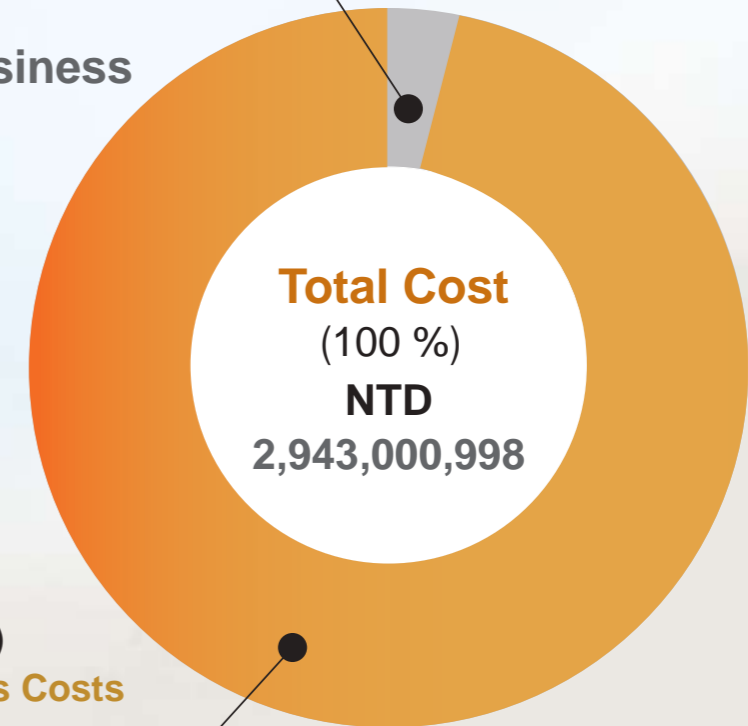
NTD
1,329,950,095

Government Subsidy Income (49.77%)

NTD
1,318,012,834

NTD
93,211,716

(3.17%)
**Non-business
 Cost**



Total Cost
 (100 %)
NTD
2,943,000,998

(96.83%)
**Business Costs
 and Fees**

NTD 2,849,789,282

Perfect funding planning, allocation, and utilization are critical to the overall school affair development. Each unit formulates basic indicators and expected benefits for the school's self-positioning and development and achieves the expected benefits through the planning and application of various funds. After the Accounting Office compiles YunTech's financial statements each year, they are reported to the Ministry of Education for reference and announced on the school's [Accounting Office website](#).

In 2022, YunTech demonstrated outstanding performance in industry-academia collaboration, with continuous growth in revenue from cooperative education programs. This reflects the university's strategic focus on adding value to industries and fostering teaching innovation through industry-academia collaboration. The goal is to establish itself as a renowned university with a distinctive feature of innovative teaching and close alignment with industries. In terms of costs, there has been a gradual increase in investment in teaching and research, cooperative education, student scholarships, and incentives. This investment aims to achieve the goal of cultivating highly skilled professionals with a humanistic perspective and providing comprehensive support for vulnerable groups.

Income	Year	Item	Tuition and fee income (net amount)	Education cooperation income	Education promotion income	Rental and royalty income	Subsidy income	Financial income	Gift receiving income	Other income	Total
	2020	Amount (NTD)		493,990,496	738,746,452	12,481,511	15,480,623	1,307,562,339	20,649,810	42,099,512	85,974,406
Growth rate compared to the previous year			-2.01%	8.25%	-30.71%	29.20%	3.47%	-16.08%	8.47%	3.91%	3.45%
2021	Amount (NTD)		498,091,847	789,496,991	9,361,497	10,976,055	1,273,327,968	15,744,210	35,524,737	79,718,845	2,712,242,150
	Growth rate compared to the previous year		0.83%	6.87%	-25.00%	-29.10%	-2.62%	-23.76%	-15.62%	-7.28%	-0.17%
2022	Amount (NTD)		502,964,534	791,997,271	14,859,132	12,952,058	1,318,012,834	28,372,825	39,019,168	78,517,887	2,786,695,709
	Growth rate compared to the previous year		0.98%	0.32%	58.73%	18.00%	3.51%	80.21%	9.84%	-1.51%	2.75%

Cost Fluctuations	Year	Item	Teaching research and training cost	Industry-academia cooperation cost	Education promotion cost	Administration and general cost	Student fees and incentive cost	Other costs	Non-businesses Cost	Total
	2020	Amount (NTD)		1,566,688,159	728,727,881	8,643,523	267,857,086	111,143,806	6,043,038	117,805,519
Growth rate compared to the previous year			0.16%	9.84%	-43.75%	3.51%	6.69%	0.61%	5.72%	2.51%
2021	Amount (NTD)		1,586,633,706	729,479,965	8,572,559	270,834,443	133,008,170	5,630,907	89,514,962	2,823,674,712
	Growth rate compared to the previous year		1.27%	0.10%	-0.82%	1.11%	19.67%	-6.82%	-24.01%	0.60%
2022	Amount (NTD)		1,624,455,178	788,528,974	14,346,064	276,789,163	138,945,520	6,724,383	93,211,716	2,943,000,998
	Growth rate compared to the previous year		2.38%	8.09%	67.35%	2.20%	4.46%	19.42%	4.13%	4.23%

► **Support disadvantaged students to create a barrier-free and friendly environment for lifelong learning.**

To eliminate individual differences arising from diverse societal, familial, and cultural backgrounds and to enhance the educational opportunities for disadvantaged students, ensuring equal access to education, our university implements various financial aid measures in accordance with government regulations. These include tuition and miscellaneous fee reductions, scholarships, and other related financial assistance programs. Additionally, we have established a friendly learning environment and a comprehensive support system for disadvantaged students, encompassing learning guidance, skill development, and career planning. Our aim is to create a nurturing educational atmosphere where students can pursue their studies with peace of mind and achieve their academic aspirations.

- 1 **Implement tuition and miscellaneous fee reductions, as well as scholarships, to provide educational assistance and privileges.**
- 2 **Prioritize and provide favorable rates for on-campus accommodation, with reserved bed spaces for students.**
- 3 **Collaborate with government policies to subsidize off-campus housing rent.**
- 4 **Allocate emergency relief funds internally to provide immediate assistance or collaborates with external charitable foundations to offer support and care.**
- 5 **Facilitate the application process for various scholarships, both internal and external, available for students.**

YunTech uses the Ministry of Education’s subsidy and self-raised income to pay for student assistance measures.

In the 109 academic year, the total number of beneficiaries was 4,788 individuals, with a total amount of approximately NTD 76.77 million;

In the 110 academic year, the total number of beneficiaries was 4,554 individuals, with a total amount of approximately NTD 81.46 million, representing an increase of about 6.11% compared to the previous academic year.

▶ Grant Distribution for Students in the 109 Academic Year

Student Aid Measure Categories	No. of Subsidies		Total	Ratio	Subsidy Amount (NTD)		Total (NTD)	Ratio
	Male	Female			Male	Female		
Scholarships for Underprivileged Students in Colleges and Universities	177	200	377	7.88%	2,379,250	2,687,250	5,066,500	6.60%
Living Assistance Scholarship	90	119	209	4.37%	2,922,000	4,338,000	7,260,000	9.46%
Work-study Scholarship	889	1,025	1,914	39.97%	9,907,298	14,374,157	24,281,455	31.63%
Postgraduate Scholarship	1,257	713	1,970	41.14%	22,051,645	14,383,824	36,432,469	47.46%
Emergency Relief Scholarship	132	118	250	5.22%	1,411,000	1,189,000	2,600,000	3.39%
Accommodation Concession	34	34	68	1.42%	557,936	563,954	1,121,890	1.46%
Total	2,570	2,209	4,788	100.00%	39,229,129	377,536,185	76,765,314	100.00%

▶ Grant Distribution for Students in the 110 Academic Year

Student Aid Measure Categories	No. of Subsidies		Total	Ratio	Subsidy Amount (NTD)		Total (NTD)	Ratio
	Male	Female			Male	Female		
Scholarships for Underprivileged Students in Colleges and Universities	151	161	312	6.85%	2,145,000	2,116,750	4,093,750	5.03%
Living Assistance Scholarship	84	111	195	4.28%	2,826,000	3,882,000	6,708,000	8.23%
Work-study Scholarship	903	1,045	1,948	42.78%	11,946,405	17,094,179	29,040,584	35.65%
Postgraduate Scholarship	1,289	714	2,003	43.98%	24,447,141	15,545,657	39,992,798	49.10%
Emergency Relief Scholarship	23	8	31	0.68%	411,000	148,000	559,000	0.69%
Accommodation Concession	37	28	65	1.43%	576,185	486,837	1,063,022	1.30%
Total	2,487	2,067	4,554	100%	42,351,731	39,273,423	81,457,154	100%

Item	108 Academic Year		109 Academic Year		110 Academic Year	
	Amount (NTD)	No. of People	Amount (NTD)	No. of People	Amount (NTD)	No. of People
Tuition and miscellaneous fee waivers (including assistance for disadvantaged students)	30,423,536	1,745	31,377,619	1,761	32,203,394	1,807
Ministry of Education Subsidies for off-campus accommodation rent	696,750	104	1,131,600	149	1,354,050	176
Internal scholarships and financial aid	8,526,000	292	2,582,000	130	2,708,000	136
Off-campus scholarships and financial aid	9,064,500	613	10,019,000	620	9,817,000	568

Striving for External Resource Injection

★ Selected among the top 10 specialty field research centers of the Ministry of Education’s higher education intensive cultivation program called Global Taiwan



“Intelligent & Local Design Service Center”



“Intelligent Recognition Industry Service Research Center (IRIS)”

YunTech aims to cultivate “future employment functions,” foster future competitiveness education, and use practice to lead theoretical learning to achieve its vision of becoming a new type of University of Science and Technology in 2022. The school has established centers in various professional fields through industry-academia R&D potential classification, master-apprentice family operation, new pattern workforce cultivation, and innovation and entrepreneurship guidance. Since 2018, YunTech has achieved its pragmatic practice objective by establishing 27 PBL research centers. From 2020 to 2022, YunTech has undertaken 1,146 industry-academia planning projects entrusted by private enterprises and other firms, cooperation, and schools, reaching NTD 485.84 million. Moreover, the school has formed an industrial college to engage with the industry and coordinate each college’s talents and technology centers. These accomplishments have provided education and training for enterprise development courses, bolstered enterprise R&D momentum, developed the region’s needs for industrial talents, contributed to economic development, and increased employment.

► **2020-2022 Industry-Academia Cooperation Achievements (excluding government units)**

Year	No. of industry-academia projects undertaken (cases)	No. of industry-academia projects undertaken (NTD 10 thousand)
2020	415	16,666
2021	345	13,895
2022	386	18,023

YunTech aims to lead practical technical research in academia by developing the students’ technical and professional skills and improving their professional skills. Students can create project-based “PBL Industry Practice Courses” for their project families to solve practical industrial problems through problem-oriented, interest-oriented, and teamwork-guided education. Among them, the “Intelligent & Local Design Service Center” and the “Intelligent Recognition Industry Service Research Center (IRIS)” were also selected among the top ten specialty field research centers of the Ministry of Education’s higher education intensive cultivation program called Global Taiwan. The “Intelligent & Local Design Service Center” focuses on interdisciplinary integration development, with technology management as the core and smart urban and rural areas as the research foundation. The main service subjects are enterprises and governments, with school buildings, local industries, and urban and rural communities as the core areas. The “Intelligent Recognition Industry Service Research Center (IRIS)” focuses on smart key technology identification and smart medical imaging-aided diagnosis technologies. The goal is to cooperate with the Industrial Technology Research Institute, Institute for Information Industry, China Steel Corporation, Cheng Shin Tyre, Unicharm, National Taiwan University, National Cheng Kung University, Taipei Veterans General Hospital, and Tzu Chi Hospital to promote socio-economic development, health, and well-being in the community. Every year, the Office of Industry-Academia holds unscheduled PBL center exchange seminars to allow PBL research centers to share and exchange technology and industry-academia achievements to promote horizontal integration and interdisciplinary cooperation.

SDGs correspondence: 3.4, 3.d, 4.3, 4.a, 8.2, 8.6, 11.7, 11.a

► **Tsung Cho-Chang Education Foundation Subsidy Program**

Although the global economic climate has changed rapidly in recent years, there are still many entrepreneurs with the spirit of practicality and perseverance striving to create innovative models. YunTech’s president has charged teachers and students with assisting enterprises in transforming and promoting industrial upgrading. YunTech received support and donations from the “Tsung Cho-Chang Education Foundation” in 2019 and developed the “industry-academia cooperation combined with social welfare” model to support industry-academia cooperation between SMEs and our school. From fund subsidies to cultivating students and exposing them to practical issues, our efforts have strengthened enterprise competitiveness and epitomized the “Tsung Cho-Chang Education Foundation’s” public welfare spirit. We have created an exemplary partnership model between universities and social welfare foundations. In 2022, the final review process was completed, and the related subsidies were fully utilized. At the end of the year, the last results presentation event was also concluded. The following are the subsidy details for 2019 to 2022:

Year	Subsidy item	Subsidy amount	SDGs Items
2019	14	2,508,516	30
2020	58	7,787,927	155
2021	17	1,067,661	48
2022	12	661,000	37
Total	101	12,025,104	270

YunTech has invested public welfare industry-academia funds since 2021 to encourage teachers to integrate industry-academia cooperation projects into course teaching, continue to inspire teachers of industry-academia-related courses to present concrete results of industry-academia collaboration, conform to the SDGs’ public welfare spirit, and support various industry-academia cooperation projects that can be implemented in industrial development and social services. The goal is to combine industry-academia cooperation with student learning and curriculum practice promotion and display physical achievements to achieve the solid teaching & research foundation objective while strengthening industry connections. The subsidy details from 2021 to 2022 are as follows:

Year	Subsidy item	Subsidy amount	SDGs Items
2021	12	2,164,000	26
2022	13	2,508,000	30
Total	25	4,672,000	56



Tsung Cho-Chang's Annual Achievement Poster Exhibition Silhouette

Photo from industry-academia cooperation combined with social welfare in 2022

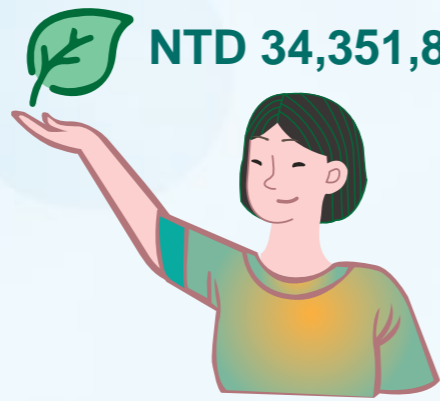
2-4 Supply Chain Management

NTD 3,228,083



Priority procurement amount
(Ratio **8.81%**)

NTD 34,351,857



Green procurement amount
(Ratio **99.52%**)

YunTech, as a government agency, follows the "Government Procurement Act" in all internal procurement processes, ensuring the quality of procurement and providing guidelines for various units in engineering, financial, and labor procurement operations. In accordance with the Government Procurement Act and its related subsidiary laws, the qualifications of bidding companies are determined based on the characteristics of the procurement and actual needs, ensuring the capability of the vendors to undertake the projects. Any procurement case exceeding NTD 100,000 must be open to public bidding. In 2022, the number of suppliers was 230, and the ratio of local suppliers was 99.99%. The local supplier procurement expenditure was NTD 311,112,679, so the ratio of local supplier procurement expenditure was 99.66%. Most of the school's local suppliers are located in New Taipei City, Taipei City, or Keelung City, followed by Yunlin County, Chiayi City, and Tainan City.

Construction

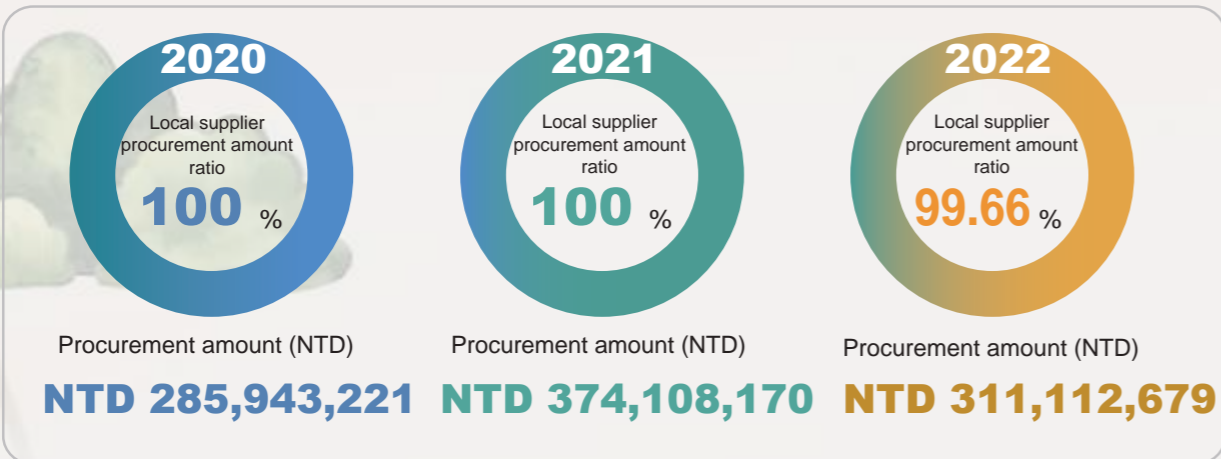
Actions are taken for building, adding, rebuilding, constructing, and dismantling structures or their associated equipment above and below the ground and changing the natural environment.

Finance

Various articles, materials, equipment, machinery, and other movable property, immovable property, rights, etc.

Labor Services

Professional services, technical services, information services, research and development, operation management, maintenance, training, labor, etc.



* Local Suppliers: Refers to suppliers located within Taiwan
 * The decrease in the procurement ratio in 2022 is due to the situation where the necessary equipment for teaching and research was not manufactured by domestic vendors and had no local agents. Consequently, direct procurement from foreign sources became necessary.

GRI correspondence: 2-23, 2-24
SDGs correspondence: 12.7

► Priority procurement and green procurement

Priority procurement

To protect people with disabilities, the government regulates that public agencies and units at all levels must prioritize purchasing goods and services produced by people with disabilities. The annual mandatory purchase amount for goods and services produced or sold by people with disabilities must reach 5% of the total purchase amount for a specific project according to the priority procurement method.

Green procurement

Promote sustainable resource regeneration, take advantage of the government's procurement power, prioritize environmentally friendly products, and advocate a green consumption atmosphere. The goal is to encourage public institutions to save resources or reduce environmental pollution during raw material acquisition, product manufacturing, sales, utilization, and disposal operations. The government has passed legislation to mandate green procurement and stipulated green procurement objectives, product items, and product guidelines. Article 22 of the Resource Recycling Act also provided that all government agencies, public institutions, and schools must prioritize procuring government-approved environmental protection products (those that have passed the recyclable, low pollution, and resource-saving specifications and obtained environmental protection labels). The Act also listed the environmental protection product items and annual procurement ratios that agencies must give priority to purchase.

Therefore, YunTech has issued notifications regarding the annual priority procurement and green procurement ratio for food and supplies according to the ethical procurement policy and written orders from the superior authority. YunTech has maintained a green procurement rate of over 99% in the past 3 years to implement green procurement and fulfill social responsibilities, operate a fair and reasonable system, and formulate ethical procurement policies for food and supplies. Our priority procurement has exceeded the 5% requirement in the past three years.

Year	Priority procurement		Green procurement	
	Procurement amount (NTD)	Procurement rate (%)	Procurement amount (NTD)	Procurement rate (%)
2020	3,514,845	11.95	34,711,216	99.89
2021	2,171,253	7.25	33,962,891	99.76
2022	3,228,083	8.81	34,351,857	99.52

* According to Ministry of Health and Welfare regulations, priority in purchasing from welfare institutions for the physically and mentally disabled or the proportion of goods and services produced by sheltered workshops must reach 5%. Priority Procurement Ratio Calculation Method: (Total Amount of priority procurement transactions + unfulfilled amount from public announcement and negotiation) / total amount of transactions excluding priority procurement.

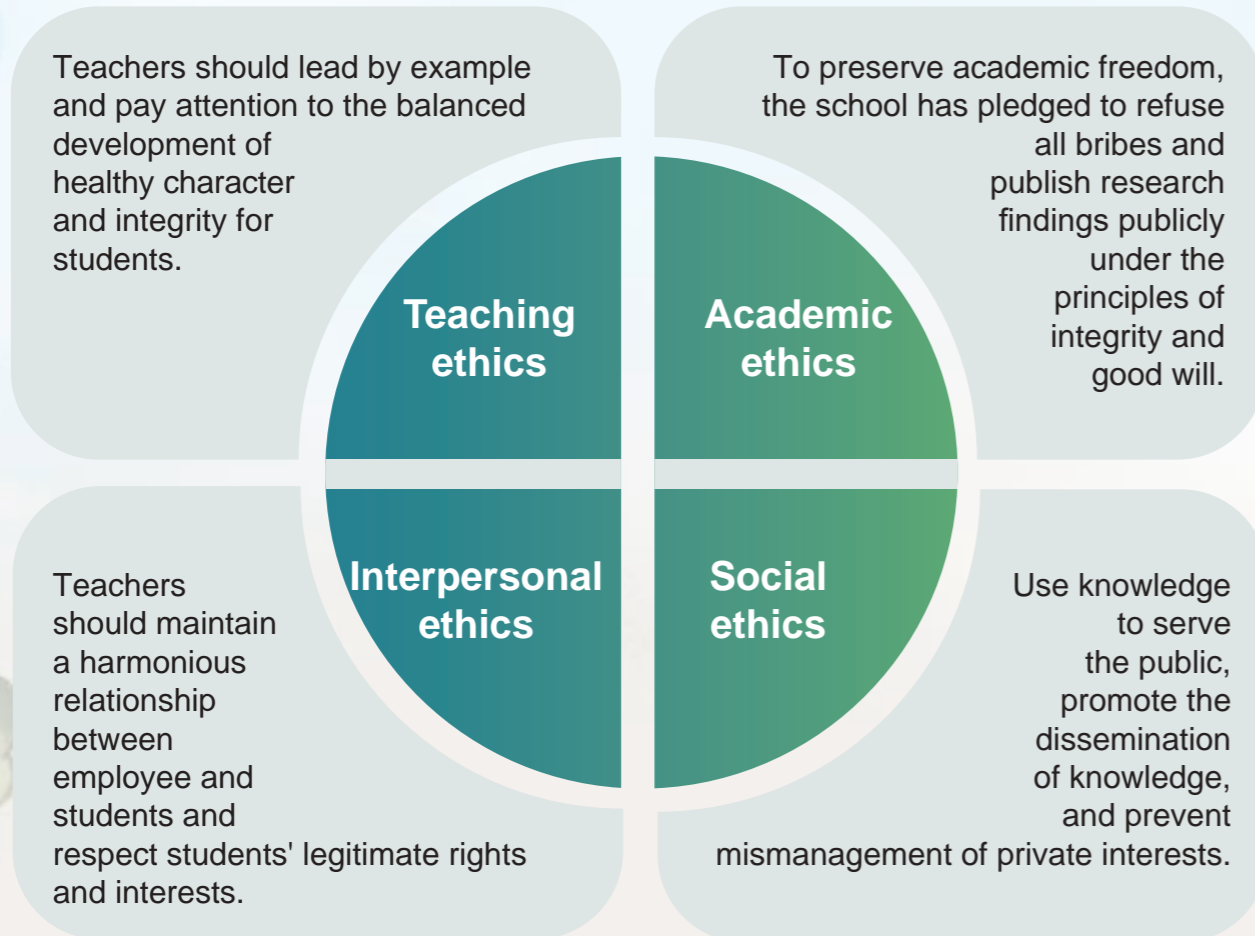
* According to the Environmental Protection Agency of the Executive Yuan, the green procurement ratio must reach 95% or higher. Green Procurement Ratio Calculation Method: Total amount of environmentally certified products purchased for specified projects / Total amount of purchases for specified projects.

2-5 Academic and Integrity Ethics

SDGs correspondence: 16.5, 16.6

◆ The university's code of ethics for faculty includes four major guidelines: teaching ethics, academic ethics, interpersonal ethics, and social ethics.

Reference:



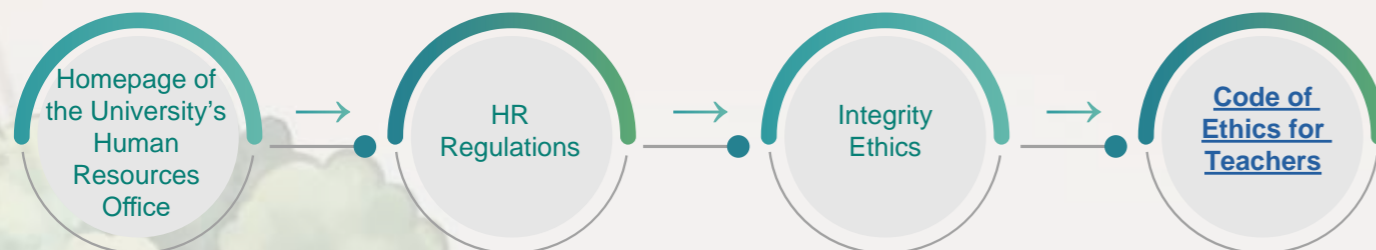
The school is committed to improving the academic quality of teachers, encouraging promotion through multiple channels, and establishing correct academic ethics for teachers. To avoid any academic ethics issues caused by our teachers due to academic research and promotion, the school has held multi-level promotion briefings for teachers in addition to encouraging teachers to participate in the academic ethics online courses offered by the NSTC. The goal is to promote caution for the typical academic ethics errors and issues that should be noted in published works and strengthen the concept of academic ethics for teachers.

The research and industry-academia collaboration programs at YunTech perform outstandingly. In addition to the industry-academia research development, the school's teachers and research project participants must uphold the principle of integrity and comply with the relevant research ethics regulations. The school's teachers must upload the ethics certificate to the MOST system for future reference when applying for special research projects from the NSTC. An ethics study certificate for at least 6 hours is required from project assistants before hiring. In 2022, there were 512 project assistants with ethical certificates, and 100% of the requirements were met. The school also invited the Academic Ethics Committee of National Cheng Kung University or National Chung Cheng University to co-organize research ethics workshops. Since the 2017 academic year, the school has required master's and doctoral graduate students to take a 6-hour online course on "Academic Ethics Education" offered by the Center for Taiwan Academic Research Ethics Education, Ministry of Education. Those who fail the course shall not be permitted to apply for degree examination.

▶ Anti-Corruption Policy

Our nation strives to align with international standards by adhering to anti-corruption laws and convention policies. The Ministry of Education established the Ethics Guidelines for Civil Servants and Teachers of the Ministry of Education and Affiliated Schools to ensure that its affiliated agencies and public school faculties perform their duties with integrity, are fair, impartial and administer affairs according to the law, and contribute to the government's good image. Public educators must perform their duties impartially according to the law and based on the public's interest. They shall not abuse their authority, methods, or opportunities to seek improper interests for themselves or a third party.

The relevant personnel regulations are published on the school's [personnel office website](#). This website also publishes a monthly personnel e-newsletter to publicize laws, administrative guidelines, and conflicts of interest (the Sunshine Act area). It has a ethics area for reference by faculty and employee. In 2022, there were no instances of corruption at the school.

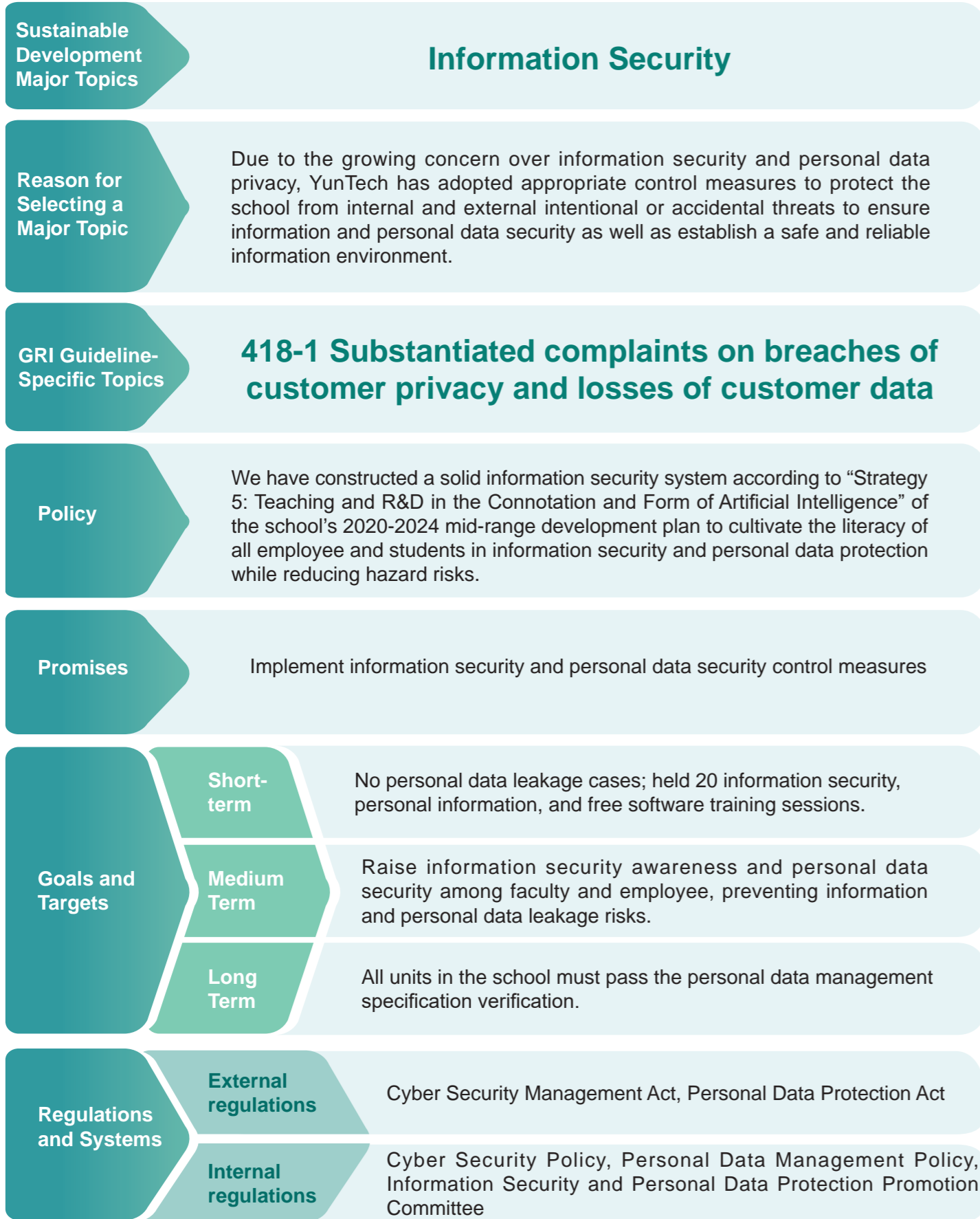


YunTech has established an Academic Ethics Review Committee to handle academic ethics violation cases. The goal is to create an impartial review process, protect the rights of the accused, and preserve the school's reputation. The Academic Ethics Review Committee applies to full-time faculty members, researchers, project-based teachers and researchers employed through school funds, rare technology experts, and adjunct faculty members.

2-6 Information Security

GRI correspondence: 2-5, 2-27, 418 Customer Privacy
 SDGs correspondence: 16.10
 SASB correspondence: SV-ED-230a.1, SV-ED-230a.2, SV-ED-230a.3

Major Management Approach and Its Components





Passed the ISO 27001 Scope Validation

- Information Center Information Room Maintenance
- School Administration System (an educational affairs, academic affairs, and students' learning process system developed by the Information Center)
- Electronic Document System
- School Global Information Network
- Email System



The school priorities personal data management regulation verifications according to data sensitivity, importance of personal data, data volume size, and major data incidents. We will gradually extend the verifications to all units in the school.

- Personnel Office
- Counseling Center
- Information Technology Services Center
- Institutional Research and Planning Center
- Student Assistance Division
- Admission Division
- Teaching Excellence Center
- Health Care Division
- Registration Division
- Department of Environmental Safety and Health Engineering
- Department of Civil and Construction Engineering
- Department of Finance
- The office of College of Design

Information Security Policy

The mission of the Information Center is to provide a secure and reliable information environment to ensure the confidentiality, availability, and integrity of assets. The center's goal is to implement appropriate controls to protect the school from internal or external intentional or unintentional threats, provide adequate information safeguards, and ensure the feasibility and effectiveness of information security practices. We offered regular information security regulations, updates, event announcement notifications, and training courses to improve campus information security. We also provided response measures, incident descriptions, corrective improvements, and preventive measures to prevent information security incidents according to the information security incident categories, the potential scope of impact, and loss assessments.

The school has deployed information security and personal data protection seed personnel (hereafter "Seed Personnel") in various units on campus to implement information security management specifications. They are responsible for "information security and personal data protection operation promotion guidance," "Email protection social engineering education training and counseling," and "data security and personal Information incident reporting information center" related tasks. The Information Center provides regular or unscheduled training for Seed Personnel and arranges for them to receive professional license training each year. The information security audit team of the Information Center also schedules an audit plan each academic year to conduct on-site inspections on information security for each unit and improve any supervision defects. Continue to strengthen the information security organization, implement a regulation-based system, cultivate talents, and establish a safer and more reliable information security environment.

Cyber Security Actions



Provide stable power, uninterruptible power supply, and 24-hour air conditioning and fire protection systems for computer network equipment and servers in the Information Center. Ensure a high-quality operating environment for software and hardware equipment in the computer network room. The information center monitors the health status of major websites, servers, storage devices, and other services using the Nagios continuous system monitoring services and the Splunk system log management tools.

The data related to information security and personal information protection is stored on the "Information Security and Personal Information Protection Website" and "YunTech Science and Technology Cloud Collaboration Website/Information Security Management System (ISMS)." The Personal Information Management System (PIMS) is provided as a reference for colleagues and students on campus and to promote the use of legal software and anti-virus software on campus. The school's systems have passed the ISO 27001, ISCB Educational Institution Information Security Verification Center's "Personal Data Management Specification for Education System" verification. The school will also gradually change or increase the scope of verification according to the school's information security maintenance plan or the current implementation status.

YunTech Information Security Action

	As	Performance
01	Annual vulnerability scans	Completed 872 scans of departmental equipment, hosts, and websites
02	Conducted penetration testing operations	Completed all core system penetration testing operations.
03	Conducted regular business continuity drills	The Information Center completed 9 core system tests; each unit completed 114 tests for system/website business sustainability operation plans.
04	Conducted regular internal audits on “Information Security and Personal Data Protection.”	Audit 4 administrative units, 17 academic units, and 3 industry-academia research unit.
05	Regularly performed information asset classification and categorization.	A total of 20 administrative/instructional units, 62 administrative systems, and 31 non-administrative systems.
06	Conduct regular information security and free software education and training	22 sessions / 1,380 people
07	Implement the ISCB Educational Institution Information Security Verification Center’s “Educational System Information Security Management Specification”	Personnel Office / Counseling Center / Information Technology Center / Academic Development Center / Life Counseling Unit / Integrated Services Division / Teaching Excellence Center / Health Education Division / Registration Division / Department of Environmental Safety and Health Engineering / Department of Construction Engineering / Department of Finance / College of Design
08	Implement ISO 27001 information security management system verification	Information Server Room / School Administration System (an educational affairs, academic affairs, and students’ learning process system developed by the Information Center) / Electronic Document System / World Wide Web / E-mail System

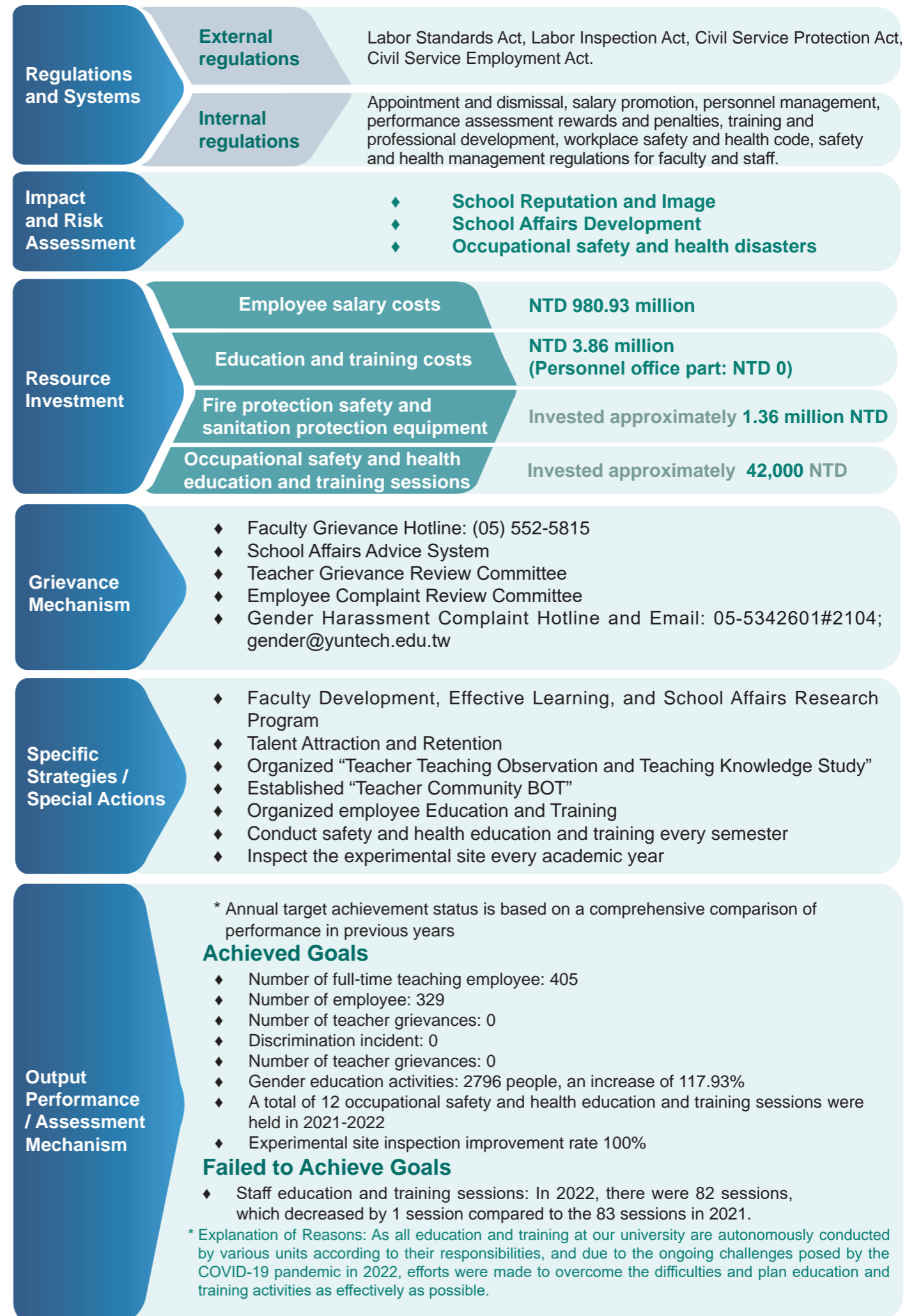
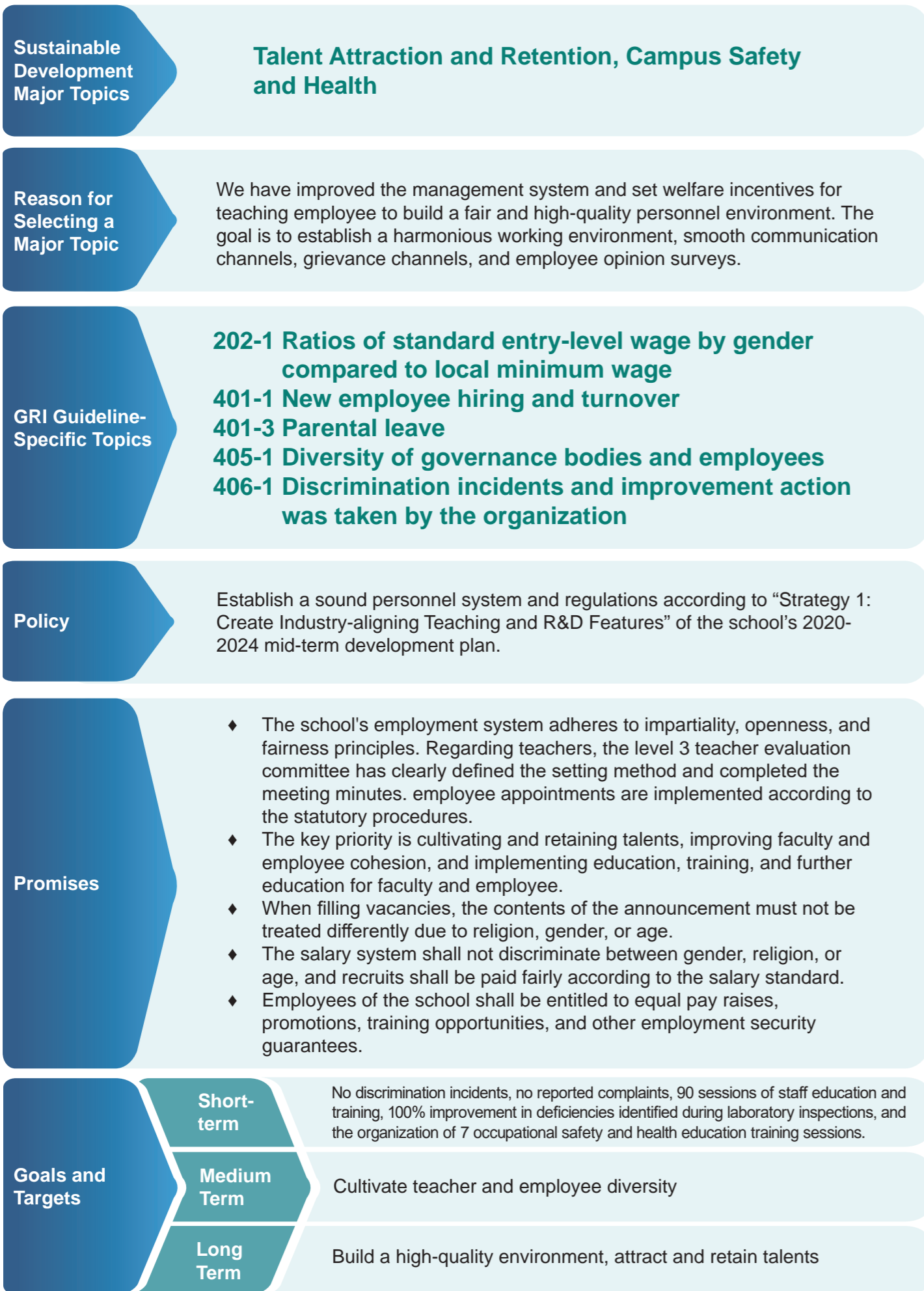
3

Harmonious Campus

Major Topics of this Chapter/
Talent Attraction and Retention
Campus Safety and Health

3-1 Talent Attraction and Retention	43
3-2 Campus Safety and Health Promotion	48
3-3 Human Rights Protection and Equal Education	53





3-1 Talent Attraction and Retention

GRI correspondence: 2-19, 2-20, 2-21, 202 Market Presence, 401 Employment, 405 Diversity and Equal Opportunity, 406 Non-discrimination
 SDGs correspondence: 4.4, 5.1, 5.b, 5.c, 8.5, 8.6, 8.8, 16.6, 16.b
 SASB correspondence: SV-ED-000.D

Workforce Configuration

The school has planned and improved the administrative management system, established a sound personnel system and rules, and employed excellent teachers and service-oriented administrative employee to enhance the school's overall competitiveness and meet the development needs. YunTech's talent recruitment policy is based on human rights equality to eliminate gender, race, age, political orientation, and marital or family status-related discrimination. The goal is to diversify employee composition. There are 734 faculty members (full-time teachers and employee), of which 48 are certified persons with disabilities (accounting for 6.53%), which is superior to the ratio required by the law (3%). The number of faculty and employee is based on the database entry time for technical colleges and universities. October 15th is the benchmark for statistics analysis (employee does not include project personnel).

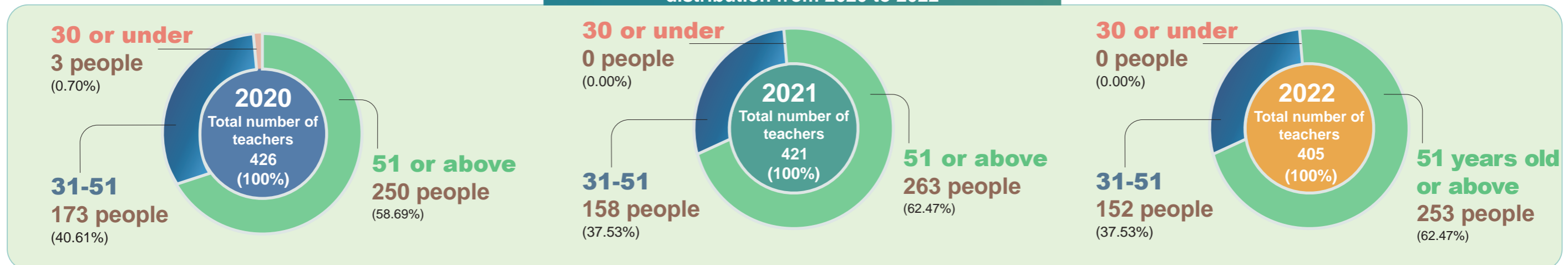
Full-time teachers

Statistics on full-time teacher distribution from 2020 to 2022

Year	Item	Professors			Associate Professor			Assistant Professor			Lecturer			Other teachers			Total teachers		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
2020	Number of People	138	23	161	100	25	125	77	37	114	11	4	15	2	9	11	328	98	426
	Ratio %	85.71	14.29	100.00	80.00	20.00	100.00	67.54	32.46	100.00	73.33	26.67	100.00	18.18	81.82	100.00	77.00	23.00	100.00
2021	Number of People	139	23	162	93	26	119	78	37	115	10	4	14	2	9	11	322	99	421
	Ratio %	85.80	14.20	100.00	78.15	21.85	100.00	67.83	32.17	100.00	71.43	28.57	100.00	18.18	81.82	100.00	76.48	23.52	100.00
2022	Number of People	144	27	171	84	23	2018	71	34	105	10	4	14	8	0	8	317	88	405
	Ratio %	84.21	15.79	100.00	78.50	21.50	100.00	67.62	32.38	100.0	71.43	28.57	100.00	100.00	0.00	100.00	78.27	21.73	100.00

*Note: The decreasing ratio in the gender distribution of faculty is a result of hiring based on the professional academic backgrounds of newly recruited faculty members after retirements and departures. Gender is not a limiting factor in the selection criteria, leading to a slight decrease in gender ratios. The "Other Faculty" category for 2020 and 2021 continues the reporting format used in previous years. However, in 2022, the "Other Faculty" category has been redefined as "Professional and Technical Staff," and there were no female staff members in this category for that year.

Statistics on the age of full-time teachers distribution from 2020 to 2022

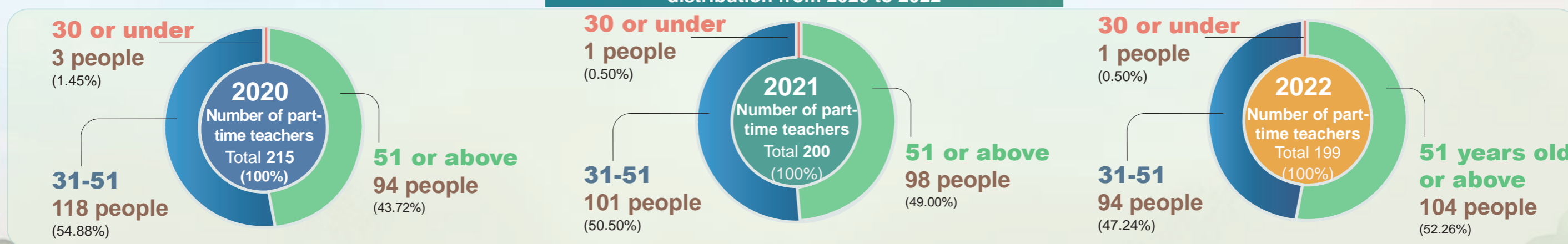


Part-time teachers

Statistics on the age of part-time teacher distribution from 2020 to 2022

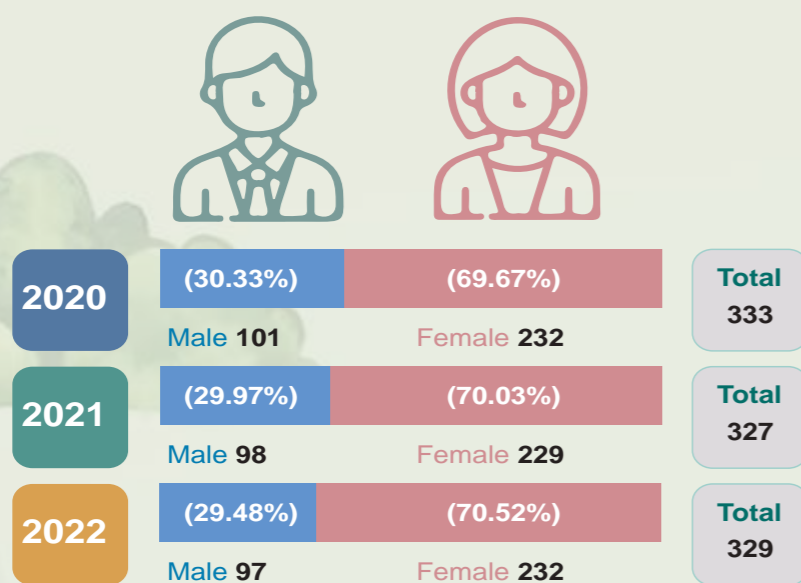
Year	Item	Professors			Associate Professor			Assistant Professor			Lecturer			Total teachers		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
2020	Number of People	13	1	14	15	4	19	45	19	64	68	50	118	141	74	215
	Ratio %	92.86	7.14	100.00	78.95	21.05	100.00	70.31	29.69	100.00	57.63	42.37	100.00	65.58	34.42	100.00
2021	Number of People	12	2	14	12	3	15	43	16	59	65	47	112	132	68	200
	Ratio %	85.71	14.29	100.00	80.00	20.00	100.00	72.88	27.12	100.00	58.04	41.96	100.00	66.00	34.00	100.00
2022	Number of People	14	2	16	14	3	17	42	20	64	62	42	104	132	67	199
	Ratio %	87.50	12.50	100.00	82.35	17.65	100.00	67.74	32.26	100.00	59.62	40.38	100.00	66.33	33.67	100.00

Statistics on the age of part-time teachers distribution from 2020 to 2022



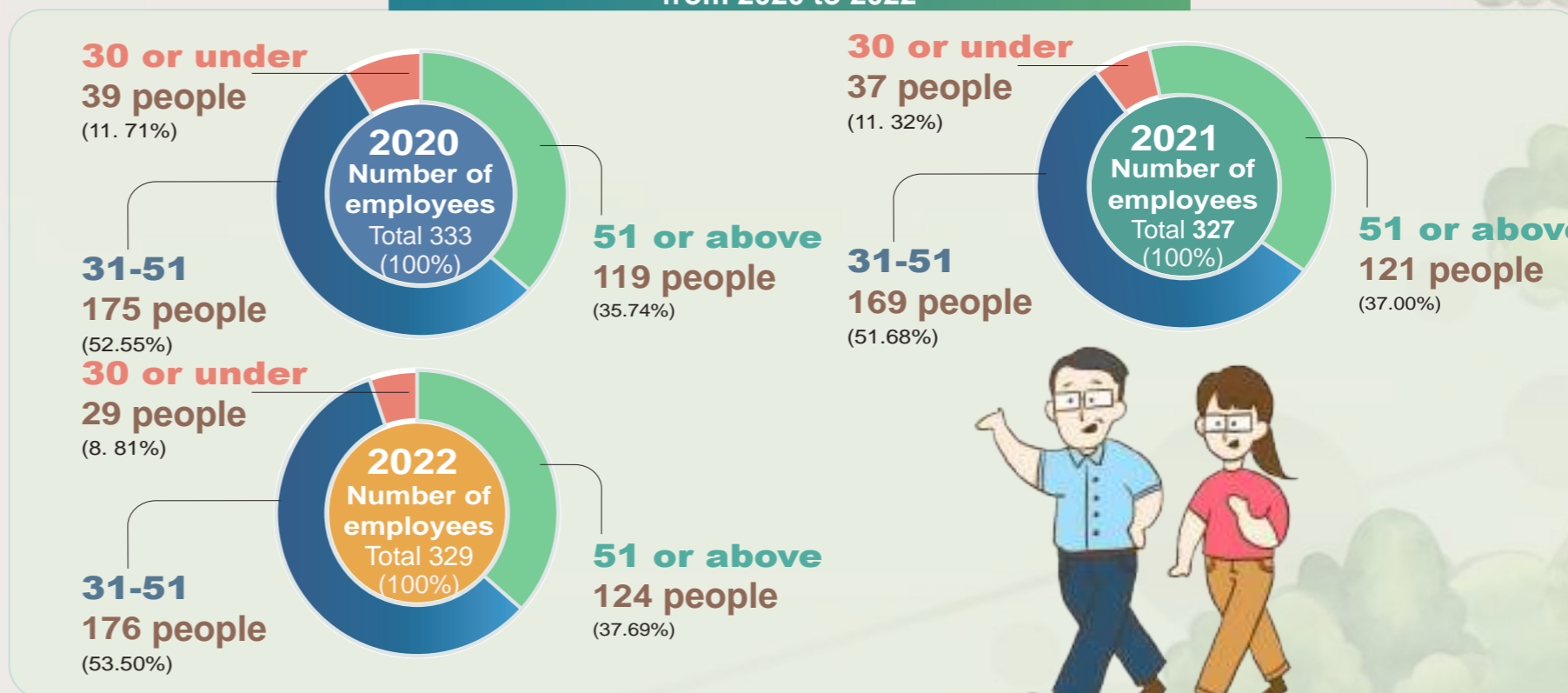
Employees

Statistics on the number of employees from 2020 to 2022



* Basis for employee calculation: employee, teaching assistants, military training instructors, occasional scientific and technological personnel, garrison police, technical workers, and school administrators.

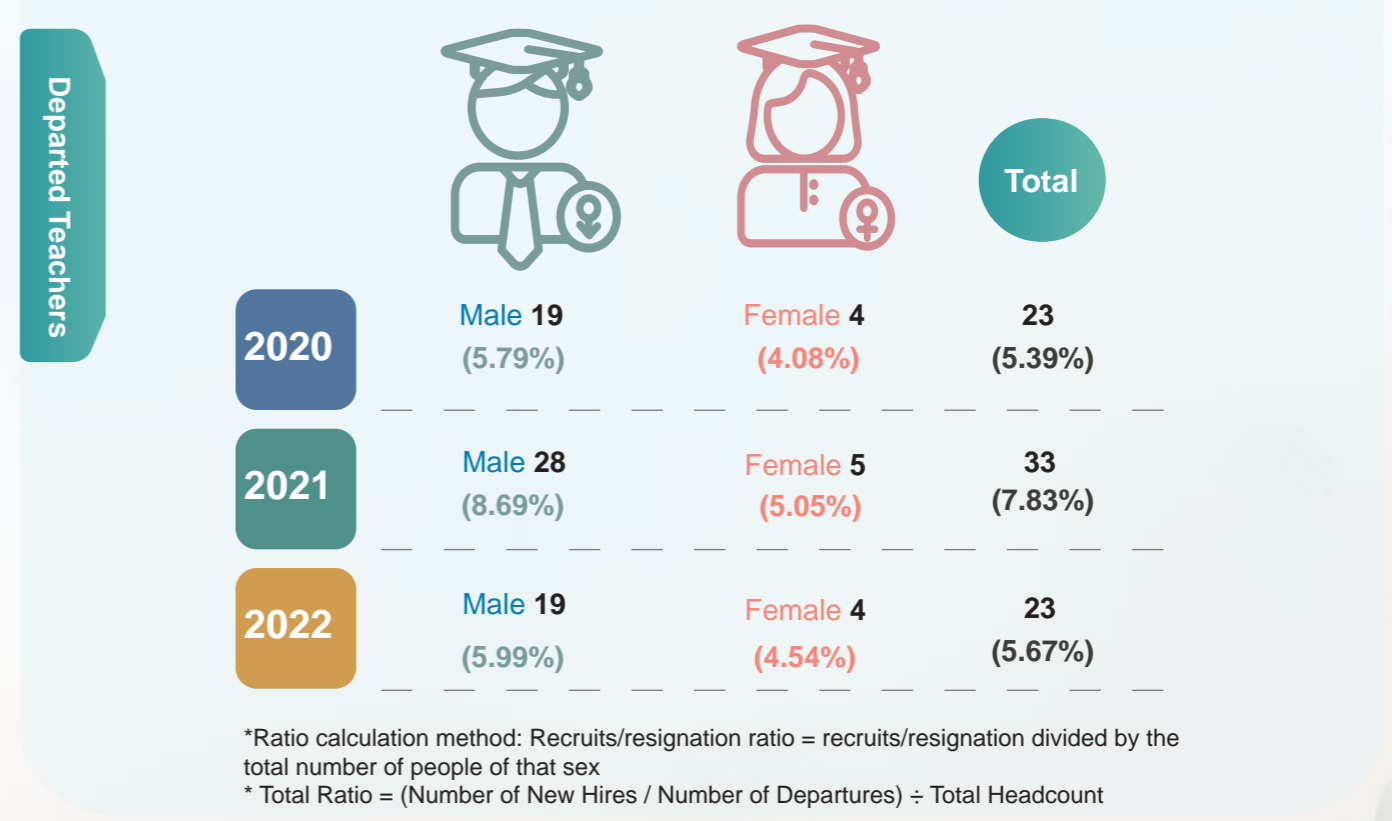
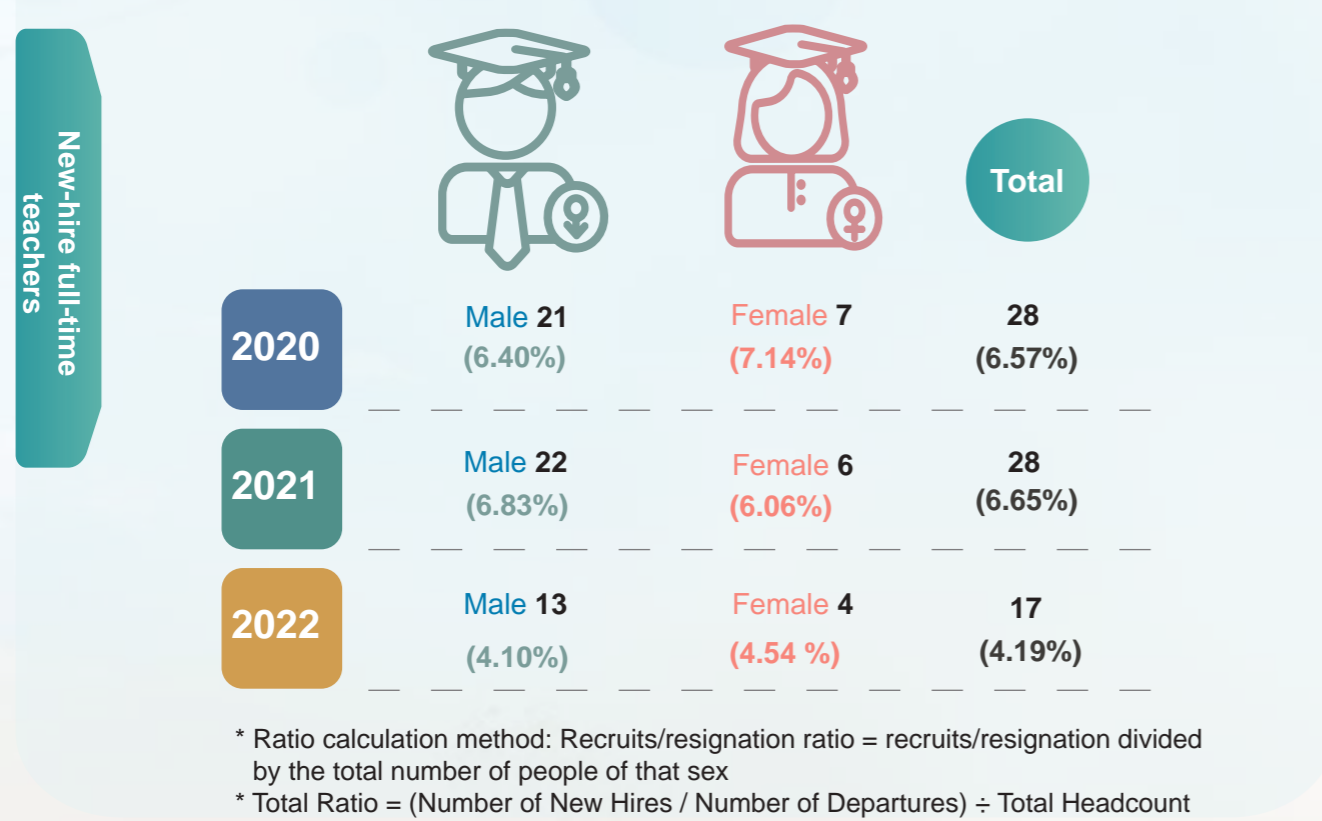
Statistics on the age distribution of employees from 2020 to 2022



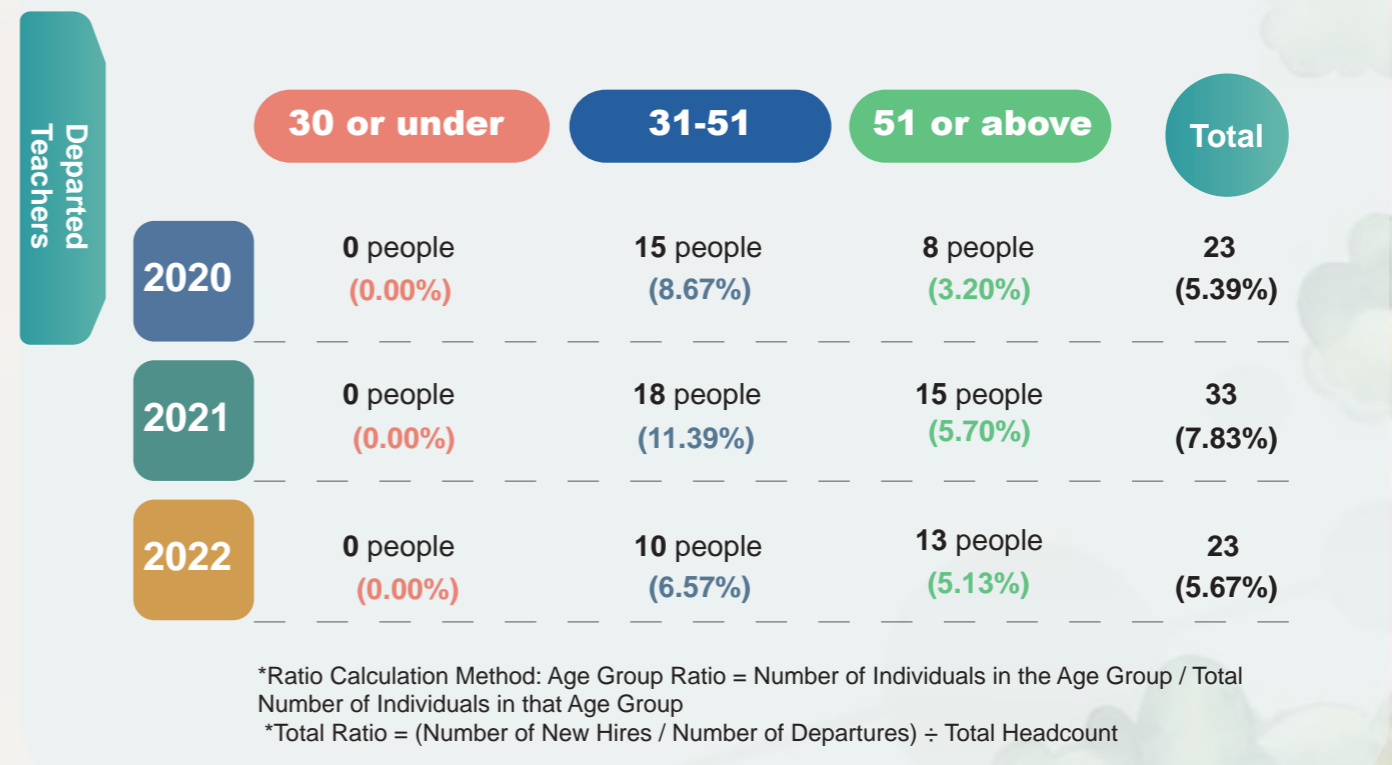
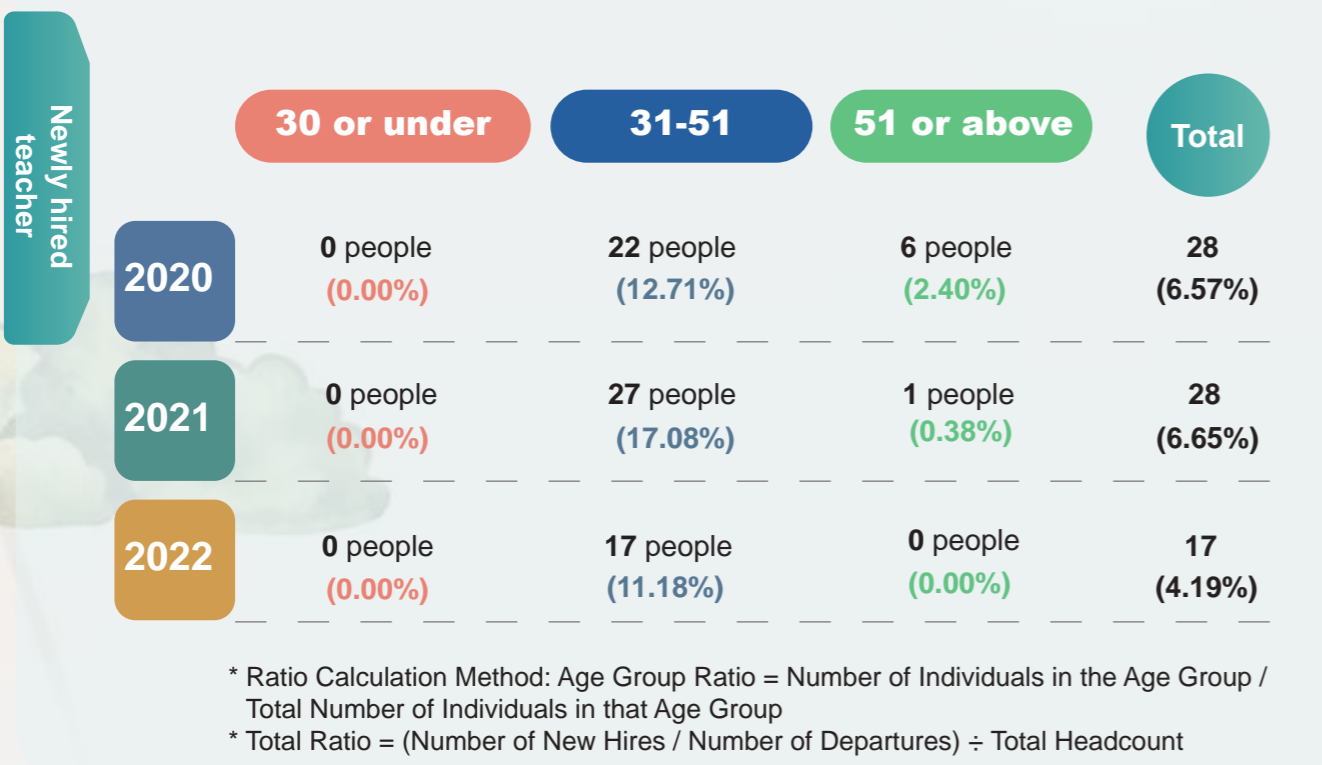
New-hires and departures

Teachers

Distribution Statistics of New Hires and Departures of Teachers from 2020 to 2022

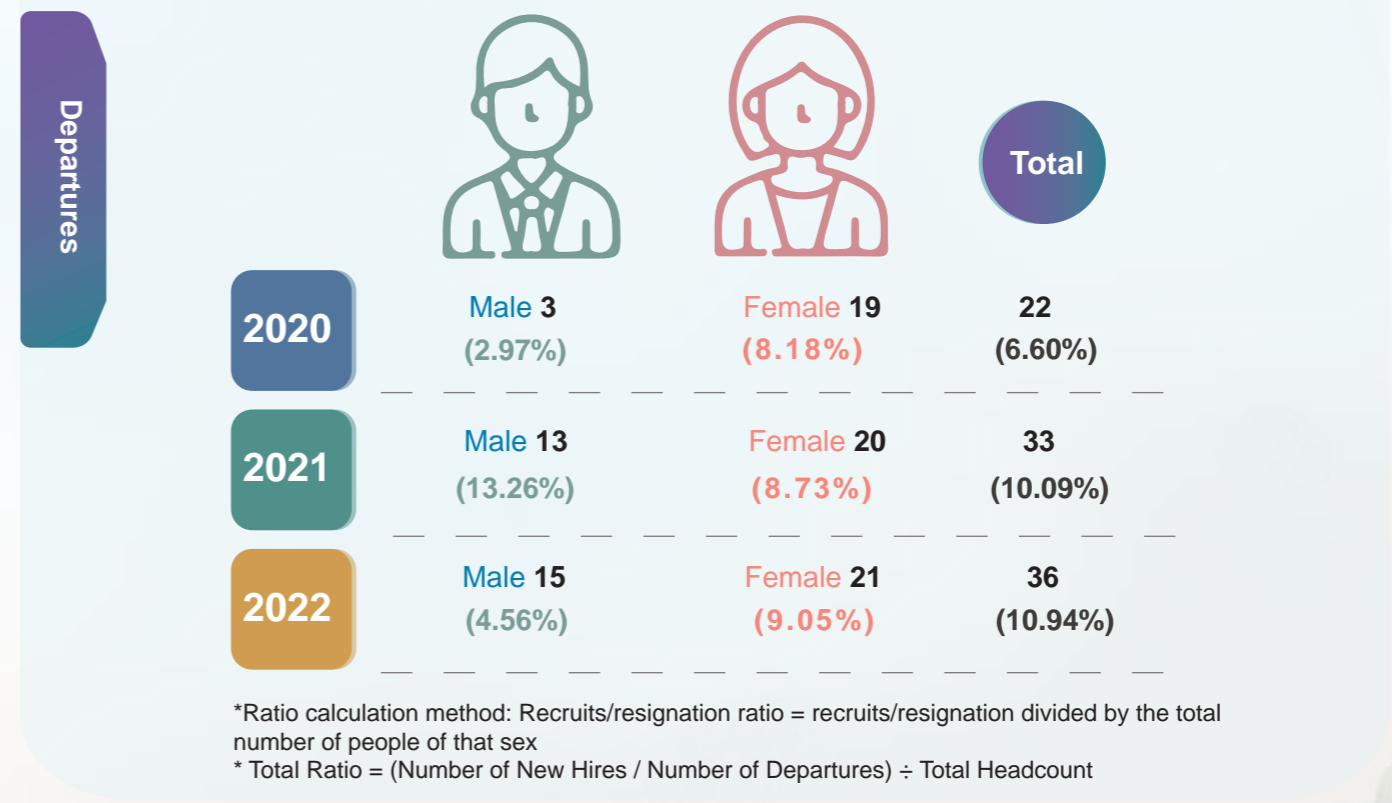
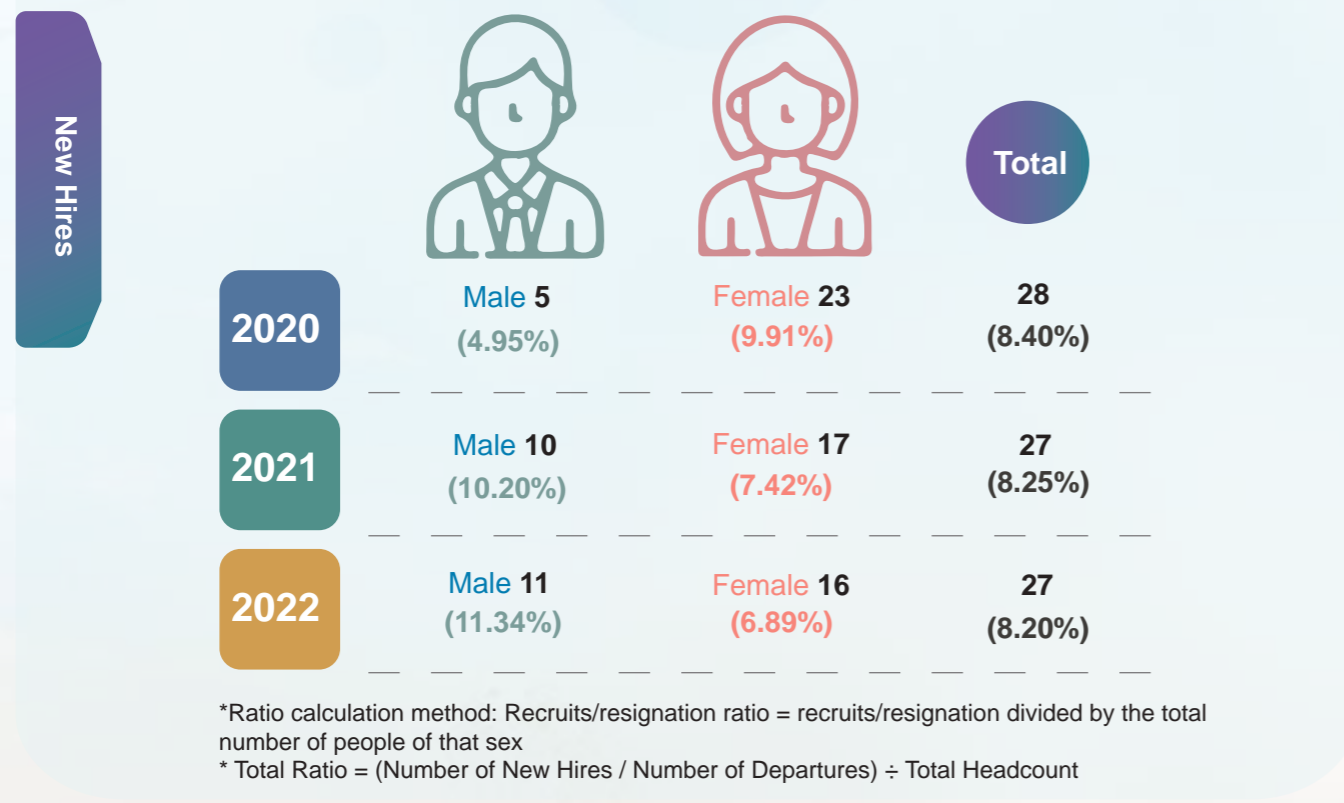


Age Distribution Statistics of New Hires and Departures of Teachers from 2020 to 2022

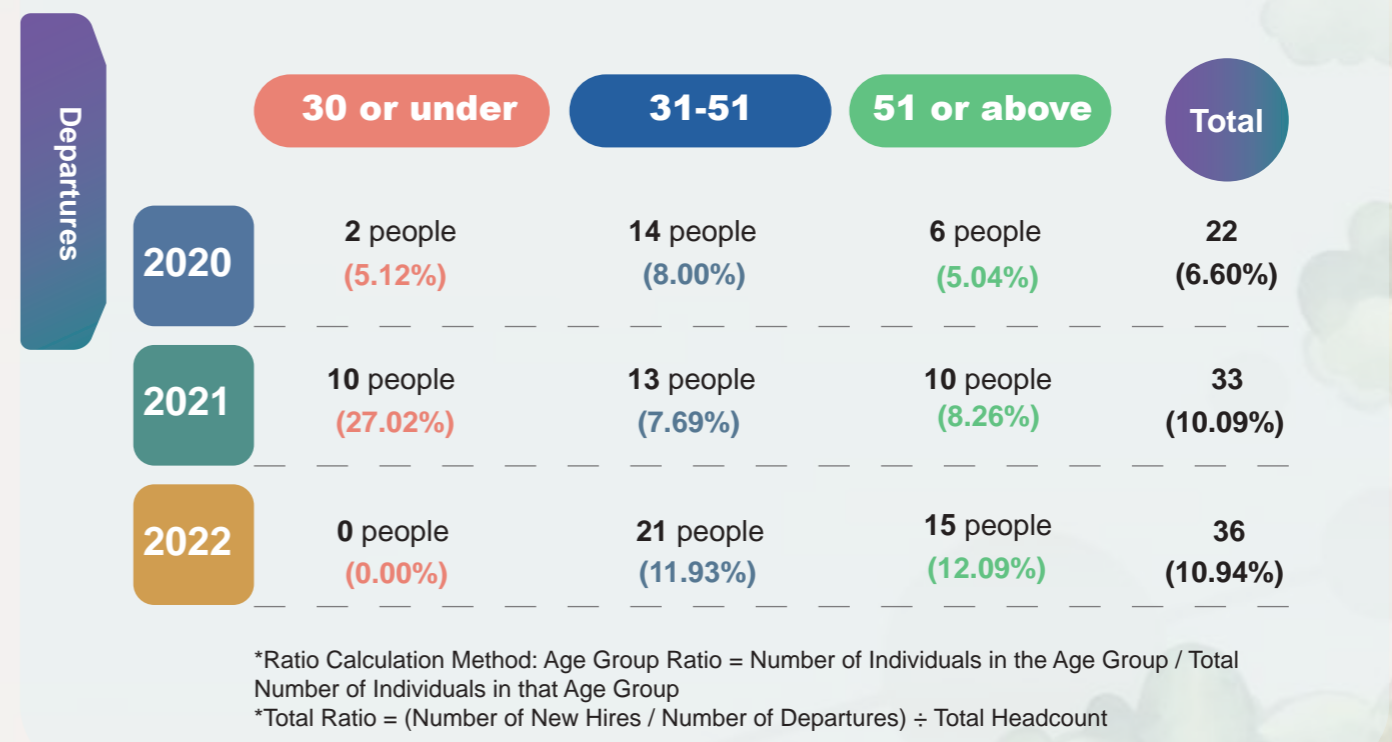
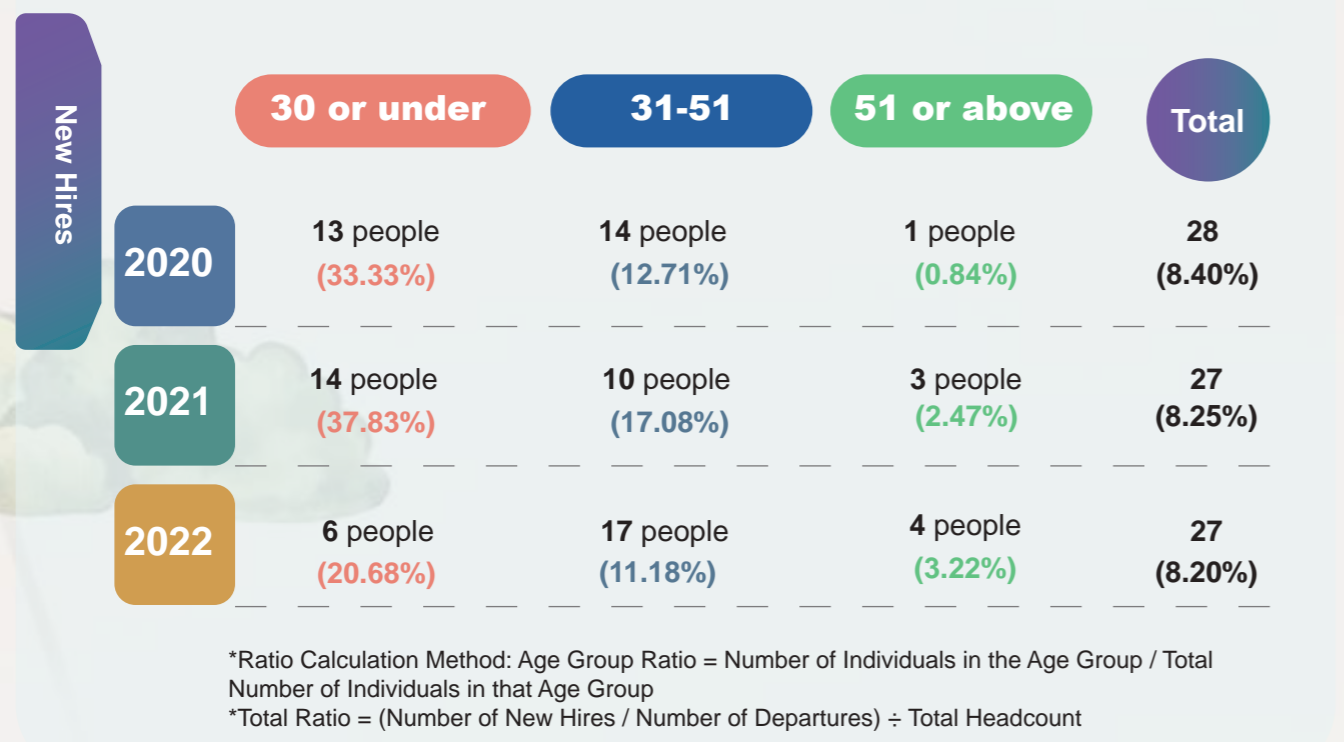


Employees

Distribution Statistics of New Hires and Departures of Staff Members from 2020 to 2022



Age Distribution Statistics of New Hires and Departures of Staff Members from 2020 to 2022



Parental leave



Any school employee who is raising children under the age of three may apply for parental leave without pay according to the Act of Gender Equality in Employment, Regulations for Implementing Leave without Pay for Civil Servants, Regulations for Implementing Leave without Pay for Educational employee, and Regulations for Implementing Unpaid Parental Leave for Raising Children. The school shall not refuse such requests and must collaborate with the national policy to increase the fertility rate. If a school employee needs to raise children under the age of three, the employee can fill in the application form, attach the child's birth certificate or household register, and implement the request after approval according to the level of power and responsibility.

Year	Employees entitled to parental leave		Employees who have used parental leave		Employees who should return to work after completing maternity leave		Employees who have completed maternity or parental leave and, after returning to work, have remained employed for twelve consecutive months		Ratio of employees returning to work after taking parental leave		Ratio of employees retained after taking parental leave	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
2021	12	32	0	4	-	2	-	2	-	100%	-	100%
2022	6	13	0	4	-	2	-	2	-	100%	-	100%

Faculty Compensation and Rights

Faculty Compensation Package

YunTech's faculty and staff include regular faculty, civil servants, teaching assistants, military training instructors, rare technology personnel, campus security personnel, skilled workers, personnel employed through off-budget funds, and project staff. The university consistently adheres to the current regulations on compensation for various personnel categories, including the Teacher Compensation Act, the Civil Service Salary Act, the National Defense Civil Servants and Public Employees Salary Guidelines, the conversion rate of salary points for contract employees, and the basic wage under the Labor Standards Act. All salaries and benefits are granted in accordance with government regulations, with educators compensated based on their academic ranks, civil servants based on their official positions, and labor law employees according to their job titles and salary grades. YunTech ensures that there is no gender-based wage discrimination among its faculty and staff. Compensation is calculated based on the annual sum of monthly salaries, year-end performance evaluations, and year-end bonuses, with gender not influencing the differential treatment in salary and benefits.

- ◎ The current minimum salary for our university staff is in a 1:1 ratio compared to the minimum wage in Taiwan.
- ◎ The ratio of the median of the highest individual annual total compensation to the median of the annual total compensation of other employees is 2.13.
- ◎ The ratio of the median percentage increase in the highest individual annual compensation to the median percentage increase in the average annual total compensation of other employees is 1.58.

Regarding retirement benefits, they are issued in accordance with relevant government regulations, including the Public School Teachers' Retirement Severance and Disbursement Act, the Civil Servants Retirement, Severance and Disbursement Act, the Civil Servant Insurance Act, the Labor Retirement Benefit Act, and the Labor Insurance Act.

Emphasis on workplace equality – Establishment of non-discriminatory personnel policies.



Discrimination

- When filling vacancies, the contents of the announcement must not be treated differently due to religion, gender, or age.
- The salary system shall not discriminate between gender, religion, or age, and recruits shall be paid fairly according to the salary standard.
- Employees of the school shall be entitled to equal pay raises, promotions, training opportunities, and other employment security guarantees.
- The rights and benefits shall be enjoyed by employees equally without discrimination.
- The selection of members for the Faculty Review Committee, the Teacher Grievance Review Committee, and the Staff Recruitment and Performance Review Committee at our university is conducted through a nomination process. The gender ratios in all of the committee complies with relevant regulations.
- The new faculty and staff education and training section include digital courses on gender equality, and we continuously encourage current colleagues to participate in online courses related to gender mainstreaming. Additionally, referring to the analysis of the Gender Mainstreaming courses (course codes 386 to 413) downloaded from the Civil Servant Lifelong Learning Portal in the 2022 academic year, a total of 573 faculty and staff members from our university have completed online or on-site Gender Mainstreaming courses.

Freedom of association - labor-management meetings are available

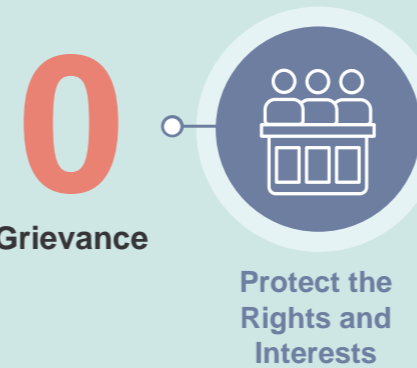


Freedom of association

Coordinate labor relations, promote labor cooperation and improve work efficiency. The overarching goal is to encourage voluntary labor and capital consultation and cooperation to improve communication between labor and capital in the school, reduce confrontation and conflict, allow the parties to reach a consensus, and then consolidate the wisdom and potential of all people to work together to implement the resolution.

Faculty Grievance

Teachers Grievance Channel - Protecting Teachers' Rights and Interests



Grievance

Protect the Rights and Interests

The school has established a Teacher Grievance Review Committee to protect the rights and interests of teachers, promote campus harmony, and fully exert educational functions. If a teacher believes that the school's actions concerning the teacher are illegal or inappropriate and have harmed the teacher's rights and interests, the teacher may file a grievance, and the Teacher Grievance Review Committee shall investigate the case. There were zero teacher appeals in the 2021 academic year.

Employee Grievance Channel - Protecting employees' Rights and Interests



Grievance

The school has established the "YunTech employee Grievance Appraisal Committee Organization and Review Guideline." Employees who believe that the school's management measures or handling of related working conditions are inappropriate and thereby jeopardizing their rights and interests may file a written grievance within 30 days after the management measures or disposal.

3-2 Campus Safety and Health Promotion

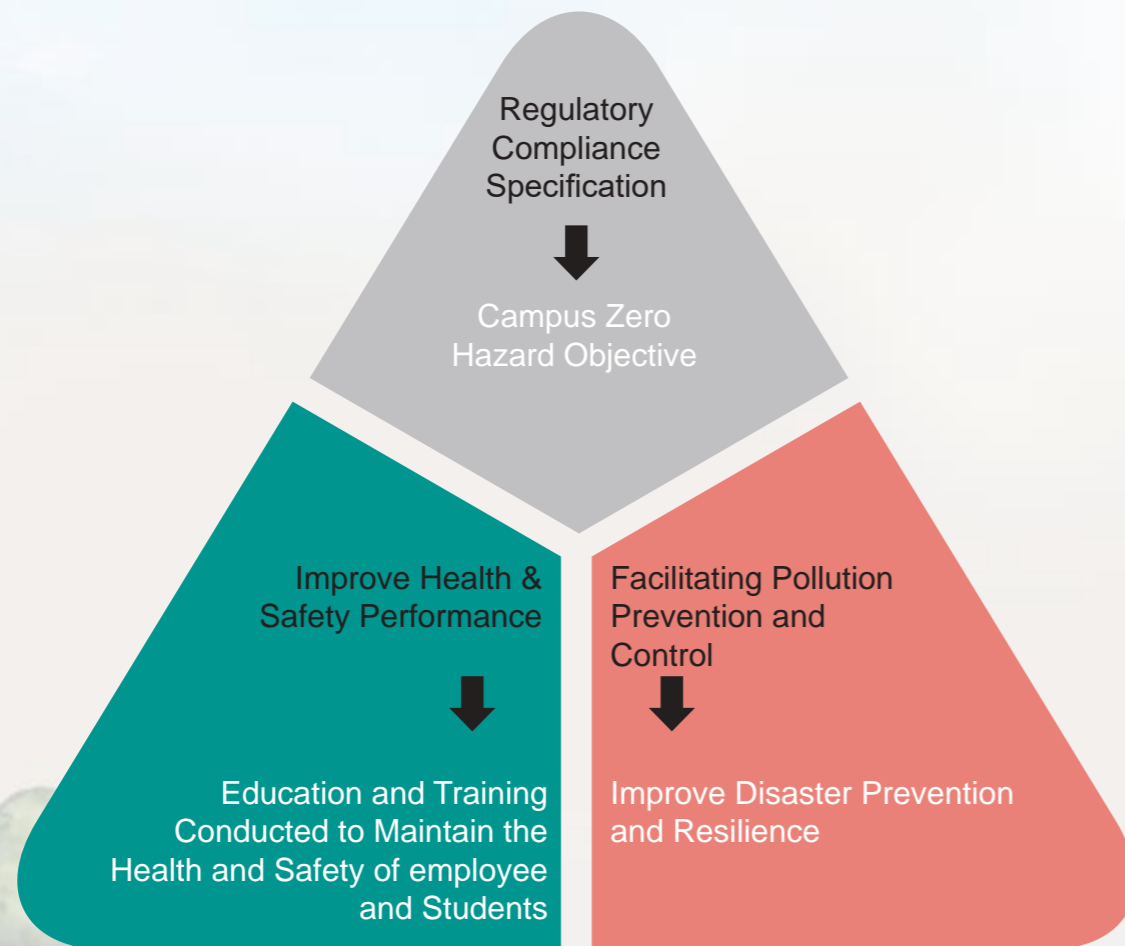
SDGs correspondence: 3.3, 3.4, 3.5, 4.3, 4.5, 4.7, 4.a, 10.2, 8.8, 10.3, 11.7

► Faculty and staff safety and health education training sessions



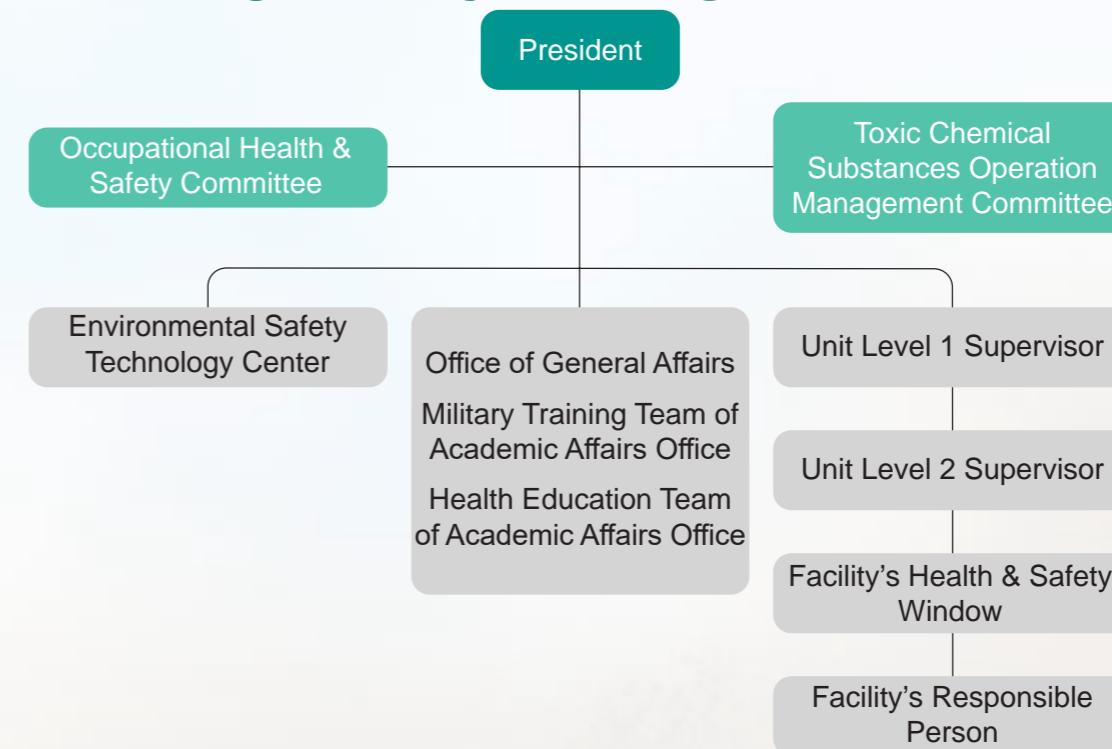
7 1202
Sessions Participants

► YunTech Safety and Health Policy



To prevent occupational accidents and ensure the safety and health of the faculties, employee, and students of the school at workplaces such as laboratories, research laboratories, testing grounds, and practice workshops, we have formulated the “YunTech Safety and Health Management Regulations” according to the Occupational Safety and Health Act. According to the Occupational Safety and Health Act, we have also established the Occupational Safety and Health Committee and the Environmental Safety Technology Center.

► YunTech Environmental Health & Safety Operation Management System Diagram



The Occupational Safety and Health Committee has 19 members. The committee members include the school's president, the dean of the College of Engineering, the dean of the School of Design, the Chief of General Affairs, the Chief of Research and Development, the head of the Department of Environmental and Safety and Health, the head of the Department of Chemical Engineering and Materials Engineering, the director of the Accounting Office, the director of the Personnel Office, the team leader of the Health Education Team, the director of the Environmental Safety Science and Technology Center, the team leader of the Safety and Health Team, and 7 labor representatives. (36.84%)

The school's safety and health work rules are revised and expanded to match the Occupational Safety and Health Act and its related regulations. Most “employed laborers” are incorporated into the Occupational Safety and Health Act. The code of practice was amended and passed at the 3rd Occupational Safety and Health Committee meeting in 2019 and reported to the Central District Occupational Safety and Health Center of the Occupational Safety and Health Administration of the Ministry of Labor to complete the registration on September 4, 2019. The registration number is B108006043.

The third Wednesday of each semester is set aside for health and safety education and training for new and in-service faculty members. The number of training sessions may be increased as needed. The goal is to create a culture of safety and hygiene through education and publicity promotions, improve faculty and employee health and safety, and strengthen concepts and skills to aid in disaster prevention and resilience. The Environmental Safety Technology Center conducts unscheduled laboratory inspections for each department. It requires audited units to improve audit results, strengthen campus safety and health performance, and maintain security, health, and pollution prevention awareness of colleagues' and students' safety, health, and pollution prevention. Note: In 2022, due to the impact of the COVID-19 pandemic, training sessions were conducted as online courses.

Faculty and employee Health Safety and Health Education Training Sessions and Number of Participants from 2020 to 2022

Year	Education and training sessions	Number of Participants
2020	6	943
2021	5	234
2022	7	1,202

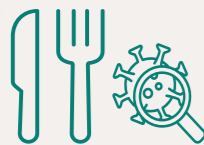
* The number of education and training sessions for 2020-2021 was reduced due to the COVID-19 epidemic and the central epidemic prevention guidelines to avoid the risk of cluster infection; starting from 2022, a combination of physical and online courses has been implemented. Starting from 2023, physical courses will resume, and efforts will be intensified to promote campus safety and health education.

▶ Drinking Water Management



The school's drinking water sources are tap water, reservoirs, and water towers, regularly cleaned by professional agencies yearly. In addition, the water dispenser is maintained by the Environmental Safety Technology Center, and we have entrusted contractors to conduct regular maintenance operations every week. The water quality inspection for drinking water fountains is entrusted to a water quality testing company approved by the Executive Yuan's Environmental Protection Agency and is performed every three months. The number of drinking fountains in each inspection is a quarter of the number in the school. The inspection item is the "E. coli group." If the inspection is unqualified, it will be immediately recorded and marked as out of service, and the maintenance manufacturer will be notified to re-inspect after maintenance and treatment. It can only be used again after passing the test. In 2022, the school inspected all 187 water dispensers, and they all passed the test.

▶ Inspections for High-risk Catering Category



We have established a catering hygiene management mechanism to ensure the safety and quality of campus catering hygiene; and commissioned industry, school, and Ministry of Education units to ensure the health of faculty and employee.

▶ YunTech Catering Sanitation Management Mechanism

1. We have established a "School Catering Hygiene Inspection Team" every academic year to visit restaurants weekly for catering hygiene supervision (including tableware cleanliness inspection and frying oil aging inspection). The team comprises the dietary guidelines committee members, catering supervisors, and part-time nutritionists.
2. The operators conduct daily self-inspection according to the items in the self-management form, the school catering sanitation inspectors execute weekly verifications, and the Ministry of Education conducts on-site counseling once per academic year.
3. Twice every academic year, we commission the Food Hygiene Division and Inspection Division of the Yunlin County Public Health Bureau to conduct limited microbial (coliform & E. coli) testing on lunch boxes. During the 2020 academic year, 11 different lunch boxes were randomly inspected for coliform/E. coli items, and the results conform to the regulatory requirements.
4. The test results are published on the school's website at "Office of Academic Affairs → Service Items → Restaurant Sanitation Supervision and Management" for reference by all teachers and students before meals.

▶ Employee Health and Well-being

The school has developed the "YunTech Employee Health Protection and Management Guidelines" according to the Occupational Safety and Health Act and the Regulations Governing Labor Health Protection. The goal is to provide comprehensive personal health resources and fully assess and improve the physical, social, and psychological working environment to establish a healthy lifestyle for teaching employee and promote physical and mental health. Implement and subsidize regular health exams for employees according to the laws and regulations, analyze annual health check results and trends, arrange individual consultations with physicians and nutritionists for groups with abnormal exam test values, and conduct health promotion activities based on the health demand survey results.

New employees must provide labor health inspection reports, and current employees must undergo regular health inspections. The number of people who have been inspected in the past 3 years is as follows:

Number of New Recruits and Regular Health Checkups



Personalized Medical Consultation and Nutrition Consultation

The university also provides personalized medical and nutritional consultation services, organizes health lectures, promotes activities like staying hydrated, and arranges health screening services.



Health lectures



Campus flu vaccination and four cancer screenings



► Hygiene education activities

The Health Care Division provides a comprehensive life education mechanism and organizes health and education activities to improve or enhance health and well-being. We have also actively promoted emergency aid and life-saving education by encouraging teachers and students to roll up their sleeves to donate blood and save lives, as well as promoting basic life-saving techniques for freshmen students, faculty members, laboratory employee, and community leaders to obtain the basic first aider certificate from the Red Cross Society of the Republic of China (Taiwan). One round of first aid training and four rounds of blood donation activities are planned each year.



The school's 2020-2022 health education results are as follows:

	2020	2021	2022
CPR+AED license	A total of 1,611 students attended 1,571 students were licensed Pass Rate 97%	A total of 1,619 students attended 1,525 students were licensed Pass Rate 94.1% <small>* To obtain a certificate, all learning and technical subjects must participate in the entire process and pass the test. The school adopted long-distance teaching for two weeks, from September 13, 2021, to October 4, 2021. Subject courses were combined with physical education, and teaching was changed to online video viewing and testing. Some students could not complete the course within the time limit, so the certificate pass rate is lower than that of 2020.</small>	No new student CPR/AED training was conducted this year. <small>In 2022, YunTech did not receive funding from the Ministry of Education's in-depth cultivation plan, and due to the severe impact of the COVID-19 pandemic, the training for new student CPR+AED was not conducted.</small>
First Aid Workshop	Held a total of 2 first-aid training camps A total of 50 teachers and students participated 50 students passed the first aid certificate Pass Rate 100% <small>* Only 2 sessions were held in the second half of 2020 due to COVID-19</small>	Held a total of 3 first-aid training camps A total of 103 teachers and students participated 103 students obtained the first-aid certificate Pass Rate 100% <small>* In June 2021, 1 session was suspended due to COVID-19</small>	A total of 3 rounds of basic life-saving training were conducted. A total of 48 teachers and students participated 48 students obtained the first-aid certificate Pass Rate 100%
Blood Donation Activities	Held a total of 4 blood donation activity sessions A total of 638 teachers and students joined the ranks of blood donation to save lives Donated 805 bags of blood	Held a total of 3 blood donation activity sessions A total of 428 teachers and students joined the ranks of blood donation to save lives Donated 533 bags of blood <small>* In June 2021, 1 session was suspended due to COVID-19</small>	Held a total of 4 blood donation activity sessions A total of 521 teachers and students joined the ranks of blood donation to save lives Donated 612 bags of blood

Basic Lifesaving Training



Blood Donation Activities



The health education team has signed special contracts with neighboring medical institutions to properly ensure the health of teachers and students in the school. We have also entered into special hospital relationships with 49 medical institutions in recent years to provide discounted registration fees, free medical consultation services, and a full range of medical care. Moreover, we have also organized health promotion programs every year according to the health needs of teachers and students in the school (such as campus jogging, body fat reduction, medical nutrition consultation, various health-related lectures, and smoking prevention).

▶ Drug Abuse Prevention

Year	Cooperating Medical Institution (Hospital)	Number of Activity Sessions	Number of Participants
2020	50	65	3,017
2021	50	69	3,801
2022	49	65	6,230

In recent years, new drugs have infiltrated our society through various channels with packaging disguised as drinks and candies. They have also invaded campuses and poisoned students. We will build a dense and solid campus anti-drug education publicity network and effective anti-drug publicity channels to prevent the harm of drugs. Our school has enlisted the help of volunteers and students from student organizations to invest in anti-drug campaigns by combining service-learning courses with anti-drug propaganda. Apart from using various on-campus gatherings, YunTech actively engages with nearby communities, townships, and elementary schools. Taking on the role of older brothers and sisters through the "Hands Together" initiative, students lead in designing friendly and lively educational content. They conduct outreach activities in classrooms, aiming to foster an understanding of the dangers of drugs and techniques for drug prevention from a young age. Additionally, the university strengthens the anti-drug awareness of participating volunteers and club members.

Due to the impact of the COVID-19 pandemic, YunTech has temporarily suspended on-site anti-drug education activities in middle and elementary schools. Instead, the university has adapted by organizing student volunteers to create campus life anti-drug dramas such as "Stay Away from Drugs, Courageously Say No" and animated role-playing drama "Anti-Drug Battle on Erjian Mountain." These anti-drug promotional microfilms are then produced and distributed to nearby primary and secondary schools as educational materials. This initiative aims to ensure that anti-drug efforts remain uninterrupted during the pandemic, cultivating awareness against drug abuse and creating a fresh and healthy learning environment for students.

Year	Number of Participants in Drug Abuse Prevention Events
2020	3,063
2021	3,655
2022	3,981



▶ Promote Campus Life Education Counseling Activities

Life education covers 4 aspects: self, others, the environment, and the universe. The goal is to advocate for and promote the importance of life education among the school's faculty and employee, cultivate the school's teachers and students to build a life safety and interpersonal support network, ignite the optimistic vitality of teachers and students, establish a positive attitude toward life, and promote happiness.

Due to the increasing emphasis on the mental and physical health of university students in recent years, our university has been consistently implementing a mental health promotion program. We have expanded the campus life education network, connecting the Counseling Center with various units such as the General Education Center, the Office of Academic Affairs, and the Office of International Affairs. This multi-faceted approach ensures the continuous implementation of initiatives related to "emotional education," "mental health," "interpersonal companionship," and "suicide prevention gatekeeper training." This effort equips faculty and staff with caring abilities, enhancing the overall development and nurturing spirit of students and educators on campus.

Academic Year	Project Name	Number of Participants
108	College and University "Suicide Prevention Gatekeeper" Training Program Subsidization by the Ministry of Education	1,292
109	College and University "Campus Mental Health Promotion" Program Subsidization by the Ministry of Education	7,475
110	College and University "Campus Mental Health Promotion" Program Subsidization by the Ministry of Education	6,669



▶ Build a "Healing Heart Garden" Rest Area

Our Counseling Center has turned a desolate campus into a "Healing Heart Garden" space to "maintain harmony with nature and learning from life." By creating an environment that fosters interaction between individuals and nature, YunTech aims to cultivate in students the ability to establish harmonious relationships with oneself, others, and nature. This approach is intended to instill a sense of belonging, strengthen internal coping mechanisms, and promote self-acceptance and affirmation.



► **Counseling and Consultation**

★ **Establish a Mental Health Education Promotion and Counseling System in the School**

The main goal of establishing the Counseling Center is to provide mental health services, maintain and improve the mental health of students and faculty members, help students understand themselves, solve psychological distress caused by various life issues such as career development, and assist students in developing personal potential and pursuing self-realization.

★ **Establish an e-based individual counseling service system**

YunTech offers full-time e-case management and appointments for psychological counseling. The school's faculty, employee, and students can use the online appointment system to make counseling appointments and query counseling-related information at any time from anywhere.

No. of counseling sessions and counselees between the 108 and 110 academic years

Academic Year	Individual Counseling Count	Individual Counseling: Number of People
108	457	3,009
109	514	3,538
110	494	3,583

★ **Urgent Student Care Screening Mechanism - "Mood Detector" Activity**

The "Mood Detector" urgent student care assistance mechanism is established to provide a screening system for urgent care cases. Full-time and part-time psychologists and intern psychologists provide class discussions at the beginning of each academic year for freshmen after they enroll and for juniors within about one to two months from the beginning of the next semester. The screening, follow-up care, and counseling are provided after receiving consent. The psychologists at each hospital then provide care via phone conference and invite cases to participate in individual counseling, group counseling, workshops, and other activities. In addition to the psychological screening, the class discussions also provide mental health education to help students grow psychologically.

108-110 Academic Year "Mood Detector" Sessions and Participants

Academic Year	No. of Sessions	No. of Participants
108	79	3,450
109	90	3,463
110	88	3,458

★ **Establish a teacher guidance community to strengthen teacher guidance knowledge**

The Counseling Center aims to establish a cross-departmental guidance teacher knowledge community to inspire teaching enthusiasm and guidance energy for teachers while establishing a cooperation mechanism between teachers and professional counselors to jointly assist students in learning, adapting to life, and promote students' mental health. At present, there are "interpersonal," "emotional," and "career" counseling communities. The hosting teacher actively plans various activities for teacher empowerment. The counseling center has also established a campus "Heartwarming Map," mobilizing faculty and staff members who are willing to care for students. These individuals provide initial caring and counseling services for students. Additionally, regular sharing sessions are organized for participating teachers to enhance their counseling skills.

No. of sessions and counselees between the 108 and 110 academic years

Academic Year	Sessions	No. of People
108	6	94
109	11	214
110	10	770



► **Organize career themes and professional knowledge series activities**

According to counseling service statistics and analysis results over the last three years, "interpersonal relationships," "self-understanding," and "physical and mental health" are popular topics among our students. YunTech primarily focuses on students who are struggling with "self-affirmation and self-confidence" and "self-concept and identity" issues because "self-knowledge" includes self-worth, exploring the meaning of life, self-identity, etc. College students often have blurred self-knowledge, uncertainty about their interests and expertise, difficulties in career choices, and a lack of self-confidence. Regarding physical and mental health, "emotional distress" and "stress coping and adjustment" are the main issues causing physical and mental health distresses for our students. The students' daily stressors and psychological quality (including cognitive/affective/action functions, etc.) often interact with each other to affect their career development. In addition to strengthening professional skills, cultivating psychological coping ability should not be overlooked when implementing campus career counseling.

The Counseling Center collaborates with various departments within the university to organize a diverse range of activities, including lectures and experiential workshops. These activities aim to seamlessly integrate career guidance for the students, providing systematic cooperation and services. The goal is to cultivate students' awareness of their abilities and interests, strengthen their sense of career self-efficacy, and facilitate a smooth career orientation and development process.

Organize career themes and professional knowledge series activities

Academic Year	Project Name	Number of Participants	Percentage of participants who think it is helpful to their career development	Satisfaction Level
108	Dynamic Consulting Multi-Career Training Project	4,400	98.3%	98.9%
109	Expand the "Heart" for Life without Limits Unlimited Career	3,912	97.5%	98.5%
110	Higher Education Sprout Project and Career Guidance Program for the 2021 Academic Year	1,780	99.4%	99.4%

3-3 Human Rights Protection and Equal Education

SDGs correspondence: 4.3, 4.5, 8.5, 8.6

► Gender Equality Education Events

The school has organized several activities, including “Gender Equality Education Discussion in Graduate School Campus,” “Gender Equality Education Lecture,” “Women’s Film Festival,” “Gender Film Festival,” and “Counseling Teacher Competency Workshop” to improve gender diversity understanding for teachers and students, raise gender awareness, and improve gender equality. We have also invested resources inside and outside the school to expand participation effectiveness and promote the importance of gender issues on campus and in the community. We aim to help people tolerate differences, respect diversity, and implement gender equality education. The school provides individual and group counseling services for teachers and students with counseling needs due to gender differences, sexual orientations, gender traits, or gender identities.

On December 8th and 9th, 2021, our university hosted three sessions of a women's film festival. Through the appreciation and discussion of works by female directors from around the world, the event aimed to explore and analyze diverse issues related to gender and life. The goal was to break through gender, age, physiological, social limitations, and group frameworks. The event encouraged individuals to embrace differences while seeking self-discovery. The films featured in the 2021 Women's Film Festival included titles such as "Before the Dawn," "Wild Grass," "My Grandma is an Egg," "Letting Go," "Writing With Fire," and "Sami, Joe, and I."

● Number of Gender Education Participants ●



108 Academic Year



109 Academic Year



110 Academic Year

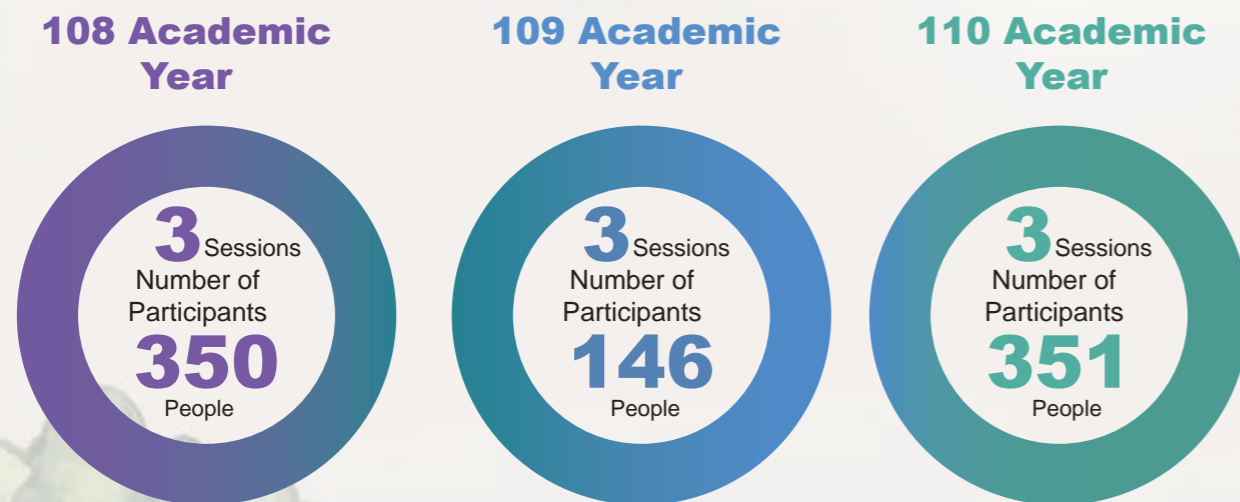


► Special Education: Removing Barriers with Love

Our Resource Classroom at Counseling Center ensures nondiscrimination, fairness, and high-quality education to provide a friendly campus. Our correct understanding and emphasis on special education conform to the spirit of the SDG to protect the rights and interests of people with disabilities, improve the knowledge of special education, and assist special education students in developing their talents and realizing their potential. Furthermore, we will continue to encourage special education students to take steps toward realizing their dreams, make the Love Without Barriers Dream Project a highlight of the school's special education program, and showcase the school's "love without barriers" friendly campus spirit.

We collaborated with special education students and various social welfare groups for the physically and mentally disabled to co-organize the designs and arrangements for various activities. The goal is to assist all teaching employee, parents, students, and community members in understanding the special education students characteristics, preventing labeling, and improving understanding and care. We also want to assist special education students in finding their interests and bravely realizing their dreams. The Dream Realizing Project starts with preparations and learning step by step. This project aims to assist special education students in establishing a connection between themselves and society, developing the ability to observe society, wielding influence over society, and encouraging others to join the ranks to bravely build their dreams. This is also an example of YunTech's continuous efforts to build a friendly campus and social environment for special education students.

★The number of sessions and participants in the 108-110 academic year for special education lectures and the Love Without Barriers Dream Project.



► Indigenous Resources

In accordance with the goals of the Ministry of Education's Higher Education SPROUT Project and the checklist of tasks for the Indigenous Student Resource Center at universities and colleges, multiple cultural and career lectures, as well as visits to tribal areas and careers, have been organized under the first phase of the deep plowing project. Peer tutoring for academic subjects and English support is also provided for indigenous students. According to the inventory conducted by the Institutional Research and Planning Center for Institutional Development, the number of participants increased from 76 in 2020 to 388 in the academic year 2022. Peer and English tutoring sessions reached 80 participants, with an overall improvement rate of 15%. The second phase of the SPROUT Project aims to implement an early warning system and use the school administration system to track the academic progress of indigenous students. The goal is to reduce the dropout rate to below 10%. Additionally, collaboration with external organizations will be strengthened to organize a more diverse range of activities, lectures, counseling sessions, and visits, providing indigenous students with a more diverse set of resources for education and employment.

► Improving Education

From 2018 to 2022, our university has actively participated in the Ministry of Education's plan to enhance the scholarship assistance mechanism, assisting economically disadvantaged students in improving their academic performance. Compared to the initial year of implementation in 2018, where 194 economically disadvantaged students received counseling assistance, the program has been enhanced, and by the academic year 2022, the number has increased to 356, representing a significant growth of 83.5%. The second phase of the project aims to strengthen the counseling mechanism for disadvantaged students by integrating existing mechanisms for academic learning, professional learning, language learning, and career counseling. The project will continue to track the learning guidance program through the online learning system, introducing a new mechanism for reporting learning progress. The online learning system will be used to monitor actual learning outcomes, and based on the effectiveness statistics and various learning feedback, the learning counseling mechanism will be adjusted on a rolling basis.

The progress in student learning counseling assistance under the improvement plan from 2018 to 2022 is as follows:

Year	Assistance for Economically Disadvantaged Student Counseling
2018	194
2019	287
2020	259
2021	352
2022	356
Increase in Percentage from 2018 to 2022	83.5%

4

Academic Performance

Major Topics of this Chapter/

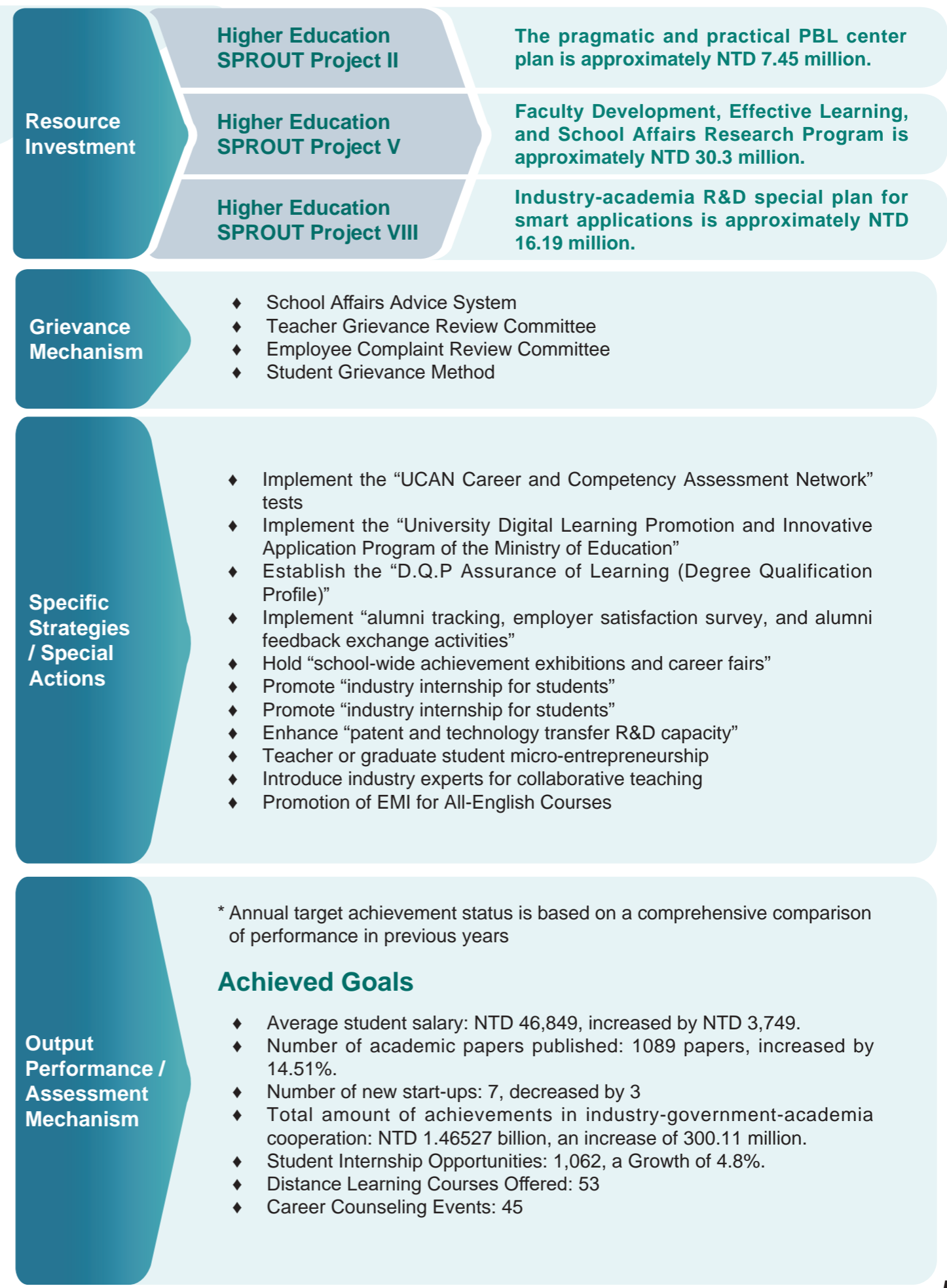
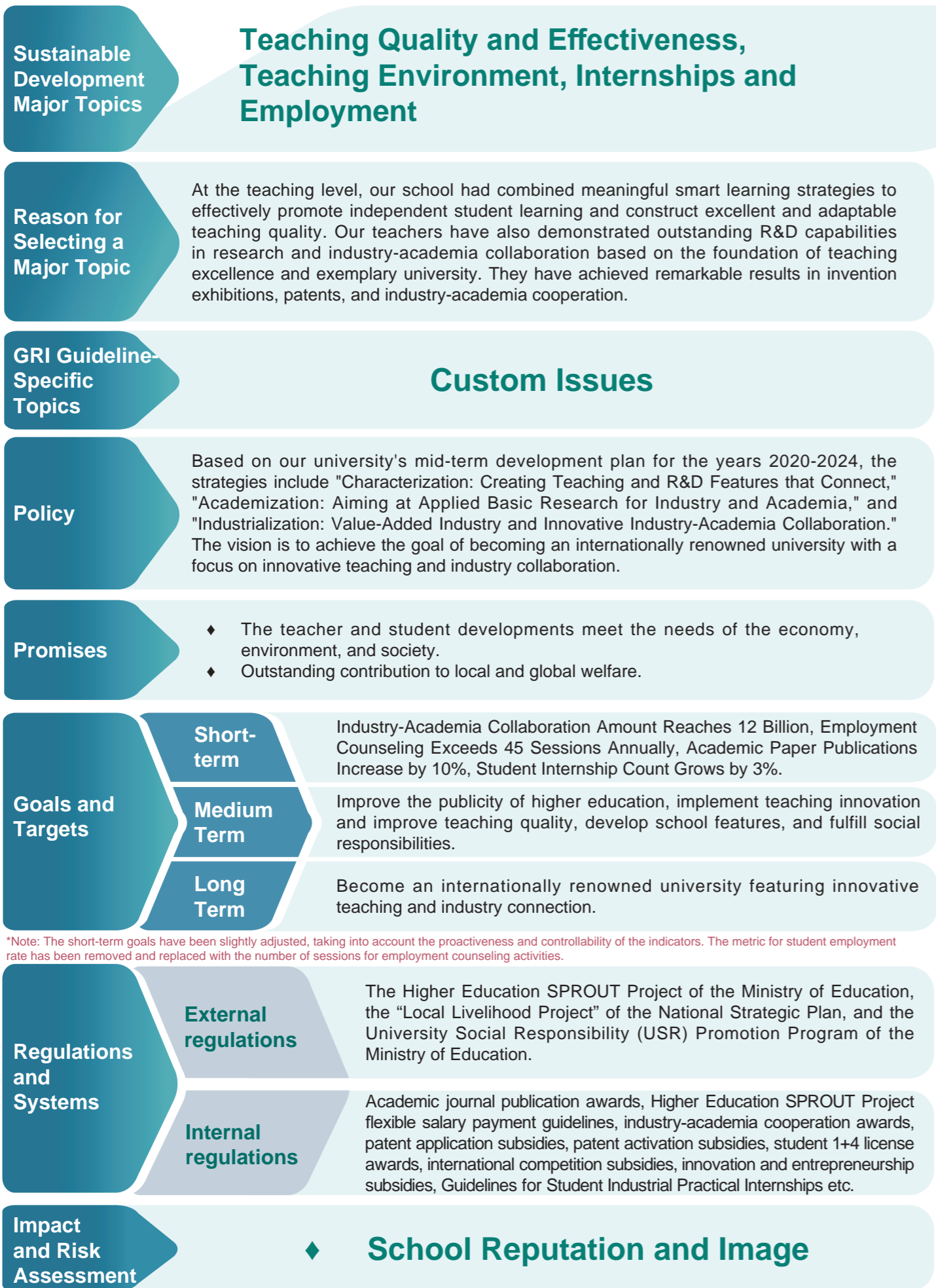
Teaching Quality and Effectiveness

Teaching Environment

Internships and Employment

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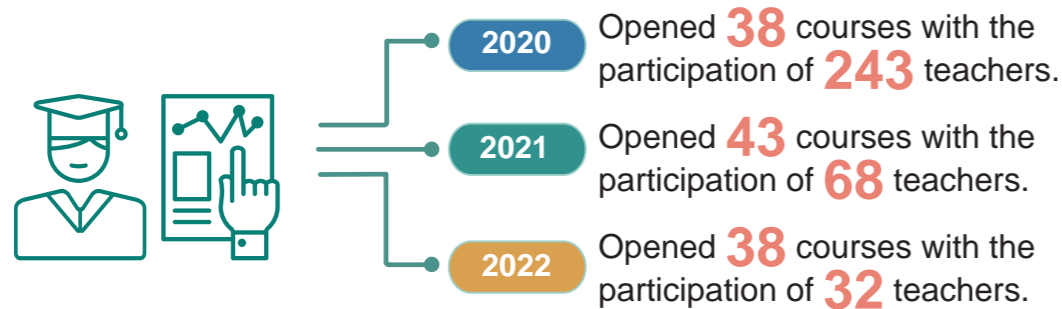




4-1 Teaching Quality and Guidance

Teacher training

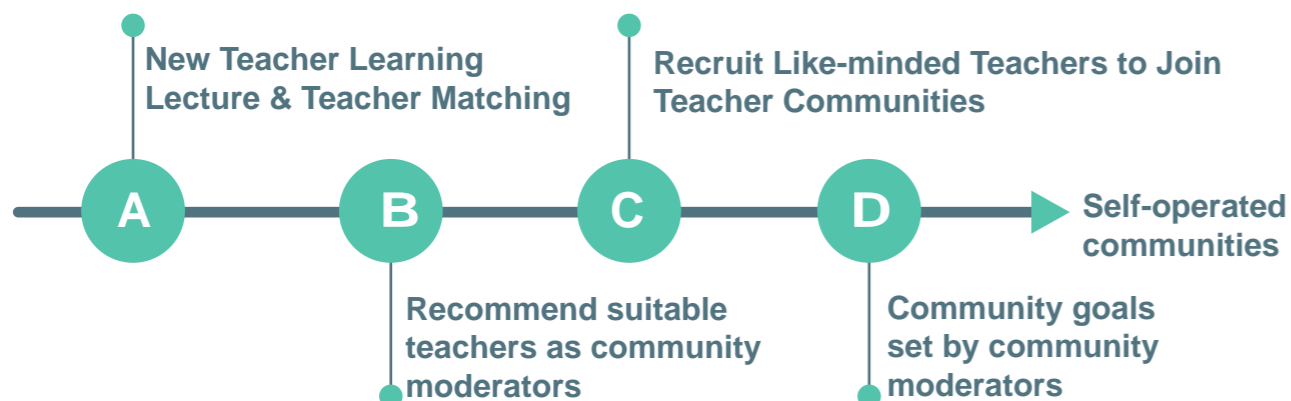
Teacher teaching observation



YunTech implements the teaching observation mechanism to ensure a cyclical system of teaching quality assurance. Outstanding or excellent teachers provide on-site observations, offering clear and specific teaching materials and methods during the observation process. The observation mechanism makes effective use of YunTech's existing teaching resources to ensure the improvement of both teaching effectiveness and student learning outcomes. To enhance the teaching quality for students, the observation guidelines stipulate that newly hired teachers are required to participate in teaching observations during their first three years. This allows for the improvement of teaching quality and an understanding of YunTech's instructional patterns.

Teacher Community BOT

YunTech has organized teachers' co-learning activities to promote exchanges, improve familiarity, promote professional and intellectual growth, and encourage teachers to form a community spontaneously. After the teacher community system is launched, teachers can recommend and lead each other and operate independently to run teacher learning activities, aiming to enhance teaching intelligence and promote the distinctive features of the school. A total of 11 teacher communities have been established, with 150 participating teachers (37% of all teachers in the school). The goal is to let teachers get to know each other and exchange teaching experience in the community.



Employee training

YunTech provides education and training courses for executives every year. The training courses cover professional growth, core functions, career development, management capabilities, policies, and statutory and democratic governance values. A multi-learning model has also been adopted for education and training based on the professional division of labor operation system. All internal education and training are autonomously conducted by each unit in accordance with its responsibilities. In addition to participating in various types of physical courses, employees can also engage in self-directed online digital learning. **Public servants (including rare science and technology personnel)** are required to complete 20 hours of job-related learning each year, including 10 hours of current government major policies, statutory training, and value courses related to governance. The minimum learning hours for **school fund staff** are compared accordingly. Therefore, the **staff development** statistics include employees from **public servants (including rare science and technology personnel)** and **school fund staff**, excluding military training instructors, stationed police officers, teaching assistants, and workers.

Staff Education and Training Statistics Form

Year	Training Overview (Including Courses Offered by Other Institutions)			Courses Offered by YunTech
	Category	Male	Female	
2020	Number of People	60	187	90 courses
	Average training hours*	33	41	
	Number of training and education participants	843	3,304	
2021	Number of People	67	205	83 courses
	Average training hours*	34	35	
	Number of training and education participants	1,074	3,316	
2022	Number of People	63	189	82 courses
	Average training hours*	46	46	
	Number of training and education participants	1,241	3,830	

Note:

- I. The statistical data is sourced from the "Civil Servants' Lifelong Learning" website, including the uploaded educational and training information for civil servants (including rare and high-tech personnel) and university fund staff for each year. Learning institutions (entities) encompass both the university and external units. The learning categories include digital, distance, and in-person courses.
- II. The average training hours can be calculated by dividing the total training hours for staff from the Civil Servant Lifelong Learning Portal by the total number of staff trained.
- III. In this context, "staff" does not include military training instructors, police officers stationed on campus, teaching assistants, and manual laborers. "Courses" refer to the courses listed on the Civil Servant Lifelong Learning Portal. "Training participants" represent the number of individuals attending the aforementioned courses.

Innovative Teaching Outcomes

SDGs correspondence: 4.3, 4.5, 4.a

► University-wide Curriculum Reform

★On-campus courses are combined with “cross-domain cooperation,” teachers’ teaching is integrated, and cross-domain learning has increased by 15.09%.

YunTech has achieved the pragmatic and practical cross-domain teaching and learning goal through PBL to exert the win-win industry-academia education cooperation effect. As part of the university-wide curriculum reform in 2022, teachers from different departments collaborated to offer interdisciplinary course modules, including X+1, Industrial Practice Internship, Project-Based Learning (PBL), and Interdisciplinary Programs. A total of 3,358 students enrolled in these courses, accounting for 51.57% of the university's undergraduate student population. The learning result analysis revealed that the interdisciplinary students’ performances had significantly improved, and the learning variation had also decreased.

YunTech encourages students to increase their course practice study hours and has assisted them in transforming their acquired knowledge and skills into knowledge and practical social ability. The in-depth curriculum can provide practical opportunities for internship learning while increasing the students’ learning engagements. We offered 9 X+1 deep bowl courses in 2022, with 163 students taking the elective courses.

► Smart Education Counseling

★Implement “precision education” via education big data analysis to improve school attendance stability

University administration must focus on freshmen learning stability in addition to maintaining registration rates. The freshmen registration rate is an important school operation indicator due to the low birth rate. The school's registration stability rate in 2022 was 96.69% for the bachelor's class (daytime) and 87.5% for the bachelor's class (further education). YunTech has accurately tracked students’ learning processes using online databases, pre-established learning norms, and provided learning guidance to encourage students to continue self-study online. YunTech has also summarized the students’ learning difficulties and compiled 51 online self-study materials via its personalized learning intervention mechanism. YunTech has compiled digital teaching materials for difficult subjects, online live problem-solving TA tutoring records, and difficult units that students frequently make mistakes with to help prevent students from becoming frustrated in continuous learning due to bottlenecks on the same subject.

Teaching innovation should include more than just changes in teachers curriculum design and teaching methods. The connection between the teaching environment, cutting-edge teaching strategies, and student behavior has received the attention of many teachers in recent years. The traditional teaching environment is difficult to complement the current creative teaching method, and hardware limitations can hamper the innovative teaching method.

► Digital Learning - the Cornerstone of Smart Education Development

YunTech encourages teachers to create their digital learning materials. The school offers 53 distance courses (4 digital courses were certified by the Ministry of Education during the 2022 academic year), and 2,203 students have taken these courses. Utilize learning analysis to grasp the students’ learning progress on the digital platform. Use learning dashboards and early warning robots for accurate guidance and long-term tracking to increase learning effectiveness. YunTech is committed to promoting digital learning courses. To develop its digital learning brand, YunTech has collaborated with the Ewant open education platform to offer 32 Massive Open Online Courses (MOOCs) for students inside and outside the school. In 2022, 6,143 students took and passed the course. Meanwhile, YunTech was invited by Ewant to collaborate on 3 high school self-study courses, which 2,129 high school students attended. We also co-organized six prerequisite courses for the online college over the summer, and 912 high school and college students received credits through this platform. Additionally, 1,552 students on campus participated in self-directed online courses.

► Teaching Practice Plan - 16 approved cases in the 2022 academic year (approval rate: 33.33%)

In the academic year 2021, YunTech organized a total of 17 seminars or workshops on teaching intelligence, 12 symposiums/experience-sharing sessions on teaching research projects, 1 large-scale seminar on teaching practice research, and 1 short-term course focusing on professional development in teaching. These events aimed to assist faculty in enhancing their teaching abilities, improving the quality of education, and helping students achieve better learning outcomes.



► Investment in Teaching Equipment

YunTech actively seeks to enhance its instructional and research capabilities in the field of graphic and instrumental equipment. In addition to the annual budget, the university actively pursues the implementation of initiatives such as "Optimizing the Student-to-Faculty Ratio, Enhancing Innovative Teaching," "Strengthening the Foundation of Teaching and Research, Deepening Industry-Academia Collaboration," and "Higher Education Deep Plowing Project" to enrich graphic and instrumental equipment. Since 2021, to develop the university's distinctive features, teaching units (departments, programs, and courses) have been encouraged to purchase "Specialized Teaching and Research Equipment" based on the unique characteristics of their respective colleges. This initiative aims to provide faculty and students with quality equipment to improve the quality and capacity of teaching and research. Apart from the subsidies from the Ministry of Education for higher education deep plowing, basic subsidies, and additional investment in school funds for specialized teaching projects (with a growth rate of 25.59%), the university plans to maintain the development of distinctive features and the purchase of specialized teaching and research equipment in 2022. However, due to the achievement of the previous year's goal of equipment procurement, adjustments have been made to the overall budget usage needs, and there is an expected gradual decrease in the additional investment from the school funds for specialized teaching in the coming years. Overall, the advancement of teaching equipment at our school has facilitated the integration of modern technology into classrooms, benefiting teachers in implementing applications and enhancing research and development capabilities.

2019 to 2022 annual plotter equipment cost and growth rate

Year	Institutional Funds (NTD)		Ministry of Education Subsidy(including high education, basic subsidy 1, basic subsidy 2)	Total Equipment Expenditure	Growth rate
	Basic Distribution	Specialized Teaching			
2019	87,719,000	-	60,781,000	148,500,000	3.05%
2020	116,501,000	-	60,781,000	177,282,000	19.38%
2021	125,000,000	36,883,000	60,768,000	222,651,000	25.59%
2022	127,000,000	14,198,000	60,768,000	201,966,000	-9.29%

* In 2022, the total budget is expected to slightly decrease due to the substantial allocation of school funds for special teaching expenses in the previous year (2021). Additionally, most of the special teaching equipment purchases were completed in the same fiscal year, resulting in a gradual decrease in funding each year.

4-2 Student Employment and Internship

SDGs correspondence: 8.6, 9.3
SASB correspondence: SV-ED-260a.1, SV-ED-260a.2, SV-ED-260a.3

▶ 110 Academic Year



- Total Graduates (Including Master's and Ph.D.) **2610** People
- Graduation Rate (Undergraduate) **81.27%**
- Current Year Graduation Rate (Undergraduate) **79.89%**

▶ 2022 Survey results on the 109 Academic Year Alumni Flow One Year After Graduation:



Survey Recovery rate
84.22%



Employment Rate of Those Willing to Work
93.99%



Average Monthly Salary
46,849 NTD



Number of New Startups
2022 Established **7** companies

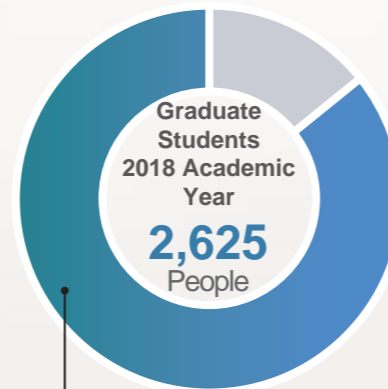
Graduate Students Flow



Alumni resources are an important asset to the school, and alumni perspectives can help the school reflect on the propriety of school operations and curriculum planning. YunTech has collaborated with the Ministry of Education's "College Graduate Career Flow Tracking Operations" and used the "YunTech Alumni Service Platform" to integrate and promote alumni career care and tracking. We have also tracked the career development status and alumni feedback through questionnaires to review school-operation goals, curriculum planning and implementation, and teaching adjustments.

From 2020 to 2022, the post-graduation destinations of alumni were surveyed one year after graduation. The survey covered graduates from the academic years 2018 to 2020, and the average response rate for the questionnaires exceeded 84%. The results showed that the employment rate for graduates with the willingness to work averaged over 94%.

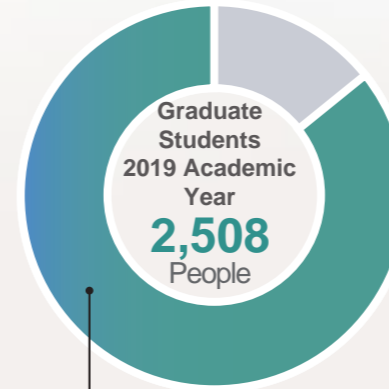
Investigation Year 2020



No. of People Surveyed
2,167 People
Survey Recovery rate
82.55 %

Employment Rate of Those Willing to Work
94.58 %
Average Monthly Salary
41,770 NTD

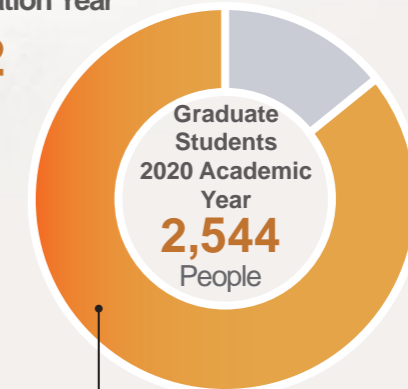
Investigation Year 2021



No. of People Surveyed
2,175 People
Survey Recovery rate
86.72 %

Employment Rate of Those Willing to Work
94.44 %
Average Monthly Salary
43,100 NTD

Investigation Year 2022



No. of People Surveyed
2,151 People
Survey Recovery rate
84.22 %

Employment Rate of Those Willing to Work
93.99 %
Average Monthly Salary
46,849 NTD



Employer Satisfaction Rate

The post-graduation performance of students entering the workforce is one of the university's key concerns. Each year, either through commissioned surveys with human resources agencies or conducted independently, the university assesses employer satisfaction. The survey evaluates graduates based on three aspects: job performance, job adaptability, and work ethics. The satisfaction rating is on a scale of 1 to 5. In the past three years, the average employer satisfaction for YunTech graduates was 4.0 in job performance, 4.1 in job adaptability, and 4.1 in work ethics.

* The rating scale ranges from 1 to 5, with 5 stars being the highest score. ★

Employer Satisfaction Survey Results from 2019 to 2022						
Investigation Year	Work Performance		Job Fitness		Work Ethics	
2019	3.9	★★★★☆	3.9	★★★★☆	4.5	★★★★★
2020	3.9	★★★★☆	4.0	★★★★☆	4.0	★★★★☆
2021	3.9	★★★★☆	3.9	★★★★☆	3.9	★★★★☆
2022	4.2	★★★★☆	4.3	★★★★☆	4.3	★★★★☆
Average	4.0		4.1		4.1	



Start-up Companies

Our teachers and students have an abundance of R&D energy, and the school actively promotes the commercialization of R&D results to assist teachers and students in realizing their entrepreneurial dreams. We have guided innovative teachers and students to form entrepreneurial teams and launch campus startups through entrepreneurship competitions. The goal is to form the YunTech campus culture of innovation and entrepreneurship and encourage more teachers and students to invest in future innovation and entrepreneurship potentials. A total of 26 new start-ups were established in the past 3 years. Every year, industry experts are invited to select teams with commercialization potential to guide the new campus startup establishments, promote R&D result commercialization, and encourage new venture development. The selected teams can receive free entrepreneurship courses and consulting services, business subsidies, and first-priority admission to the student micro-entrepreneurship training course.

Number of New Startups

2020



2021



2022



Career Counseling

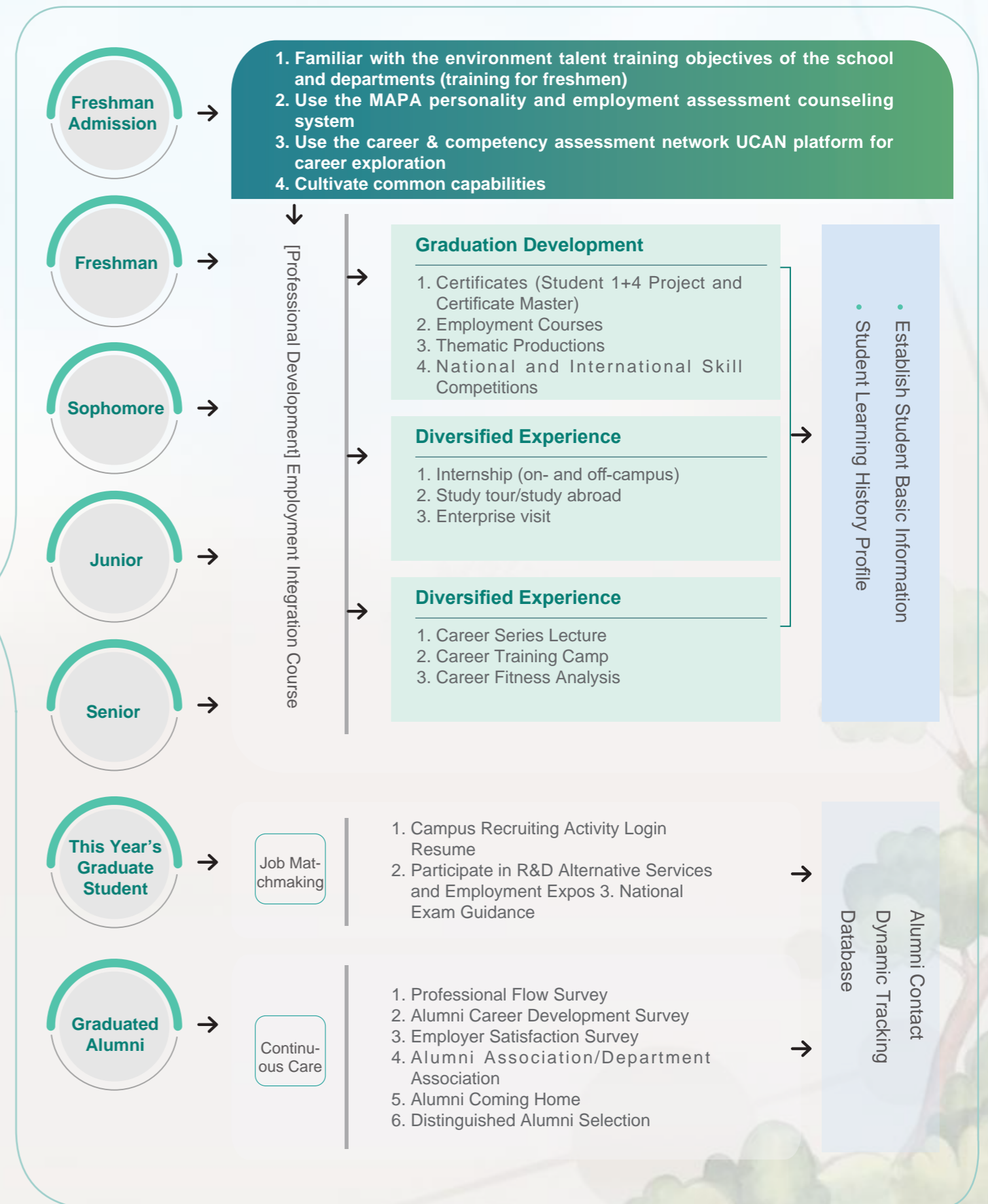
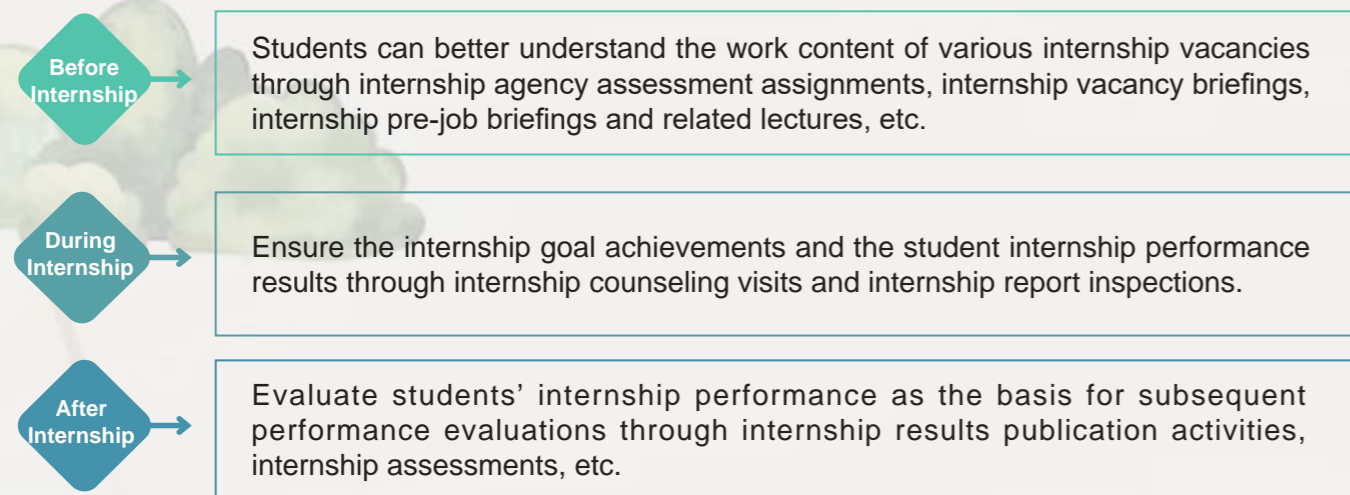
YunTech's student career counseling primarily focuses on enhancing students' employability, creative thinking, and interdisciplinary skills. The university utilizes the MAPA personality and career assessment system to help students understand their career interests, serving as a reference for career choices. Additionally, YunTech promotes the "University and College Graduate Employment Competence Platform - UCAN" for exploring career interests and conducting career competency assessments. In the 2022 academic year, the response rate for career interest diagnosis on UCAN was 82%, and the workplace common competency diagnosis response rate was 75%.

Academic Year	No. of manufacturers participating in campus recruiting	Activities Related to Career Counseling
108	Online 62 (In response to the COVID-19 pandemic, on-campus recruitment activities are temporarily suspended)	48 Sessions
109	118 companies	52 Sessions
110	129 companies	45 Sessions

We offer various guidance measures from freshman admission to graduation to improve the employment guidance mechanism for graduates. The employment guidance process is as the diagram on the right side:

Student Internship

We aim to cultivate students' practical and theoretical skills through internship courses, help them understand corporate workplace culture, and establish professional ethics cognition. In addition, we have required undergraduate students to complete at least 320 hours of industrial practice before graduation, which is listed as the graduation threshold. In the 2021 academic year, there were 1,062 interns and 462 cooperative manufacturers.



4-3 Academic Research

★Academic research is the foundation for generating knowledge, which is the most powerful force in changing the world.

SDGs correspondence: 2.1, 2.3, 2.4, 3.d, 4.3, 4.7, 8.2, 12.2, 12.5, 14.2, 15.4, 17.6, 17.16



Total Published

Growth

14.51% ↑



No. of international cooperation publications

Growth

31.70% ↑

YunTech has established reward points to encourage teachers to actively publish papers in high-quality academic journals, improve the academic research environment, invest in academic research, and publish the results. The school has also established flexible salary payment guidelines, academic research excellence awards, Feng Tay distinguished professors, YunTech course lectures, and YunTech distinguished professors programs to recruit and retain excellent academic research talents.

No. of Academic Publications & Growth Rate from 2020 to 2022

Publication Year	No. of Publications (SCIE)	Growth Rate %	No. of Publications (SSCI)	Growth Rate %	No. of International Cooperation Publications	Growth Rate %	Total Published	Growth Rate %
2020	466	36.26%	105	9.38%	317	100.63%	689	21.52%
2021	787	68.88%	128	21.90%	530	67.19%	951	38.03%
2022	787	0.00%	122	-4.69%	698	31.70%	1089	14.51%

* Obtained from Scopus and Web of Science databases

From 2019 to 2022, YunTech performed well in sustainability indicators across 16 domains. The impact of published papers in each domain was higher than the world average (FWCI > 1). FWCI (Field Weighted Citation Impact) represents the field-weighted citation impact index. If FWCI is greater than 1, it indicates that the citation impact of the paper is higher than the world average. Additionally, the number of internationally collaborative papers grew by 31.70% over the years. YunTech's academic research capabilities in sustainability have been consistently improving year by year.



Cumulative number of papers published and Sustainable Index items with FWCI>1 from 2019 to 2022 at YunTech.		
SDGs Indicator	Accumulative Number of Publications	FWCI
SDG 1	6	8.17
SDG 2	24	1.72
SDG 3	236	4.27
SDG 4	181	2.02
SDG 5	8	5.11
SDG 6	73	1.48
SDG 7	407	1.51
SDG 8	70	1.34
SDG 9	155	1.58
SDG 10	17	6.67
SDG 11	111	1.35
SDG 12	102	1.66
SDG 13	47	2.04
SDG 14	10	1.23
SDG 15	24	1.45
SDG 16	15	2.10

* Obtained from the Scopus database

4-4 Industry-Academia Collaboration

SDGs correspondence: 4.3, 8.2, 8.3, 8.6, 9.4, 11.3, 17.6

Ranks No. **27** for the Times Higher Education (THE) World University Rankings for “Industry Income (Knowledge Transfer)” Performance in 2022



No. of Industry-Academia Cooperation Cases **914** Item(s)
Total amount **1.46527 billion** NTD



General Industry-Academia Cooperation Program (including private enterprises, corporations, schools, government units) **560** Item(s)
Amount **850.56 million** NTD



No. of Technology Transfers **74** Item(s)
Technology Transfer Amount **14.05million** NTD



Industry/Academia Cooperation Performance

YunTech has established the "Dream Hub," a building dedicated to industry-academia collaboration and talent incubation, serving as a leading hub for technical and vocational talent development in Taiwan. The Dream Hub aims to strengthen the connection between academia and industry, enhance the system for talent development, industry-academia research and development, and technology transfer. It facilitates the integration of technical elements and commercialization capabilities, fostering collaboration between academic applied research and the industrial sector. The goal is to create a cooperative platform for technology research and development between the university and industry partners. The average amount of industry-academia cooperation funds per faculty member at our university ranks first among technical and vocational colleges. Specifically, in the performance indicator of "Industry Income (Knowledge Transfer)" in the 2022 THE World University Rankings, our university secured the global ranking of 27th. In 2022, the Office of Industry-Academia conducted initiatives to enhance innovative teaching and industry connections. This included the establishment of thematic course groups in precision automation, wireless communication technology, and applied special courses under the banner of "Industry-Linked Course Groups." The office also facilitated the integration of industry professionals into the curriculum through the "Industry Course Industry Teacher Integration Program." Additionally, efforts were made to strengthen connections with the industry through the creation of specialized spaces designed to simulate workplace environments, known as "Industry-Featured Spaces." These initiatives aim to reinforce the linkages between the university and the industry.

Our university is dedicated to creating a collaborative environment between academia and industry, aligning with the national development policy of "Connecting the Future, Connecting Globally, Connecting Locally." We are actively engaged in supporting the "5+2 Industrial Innovation Plan," which includes initiatives in "Smart Machinery," "Asia Silicon Valley," "Green Energy Technology," "Biomedical Industry," "National Defense Industry," "New Agriculture," and "Circular Economy." To accelerate the transformation and upgrading of Taiwan's industries, our university has identified three distinctive focus areas: "Sustainable Energy," "Low-Carbon Smart Vehicles," and "Smart Education." We continually leverage technological highlights in semiconductors, smart vehicles, smart agriculture, and more to apply for competitive government projects from the Ministry of Education, National Science Council, Ministry of Economic Affairs, Ministry of Labor, and other relevant agencies. The Office of Industry-Academia also aligns our university's industry-academia characteristics with national industrial development policies to stay abreast of current industry trends and issues. The university organizes industry forums every quarter, providing a platform for internal experts from various fields to engage in discussions with professionals from the industry. This facilitates precise understanding of industry needs and strengthens collaboration. In 2022, the university signed a letter of intent for industry-academia cooperation with KAULIN MFG. CO., LTD. and established a joint research

center. Additionally, collaborative efforts with the Taiwan Passive Component Industry Association included hosting lectures and sharing sessions on Taiwan's passive component industry, along with talent matchmaking activities. These initiatives underscore the university's robust capabilities in industry-academia research and development. In addition, to offer students a close understanding of industrial technology, we introduce expert industry professionals to teach, inviting executives from businesses to participate in lectures or serve as course advisors. This approach enhances the long-term collaboration between our faculty, students, and industry partners.



Technology Transfer Results

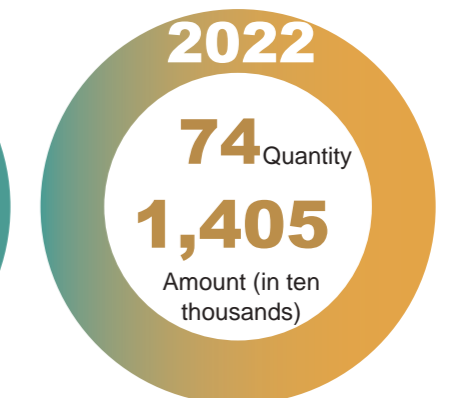
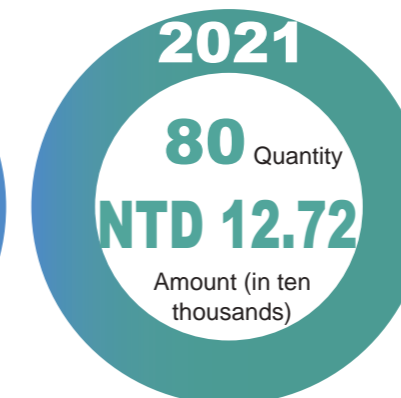
YunTech conducts regular technical energy (patents) and technical talent inventories. The strategic alliance partners and local industrial resource collaborations can help industries overcome technological gaps and increase added value through specific methods such as expert consultation, technical training, functional improvement, or business guidance. We also provide legal and marketing-related services. Encourage innovative technology transfer and diffusion management mechanisms; assist teachers and students in innovative research and technology transfer; achieve knowledge circulation, value addition, and social service goals; and contribute to employment and economic growth.

In recent years, due to the impact of the pandemic, the progress of research and development in Taiwan's industries has been relatively slow, and the estimated research and development costs are also constrained. In response to this, our university has been actively promoting a new mechanism for patent examination. During the application phase, external experts, scholars, and professional organizations are invited to assess novelty, advancement, and industrial applicability. This approach aims to move towards the goal of commercializing technology, considering the challenges posed by limitations in research and development resources in Taiwan's industries affected by the pandemic.

Due to the school's geographical factors, most of our neighboring manufacturers are SMEs with small-scale operations and low demand for technology transfer. We have actively participated in various industrial zone associations through company visits to effectively improve "technology transfer" performance and taken the initiative to promote industry-academia cooperation opportunities. Moreover, we have also strengthened technology commercialization and improved the quality and quantity of research to attract more manufacturers and provide valuable technology. The school's incubation center, industry-academia department, and R&D department have cooperated to incorporate academic research results into technology, improve the commercial technology of local manufacturers through the technology transfer authorization, drive the economic development of the real estate industry, and fulfill the social responsibility and mission for the industry in the central and southern regions.

Industry-Government-Academia Cooperation Statistics from 2020 to 2022

Year	National Science and Technology Council		Grant		General Industry-Academia Cooperation Program		Total	
	Quantity	Amount (in ten thousands)	Quantity	Amount (in ten thousands)	Quantity	Amount (in ten thousands)	Quantity	Amount (in ten thousands)
2020	188	16,531	166	42,787	590	67,721	944	127,039
2021	199	17,511	169	43,594	510	55,312	878	116,417
2022	207	18,026	147	43,445	560	85,056	914	146,527



Teacher Rewards

Distinguished and Excellent Teachers

Encourage excellent teachers and acknowledge their efforts and contributions, inspire due diligence teaching quality, use updated teaching models, cultivate higher education talents, and fulfill the grand cause. The "Excellent Teacher" quota is based on the principle of 1% of the total full-time (including project) teachers in the school, and the "Good Teacher" quota is based on the principle of 5% of the total full-time (including project) teachers in the school. These awards are presented according to the student voting results, teaching achievements in recent years, and other relevant information. The "Good Teacher" candidates are selected first, and the "Excellent Teacher" winner is selected amongst them.

Number of Excellent and Good Teachers from 108 to 110

Academic Year	Excellent Teacher	Good Teachers	Total
108	3	18	21
109	4	20	24
110	3	21	24

YunTech Excellent-Teacher Award

To encourage and recognize our teachers for not only imparting knowledge but also providing character development and caring guidance in students' lives, following the spirit of the Ministry of Education's "Excellent Teacher's Award," we have established the "YunTech Excellent-Teacher Award" to select outstanding teachers in counseling. Approximately 5-7 candidates are nominated for the award each year (at least one from each college). All full-time (including project) teachers who have served in the school for over 2 years at the end of the school year are eligible candidates for the award. In the academic year 2021, a total of 7 teachers were honored with the "YunTech Excellent-Teacher Award." During the second semester of the academic year 2022, at the school-wide tutor meeting and the tutor counseling competency training, these teachers shared their experiences in guiding students, serving as benchmarks for counseling throughout the school.



YunTech Excellent-teacher Award Presentation

Academic and Industry-Academia Cooperation Award

The "Higher Education Deep Cultivation Plan Flexible Salary Payment Operation Guideline" was established in 2018 to inspire teachers to invest in academic research and industry-academia cooperation and recruit and retain outstanding talents.

Number and amount of flexible salary payments from 2020 to 2022

Year	Teaching and Tutoring		Research		Industry-Academia		Project		Total	
	Number of People	Amount (NTD)	Number of People	Amount (NTD)	Number of People	Amount (NTD)	Number of People	Amount (NTD)	Number of People	Amount (NTD)
2020	71	2,916,000	21	2,700,000	29	3,780,000	9	1,620,000	130	11,016,000
2021	74	3,239,000	21	2,700,000	29	3,780,000	7	1,260,000	131	10,979,000
2022	29	1,424,000	24	4,186,400	18	3,771,400	8	1,185,000	79	10,566,800

Student Awards

Outstanding Off-Campus Student Awards

Encourage students to participate in off-campus competitions, inspire students to create inventions, strive for various honors, and reward students for participating in national or international competitions and winners. The number of applications has been increasing year by year due to the outstanding performance of students. Therefore, the 2019 off-campus competition award review committee members suggested increasing the award budget amount, which was increased to NTD 750,000 in 2020. However, due to COVID-19, some competitions have been postponed or suspended, resulting in fewer applications over the last two years.

The number of and the corresponding amount of rewards for Outstanding Off-Campus Student Awards from 2020 to 2022

Year	Quantity	Reward Issued (NTD)
2020	140	750,000
2021	128	749,999
2022	135	750,000

Foreign Competition Awards

Teachers and students at YunTech are encouraged to compete in foreign competitions to broaden their horizons and ignite the honor of competition and progress. The school provides subsidies for outstanding works to compete in well-known foreign invention competitions. Examples: Russia Archimedes International Invention Exhibition; Geneva International Exhibition of Inventions; International Invention, Innovation, & Technology Exhibition, Malaysia; Korea International Women's Invention Exposition; Invention & New Product Exposition; Macao Innovation & Invention Association; World Genius Convention and Education Expo; International invention exhibition in Ukraine; International Warsaw Invention Show; Seoul International Invention Fair; Hong Kong International Invention and Design Competition; German iF Product Design Award; etc.



2022 Taiwan InnoTech Expo Chief Research Officer Li, Vice Chief Officer Guo, Head of Department Lin, Head of Department Huang, and the inventors in a group photo.

Number of foreign competitions won by students from 2020 to 2022

Year	Gold Medal	Silver Medal	Bronze Medal	Special Award	Total
2020	43	33	5	1	82
2021	48	29	5	0	82
2022	53	35	2	2	92

5

Environment Performance

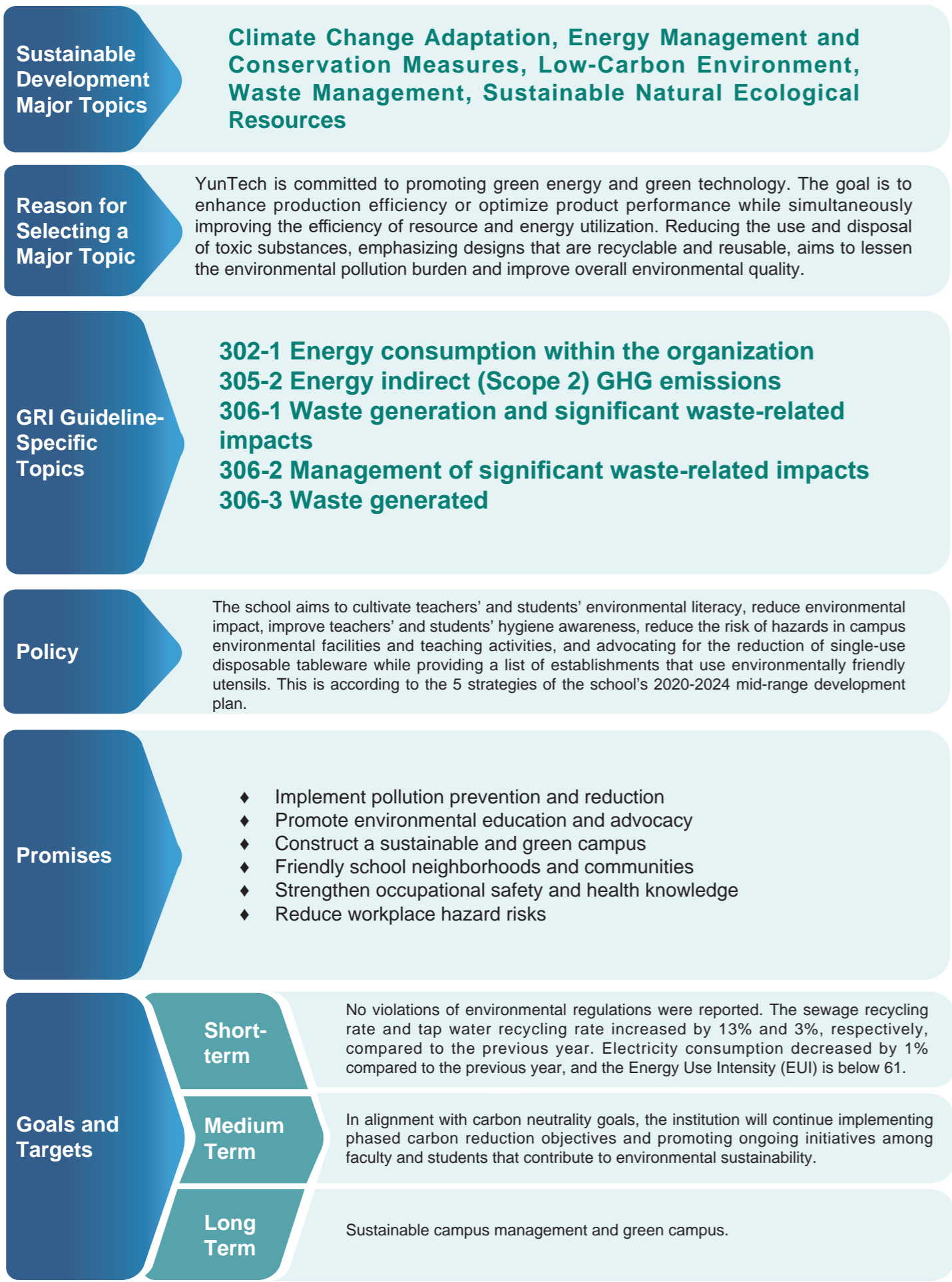
Major Topics of this Chapter/
Climate Change Adaptation
Energy Management and Conservation Measures
Low-Carbon Environment
Waste Management
Sustainable Natural Ecological Resources

5-1 Climate Change Response Measures	67
5-2 Green Campus	72
5-3 Environmental and Natural Resources Education	81

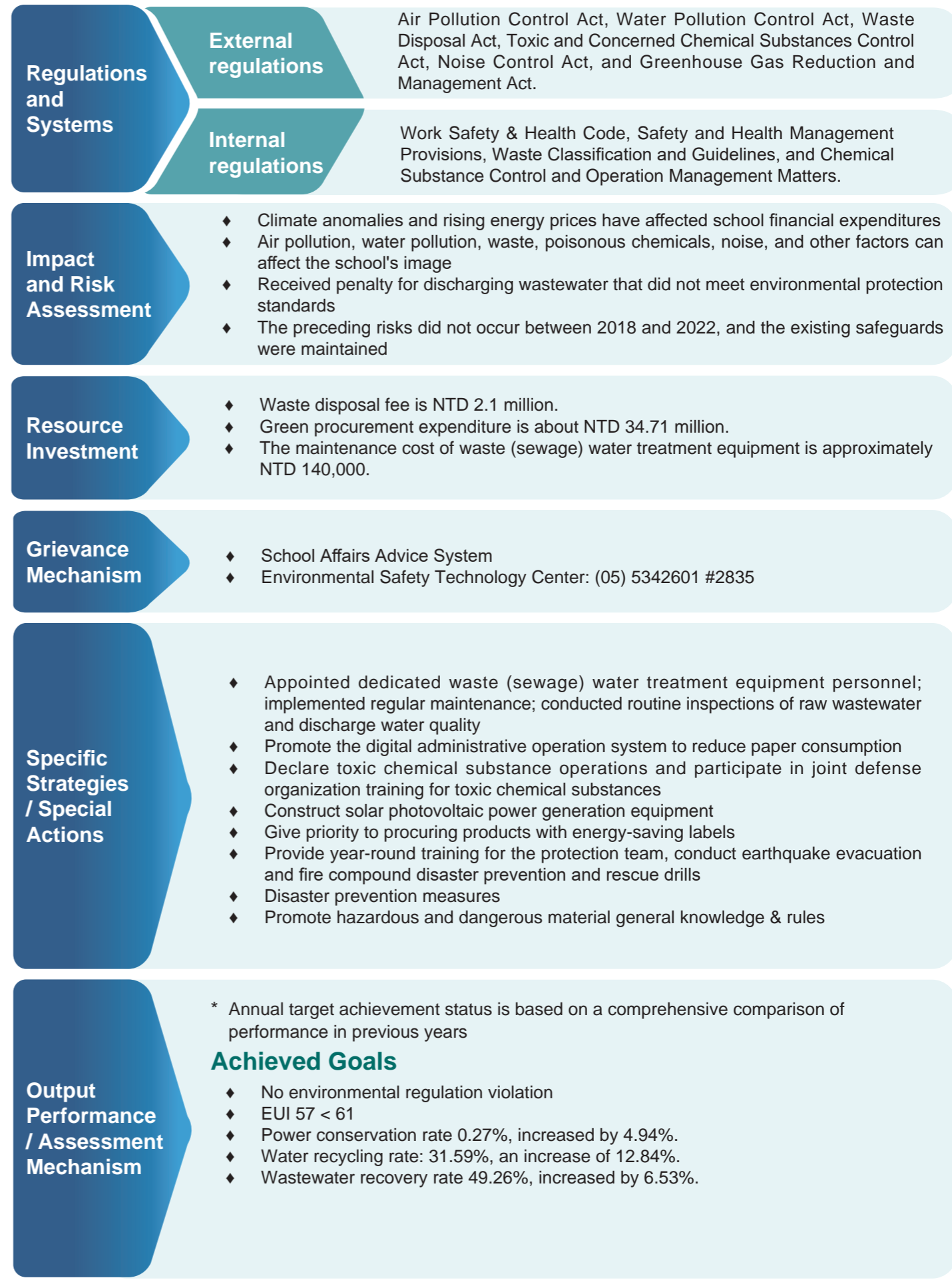




Major Management Approach and Its Components

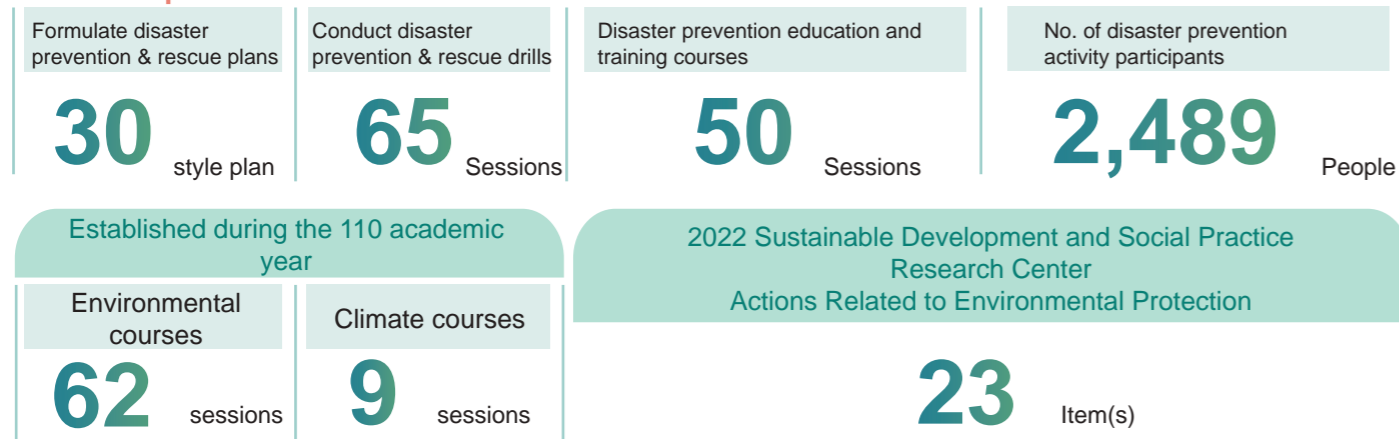


GRI correspondence: 2-25, 2-27, 302 Energy, 305 Emissions, 306 Waste



5-1 Climate Change Response Measures

★YunTech assisted Changhua County, Yunlin County, Chiayi County, and Chiayi City with regional disaster prevention education in 2022.



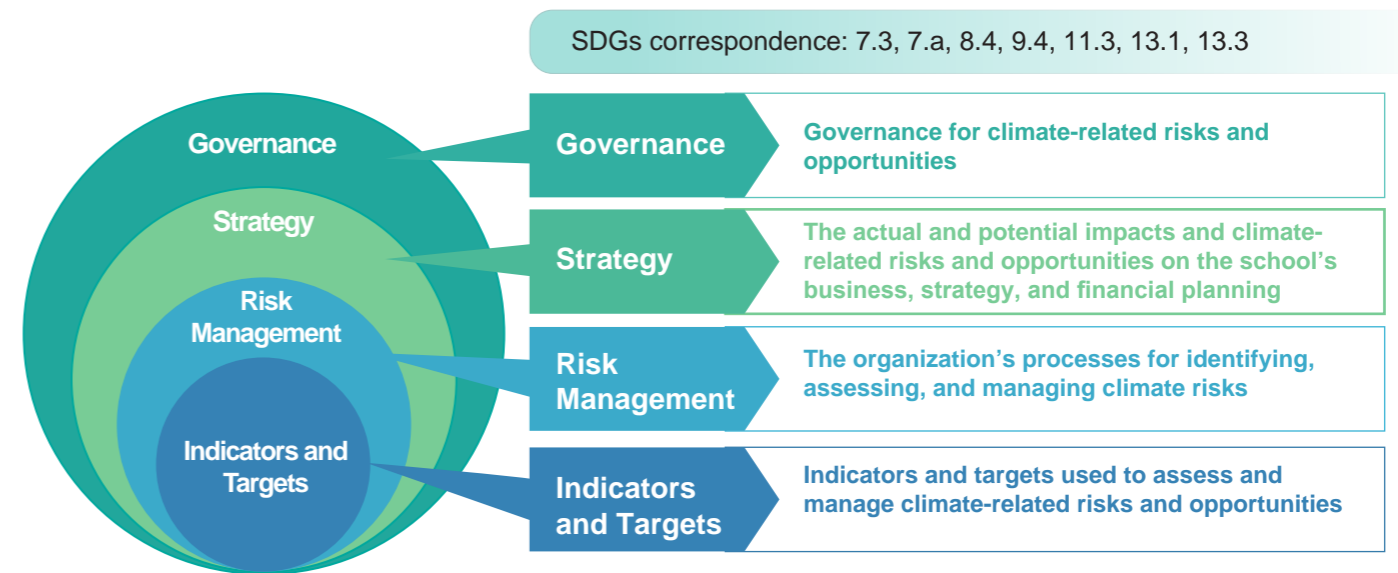
TCFD Climate Change Management

Climate change has become one of the most serious risk issues today. Extreme weather has become more frequent and intense in Taiwan. Examples include the abundant rainfall caused by short-term heavy rainfall resulting in flooding in low-lying areas and the abnormal drought phenomenon resulting in poor water conditions in some areas. Climate change risks include loss of human life or property, poor operations from businesses or government agencies, abnormal crop production and sales, impediment to import and export, and socioeconomic development stagnation. Meanwhile, risks create opportunities, such as promoting disaster prevention and developing post-disaster recovery industries and talents.

For YunTech, the focus of climate change risks lies in their impact on administrative and teaching environments. This includes risks such as transportation safety for faculty and students during typhoons and heavy rainfall, potential damage to buildings, documents, and electronic equipment due to flooding disasters, water supply limitations on campus due to drought, and the need for prolonged use of air conditioning due to high temperatures. The financial impact on the school includes additional repair, maintenance, and insurance costs as well as increased personnel costs for disaster prevention personnel.

On the other hand, these risks can create opportunities for the development of courses, programs, and talent within our disaster prevention-related departments or units. We aim to seize more projects related to climate change through industry-academic collaboration. Additionally, our university rents out unused rooftops to the industry for solar energy systems. Leveraging the advantage of abundant sunny days in the southern region, we transform the challenge of long sun exposure into an opportunity.

YunTech adheres to a sustainable development policy and has established the Sustainability and Social Responsibility Committee to coordinate relevant sustainable development initiatives. In addition to formulating management policies for environmental issues, given the increasing global emphasis on climate issues by international organizations and government agencies, we have gradually categorized potential climate-related impacts and opportunities. We are managing the associated risks and opportunities in response to climate-related challenges. All units have coordinated with the school's disaster prevention needs, drafted and written a campus disaster prevention plan, and participated in regular disaster prevention drills to verify the plans' feasibility. The goal is to improve the school's potential disaster prevention and response capabilities in light of climate change and transform the campus into a disaster-resistant and resilient campus.



YunTech University's Climate Action and Environmental Governance Advocacy

Organization/Actions	Date of Establishment	Members
Yunlin Zero Waste Transformation Integrated Service Hub	2023.04.07	Yunlin County, Yunlin University of Science and Technology
University Sustainable Development MOU	2023.01.03	Taiwan Institute for Sustainable Energy, YunTech
Net Zero Intellectual Allies	2022.12.09	Yunlin University of Science and Technology, SGS, Corporate Synergy Development Center, College of Bioresources and Agriculture, National Taiwan University
2046 Carbon Neutrality	2022.08.12	Yunlin University of Science and Technology
Green University Union of Taiwan	2014.12.19	Currently, there are 55 public and private universities, as shown in the list: http://www.guut.org.tw/about_people.php

Climate change response policies, identify related risks and mechanisms:

- 1 Transition risk**: For example, transitioning to a low-carbon economy requires extensive policy, legal, technological, and market changes. It may bring different financial levels and costs to the school.
- 2 Technology risk**: The university has benefited significantly from assisting economies in transitioning to low-carbon and pursuing high-efficiency technological improvements or innovations. For example, the school signed a contract with the industry to rent out the idle roof in exchange for the industry investing in the construction of a rooftop solar system. By 2022, the construction capacity had reached 1.194 million W, and the total power generation had reached 1.507 million W in 2022. The results indicated that the university has fulfilled its social responsibility and shared technology and industry resources.
- 3 Market risk**: Climate-related risks and opportunities will increasingly be factored into school considerations as the supply and demand structure of certain goods, products, and services changes.
- 4 Physical risk**: Weather patterns can be immediate or long-term and may have an economic impact on the University. For example, indirect impacts from direct damage to assets and disruption to supply chains. The factors that may affect its financial performance include the availability and sources of water resources, as well as the impact of extreme temperature changes on the safety of the university's premises, supply chain, and the well-being of its faculty and staff.

► Identification and Evaluation

According to its sustainable development blueprint, YunTech will continue to control the significant impact of climate change. Consider climate-related risks and opportunities as well as potential impacts under different conditions. Identify and assess climate change issues using the “scenario analysis method” based on the preceding SWOT foundation.

Analysis of the school’s advantages via scenario analysis

	Qualitative	Quantitative
1	Offered environment and climate-related courses to build sustainability, climate, and ecology awareness for students.	<ul style="list-style-type: none"> Environmental courses - total 62 sessions Climate courses - total 9 sessions
2	Establish a sustainable development coordination organization	Sustainability and Social Responsibility Committee
3	Establish research centers relevant to sustainable, circular, and ecosystem.	<ul style="list-style-type: none"> Research Center for Soil & Water Resources and Natural Disaster Prevention Clean Green Sustainable Innovation Research Center Renewable Energy Research Center Small Hydropower Equipment R&D and Application Research Center Total of 4 centers

Based on the advantages of the preceding scenario analysis, YunTech has conducted industry interviews and visits through a variety of external promotion activities, including 2 public opinion solicitations (focus group discussions at the supervisory consensus camp and stakeholder questionnaires). Enable different organizations and stakeholders to understand the major issues the school is concerned about. As a result, our school has continued to take concrete actions on climate change and other related issues across campus.

► Climate Change Management Indicators and Targets

YunTech’s climate-related management mechanism is mainly based on the GRI guidelines, the AA1000 assurance standard v3, and the climate-related financial disclosure recommendation report (TCFD Recommendations Report). The goal is to identify and evaluate issues through scenario analysis, carefully listen to stakeholders’ voices, fulfill the university’s social responsibility, and truthfully disclose the amount of energy used as well as sewage and waste treatment data (Section 5-2). Its short-term goals include achieving an annual EUI value (Building Energy Use Intensity) in compliance with government regulations and below 61, as well as increasing the sewage and tap water recovery rates by 1%, aiming to achieve long-term sustainable campus operations and a green campus. The preceding principles examine the “future” topics through scenario analysis to facilitate strategies, pioneer target management, and formulate action plans.

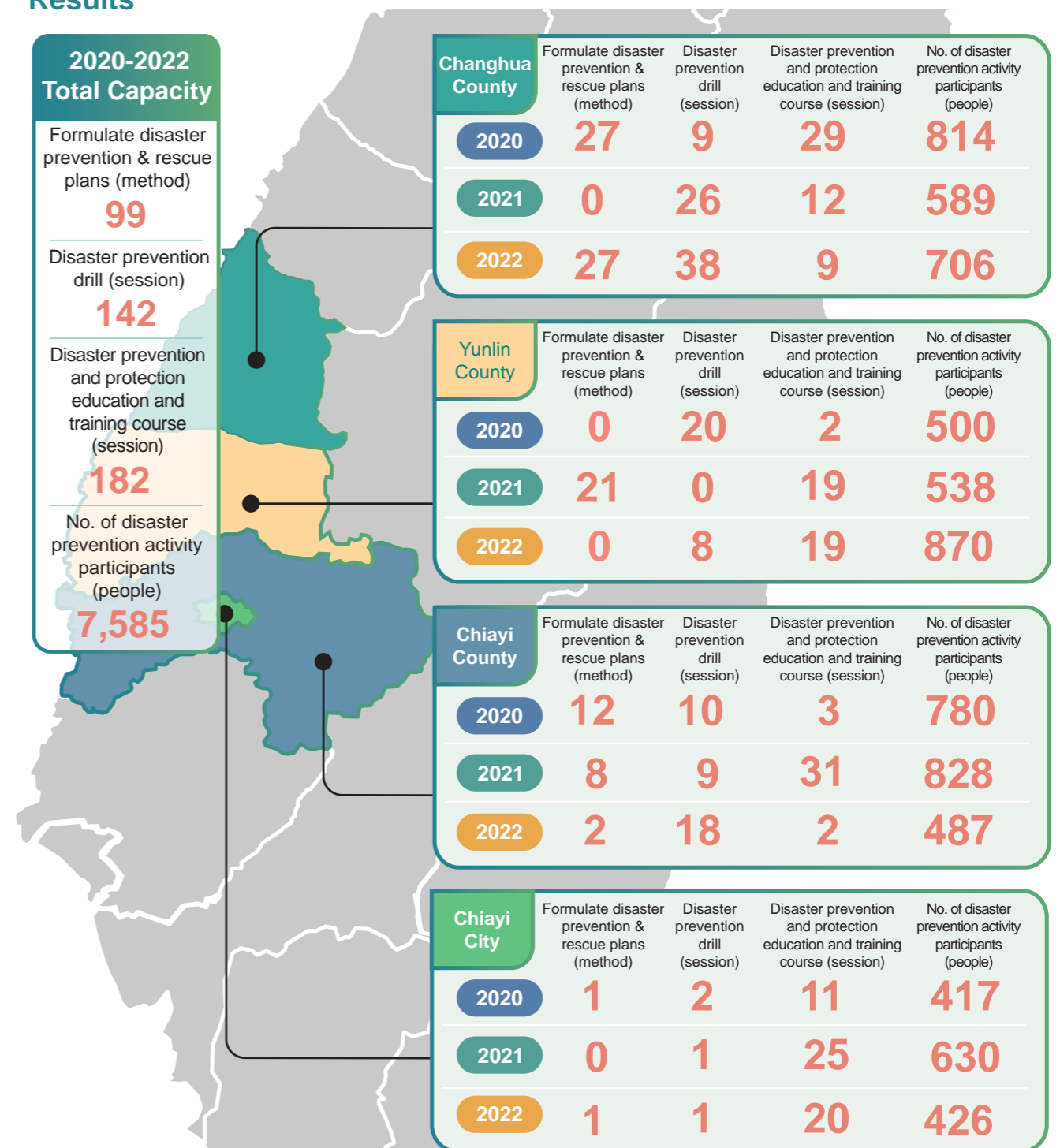
In addition to coordinating sustainable issues organized by the “Sustainability and Social Responsibility Committee,” the school has also established the Research Center for Soil & Water Resources and Natural Disaster Prevention, Sustainable Development and Social Practice Research Center, General Education Center, and other colleges and departments to fulfill our social responsibilities for sustainable development.

Research Center for Soil & Water Resources and Natural Disaster Prevention

► Climate Change Management Indicators and Targets

YunTech has conducted disaster potential research and analysis for various places professionally. The school is currently assisting the governments of Changhua County, Yunlin County, Chiayi County, and Chiayi City, etc., in participating in disaster prevention and protection formulation processes at the county, township, and city levels, as well as government-run disaster prevention and rescue drills.

1. Counsel Neighboring County and City Governments with Remarkable Results



* The performance of our school in counseling neighboring county and city governments (2020-2022)

2. Mechanism and procedure

Use questionnaire surveys, in-depth visits, meeting invitations, and other methods to actively draft and assist local governments in signing memorandums of cooperation with private businesses or groups, as well as assist the government in launching a memorandum of cooperation in the event of a disaster. In 2020-2022, we assisted local governments in signing over 40 memorandums of cooperation with enterprises or groups.

3. Implement disaster integration work with government organizations, make disaster coping strategies and preparations

We completed the official websites for public departments in Changhua County, Yunlin County, Chiayi County, and Chiayi City to connect to disaster warning platforms. Effectively provide research and study data on typhoons, heavy rains, and other disasters so that the public can obtain the relevant information at first instance and effectively speed up response work. Furthermore, the Changhua County Disaster Prevention Information Network 2.0 was created to provide real-time weather, disaster potential, and historical disaster site query functions, as well as other disaster prevention information crucial to daily life and to increase public utilization. Use the social software (Line) to transmit typhoon or torrential rain disaster information to local governments for reference and station in the disaster response center to provide weather and disaster forecasts. From 2020 to 2022, we have stationed in Changhua County, Yunlin County, Chiayi County, and Chiayi City during the Bailu Typhoon, Canshu Typhoon, and other disaster response centers.



The school stationed in the local government disaster response center (2020-2022)

► Combining science and practice while assisting the Water Resources Agency to find usable groundwater backup water to survive the drought of the century

Groundwater resources provide important backup during droughts or emergencies and play a critical role in water resource allocation. During the 2021 drought of the century, YunTech tapped into its scientific innovation and practical experience to rapidly develop the “Drought-resistant Well Drilling Progress Management and Reporting System” according to the hydrogeological and aquifer conditions and under the principle of avoiding impact on the environment. The goal was to carefully evaluate and assist the Water Resources Department in locating groundwater emergency backup water in the shortest amount of time; and to assist in controlling and mastering the status of each drought-resistant well from bidding to bidding, pre-operation, entry operation, completion, water testing, inspection, operation, and so on, to ensure that life-saving water can be provided for Chinese people within the established schedule. During and after the drought, the surrounding groundwater observation wells were used to regularly monitor and evaluate the groundwater hydrological situation to help cope with any water shortages in the future. At the end of 2021, the Research Center for Soil & Water

Resources and Natural Disaster Prevention accompanied the Water Resources Department to assist in inspecting drought-resistant water well functions and other necessary preparations and disposals. The goal is to improve the ability to respond to droughts or emergencies and prepare for the next drought that may occur.



The press coverage of the results of the installation of drought-resistant wells in Taichung Central Park, assessed with the assistance of our university.



YunTech accompanying and conducting on-site inspections of existing drought-resistant wells.

Center for Emergency Response Information

► Providing real-time consultation to assist in disaster response.

Affected by climate change, disasters and accidents occur frequently. The center provides real-time emergency consultation and advice during incidents. It promptly rushes to the scene to provide emergency operations and safety guidance recommendations, offering 24/7 year-round services. The Environmental Incident Professional Technical Team is tasked with conducting environmental detection, chemical substance identification, and assisting in hazard identification operations when incidents occur. It dedicates significant manpower and equipment resources to enhance incident management. During routine operations, the team focuses on conducting emergency response training, preventive preparations, and related tasks for toxic and chemical disaster prevention. This includes guiding businesses in legal compliance for disaster preparedness, conducting unannounced tests for companies, organizing regulatory awareness briefings, holding coordination meetings, providing education and training for emergency response personnel, participating in technical exchange conferences, and assisting in organizing toxic disaster drills in central Taiwan counties and cities (Taichung City, Nantou County, Changhua County, Yunlin County, Chiayi County, Chiayi City, and Kinmen County). These efforts contribute to refining disaster response training and enhancing the future capacity for disaster response.

Assisted local environmental protection agencies in organizing and implementing the following disaster preparedness and response drills.



National Defense Mobilization and Disaster Prevention and Rescue Exercise (Code: Civil Safety 8) in Nantou County



National Defense Mobilization and Disaster Prevention and Rescue Exercise (Code: Civil Safety 8) in Yunlin County



National Defense Mobilization and Disaster Prevention and Rescue Exercise (Code: Civil Safety 8) in Changhua County



National Defense Mobilization and Disaster Prevention and Rescue Exercise (Code: Civil Safety 8) in Chiayi County



Toxic Chemical Disaster Response and Rescue Drill in Chuanxing Industrial Zone, Changhua County



Disaster Prevention and Rescue Exercise in Kinmen County



Evacuation and Shelter Drill for Chemical Hazard Disasters and Major Man-Made Public Safety Incidents in Taichung City



Disaster Prevention and Rescue Drill in FengYuan District, Taichung City

General Education Center

► The five-dimensional general education courses open up students' awareness of sustainability

The university has undertaken a comprehensive reform of general education across five dimensions: humanities, social sciences, aesthetics, industry, and technology. In addition to addressing the evolution of global information technology and interactive modes of communication, the curriculum includes courses on AI trends. Furthermore, environmental education and a spirit of green sustainability have been integrated into general education courses. Examples include the introduction of courses such as Environmental Economics, Life Exploration, and Environmental Care. These courses aim to familiarize students with issues related to green initiatives, sustainability, and global climate change, fostering an awareness and understanding of sustainable development and green economy concepts. In 2022, the university organized an exhibition showcasing practical outcomes from innovative general education courses, featuring 25 courses. Additionally, an international forum on "General Education and Sustainable Development Indicators in Practice" was held. Ambassadors from friendly nations, including Tuvalu, Saint Vincent and the Grenadines, and Belize, were invited to share their countries' policies and educational initiatives in response to SDGs. Through their firsthand experiences, the forum facilitated mutual understanding and dialogue on coping with global changes, emphasizing the adaptive thinking in university general education.



Sustainable Development and Social Practice Research Center and college, department, institute

► Fully Launch Environmental and Ecological Actions

★Industry-Academia Cooperation plans and USR for school-wide solicitation to enlist environmental and ecological action plans: 23 cases

In 2022, a total of 23 climate action-related projects were implemented by faculty members across departments.

Teachers/Department	Climate Action Issues
Department of Mechanical Engineering/ Cheng, Shih-Chang, Liu, Chien-Wei, Hsu, Po-Chien Department of Electrical Engineering/ Tseng, Wan-Cun	Smart Microgrid and Low-Carbon Sustainable Energy Demonstration House YunTech's Low-Carbon Sustainable Facilities and Environmental Education Advocacy
Department of Information Management/ Chen, Zhao-Hong Department of Accounting/ Lin, Yu-Cheng, Chen, Hui-Qiao Department of Finance/ Jiang, Ming-Zhu Program in Industrial Management/ Chen, Mu-Chung	Sustainable Development through Greenhouse Gas Inventory and Carbon Footprint Assessment Global Environmental Change and Sustainable Development - Agricultural and Food Issues
Department of Accounting/ Huang Chiung-Yao, Chen Chung-Kuang Department of Business Administration/ Liu, Yen-Ching Executive Master Program in Business Administration, etc./ Chu, Chia-Hsien	Industry Cultivation - Exploration of Relevant Topics on ESG Sustainable Information Disclosure and its Impact on Value Creation and Carbon Footprint Disclosure

1. The carbon footprint inventory at the Siluo Ta-Tung Soya Sauce Co.,Ltd.

In response to the active global and domestic carbon reduction policies, this action plan will focus on the Siluo Ta-Tung Soya Sauce Co.,Ltd. as the activity area. A memorandum of cooperation has been signed with the company to assist in conducting a greenhouse gas inventory. There are 7 participating teachers, all of whom have completed relevant inventory training courses such as ISO 14604-1 and ISO 14607. In this action plan, they will serve as observers, aiming to observe and understand the inventory process. This action plan aims to provide the company's existing greenhouse gas carbon emission data through an inventory. This data will serve as the basis and goal for carbon reduction, ensuring a healthy life for all (SDG3) and promoting the well-being of populations across all age groups.



The carbon footprint inventory at the Siluo Ta-Tung Soya Sauce Co.,Ltd.



2. Low-Carbon Sustainable Energy Demonstration House Reality Experience Project

The "Low-Carbon Sustainable Energy Demonstration House" is equipped with solar panels on the roof for power generation. It also blocks solar radiation heat to reduce roof temperature, contributing to the reduction of air conditioning energy consumption. The house incorporates various low-carbon power generation facilities, such as wind power, exercise-generated power, and hydropower, and plans to install various energy storage devices, including fuel cells, energy storage batteries, hydraulic energy storage devices, etc. It integrates related power transmission and distribution lines to establish a smart microgrid demonstration area.

The YunTech Smart Microgrid System will integrate AIOT technology and electric power management technology. Through AI technology, it can effectively manage and monitor real-time data on power generation, storage, and consumption. It can provide data on the power consumption of various energy-saving devices in the demonstration house, such as exhaust fans, air conditioning, various DC (direct current) energy-saving appliances, and indoor and outdoor nighttime lighting. The Smart Microgrid System can provide data on the power consumption and efficiency of various appliances, serving as a crucial reference for subsequent energy-saving improvements to each appliance. Invite students and faculty members from both within and outside the campus to visit and explain the practical operation demonstrations of various low-carbon energy creation, storage, and energy-saving facilities.



Installation Explanation and Implementation of Solar Photovoltaic Modules



Explanation of Solar Photovoltaic System Installation Site

3. Micro Smart Weather Monitoring System

The micro smart weather monitoring system is designed for environmental monitoring and disaster monitoring and warning. It can measure various meteorological parameters, including wind speed, wind direction, air temperature, air humidity, light intensity, CO2 concentration, atmospheric pressure, precipitation, detection of rain and snow, soil temperature, soil moisture, and PM2.5 (air quality)/PM10 (suspended particulate matter). It can also be applied to predict the impact of weather changes on aquaculture or cultivation.



Micro Smart Weather Monitoring System



Workshop on Micro Smart Weather Monitoring System


5-2 Green Campus

GRI correspondence: 302-1, 305-2, 306-1, 306-2
SDGs correspondence: 4.a, 6.3, 6.a, 6.b, 11.2, 11.6, 11.7, 12.4, 12.5, 13.2

Awarded "World Green University" in 2022

 World ranking **59th**
(No. 56 in 2021)

 Top **5.62%** in world ranking
(Top 5.85% in 2021)

 Ranks No. **4** in Taiwan
(No. 3 in 2021)



- ◆ Rating includes Environment and Infrastructure (87th place)
- ◆ Energy and Climate Change (No. 148)
- ◆ Waste Disposal (No. 128)
- ◆ Water Resource (No. 64)
- ◆ Transportation (No. 66)
- ◆ Education (No.112)



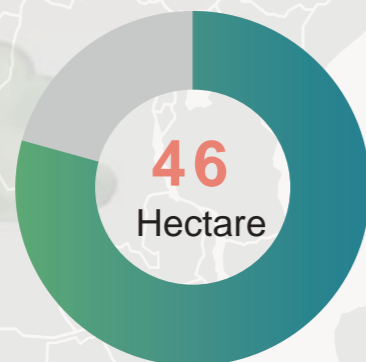
YunTech

2022

No environmental regulation violation

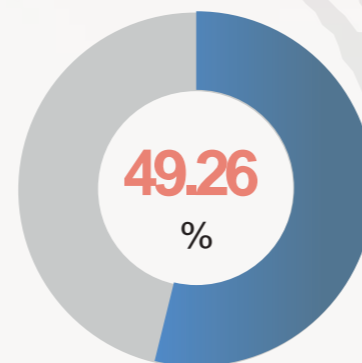
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Green area

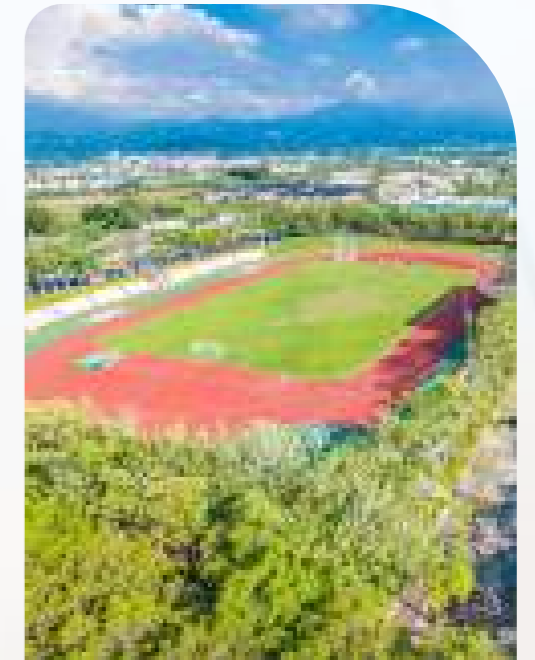
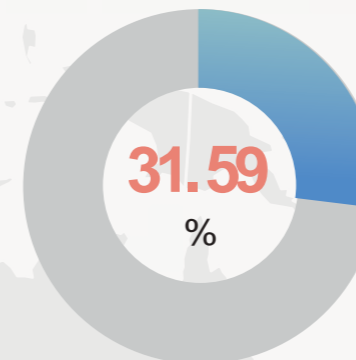


School area 58 hectares

Wastewater recovery rate



Tap Water recovery rate



Campus Environmental Sustainability Policy



Since adopting the United Nations Framework Convention on Climate Change (UNFCCC) at the Earth Summit held in Rio de Janeiro in 1992, international climate change-related programs have flourished in the past 30 years to curb the huge impact of climate change. Many countries have actively developed and announced carbon reduction targets. Net zero emissions and carbon neutrality are the key issues that attracted the most attention worldwide in 2021. On June 15, 2015, our nation passed the Greenhouse Gas Reduction and Management Act after the third reading to officially declare that Taiwan has entered a new era of greenhouse gas reduction. The goal is to respond to the challenges posed by climate change and to announce to the rest of the world that Taiwan is ready to fulfill its responsibility of jointly protecting the earth's environment and reducing greenhouse gas emissions.

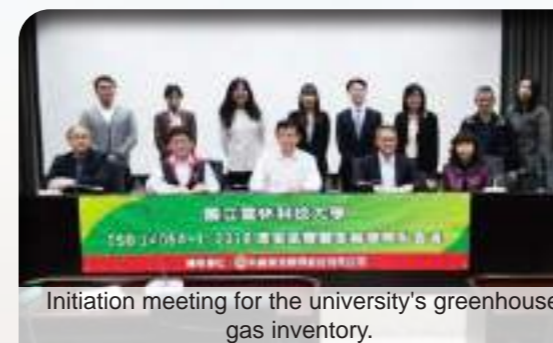
The Ministry of Education established the "Sustainable Campus Promotion Project" in collaboration with the national overall greenhouse gas reduction strategy to achieve sustainable energy savings and carbon reduction development goals. The goal is to incorporate energy-saving, environmentally friendly, and healthy campus environment application technologies as the foundation for future domestic sustainable campus norms. The school aims to use greenhouse gas inventory reduction, campus energy-saving technology, environmental education and lectures, and information system management and analysis capabilities while incorporating the **ISO 50001 energy management** and **ISO 14064-1** greenhouse gas inventory management systems to create and implement a comprehensive campus greenhouse gas inventory reduction management mechanism. The goal is to deeply cultivate the concept of greenhouse gas reduction in campus environmental education, promote it to society, and contribute to global greenhouse gas reduction.

ISO 50001 Energy Management System

The school conducted six guidance and training sessions from September 30 to November 17, 2022.

ISO 14064-1 Greenhouse Gas Inventory Management System

In 2022, the university conducted a greenhouse gas inventory (ISO14064-1) as part of its efforts to reduce carbon emissions and move towards carbon neutrality. To ensure the quality and effectiveness of the inventory data, an initiation meeting was held on January 5, 2022, chaired by the Vice President. Guidance and training sessions were provided by an advisory company to facilitate the process. The aim is to obtain international verification through external audits to validate the accuracy and reliability of the inventory data. As part of this initiative, the university conducted four sessions of educational training, nine workshops, and twelve sessions of rigorous and intensive training and guidance. Following these activities, three thorough external audits were carried out. On August 2, 2022, the university successfully passed the external inventory audit and obtained international verification (ISO14064-1).



Initiation meeting for the university's greenhouse gas inventory.



Greenhouse gas inventory lecture



Training on greenhouse gas inventory conducted at the university.



External verification conducted

In response to the green campus initiative and industry's carbon reduction needs, YunTech collaborated with SGS Taiwan Inspection Company to actively cultivate green talents. During the 2022 winter break, faculty and students from the College of Management participated voluntarily in a seven-day organized Greenhouse Gas Inventory and Carbon Footprint training course organized by SGS. Simultaneously, they assisted YunTech in conducting a campus greenhouse gas inventory project. **A total of 16 teachers and 14 students were certified, obtaining ISO 14064-1 Organizational Greenhouse Gas Inventory and ISO 14067 Carbon Footprint Standard Lead Auditor certificates.**

YunTech's greenhouse gas inventory data: **The total carbon emissions amount to 9591 tons.** The emission factors and Global Warming Potentials (GWP) ratios are sourced from the IPCC Fourth Assessment Report released in 2007. Methods for aggregating greenhouse gas emissions are for operational control.

YunTech 2021 Greenhouse Gas Emission Inventory

Greenhouse Gas Inventory Collection Period: January 1, 2021, to December 31, 2021

Category	Greenhouse Gas Inventory Categories	Greenhouse gas emission sources	mt CO ₂ /year
Category 1	Direct greenhouse gas emissions and eliminations	Total	848.3253
1.1	Stationary Combustion	Natural gas boilers (natural gas), emergency generators (diesel)	300.0353
1.2	Mobile Combustion	Official vehicles (gasoline & diesel)	114.1465
1.3	Fugitive Emissions	Refrigerants (air conditioning equipment, refrigeration equipment, freezing equipment, air conditioning in official vehicles), safe insulation gas (SF6) for voltage equipment, fire extinguishers (dry powder, CO ₂ , environmentally friendly sea dragon fire extinguisher).	430.3232
1.4	Industrial process emissions (direct process emissions from school operations)	Laboratory - Combustion of Alcohols (Methanol, Ethanol, Other Alcohols), Laboratory - Specific Gas Cylinders (Carbon Dioxide (CO ₂) Cylinder, Nitrous Oxide (N ₂ O) Cylinder, Gas Cylinder, Acetylene Cylinder), Leaf Blower (Diesel)	3.8203
1.5	Land Use, Land Use Change, and Forestry Emissions	None	0.0000
Category 2	Indirect greenhouse gas emissions from energy input	Total	7,983.7511
2.1	The indirect emissions from purchased electricity include greenhouse gas emissions associated with the production and consumption of purchased electricity by the organization.	University's Electricity Consumption - Purchased Electricity	7,983.7511
2.2	Indirect emissions from purchased energy sources include the greenhouse gas emissions associated with an organization's consumption of energy through physical networks, such as steam, heat, cooling, and compressed air. This excludes emissions from electricity consumption.	None	0.0000
Category 3	Greenhouse gas emissions from transport	Total	56.9028
3.5	Emissions from Business or Employee Travel Transportation	Faculty, Staff, and Student Travel (Limited to High-Speed Rail, Taiwan Railways, and Air Travel)	56.9028
Category 4	Indirect greenhouse gas emissions from products used by the organization	Total	235.1486
4.1	Greenhouse gas emissions are generated from the mining, manufacturing, and processing of raw materials purchased by the organization.	Water Supply Procurement	79.2517
4.2	The solid and liquid waste emission disposal shall be handled according to the characteristics of the waste and its treatment. Typical treatment types include landfill, incineration, biological treatment, or recycling.	Waste is outsourced for incineration and disposal transport.	155.8968
Category 5	Indirect greenhouse gas emissions derived from the use of the organization's products.	Total	446.9878
5.2	Emissions Generated by Assets Leased from Downstream	Outsourced operating vendors lease electricity, tap water, and use natural gas.	446.9878
		Total	9,591.1156



Included greenhouse gases in the calculation are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons.

In 2022, our university commissioned an external professional consulting organization to conduct the 2021 greenhouse gas inventory, and the [verification](#) process was completed in August 2022. Therefore, using the year 2021 as the baseline, the carbon emissions for the baseline year (2021) are 9,591 metric tons of CO₂e.

Starting from 2023, the university will conduct a voluntary self-assessment to examine the effectiveness of carbon reduction each year. The greenhouse gas inventory for the year 2022 (from January 1, 2022, to December 31, 2022) will be categorized and completed by the end of August 2023, following the classification used in 2021.



Carbon reduction and carbon neutrality planning

The university generated 9,591 metric tons of CO₂e in carbon emissions in 2021. Based on the inventory of greenhouse gas emissions, we are initiating carbon reduction planning, aiming to achieve a 50% reduction by 2031 and carbon neutrality by 2046. The strategies include:

- 1 **Implementation of carbon reduction measures through technological methods.**
This includes increasing the substitution rate with green energy generation, fully transitioning to LED lighting, replacing old air conditioners with high-efficiency variable frequency ones, and improving energy usage by conserving electricity, water, oil, natural gas, and photocopier paper.
- 2 **Implementation of carbon reduction measures through management methods.**
This includes implementing sustainability basic and advanced courses, as well as providing sustainability training and a resume system for all faculty and students. The goal is to educate and cultivate a habit of energy conservation among faculty and students, train them to become carbon auditing practitioners, provide guidance for certifications, commend energy-efficient units, and conduct energy-saving advocacy through digital platforms.
- 3 **Staged objectives and implementation methods**

Timeline	Reduction Goals	Implementation Methods
Benchmark year	No reduction goals set for the baseline year.	In 2022, an inventory of 2021 (baseline year) will be conducted, with emissions at 9,591.1156 metric tons CO ₂ e.
First implementation period 2023.1~2025.12	Reduction target of 17.72% (compared to the baseline year) Estimated reduction of 1,700 metric tons CO ₂ e.	<p> Conservation (equipment)</p> <ul style="list-style-type: none"> All fixed-frequency air conditioners have been replaced with variable-frequency air conditioners, upgrading from outdated units. Lighting replacement with LED fixtures. Replacement with high-efficiency chilled water units. Improvement in boiler efficiency/Addition of heat pump systems. Improvement of wastewater treatment facilities. Many electrical appliances adopt energy-saving label products. <p> Conservation (management)</p> <ul style="list-style-type: none"> Promoting energy-saving habits at both the organizational and individual levels. Adjustment of equipment (such as air conditioning, lighting, elevators, etc.) operation planning. Reduction of plastic bottled water, disposable tableware usage, and waste quantity. Green building for new constructions. <p> Open Source</p> <ul style="list-style-type: none"> Solar Energy Installation Development of Other Renewable Energy Sources Understanding and Feasibility of Carbon-negative Technologies

Second Implementation Phase 2026.1~2028.12	Reduction target of 17.72% (compared to the baseline year) Estimated reduction of 1,700 metric tons CO ₂ e.	<p> Conservation (equipment)</p> <ul style="list-style-type: none"> Switch to energy-saving inverter air conditioners and replace environmentally friendly refrigerants. Replacement with high-efficiency chilled water units. Improvement in boiler efficiency/Addition of heat pump systems. Many electrical appliances adopt energy-saving label products. <p> Conservation (management)</p> <ul style="list-style-type: none"> Promoting energy-saving habits at both the organizational and individual levels. Adjustment of equipment (such as air conditioning, lighting, elevators, etc.) operation planning. Reduction of plastic bottled water, disposable tableware usage, and waste quantity. <p> Open Source</p> <ul style="list-style-type: none"> Solar Energy Installation Development of Other Renewable Energy Sources Negative emissions technologies Continual Review and Adoption of Energy-Saving New Technologies
Third Implementation Phase 2029.1~2031.12	Reduction target of 17.72% (compared to the baseline year) Estimated reduction of 1,700 metric tons CO ₂ e.	<p> Conservation (equipment)</p> <ul style="list-style-type: none"> Switch to energy-saving inverter air conditioners and replace environmentally friendly refrigerants. Replacement with high-efficiency chilled water units. Replacement of Other Energy-consuming Equipment (such as the replacement of variable frequency water pumps) <p> Conservation (management)</p> <ul style="list-style-type: none"> Promoting energy-saving habits at both the organizational and individual levels. Adjustment of equipment (such as air conditioning, lighting, elevators, etc.) operation planning. <p> Open Source</p> <ul style="list-style-type: none"> Solar Energy Installation Development of Other Renewable Energy Sources Negative emissions technologies Continual Review and Adoption of Energy-Saving New Technologies
Milestone 2032.1		Verification of Carbon Reduction Achieving 50%

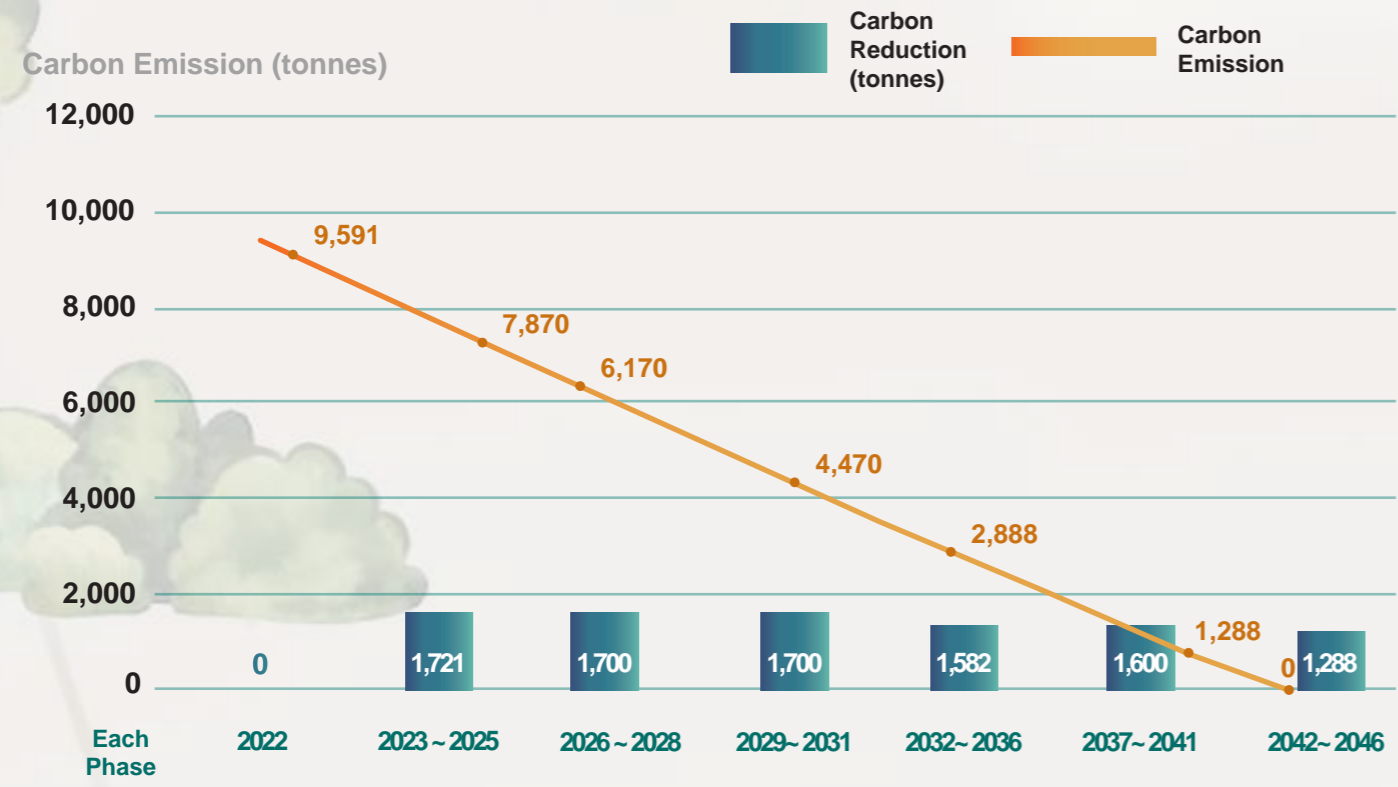
<p>Fourth Implementation Phase 2032.1~2036.12</p>	<p>Reduction Goal: A 33% reduction compared to the previous period. Estimated reduction of 1,582 metric tons CO₂e.</p>	<p>Conservation (equipment)</p> <ul style="list-style-type: none"> • Switch to energy-saving inverter air conditioners and replace environmentally friendly refrigerants. • Replacement with high-efficiency chilled water units. • Replacement of Other Energy-consuming Equipment (such as the replacement of variable frequency water pumps)
<p>Fifth Implementation Phase 2037.1~2041.12</p>	<p>Reduction Goal: A 50% reduction compared to the previous period. Estimated reduction of 1,600 metric tons CO₂e.</p>	<p>Conservation (management)</p> <ul style="list-style-type: none"> • Promoting energy-saving habits at both the organizational and individual levels. • Adjustment of equipment (such as air conditioning, lighting, elevators, etc.) operation planning.
<p>Sixth Implementation Phase 2042.1~2046.12</p>	<p>Reduction Goal: A 50% reduction compared to the previous period. Estimated reduction of 1,514 metric tons CO₂e.</p>	<p>Open Source</p> <ul style="list-style-type: none"> • Solar Energy Installation • Development of Other Renewable Energy Sources • Negative emissions technologies • Continual Review and Adoption of Energy-Saving New Technologies

Our university president signed a declaration at the SDG Asia on August 12, 2022: 50% reduction in carbon emissions by 2031, Carbon neutrality by 2046.



The university campus and urban development are closely intertwined, causing changes in the surrounding environment and establishing connections with the local population, social culture, and more. With the trend towards open campuses, the community-oriented development of the campus is an inevitable progression. Bearing the responsibility for societal education and urban infrastructure, our university is actively working towards the vision of becoming a sustainable green university. The goal is to create a "green, low-carbon, friendly, and beautiful campus" by incorporating high technology and green architecture to enhance energy efficiency. This involves building an environmentally friendly campus that minimizes greenhouse gas emissions, prioritizes safety and health, embraces natural sunlight, and incorporates water and energy conservation. Through the comprehensive integration of strategies in "energy conservation and carbon reduction, safety monitoring, smart transportation, health, and comfort," coupled with intelligent management, we aim to transform the campus into a model school that is comfortable, convenient, safe, and intelligent, setting an example as a low-carbon institution.

Staged carbon reduction and emission diagrams



Staged Carbon Reduction and Emission Plan

Green buildings

Among the campus buildings, five have obtained the green building mark since the establishment of the school: Management Building 3, Design Building 3, Engineering Building 5, Industry-Academia Research Building, and Comprehensive Teaching Building. They use the energy-efficient building structure and heating and air conditioning to reduce the use of air conditioners. The buildings have also established an air cooling system based on the principle of natural ventilation by effectively directing the wind direction during the summer.

The Industry-Academia Research Building won the Diamond Candidate Green Building and Smart Building certificates. This green building was constructed using smart high-tech technologies, materials, and products to make it safer, healthier, more convenient, and more comfortable to achieve energy-saving, carbon-reduction, and environmentally friendly goals. It also serves as the best example of innovation achievement display and promotion and a place for practice and experience for interdisciplinary programs such as the "Green Technology Program" and "Clean Green Sustainable Technology Program." The Future Technology Building of our university obtained the candidate Green Building Certificate on February 17, 2022.

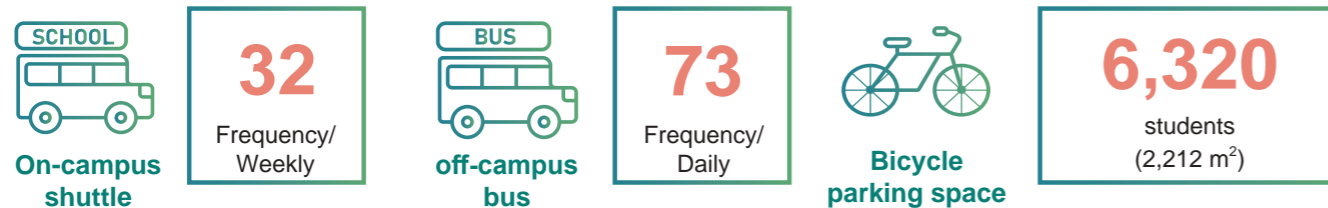


College of Management - Building 3 College of Design - Building 3 College of Engineering - Building 5 YunTech Dream Hub Future Building



Green Building Certificates of Our University (from left to right: Industry-Academia-Research Building, Comprehensive Teaching Building, Future Technology Application Building as a candidate for green building)

Green Transportation



Countries worldwide are paying increasingly more attention to energy conservation and carbon reduction due to the serious changes in the global environment caused by global warming and energy security and sustainable development issues. To achieve the sustainable campus mission, YunTech has adhered to the concept of interdisciplinary cooperation to enable collaboration between engineering and design departments and complete the electric vehicle prototype, which marked a milestone for green energy design, energy conservation, and carbon reduction. The school has only one gasoline-electric hybrid car as an official vehicle, and this figure will be increased to fulfill the environmental protection responsibilities.

Epidemic prevention measures were actively implemented on campus vehicles during the COVID-19 epidemic in 2021. The vehicle disinfection operation must be completed before driving, and the driver and service personnel must measure their body temperature before leaving the vehicle. employee must wear a mask and wash hands frequently during the duty period. Before boarding the bus, passengers must verify whether they have completed the health declaration form, have their body temperature measured, and wear a mask. Masks must be worn at all times to ensure the health and safety of faculty, employee, and students when using green transportation.

Energy resource management



YunTech has constructed a sustainable green campus, actively improved energy-saving facilities and equipment, and built a comprehensive campus power monitoring and energy-saving management system in response to the government's renewable energy plan to create a green, energy-saving, and low-carbon environment. The school has also used the idle roof space of the school buildings to promote energy conservation, effectively activate the school assets, provide heat insulation and cooling effect on the top floor, and rent out the roof platform of the school's North Campus to manufacturers to build solar photovoltaic power generation systems. The installation capacity of the first phase was 495.88 kWp, the installation capacity of the second phase was 698.27kWp, and the total installation capacity reached 1,194.15kWp. Installing photovoltaics on the school building's roof can effectively utilize the roof's idle space, provide fixed income, and provide heat insulation and cooling to the top floor. The system can assist in reducing the power consumed by air conditioners in the building and achieving the vision of energy security, a green economy, and environmental sustainability.

Year	Solar Power Generation	
	External sales	Used by the school
2020	544,880	927,892
2021	453,600	972,624
2022	586,480	920,776

In 2022, the total electricity consumption of the school was 16,513,576 kilowatt-hours (including self-generated solar power), managed through intelligent cloud-based systems. Through real-time monitoring of the overall electricity usage across the campus, there was a decrease of 45,448 kilowatt-hours compared to the previous year, resulting in an energy saving rate of 0.27%.

Year	Purchased electricity (kWh)	Solar power generation for self-consumption (kWh)	Carbon intensity of electricity in the previous fiscal year (kg CO ₂ per kWh)	Carbon emissions (metric tons of CO ₂ e)	Compared with previous periods		EUI value
					Power saving	Power saving rate%	
2020	16,541,600	927,892	0.509	8,419.67	- 82,592	- 0.48	60.81
2021	15,586,400	972,624	0.509	7,933.48	910,468	5.21	57.00
2022	15,592,800	920,776	0.509	7936.76	45,448	0.27	56.84

* EUI value (building power consumption intensity, Energy Use Intensity). That is the energy consumption per square meter per year. The actual energy consumption EUI is obtained by dividing the annual energy consumption obtained from Taipower's electricity bill by the floor area of the building.

* Carbon emissions (kg) = purchased electricity (kWh) x carbon emission coefficient of electricity in the previous year (kg CO₂ e/kWh)

* The comprehensive teaching building was opened in 2020, so the electricity consumption increased significantly, which resulted in a negative growth in electricity saving

* Explanation for the identical carbon emission factor for externally purchased electricity in 2021 and 2020: The carbon emission factor for externally purchased electricity in 2021 is currently unknown (anticipated to be confirmed by September 2023). Therefore, the estimate is temporarily based on the carbon emission factor from 2020. Once the factor is confirmed, it will be updated accordingly.

Smart Campus



YunTech has constructed a sustainable green campus, actively improved energy-saving facilities and equipment, and built a comprehensive campus power monitoring and energy-saving management system in response to the government's renewable energy plan to create a green, energy-saving, and low-carbon environment. The school has also used the idle roof space of the school buildings to promote energy conservation, effectively activate the school assets, provide heat insulation and cooling effect on the top floor, and rent out the roof platform of the school's North Campus to manufacturers to build solar photovoltaic power generation systems. The installation capacity of the first phase was 495.88 kWp, the installation capacity of the second phase was 698.27kWp, and the total installation capacity reached 1,194.15kWp. Installing photovoltaics on the school building's roof can effectively utilize the roof's idle space, provide fixed income, and provide heat insulation and cooling to the top floor. The system can assist in reducing the power consumed by air conditioners in the building and achieving the vision of energy security, a green economy, and environmental sustainability.



Integration of YunTech's cloud-based smart management system
 Energy Resource Management System
 Security Surveillance System
 Health & Comfort System
 Smart Transportation Management System

Classroom Courses & Smart Energy Conservation

Automatic classroom power supply smart power-saving system (general classroom): The project was completed in 2019. The smart energy-saving system for the general classroom automatically controls air-conditioning and provides power according to the current power-saving status and power distribution of each building. It is also integrated with the classroom power management system to control the power supply. The system is used for air conditioning in 167 classrooms, and lighting and fan power supply in 28 classrooms are also connected to this system. In 2022, the system software stability was maintained and improved.

Smart Control of Small Air Conditioners

Energy-saving management and control for small air conditioners (non-classroom areas): the plan was completed in 2019: The daily operation schedule, external air temperature, and contract capacity unloading requirements are used to schedule and unload 1,534 small-scale air conditioners to perform energy-saving management and monitoring. We also maintained and improved the system software's stability in terms of time scheduling and round-robin unloading in 2022.

Campus Electricity

We completed smart load management for 31 substations throughout the whole school. The high-voltage side electric meter connection project can monitor the real-time power consumption of each district on campus, manage the load according to Taipower's contracted capacity, and lower electricity costs while conserving energy and reducing carbon emissions. In the future, we will gradually expand the smart monitoring capacity of campus electrical equipment and use it as an unloading and regulating resource to reduce power consumption, improve equipment utilization rate to avoid idle and excessive equipment, and grasp the data and formulate individual power saving plans based on the electricity consumption situation of each department and building.

YunTech consumed 64,694 gigajoules (GJ) of energy in 2022 by managing energy resources and implementing related energy-saving measures, which reduced energy consumption by 4.54%.

Year	Primary energy		Secondary energy		Renewable energy		Total energy consumption
	Consumption (GJ)	Ratio %	Consumption (GJ)	Ratio %	Consumption (GJ)	Ratio %	Consumption (GJ)
2020	6,442.48	9.56%	59,549.76	88.39%	1,378.84	2.05%	67,371.08
2021	6,782.05	10.01%	59,612.49	87.96%	1,378.84	2.03%	67,773.37
2022	7,357.18	11.37%	56,134.08	86.77%	1,203.46	1.86%	64,694.72

Total energy consumption at the university = Primary Energy + Secondary Energy + Renewable Energy

* Primary Energy: Gasoline, Diesel, Natural Gas / Secondary Energy: Electricity / Renewable and Sold Energy: Solar

* Gasoline calculation method (J): total liter (L) * 7,800 (kcal/L) * 4,186 (J)

* Diesel fuel calculation method (J): total liter (L) * 8,400 (kcal/L) * 4,186 (J)

* Natural gas calculation method (J): cubic meter (m³) * 9,000 (kcal/L) * 4,186 (J)

* Electricity: 1 kWh = 3,600,000 joules (J)

* Calorific value source: Energy Technology Strategy Team - energy product calorific value table

Water resources management



The annual water supply of Yunlin county, where YunTech is located, has an annual water supply of 1.936 billion tons. In terms of household water consumption for people, the Hushan Reservoir has a water storage capacity of 53.47 million tons, and the water source is safe. Our school campus is not located in a water-stress area. In response to the extreme climate changes in recent years, the school has established a water resource system to implement campus water conservation, discharge water quality control, water recycling, and strengthen wastewater treatment management. Regarding tap water consumption in school, purchase water-saving equipment with water-saving labels, strengthen daily pipeline inspection and maintenance, and implement low-flow consumption. The school planned the rainwater sewage diversion collection pipeline system at its establishment and constructed a sewage treatment plant. It is the first campus in Taiwan to implement reclaimed water recycling and reuse campus domestic sewage after treatment. In addition, the school is equipped with rainwater collectors on the roofs of many buildings, such as the YunTech Dream Hub, Future Building, College of Engineering Building 5 and Building 6, and College of Management Building 3. The rainwater is used for toilet flushing and gardening after simple purification. About 11,100 metric tons of water can be conserved. In addition to significantly lowering water bills, it can also reduce water, wastewater treatment, and energy costs.

Sewage and recycling treatment

The school's sewage treatment plant and the rainwater sewage diversion collection pipeline system use the biological extension aeration method to treat the entire school's domestic sewage. The maximum daily treatment capacity is about 1,500 tons. The biological extended aeration method is used to treat the domestic wastewater generated by the entire school's teachers and students, and the resulting organic sludge is entrusted to a legal treatment plant, where it is properly treated by heat treatment to ensure the water quality meets the discharge water standard before it is discharged to the Bajiao River Basin. The school has also planned the campus water recycling and reuse system. The treated water can flush toilets, water campus landscapes, and fountains, protect against fires, moisten roads, support hydrophilic facilities, and water flowers and trees.

Tap water and recycled water volume from 2020 to 2022

Year	Tap water volume m ³	Recycled water m ³	Tap Water Recovery Rate%
2020	308,952	83,252	21.22
2021	283,001	65,319	18.75
2022	321,943	101,717	31.59

* In 2022, there was an increase of 38,942 units in water usage compared to the same period in 2021 (321,943 units in 2022 compared to 283,001 units in 2021). However, the water conservation rate was -13.76%. The increase in water usage was attributed to a broken main water pipe.

Sewage and Recycled Water Quantity from 2020 to 2022

Year	Total sewage water m ³	Recycled water m ³	Discharge water m ³	Wastewater Recovery Rate
2020	154,590	83,252	70,773	49.85
2021	120,938	65,319	55,619	42.73
2022	136,768	101,717	56,866	49.26

* Calculation Formula: Wastewater Recovery Rate = (Recovered Water + Discharged Water) / Tap Water Usage

* The recycling rate for 2020-2021 was adjusted due to changes in the calculation formula.

Effluent water quality testing from 2020 to 2022

Test date	COD(mg/L)	BOD(mg/L)	SS(mg/L)	Test result
20200611	31.7	13.4	7.6	Conform to standard
20201209	35.7	12.1	7.4	Conform to standard
20210611	30.5	10.2	9.1	Conform to standard
20211214	27.2	9.8	8.8	Conform to standard
20220308	41.4	17.2	6.0	Conform to standard
20220614	28.1	10.4	8.3	Conform to standard
20220915	22.9	8.6	4.7	Conform to standard
20221205	29.2	10.5	7.6	Conform to standard

* Discharge standards: COD < 100mg/L, BOD < 30mg/L, SS < 30mg/L

Waste disposal



The waste at the school is primarily divided into general industrial waste (domestic waste) and industrial waste (laboratory waste), which are properly classified, stored, and removed according to regulations to avoid pollution of the environment or danger to teachers and students. The general waste is cleared and disposed of by outsourced trucks according to the "Compulsory Garbage Sorting" policy of the Executive Yuan Environmental Protection Agency. Hazardous industrial waste generated in the laboratory (such as organic liquid waste, inorganic liquid waste, solid waste, and so on) is temporarily stored in the laboratories of various departments before being entrusted by the Environmental Safety Science and Technology Center to a legally operated waste removal and disposal agency to handle disposal matters.

2022 Total Waste Weight (Unit: Metric Tons)

Waste category	Waste type	Waste quantity (metric tons)
Total volume of general industrial waste	General waste	322.31
	Waste paper	7.285
	Waste tin cans	1.71
	Waste aluminum cans	0.302
	Other metal products	1.372
	Waste plastic bottles	0.627
	Waste plastics (except for waste plastic bottles)	0.563
	Waste glass containers	3.859
	Waste appliances	0.181
	Waste computers	0.04
	Aluminum foil packs	0.302
	Waste paper containers	0.483
	Waste dry battery	0.04
Waste fluorescent tubes	0.04	
Total volume of general industrial waste		339.124
Hazardous commercial wastes	Corrosive industrial waste mixtures	0.06
	Combustible industrial waste mixtures	0.39
	Mixed wastes containing toxic heavy metals exceeding the dissolution standard	0.3
	Mixed wastes containing organic chlorine pollutants exceeding the dissolution standard	0.245
	Mixed organic compound wastes exceeding the dissolution standard	0.3
	The pH of the waste liquid is greater (equal) than 12.5	0.3
	The pH of the waste liquid is less than (or equal to) 2.0	0.41
	Waste oil mixture	0.12
Total hazardous industrial waste		2.125

Garbage collection and efficient resource use



The school has developed the "Garbage Reduction and Recycling Management Guidelines" and "Toxic Chemical Substances and Hazardous Waste Management Guidelines" to effectively prevent environmental pollution, promote campus waste reduction, inspire correct the concepts and habits for resource recycling and reuse to improve environmental quality and implement campus environmental protection. We have also adopted the no garbage on the ground policy, strengthened garbage classification and recycling, and entrust qualified environmental protection companies to ensure proper garbage removal, disposal, and treatment. The garbage recycling rate of our school in 2022 was 24.82%, an increase of 9.48%.

Year	Recovery rate %
2020	27.10
2021	34.30
2022	24.82

Reduce the use of disposable tableware



The school has reduced the use of disposable tableware for catering to promote waste reduction, energy conservation, carbon reduction, environmental protection, and the health of faculties, students, and visitors. We have also signed contracts with the bidding outsource restaurants to ban or reduce single-use items when providing food services. In 2022, three outsourced restaurants were required to provide reusable tableware and continue to promote disposable tableware reduction. Disposable plastic straws are no longer supplied in restaurants or for take-outs, and Biodegradable and environmentally friendly straws are provided instead for those who need straws. Starting from February 20, 2023, packaged drinking water and disposable beverage cups are prohibited from being provided in meetings or events held in the International Conference Hall and the meeting rooms of the Administrative Building, both large and small.



5-3 Environmental and Natural Resources Education

The performance of three Level-2 and Level-2 units in quality assurance and environmental sustainability education:



SDGs correspondence: 4.3, 4.7, 6.3, 6.b, 11.2, 11.6, 11.7, 12.5, 13.3, 17.16

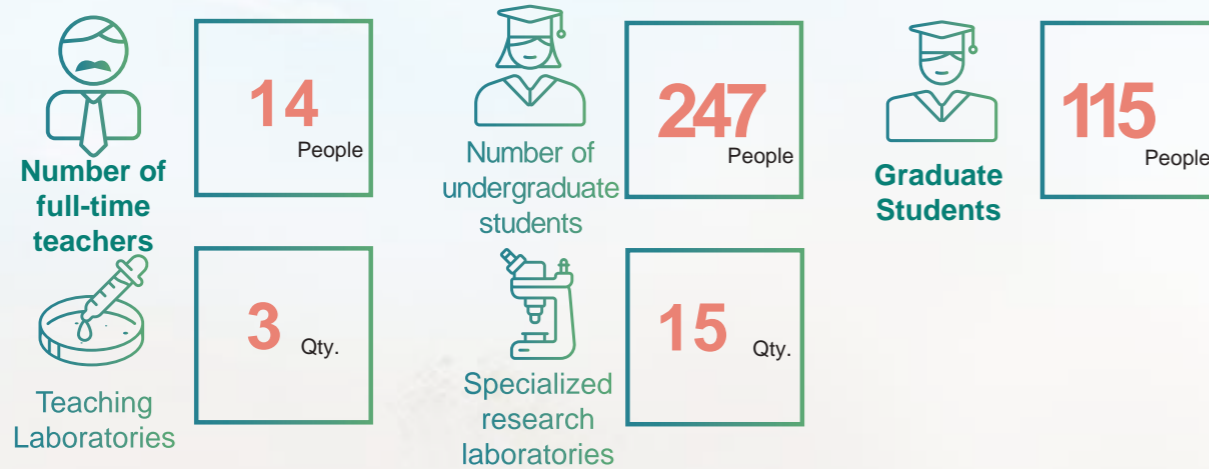
and industry policies to train students to become high-level technical talents in environmental engineering, safety and health, disaster prevention, and green ecological resources.

Industry-Government-Academia Cooperation Performance for the Department of Environmental Safety and Health Engineering from 2020 to 2022

Year	No. of Industry-Government-Academia Cooperation Cases	Industry-Government-Academia Cooperation Amount (NTD)
2020	38	47,828,066
2021	41	55,593,863
2022	32	68,049,910

*Values for 2020-2021 are modified due to changes in calculation criteria.

Department of Environmental Safety and Health Engineering



Teachers from this department have many years of practical experience and a strong work ethic. We also employ part-time teachers with extensive practical experience to expand the department's diversity and international features. The goal is to provide students with fundamental mathematical and engineering skills, meet industry demands for environmental safety and health professionals, foster a supportive environment, and inspire the spirit of lifelong learning. The department has received the highest possible rating from the Ministry of Education for a professional department at a national science and technology university, passed the Institute of Engineering Education Taiwan (IEET) Certification exam, and been recognized by the international engineering education community. Our courses place a strong emphasis on helping students earn professional certificates while emphasizing both theoretical and practical training. We frequently offer professional certificate training programs in disciplines like environment or safety to increase students' employability through theoretical and practical training.

We focus on developing practical skills, place a strong emphasis on applicable topics and practical design training, and offer a variety of laboratories (including 3 teaching laboratories and 15 professional research laboratories). The school has established a "Center for Emergency Response Information," "Research Center for Soil & Water Resources and Natural Disaster Prevention," "A Center for Process Safety and Industrial Disaster Prevention," "Center for Sustainable Development and Green Technology Research," and "Clean Green Sustainable Innovation Research Center." The Environmental Protection Administration of Executive Yuan has also established the "Support Center for Air Quality Modeling." The main personnel of these centers is teachers from our departments, and their goal is to actively pursue industry-government-academia cooperation projects. The positive outcomes and relevant industry-academia training projects have enhanced the students' practical experiences. In the future, we will continue to progress toward internationalization and collaborate with government

Research Center for Soil & Water Resources and Natural Disaster Prevention

The objectives of this project are to assist the local central governments in planning, investigating, analyzing, and protecting water and soil resources; establish and promote water and land resources, disaster prevention systems, etc.; and actively provide R&D results related to water and land resources as well as disaster prevention and relief to the world. The goal is to assist in establishing international water and land resources, disaster prevention and relief-related mechanisms and systems, and participate in transnational water and soil resource conservation and natural and man-made disaster prevention and control.

The number of industry-academia cooperation cases in fields such as stratum subsidence prevention and control, regional water resource allocation and survey planning, emerging water resource development, environmental monitoring and research, and pollution investigation and prevention has gradually increased over the last 3 years thanks to the guidance and research of professional teachers at the school. In 2022, there were 31 industry-academia cooperation cases, reaching NTD 68.43 million.

Statistics of Industry-Academia Cooperation Projects for the Research Center for Soil & Water Resources and Natural Disaster Prevention from 2020 to 2022

Year	No. of Industry-Government-Academia Cooperation Cases	Industry-Government-Academia Cooperation Amount (NTD)
2020	32	77,402,111
2021	34	75,315,362
2022	31	68,437,124

Center for Emergency Response Information

In order to comply with the Disaster Prevention and Response Act in Taiwan and the national development trend of responding to chemical disasters, the National Yunlin University of Science and Technology (referred to as the school) and related resources and technologies from the central government, industry, academia, and research institutions in the central region were integrated. The goal was to promote research and services related to chemical disaster response consultation, aligning with the objectives of supporting chemical disaster response consultation and assisting in the sustainable development of industries. In 2002, YunTech and the Environmental Protection Administration (EPA) jointly established the "Central Region Chemical Disaster Response Consultation Center" (referred to as the Center), providing 24-hour response consultation and activating senior response experts for technical support and safety guidance.

The EPA, as the competent authority for toxic chemical substance disasters under the Disaster Prevention and Response Act, expanded its efforts in 2007 by establishing seven environmental chemical disaster response teams and the National Chemical Disaster Consultation and Monitoring Centers. Consequently, YunTech took the initiative to establish and rename the center as the "Chemical Disaster Response Consultation Center," assisting the EPA in establishing "Environmental Protection Administration Environmental Chemical Disaster Response Teams" in Taichung and Yunlin.

In order to construct a non-toxic and healthy homeland and enhance the quality of urban and rural areas, aiming to establish a comprehensive chemical substance safety management system, reduce the risk of accidents related to toxic chemical substances, and create environmentally friendly urban and rural areas, the Environmental Protection Administration (EPA) transformed the Environmental Chemical Disaster Response Teams into "Environmental Accident Professional Technical Teams" in 2014. This change aimed to expand the response capabilities for environmental pollution incidents and align with the requirements of the "Constructing a Comfortable Homeland Project - Central Region Environmental Accident Professional Technical Service Project."

In order to enhance the service quality of the Technical Team and align with the recommendations of the Environmental Protection Administration under the Executive Yuan, this center officially obtained ISO 9001:2008 international certification on July 30, 2015, and ISO 9001:2015 international certification on July 31, 2018. These certifications standardize the team's operations to meet international standards.

In April 2019, in response to the fire incident at the Aromatic Hydrocarbon Plant 3 of Formosa Chemicals & Fibre Corporation, and through consensus and collaboration among the Legislative Yuan, the Environmental Protection Administration, and Yunlin County Government, this center established the Mailiao Team on January 1, 2020. The team is responsible for providing on-site guidance, unannounced testing, reviewing hazard prevention and response plans, checking site layouts, and testing detection and alarm devices for the chemical facilities in the Mailiao area of the Yunlin Offshore Basic Industrial Park.

The organization of this center not only includes the Technical Team for disaster response but also establishes the Administrative Promotion Team, Education and Training Team, and Toxic Disaster Information Team. This is to strengthen the organizational structure and build a professional team to assist government agencies and industries in the following areas:

- 1 Assist the Environmental Protection Administration of the Executive Yuan and local governments in central Taiwan (Taichung City, Nantou County, Changhua County, Chiayi County, Chiayi City, and Kinmen County) in promoting policies and business related to the response to toxic chemical substance disasters.
- 2 Provide consultation services related to toxic disaster response to government agencies and private institutions. Establish cooperative relationships and talent exchange with domestic public and private organizations and business units, combining academia, government, and industry to jointly research and enhance the technological level of domestic toxic disaster response and consultation.

- 3 Actively engage in collaborative research, response consultation services, and commissioned projects related to toxic chemical substance disasters with academia, government, and industry. Undertake commissioned research, technical consultation, and education and training related to toxic disaster response from domestic public and private organizations and business units.
- 4 Integrate and support teaching, experiments, and research related to toxic disaster response at the university. Participate in other relevant research projects inside and outside the university, combining human resources and equipment related to toxic disaster response for research purposes.
- 5 Collect the latest research and technological information on toxic disaster response and provide it as a reference for the university's faculty, students, and the industry.

Statistics of Industry-Academia Cooperation Projects for the Center for Emergency Response Information from 2020 to 2022

Year	No. of Industry-Government-Academia Cooperation Cases	Industry-Government-Academia Cooperation Amount (NTD)
2020	16	134,454,838
2021	16	57,358,068
2022	12	150,203,871

Office of Industry-Academia PBL Center

Our university, in order to integrate research resources and strengthen collaboration with industry and business guidance, has established the PBL Research Center. Within this framework, the Clean Green Sustainable Innovation Research Center actively promotes knowledge related to environmental education. It is dedicated to engaging with topics in environmental education and resource recycling, while also researching and developing circular economy systems. Continuing at the environmental education facility, the "Green and Sustainable Environmental Protection Future House," we conduct environmental education courses. These courses promote topics such as water resource reuse, circular economy, agriculture and food education, and energy education. Simultaneously, we provide ongoing guidance to industries in implementing energy-saving and carbon-reduction measures. Additionally, we are actively developing distinctive environmental education materials and teaching plans. We also hope that the Green and Sustainable Environmental Protection Future House can serve as a hub for green creative facilities and projects both on and off campus. We encourage teachers and students to apply for patents and participate in domestic and international competitions, making it a significant platform for academic and industry exchanges.

Number of environmental education events organized by the Clean Green Sustainable Innovation Research Center from 2020 to 2022

Year	No. of Industry-Government-Academia Cooperation Cases		Other environmental education activities	
2020	9 sessions	279 people	21 sessions	409 people
2021	3 sessions	51 people	24 sessions	816 people
2022	5 sessions	190 people	7 sessions	217 people

* In 2020 and 2021, environmental education activities were conducted for local communities and primary and secondary schools to cultivate personnel in the field. However, in 2022, due to the impact of the pandemic, there was a decrease in the number of events and participants. The borrowing of venues and willingness to participate were low, contributing to a reduction in the overall engagement.

Conducting environmental education activities



The product developed by the Clean Green Sustainable Innovation Research Center team, the "Friendly Chicken Coop Composite Framework for Circular Economy and Agriculture Education," received the Silver Medal at the 2022 Taiwan InnoTech Expo Invention Competition. The patented product "Composite Space Chicken Coop" has evolved from an individual model to a family and community-friendly composite space. It uses local materials and features a simple assembly framework suitable for home use, with a customizable roof design. Additionally, it is equipped with basic water and feed facilities, a discreet space for hatching eggs, and internal branches for chicken activities, facilitating the natural processing of chicken waste through ecological cycling. The design incorporates an ecological cycling facility to transform farming waste into fertilizer, aiming to achieve coexistence with the environment and ecological sustainability.

Statistics of Industry-Academia Collaboration Cases for the Clean Green Sustainable Innovation Research Center from 2020 to 2022

Year	No. of Industry-Government-Academia Cooperation Cases	Industry-Government-Academia Cooperation Amount (NTD)
2020	7	1,299,000
2021	6	3,479,992
2022	3	911,000



The "Hydro-Wind-Solar Hybrid Generator," developed collaboratively by the PBL Research Center team, including Professor Pan Zhilong from the Industrial Design Program, Professor Wen Zhichao from the Environmental Safety Department, and Professor Wang Zhixing from the Forward-looking Program, adopts the concept of combining hydraulic, wind, and solar power in a single unit. This innovative generator overcomes the limitations imposed by weather conditions on traditional power generators, thus enhancing the development of renewable energy. It aligns with the United Nations Sustainable Development Goals and reflects the future direction of power development in Taiwan. This work also received the first prize in the 2021 Sustainable Living Lab Award and the Sustainable Net Zero Award from the CD Foundation.



6

Social Inclusion

Major Topics of this Chapter/ University's Social Responsibility Practices

6-1 Internal Organization Social Co-prosperity	86
6-2 Resource sharing	95
6-3 Continuing Education	98
6-4 Industrial Exchange	99
6-5 International Exchange	104



Major Management Approach and Its Components

GRI correspondence: 2-25, 2-27, 203 Indirect Economic Impacts

Sustainable Development Major Topics

University's Social Responsibility Practices

Reason for Selecting a Major Topic

YunTech is committed to fulfilling the university's social responsibility by incorporating the USR and local resilience development blueprint into our school affairs. Our two main goals are to "promote social practice" and "fulfill the university's social responsibility."

GRI Guideline-Specific Topics

203-1 Infrastructure investments and services supported

Policy

In alignment with the university's medium to long-term strategic plan in the five strategic domains, the plan for sustainable development encompasses four specific objectives:

- (1) Generational Domain: Cultivate resilient talents for the next generation through interdisciplinary cooperative learning and practical experiences.
- (2) Literacy Domain: Enhance the sustainability knowledge and literacy of faculty and staff comprehensively.
- (3) Smart Domain: Utilize smart technology to enhance intelligent sustainable innovation, supervision, and management.
- (4) Sustainability Domain: Formulate teaching, industry-research collaboration, and academic strategies to facilitate the achievement of the United Nations Sustainable Development Goals by 2030.
- (5) International Domain: Expand the international learning network and strengthen international influence.

Promises

- ◆ We have gained the energy and experience of a model science and technology university by fulfilling the local social responsibility of running a school. The teacher and student USR teams must continue to actively complete the mission of restoring community self-confidence in the future. We must effectively integrate with existing local institutions and external resources (such as NGOs, local governments, or youth groups) to fulfill the mission of coexistence and co-prosperity.
- ◆ Combine industry-academia with public welfare and sustainability, and implement the YunTech model to assist the business community in resolving problems.
- ◆ Sustainable Professional Courses: The general education course "Dreamers of Society" has been transformed into the "Advanced SDGs" course. Starting from the academic year 2020, the course has been offered regularly each semester. This has led to the formation of a collaborative group of teachers who continuously enhance the course content. Currently, there are a total of six general education courses and ten instructors participating in teaching each semester, culminating in an advanced Project-Based Learning (PBL) integrated practical course.
- ◆ Corresponding to Taiwan's current social changes under the sustainable development goals (SDGs) framework to achieve a "sustainable society," "sustainable economy," and "sustainable environment."
- ◆ Promote international sustainable exchanges and cooperation, implement global sustainable talent cultivation in academic and industry research, and enhance international visibility.

Goals and Targets

Short-term

The 52 USR practice bases have 27% of the number of students studying USR-related courses in the university, 30 cultivation companies are stationed in the school, and the overseas degree student ratio is 6%.

Medium Term

Continue to recruit teachers to serve in USR practice bases throughout Taiwan and work toward the Sustainable Development Goals (SDGs).

Long Term

In fulfilling its social responsibility, YunTech focuses on the distinctive principles of the school's medium and long-term development plan and proposes "YunTech Sustainability 5.0." Building on the foundation of the first phase plan, YunTech has formulated the Sustainable 5.0 Roadmap for the years 2018-2030. In alignment with the specific strategies for the five domains outlined in the medium and long-term development plan, YunTech proposes four concrete objectives and corresponding strategies for the years 2023 to 2024. These include "Sustainable Governance," "Enhancement of Sustainable Knowledge and Abilities," "Cultivation of Next-Generation Sustainable Resilient Talents," and "Sustainable Smart Research and Industry Development."

Responsibilities and Systems

External regulations

In 2022, we will promote interdisciplinary courses and collaborative projects through the "Sustainable Interdisciplinary Teacher Community." We will organize themed activities under SIGs, collaborating with international schools, industries, communities, non-profit organizations, and other learning partners. This initiative aims to foster the development of sustainability issues and facilitate mutual learning and benefits for all stakeholders, embodying the essence of community exchange.

Internal regulations

The overall blueprint for the development of University Social Responsibility (USR) designates the Sustainable Committee as the operational framework for ESG (Environmental, Social, Governance) sustainable governance. It emphasizes sustainable management of university affairs, highlighting the support of stakeholders, and aims to realize the values and interests of all stakeholders. In alignment with the spirit of university sustainability, the institution supports and plans the practical implementation of various types of projects such as the Ministry of Education's University Social Responsibility (USR) project, Hub project, and the in-depth cultivation of USR and SDGs within the university. This aims to realize the ESG (Environmental, Social, Governance) path of the university.

Impact and Risk Assessment

- ◆ Effectively construct a systematic knowledge base for social practice
- ◆ Authentically implement the Total Solution Model to solve problems for the industry
- ◆ Teachers, students, and stakeholders cooperate and share resources
- ◆ Establish a Sustainable Digital Twins Management System
- ◆ The preceding projects from 2020 to 2022 have no risk events, and they maintain the existing community resilience and share inclusive measures.

Resource Investment

Invested approximately 10.22 million NTD

Grievance Mechanism

- ◆ School Affairs Advice System
- ◆ Teacher Grievance Review Committee
- ◆ Student Grievance Method

Specific Strategies / Special Actions

- ◆ "Organize social practice workshops, international case presentations, and experience-sharing sessions."
- ◆ "Planning for sustainable data collection and the establishment of a personalized sustainability resume information system."
- ◆ "Establishment of sustainable literacy courses and the creation of an 'SDGs Fundamentals' online self-paced micro-credit program."
- ◆ "Promote sustainable social development and health promotion services."
- ◆ "Share cross-school library resource."
- ◆ "Promote industrial chain and economic sustainability, match and promote community cooperation."
- ◆ "Combine social resources to promote local-caring education the development."
- ◆ "Promoting environmental and health sustainability to raise public awareness."
- ◆ "Drive cultural sustainability and promotion."
- ◆ Plan a sustainable exhibition to enhance the awareness and learning of SDGs among the entire school faculty and students.

Output Performance / Assessment Mechanism

* Annual target achievement status is based on a comprehensive comparison of performance in previous years

Achieved Goals

- ◆ USR-related course enrollment: Accounts for 28.99% of undergraduate students, marking an increase of 3.99%.
- ◆ Continue to station in Yunlin County, and station in Taiwan USR practice bases: 52 places
- ◆ In 2022, a total of 71 USR-related activities were held. They include 5 forums and symposiums, 6 interviews and consultations, 16 lectures, 25 workshops, 14 visits, 5 study camps. A total of 3,799 teachers and students (317 teachers, 40 staffs, and 3,442 students) participated in the events.
- ◆ No. of sister schools: 354, which increased by 18

Unachieved Goals

- ◆ Ratio of overseas degree students: 4.45 %, which decreased by 0.41%
Improvement measure: Students from mainland China cannot apply to study in Taiwan due to Chinese policies, and COVID-19 also reduced the number of overseas Chinese and international students. However, we have continued to increase the school's exposure by participating in online education exhibitions and recruiting outstanding international students.
- ◆ No. of resident manufacture cultivated: 29, which decreased by 3.
Improvement Plan: To enhance our outreach and engagement with the industry, we propose organizing industry-academia exchange activities, conducting proactive visits, promoting campus innovation and entrepreneurship, hosting lectures and online webinars, and actively participating in relevant government initiatives. By employing these approaches, we aim to broaden the visibility of our university's industry-academic expertise and actively engage in local events to discover new businesses. This will enable more enterprises to become acquainted with the support capabilities of the Incubation Center and foster the establishment of new startup teams and companies.

6-1 Internal Organization Social Co-prosperity

SDGs correspondence: 4.3, 4.7, 8.2, 8.4, 9.4, 11.1, 11.3, 11.4, 11.a, 12.3, 12.5, 13.3, 17.6, 17.16

YunTech USR Fulfilling Social Responsibility

YunTech, in fulfilling its social responsibility, aligns with the five-domain strategy outlined in the university's mid- to long-term development plan. The university has formulated four specific goals for sustainable development, including: (1) Generational Domain: Cultivate the resilience of the next generation through interdisciplinary cooperation in social practices. (2) Literacy Domain: Enhance the sustainability literacy and competencies of faculty, staff, and students comprehensively. (3) Smart Domain: Utilize smart technology to enhance intelligent sustainable innovation, supervision, and management. (4) Sustainability Domain: Formulate teaching, research, and academic strategies to facilitate the achievement of the United Nations Sustainable Development Goals by 2030. (5) International Domain: Expand the international learning network and strengthen international influence. The overall blueprint for the development of University Social Responsibility (USR) designates the Sustainable Committee as the operational framework for ESG (Environmental, Social, Governance) sustainable governance. It emphasizes sustainable management of university affairs, highlighting the support of stakeholders, and aims to realize the values and interests of all stakeholders. In alignment with the spirit of university sustainability, the institution supports and plans the practical implementation of various types of projects such as the Ministry of Education's University Social Responsibility (USR) project, USR Hub project, and the in-depth cultivation of USR and SDGs within the university. This aims to realize the ESG (Environmental, Social, Governance) path of the university.

Promoting Approaches and Innovations

The Hub project proposed by YunTech in this instance involves recruiting faculty and students from each college to participate in areas such as local resilience, talent cultivation, and local development. The collaboration is carried out by interdisciplinary teams of teachers known as "sustainable seed teams," and partnerships with domestic and international entities are established. Furthermore, the Hub team will be integrated with all teams in the school's Industry Relations (IR) solicitation to form a larger mechanism for the USR learning community. A knowledge platform will be established to enhance the USR support system, providing resources for paradigm transfer of practical experiences, digital learning, and leveraging the capabilities of applied research. Additionally, with the annual additional support of approximately 9 million from the Higher Education Deep Cultivation Fund, there will be ongoing efforts to cultivate sustainable practice teams, nurturing the next generation of resilient sustainability talent.

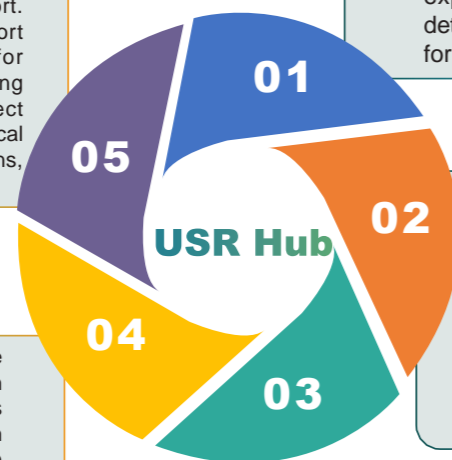
YunTech USR Learning-Working Circle Operational Mechanism

05 Outcome Review and Sharing

Each year, a comprehensive review and assessment of sustainability practices and performance are conducted throughout the entire university via the sustainability report. Following third-party verification, the report is released, serving as the foundation for the formulation of strategies in the upcoming year, and compilation of the annual project results. Sharing the outcomes through physical exhibitions, virtual displays, web presentations, and publications, among other methods.

04 Plan Execution and Midterm Review

The entire university's financials and KPIs are managed through the university's information system. The Deputy President reviews the financial progress at the end of each month. The information system monitors the implementation and progress of all courses and activities.



01 Issue Calibration

Through the Sustainability Development Committee, stakeholder surveys, and expert identification meetings, YunTech determines major sustainability issues and formulates the USR sustainability plan.

02 Team Recruitment

After establishing the university's sustainable development goals, project teams are openly recruited through both top-down and bottom-up channels. Following a review process by internal and external experts, with feedback mechanisms in place, the selected teams are publicly announced for funding.

03 Co-creation of Learning and Norms

The center organizes various training sessions, consensus meetings, study visits, workshops, forums, etc., to provide a platform for project teams to learn from each other and share experiences. Additionally, the center disseminates information and instructions regarding project specifications, subsequent execution, and relevant monitoring and evaluation methods.

YunTech USR's Promotion Methods and Innovative Actions are as follows:

- 1 The specific operation of YunTech Hub is primarily coordinated by the Center for Sustainable Development and Social Practice. And it is supervised by the Committee for Sustainable Development and Social Responsibility, determining the annual topics for major sustainability issues.
- 2 The key focus of our school's social practice is to gather diverse resources in various locations, bringing together industry and research expertise to address local issues. In 2022, the main focus areas for YunTech's USR initiatives were Cultural and Heritage Sustainability, Environmental and Health Sustainability, Industrial and Economic Sustainability, Living and Ecological Sustainability, and Production and Consumption Sustainability.
- 3 In 2018, YunTech took the initiative to incubate the USR Hub, establishing a transparent development mechanism through independent solicitations, particularly focusing on Industry Relations (IR). Teachers applying should demonstrate external collaboration venues and partners, incorporate interdisciplinary courses, engage in cross-disciplinary professional collaboration, involve both teachers and students, showcase curriculum activities, and highlight innovative initiatives, among other criteria.
- 4 The established goals and vision encompass the practice of "social responsibility" and place a strong emphasis on "cultivating socially responsible talent." This is achieved through the educational essence of "innovative teaching mechanisms" and the creation of "teacher learning communities." The objective is to enable teachers to align their teaching and professional competencies with the principles of USR by fostering knowledge exchange and enrichment within communities.

Commitment

Since the first phase of the plan in 2018, YunTech has been actively promoting and subsidizing internal social practice projects, encouraging faculty from various departments to participate in interdisciplinary teaching seed teams and exploration teams. The results have been remarkable and tangible. For example, based on YunTech's performance in the 2021 and 2022 THE World University Impact Rankings, the overall ranking has improved by 100 places, making it the top technical university in Taiwan. This demonstrates the concrete achievements and KPI over the years. Every year, the university organizes virtual and online showcases, publishes project outcome booklets, and translates all project results into board games. In total, there have been 35 promotional events both within and outside the university.

Budget and indicator planning for YunTech for the years 2018 to 2023

	2018	2019	2020	2021	2022
Sustainability online courses				3	9
Implementation of the Academic System					10
Social Dreamers					10
Financial Investment	NTD 9.08 million	NTD 9.26 million	NTD 8.6 million	NTD 8.69 million	NTD 10.22 million
Items Implemented	36	38	46	55	65
Participating teachers	34	48	56	74	75
No. of participating students	2,040	2,880	3,732	8,777	3,442
Cooperation Fields	18	48	60	93	52
Curriculum Integration	18	38	49	52	59
Yearly Expansion and Extension Plan for USR	NTD 8.75 million	NTD 10.35 million	NTD 20.54 million	NTD 30.88 million	NTD 25.83 million
				425	6,506

YunTech's Progress in THE World University Impact Rankings

Global Sub-ranking	Overall Global Ranking	2021 Ranking	2022 Ranking	University	Global Ranking
SDG6 Clean Water and Sanitation		301 - 400	201 - 300	National Cheng Kung University	33
SDG8 Decent Work and Economic Growth		101 - 200	101 - 200	National Taiwan University	37
SDG9 Industry, Innovation and Infrastructure		101 - 200	201 - 300	National Yang Ming Chiao Tung University Taipei Medical University Tunghai University	101 - 200
SDG11 Sustainable Cities and Communities		201 - 300	101 - 200	National Yunlin University of Science and Technology National Pingtung University of Science and Technology National Tsing Hua University Tzu Chi University	201 - 300
SDG12 Responsible Consumption and Production		101 - 200	101 - 200		
SDG16 Peace, Justice and Strong Institutions		101 - 200	101 - 200		
SDG17 Partnerships for the Goals		101 - 200	101 - 200	National Changhua University of Education National Taipei University of Technology National Taiwan Normal University Tamkang University	301 - 400

Actively Promoting Campus Social Practices, Fulfilling University Social Responsibility



★ We completed 71 USR-related activities, including 5 forums and symposiums, 6 interviews and consultations, 16 lectures, 25 workshops, 14 visits, and 5 workshops.

YunTech has been promoting interdisciplinary collaboration through the formation of a social practice teaching community. In 2022, a total of 108 teachers participated, accounting for 25.83% of the entire faculty. Additionally, to cultivate students' understanding of the current state and issues related to global sustainable development, and to equip them with resilient actions to face sustainability challenges and opportunities, the university has established the "SDGs Fundamentals" online self-directed micro-credit course. The university has implemented a sustainable introductory conceptual course consisting of 18 units designed for all first-year students since the academic year 2022. In the first semester, 425 students completed the course. The program encourages students to actively engage in social concerns by providing individual and club practice grant applications. A total of 65 social practice projects have been initiated, involving faculty, students, and administrative units, thereby expanding the university's commitment to fulfilling its social responsibility. In terms of incentive measures, teachers leading or executing major national research projects can apply for a reduction in teaching hours. The reduction is capped at a maximum of 4 teaching hours per semester. Through the incentive program, faculty participation in the USR related New Faculty Training Lecture Series is considered for teacher promotion points and is included in the lifelong learning hours for civil servants. This is designed to motivate faculty to enhance their development of capabilities related to social practice and to promote innovative teaching and the design of learning modes and methods for sustainability.

Talent Cultivation – Development of Sustainable Digital Learning Courses and General Education Courses



YunTech's USR Achievements Responding to International and SDGs Advocacy

1. Understanding the Food Crisis and Its Relevance - "Food Defense Campaign"

Living in affluent Taiwan, we might think that a food crisis is far from us. However, what we may not realize is that currently, "one-third" of the global food is being wasted, while 10% of the world's population still suffers from hunger! The Visual Communication Design Department and the Chemical Engineering and Materials Engineering Department at our university collaborated to organize the "Food Defense Battle" special exhibition. With a focus on United Nations SDGs Goal 2, "Zero Hunger," the exhibition presented various causes of food crises in a clear and understandable manner. It also proposed several solutions, including sharing practical examples of circular economy initiatives.



2. Stylish Solutions for Ocean Waste - YunTech's Internationalized Design Expansion

From December 6 to 9, 2022, an event with a strong emphasis on environmental awareness, as well as international and interdisciplinary collaboration, was held - the "International Exhibition of Sea Waste & Recycling Design." This exhibition connected multiple universities in Taiwan, Vietnam, and Indonesia through online platforms. The event was unveiled through live broadcasting, showcasing designs that carry significant educational, environmental, and sustainable reuse significance, with elements of fashion intertwined. According to United Nations statistics, if the current trend continues, by 2050, there will be more waste in the ocean than fish. Despite being surrounded by the sea and being a biodiverse country, Taiwan faces challenges in dealing with long-term ocean pollution and overexploitation. Collaborating with international educational institutions and creating connections, through educational initiatives, can play a crucial role in changing perceptions and behaviors toward the ocean.



YunTech students and faculty transformed beach-collected ocean waste into exhibits for an international fashion design showcase.



Students and faculty from Universitas Gadjah Mada in Indonesia used shell collage to create decorative artworks.



International Marine Waste and Recycling Design Exhibition features exhibited works at YunTech (Yunlin University of Science and Technology)



University of Economics Ho Chi Minh City's faculty and students' innovative designs using discarded denim.

With the English word "media" combined with the Spanish word for friends, "amigos," we aim to leverage the widely used media platform YouTube Shorts for a project called "One Minute English, Native Language Tutorial." Each week, we will collaborate with local children from Fundacion Arte del Mundo in Ecuador and children from Bigbyte, taking turns to create short videos. These videos will feature translations in English and the native language, establishing a YouTube channel for promotion. In under one minute, we will introduce the unique characteristics of our respective countries, creating an online interactive channel.



#mediamigos
International Media and Cultural Exchange Program



Subsequent Plans for International Media and Cultural Exchange

Promoting social inclusion and enhancing local resilience through student and faculty efforts.

YunTech's social inclusion goal is to create a harmonious, diverse, and sustainable campus by cultivating humanistic care, accumulating application-oriented energy, and exerting social and global influence. The goal is to bring together people with various skills and backgrounds to learn from one another's similarities and differences, break down barriers, respect and accept one another, and share the rights and responsibilities of society. We look forward to building a caring society with multiculturalism, educational care, creative vitality, and environmental sustainability so that every inclusive experience and practice can bring benefit and change. Several strategies are promoted to achieve this social vision:



3. In 2022, the team led by Professor Huang Shih-Hui initiated the "Social Practice Project in Zou Indigenous Village."

Leveraging the intrinsic cultural and ecological spirit of the Tsou indigenous people, collaborative projects are underway with Chiba University in Japan and multiple Japanese "regional revitalization" organizations.



Director Isarai of the Sanzusho Craft Museum (third from the right) and President Keisuke Ootani (first from the left) taking a group photo in front of the National Taiwan Craft Research and Development Institute.



YunTech Intelligent & Local Design Service Center promotes craft stalls featuring products from Lajji, Zhanghu communities, and the Sanxia Dye Workshop.

► **Basic General Education Curriculum Innovation Plan designed to promote multicultural and humanistic qualities for students**



Teachers participating in teacher community operations

178 students

52 %

We have continued to hold general education teacher improvement conferences to strengthen teaching methods and course for teachers. The goal is for teachers to learn interdisciplinary knowledge and profess the knowledge, change compulsory courses to elective courses each year, and loosen the category restrictions so students can take the courses freely. The general education course combines USR, PBL, and micro-training practical courses while bringing together the strengths of the Design Thinking and information literacy teacher communities to provide a framework for future academic interest exploration in the form of special topics. The goal is to improve the student's ability to explore independently and develop an interest in resolving problems.

Since 2018, we have integrated three required courses, "Life Education," "Civilization Changes," and "Constitutional Governance," into our general education curriculum. This integration has increased the general education credit hours from 8 to 14. From the 2020 academic semester to the present (2022-2 academic semester), we have offered a total of 28 Social Dreamer Sustainable Professional General Education courses, with 1,052 students enrolled. Additionally, since the 2018 academic year to the present (2022-2 academic semester), we have incorporated information literacy courses focusing on Excel and Python applications in data science into the general education curriculum, offering a total of 93 courses with 3,971 students enrolled. The general education courses are categorized into modules such as "Foreign Language," "Literature and Innovation," "Data Science," "Service Learning," "Physical Education," "USR (University Social Responsibility)," and "College-Integrated Courses." Each semester, multiple teacher improvement meetings and teaching observations are conducted to enhance teaching plans.

For "Data Science," identical teaching materials have been developed, and for "USR" courses, the gradual formulation of common teaching materials is in progress. In the compulsory general education courses, students are guided to understand and practice USR as the main focus. The courses incorporate teaching on the knowledge of university social responsibility and share practical teaching cases related to USR. Students are also arranged to engage in community-based practical activities, explore community issues, and reflect on how to apply their expertise to assist the community in problem-solving. Finally, through project work, students implement university social responsibility, connecting their expertise with local social issues and generating new possibilities for development.

► **Promote student service-learning courses and implement the spirit of educational care and life-long learning**



Approximate number of new students each academic year

1,400

People Participating in multiple service-learning programs

All freshmen and transfer students in YunTech Bachelor's Program (Day Division) must take service-learning courses to realize the purpose of service-learning popularization. Curriculum planning is carried out according to four stages of service learning: preparation, service, reflection, and celebration. Service-learning encompasses a diverse range of activities, including assisting with on-campus environmental cleanup, promoting intellectual property awareness, supporting student club camps, conducting off-campus housing surveys, participating in dormitory night patrols, assisting with blood donation events, and providing administrative support for various activities. Through the principle of "learning by doing," service-learning aims to cultivate positive character traits and instill values such as a sense of responsibility, care for the school, and concern for society. Additionally, we promote service-learning within student clubs and community organizations, providing students with a more diverse range of choices. This initiative aims to foster positive relationships with the community and encourage students to contribute to society in various ways.

Diverse Service-Learning Activities



YunTay Hall Activity Guidance



ESP CAFE English Learning Consultation



Library Shelf Organization

► **Effective implementation of moral education courses with remarkable results**

YunTech has combined moral education, life education, and livelihood education by making moral education the foundation and core of the general education curriculum. Our vision is holistic education. The goal is to integrate the teaching ideas and exchange experiences through the teacher community to enhance the understanding of holistic education curriculum and apply it to teaching. The number and scale of events held during the 2019 and 2020 academic years are smaller than those organized during the 2018 academic year due to the epidemic prevention policies, and the overall number of participants has decreased. After the easing of the epidemic in the academic year 2021, the number of participants has gradually increased.

Number of participants in moral education-related activities in the 107-110 academic years

Academic Year	Number of Participants
107	83,567
108	66,058
109	63,651
110	80,225

Expanding local and societal impact of USR Hub

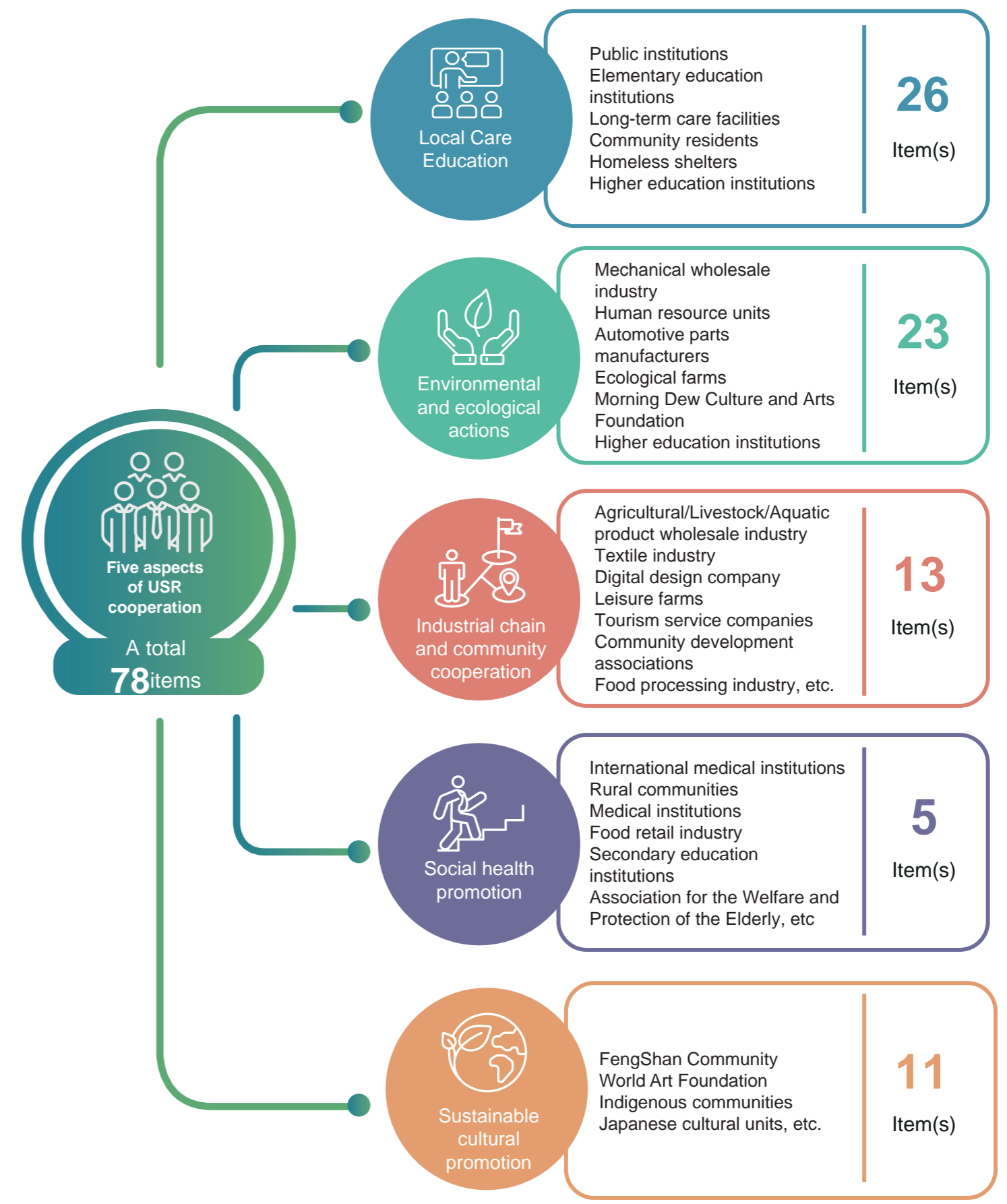
In 2018, YunTech took the initiative to incubate the USR Hub, establishing a transparent development mechanism through independent solicitations, particularly focusing on Industry Relations (IR). Teachers applying should demonstrate external collaboration venues and partners, incorporate interdisciplinary courses, engage in cross-disciplinary professional collaboration, involve both teachers and students, showcase curriculum activities, and highlight innovative initiatives, among other criteria. The project types vary, including student-led, individual teacher-led, teacher team-led, cross-department collaboration, and international collaboration. The funding ranges from 3 to 60 thousand NTD. After external expert review and revisions, the funds are allocated.

All project teachers and assistants are required to participate in consensus-building, collaborative meetings, and presentations led by the president and vice president at the beginning, middle, and end of each period. The effectiveness of all project KPI is checked at the end of the project. If a team is identified as having performance deficiencies, funding for the next year's application will no longer be provided. We have continued to deepen teachers' and students' participation in social practice on campus. In 2022, teachers from various colleges who participated in the community of social practice included: 21 from the College of Management, 22 from the College of Engineering, 35 from the College of Design, 14 from the College of Future, and 16 from the College of Humanities. A total 108 USR teachers participated (accounting for 25.83% of the teachers in the school).

In its execution, YunTech is dedicated to the achievement of the 17 Sustainable Development Goals (SDGs), leveraging smart technology and industrial innovation as the cornerstone for nurturing cutting-edge technology and talent within the university. Simultaneously, we aim to enhance the distinctive features of each college, upholding a spirit of talent cultivation. We seek to deepen sustainable practices through the integration of theoretical knowledge and practical experience, ultimately elevating the societal impact of YunTech. Our approach involves:

- 1 Team collaboration** | Through a call for submissions, we emphasize the planning of interdisciplinary team organization operations that highlight empowerment, collaboration, and collective learning. We recruit and facilitate the matching of teams to foster these qualities.
- 2 Resource support** | Provide the necessary resources for team project execution and establish key performance outcomes to ensure effective implementation.
- 3 Teaching integration** | Encourage teachers to integrate community engagement into existing courses or offer micro-credit courses. This provides an opportunity to organize interdisciplinary co-taught courses, collaboratively addressing societal issues and disseminating the effectiveness of teaching.
- 4 Capacity enhancement training** | Organize lectures and other events to enhance faculty and student understanding of various practical issues, the United Nations SDGs, etc. to improve their USR and SDGs capabilities. Additionally, provide team assistants with project management and verification teaching to enhance administrative support. Hold regular team meetings to build consensus, facilitate community exchange, and organize sustainability exhibitions, such as the "Food Defense Battle" exhibition and "Fashionable Ocean Waste," to provide learning opportunities for the entire school community in 2023.

GRI correspondence: 203-1
SDGs correspondence: 1.2, 3.4, 3.D, 4.1, 4.4, 4.5, 4.7, 8.2, 8.3, 8.9, 9.3, 9.4, 9.c, 10.2, 11.4, 11.7, 11.A, 17.17





Local Care Education / Elementary education institutions



#Forest Railway Elementary School Education - USR

The core theme of the project is the "Forest Railway," utilizing the "Classroom Beyond the Window" on-site course design and development commission. Through collaborative course preparation and on-site teaching activities, the project aims to enhance awareness of the local environment and foster a sense of identity. The project also incorporates educational promotion and practical teaching aids to broaden students' cognition of the cultural heritage and resources related to the Forestry Railway. The teaching content covers various subjects such as history, language, geography, culture, art, and nature. Students have the opportunity to freely explore and experience diverse cultural resources and assets within the cultural field, enhancing the enjoyment and knowledge of their learning experience.

Furthermore, incorporating knowledge related to the Alishan Forest Railway into the curriculum shapes the regional characteristics. This promotes distinctive teaching related to the Alishan Forest Railway, creating curriculum objectives that align with the regional features. This initiative serves as an inspiration for environmental education related to the Alishan Forest Railway, fully leveraging the school's characteristics and enhancing students' learning outcomes.



On-site educational promotion by Forest Railway Education



Local Care Education / Diverse fields



#Industry Cultivation - ESG Sustainable Information Disclosure and Value Creation

In response to global development trends, the initiative was taken to invite like-minded faculty members to establish the "Center for Sustainable Development and Value Management." The center focuses on ESG sustainability-related topics through a book club format. Meetings are held monthly, selecting relevant themes. Using a group-based approach involving both faculty and students, each group creates reading lists or gathers related information. Discussions are led by rotating groups, fostering community engagement and collaborative exploration.

By organizing book club meetings, the aim is to stimulate participants' sense of identity and facilitate discussions. Through these book club sessions, individuals can find a community that aligns with their beliefs. In the process of sharing and co-creating, the idea is to encourage a collaborative atmosphere where each person becomes a teacher. Participants share their life stories, fostering a diverse exchange of perspectives and expanding horizons. This approach aligns with the concept of "When three walk together, one must be my teacher," fostering a learning community. This model can also be extended to sharing experiences in various courses.

Furthermore, the book club serves as a platform for the academic community to share experiences and discuss ESG collaboration in industry, work, or life. This facilitates a harmonious operation within the group and guides both faculty and students to incorporate ESG concepts into their endeavors.



ESG Classroom Group Exercise - Student groups creating posters

Students actively engage in playing the SDGs board game.



Industrial chain and community cooperation
/ Local Tourism Industry



#Optimization Design of Local Experiences in Changhua

In order to promote sustainable urban development in local communities and showcase the unique beauty of the city, we plan to design an augmented reality (AR) experience game package. This package will integrate mobile chatbot guidance and assistance, providing users with a real-world puzzle-solving experience to increase interaction between the public and local businesses. This initiative aims to deepen users' understanding of local cultural characteristics and contribute to the development of local tourism. We have chosen Tianzhong Township in Changhua County as the development area and will collaborate with the local company ChiBuApp Inc. as well as various businesses and organizations. Students will apply methodologies learned in school courses, such as interview techniques, card sorting, role-playing, etc., to delve into and understand the operational stories and current situations of each business.

Subsequently, we will conduct data analysis and integration to serve as the foundation for developing an AR puzzle-solving game that aligns with the unique characteristics of the region. Moreover, this project provides students with the opportunity to leverage their design expertise, experience the collaborative process with the industry, and accumulate experience in external negotiations.



Experience Activity Side Shot Recording
(Players' actual operations)



Experience Activity Side Shot Recording
(Players' actual operations)



Industrial chain and community cooperation
/ Net Zero Carbon Emission Industry Forum



Established YunTech Net Zero Intellectual Allies

On December 9th, under the leadership of President Yang Neng-Shu, YunTech established the Net-Zero Intelligence Alliance. The event was attended by leaders from various enterprises, including Yunlin County Government, National Taiwan University College of Bioresources and Agriculture, SGS, Greenpeace, CSD, Tradetool Auto, Kenda Tires, SDI Corporation, SuperAlloy Industrial, Tatung Soy Sauce, and others.

The university has obtained ISO 14064-1 greenhouse gas inventory and ISO 14067 product carbon footprint lead auditor qualifications. In 2022, it also achieved ISO 14064-2 greenhouse gas project reduction lead auditor certification.



Greenhouse Gas Inventory and Carbon Footprint Sustainable Development Forum - Photo of collaboration between industry, government, and academia



Social health promotion / Community People



#FarmYouth Cherishes Agriculture and Water (Theme: Rapid Water Quality Testing)

The project will organize a "Water Quality Rapid Analysis Workshop" to promote rapid water quality analysis methods and concepts of water resource protection. Through the guidance of graduate students explaining relevant water resource knowledge, practical water quality analysis will be introduced to the community. This will assist community residents in gaining a deeper understanding of water resources. Using a simple detection instrument and a 15-in-1 test paper, the analysis will be conducted to interpret whether the water quality meets the standards. Residents will be educated on how to identify the upper limits of various pollutants and the potential hazards to crops and human health when these limits are exceeded.

Through this activity, the goal is to enhance the university's contribution to the region and promote the cultivation of local industry-academia talents. Through the activity, farmers will learn sampling methods, the use of testing instruments, and techniques for using test papers. They will also gain an understanding of discharge water and drinking water standards. This aims to enhance awareness of water resource protection and contribute to the cultivation of local industry-academia talents.



Social health promotion / Rural Medical Services



#Elderly Medical Care System for Mountain Residents - Exchange with the service model of pharmacists in Austrian mountain areas

Through international exchanges, gaining insights into medical experiences in mountainous and remote areas, establishing feasible medical service models for rural and vulnerable populations, and developing communication and positioning modules suitable for rural areas to reduce the constraints on residents' access to medical resources.

Austria, located in Central Europe, is a mountainous country with a terrain similar to Taiwan. In many mountainous areas, households are sparsely distributed, and challenges such as difficulties in communication and transportation infrastructure construction and limited access to medical services often arise.

This project aims to share experiences, challenges, and feasible solutions in providing pharmacy services in mountainous areas, drawing on the experiences of the Austrian pharmacy system and the medical services in Gukeng, Taiwan. Collaboration with communication IT professionals and students will be utilized to provide Off-Grid ICT (Information and Communication Technology) services, addressing the challenges in communication infrastructure. This initiative is integrated into the "Social Dreamer" general education course, incorporating the study of international sustainable development goals to deepen the focus on healthcare services in remote areas.



Water Resource Advocacy - Implementation results report



Water Resource Advocacy Workshop



Rural Mountain Medical Technology Teaching



General Education Course "Dream Makers in Society"



Sustainable cultural promotion
/ Cultural, Historical, and Community Exploration



#FengShan Village Cultural Learning Camp

The village of FengShan in Alishan, known as the "Forgotten Village below the Towering Mountains," has retained its simple and rustic charm due to development restrictions. Nestled in the mountains, Fengshan Village remains a rare and secluded haven in the region. To foster a sense of identity and belonging among the children in their hometown, rooted in their local community, the plan introduces the "Rock Workshop - Fengshan Cultural Learning Camp." The learning camp is branded, and a series of designs are implemented, constantly considering how to create suitable educational materials and related peripherals from the perspective of children.

Emphasizing "historical and cultural aspects, distinctive landmarks, and experiential education" as the three key elements, the "Rock Workshop - FengShan Cultural Learning Camp" is tailored specifically for the children of FengShan Village. The program aims to instill a sense of identity and belonging to their hometown in children from an early age. By fostering cultural learning, children can develop an appreciation for the beauty of Fengshan, even when studying elsewhere. The goal is for them to return and contribute their knowledge to their hometown. Through the branding of the learning camp, a series of peripherals and educational materials related to the camp are created. Using the three core elements of Fengshan Village—mountains, rocks, and people—the overall visual concept revolves around green as the main color, complemented by gray and white. Unlike the retro sentiment often associated with cultural history, this approach aims to bring a fresh perspective by combining the original appearance of the mountains with innovative learning.

The project includes the creation of various items such as the brand's visual logo, camp posters, promotional brochures, map chart, identification cards, stamps, puzzle badges, T-shirts, and more, all related to the cultural learning camp.



Rock Workshop - FengShan Cultural Learning Camp - Map Chart Explanation



Rock Workshop - FengShan Cultural Learning Camp



Sustainable cultural promotion
/ International Exchange Units



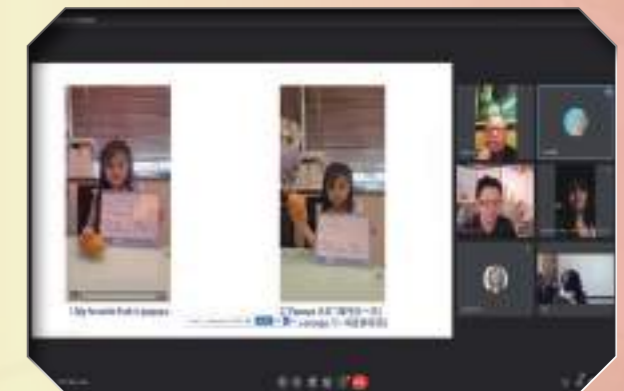
#mediamigos - International Media and Cultural Exchange Program

The project aims to continue Taiwan's cultural outreach and international exchanges during the widespread outbreak of COVID-19. Through online means, the goal is to stay connected globally and sustain cultural exchanges with other countries. With the English word "media" combined with the Spanish word for friends, "amigos," we aim to leverage the widely used media platform YouTube Shorts for a project called "One Minute English, Native Language Tutorial." Each week, we will collaborate with local children from Fundación Arte del Mundo in Ecuador and children from Bigbyte, taking turns to create short videos. These videos will feature translations in English and the native language, establishing a youtube channel for promotion. In under one minute, we will introduce the unique characteristics of our respective countries, creating an online interactive channel.

This project aims to facilitate effective cultural exchange between the two countries through online platforms. With the assistance of local organizations, participants will become familiar with the operation of online short film platforms. The project also involves direct exchanges, and future plans include implementing additional exchange methods, such as using tags to effectively categorize collaborative efforts. Through tag-related activities, more people can participate in the exchange program, successfully introducing Ecuadorian children to Taiwanese culture, including animals, fruits, and more. Moreover, this initiative goes beyond providing local children with the opportunity to engage in cultural exchange. Local volunteers can also participate, bringing valuable feedback and contributing to the creation of additional value. The collaborative efforts of international volunteers add depth to the project and enhance its impact.



#mediamigos- International Media and Cultural Exchange Program - Conceptual Planning



Introduction of "Bigbyte Video" and its color schemes.

6-2 Resource sharing

SDGs correspondence: 4.7, 4.A, 11.4, 11.A, 16.10, 17.6, 17.14, 17.17

Library open services



Total collection volume

1.47million Book / Type

(including physical books, periodicals, and digital resources)

Since its inception, the YunTech library has continued to promote university social responsibility integration and open the service concept to sharing library resources with the public to satisfy the university's social responsibilities. We aim to promote reading and lifetime learning according to the Library Act and the school library book resources reading and borrowing requirements by offering the Friends of the Library Program for the non-campus public as well as inter-library collaborations between colleges and universities. As part of this program, individuals can obtain a library access card and a borrowing card for accessing and borrowing books from the library. During COVID-19, teachers and students were encouraged to use electronic academic resource collections for distance self-learning. We have established a digital multimedia platform to promote the use of digital information technology for creating electronic book resources and library newsletters. These efforts aim to provide the public with free online access and services.

We regularly curate thematic book exhibitions based on our diverse library collections and the United Nations Sustainable Development Goals (SDGs). These exhibitions aim to promote awareness among teachers and students, provide community members with access to relevant resources, and disseminate new knowledge on humanities, social issues, and global sustainable development. This initiative aligns with the practice of the University Social Responsibility (USR). In the year 2022, we curated a selection of thematic book exhibitions, including: January: "Bestsellers of the Year," March: "SDGs Sustainable Development," May: "Art Beyond Boundaries," June: "Intellectual Property Rights and Research Excellence," July: "The New Era of AI," August: "Summer Travel Literature," November: "Nobel Prize in Literature," December: "Golden Tripod Awards."

The museum is committed to environmental sustainability and carbon reduction goals. On the third floor's manga section, we have established the "Comic Book Crossing Fun,"

aiming to provide a space for manga enthusiasts to share and exchange. We encourage the free borrowing or donation of second-hand manga books. Through the repeated reading of books, widespread circulation is promoted, enhancing the reuse of library resources and reducing the consumption of valuable paper resources. We also held the "Book Purchase Day" and "Second-hand Book Sharing Event - Get Serious About Books" activities on Earth Day and World Reading Day in April every year. The goal is to promote sustainable education indicators such as cherishing resources, environmental protection, and carbon reduction and improve the public's reading ability through long-term cumulative efforts.



Second-hand book sharing activity

There is an interactive touchscreen display in the library lobby: the digital school history museum is open to the public. Happy Selfie Area - available for people outside the school to experience digital composite photos with the school's scenery without having to log in to enter the museum. Digital reading area - open digital learning resources e-magazines available for clicking and browsing.

Our school is the highest learning institution in Yunlin County. Although the main task and function of the library are to support the teaching and research of teachers and students, we also aim to serve the needs of the public for lifelong learning; build a barrier-free, friendly, high-quality learning, and educational environment; uphold the mission of the university library to promote the inclusive development of the community; and share the knowledge resources, space, and facilities with the public according to the national education development policy and school affairs development plan. We have implemented a long-term approach that allows people from outside the school and community to read and borrow books from the library; enabled off-campus people to participate as volunteers; and encouraged community members, educational institutions, industry-academia cooperation units, and groups to apply for admission to the library to use books, computers, and various promotional services such as exhibition halls, participate in seminars, and visit guide services. We are committed to sharing and exchanging educational resources as well as fulfilling the vision and goal of "enhancing the availability of higher education and fulfilling the university's social responsibility (USR)."



Digital audiovisual platform recommending good books, online book reviews for public browsing to promote reading.



The exhibition hall curates the results of the "Food Defense Battle" SDGs exhibition.



Exchange visits with international academic groups (Wentworth Institute of Technology, USA).



Open to external organizations for visits (Yunlin County Police Department).

The ratio of off-campus people to on-campus teachers and students receiving services at the school from 2020-2022

Year	Number of off-campus visitors (including group visits)	Number of school teachers and students visitors	No. of visitors receiving services	Total off-campus visitors ratio of people entering the library
2020	22,228	140,496	162,724	13.66 %
2021	19,425	111,749	131,174	14.81 %
2022	26,090	132,877	158,967	16.41 %

* Service personnel were reduced from May to September 2021 because off-campus visits were suspended due to COVID-19. In 2022, due to the easing of the pandemic, there was a slight increase in the number of visitors.



Exhibition Activities - Be Friendly and Give Back to the Local Community

Under the concept of “technology, art, and humanities” development and integration, the School has established an Art Center to cultivate and enhance the artistic and cultural atmosphere on campus. The goal is to actively promote and improve general art education and strengthen the quality of art and humanities performances and activities. The intensive cultivation of the art center and the support of the school provides an art and cultural space for teachers, students, and the community to cultivate students with humanistic and artistic talents. The art center, resident artists, and various school units collaborate to plan numerous creative public arts in the school and present a campus art culture that combines modern art with technology.

In addition to organizing domestic art exhibitions, our Arts Center collaborates with international art institutions and groups to conduct exchange activities. This aims to enhance the in-depth understanding of art and culture among our faculty and students, elevate the international image of our institution, and contribute to the internationalization of local art, thereby boosting the global visibility of our university. In the future, the school’s Art Center will gradually become a base for co-creation as well as art and culture promotion in the Central District. In addition to combining international academic and cultural relics exchanges, we also want to promote and collect international artifacts that meet the collection development features, create cultural resources within the school, and invite international artists to work on campus. The goal is to organize international workshops, exhibitions, or lectures to generate international perspectives for the school’s teachers and students; build the campus’ aesthetic economy and assets; fulfill the artistic and humanistic blueprint for the school; and transform the campus into the primary communication and interaction platform for teachers, students, artists, and the community. The Art Center hosts various large-scale exhibitions and performances open to the public. It also helps students organize clubs and encourages them to hold specialty exhibitions and performances with good results.

Statistics for arts and cultural activities from 2020 to 2022

Year	Exhibition activities (sessions)	Artifact collections (pieces)	Art guides (persons)	Concerts (number)
2020	25	15	3,012	2
2021	21	3	3,128	0
2022	22	2	3,350	1



The Art Center exhibition allows community residents to visit and provides guided explanations.



Organizing on-site calligraphy events to distribute spring couplets, promoting a friendly campus environment.



Promoting energy-saving experiences through the Earth Hour event, where participants turn off lights for one hour.



Open to external organizations for visits (Yunlin County Police Department).

Yun Tay Performance Hall

YunTay Hall was formerly the auditorium and was originally built in 1994. The main architecture is a reinforced concrete building with a special fan shape, and it was originally designed to be used as a lecture hall. Feng Tay Cultural and Educational Foundation signed a donation memorandum with our school in November 2018 to create a performance venue for high-level performing arts groups in Yunlin County. The parties cooperated to upgrade and rebuild the auditorium into a national-level performance hall with a seating capacity of more than 1,000 people.

The upgrade and renovation plan was planned and designed in March 2019 and started in March 2020. Many challenges were encountered during the renovation period, and it was completed in December 2021 thanks to the combined efforts of the design, construction, and management teams. After renovation, it has a total floor area of 6,672 m² with a quiet and elegant appearance. The building was divided into a multi-functional exhibition hall, a design product display area, and a national-scale performance hall with 1,400 seats. The total construction cost was over NTD 300 million, of which Feng Tay Culture and Education Foundation donated NTD 216 million.

After the renovation, the teachers and students of the school and the Feng Tay Culture and Education Foundation voted to name it “YunTay Hall.” “YunTay” is the homonym for the abbreviation of the school’s name, YunTech. Yun means clouds and bounty and represents Yunlin County and the Yunlin University of Technology. The name expresses implicit gratitude to Feng Tay Culture and Education Foundation for its donations. The YunTay Hall is expected to bring national-level art and culture into Yunlin; increase the opportunities for the people of Changhua, Yunlin, Chiayi, and Nantou areas to enjoy high-quality art and cultural activities; and become an important venue for international performances.



Current status of the Yun Tay Performance Hall

YunTech Performance Hall commenced operations in 2022 and, being a newly established venue, actively sought fundraising from enterprises. While some performances were ticketed, the ticket prices were set at highly affordable rates. The intention was to encourage local residents to visit the performance hall and enjoy cultural and artistic programs. The invited performance groups were prioritized based on those who had not previously performed in Yunlin County. The primary goal was to provide residents in the Yun-Chia region with the opportunity to experience diverse cultural and artistic activities. Additionally, it aimed to offer an immersive experience in the high-quality facilities of the performance hall, fostering both positive word of mouth and successful ticket sales. Invited performing groups since the start of operations include:

Year	Name of Activity	Date of Activity	Number of Participants	Note
2022	Photosynthesis Light and Music Concert	October 15 (Saturday)	550	Free of Charge
	Quintet Chamber Music Concert	November 4 (Friday)	884	Free of Charge
	Spring River Performing Arts Troupe - Grandma and Her Ghosts	December 10 (Saturday)	1,022	Ticket sales
2023	.COME Night Live	April 27 (Thursday)	671	Ticket sales
	Con Bello Symphonic Band - Hayao Miyazaki Animation Soundtrack	May 6 (Saturday)	884	Ticket sales
	Funny No Problem - Yun Tay Special	May 27 (Saturday)	1,106	Ticket sales



Photosynthesis Light and Music Concert



Quintet Chamber Music Concert



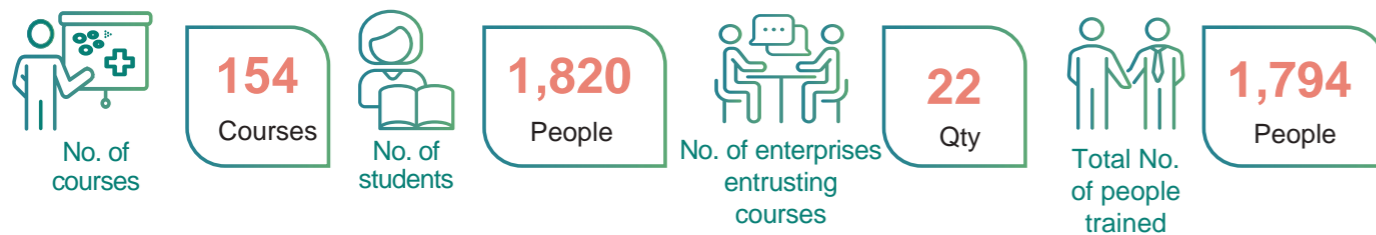
Spring River Performing Arts Troupe - Grandma and Her Ghosts



Con Bello Symphonic Band - Hayao Miyazaki Animation Soundtrack

SDGs correspondence:
4.4, 8.2

2021 Academic Year Continuing Education Center



The school's Continuing Education Center aims to meet the needs of national economic development and local construction by cultivating high-level technical personnel. It has actively integrated and provided necessary software and hardware equipment and resources, addressed regional demands, conducted promotional education classes and study training, served the hometown, and given back to the local area.

In recent years, the center has actively played the role of excellent teachers and equipment marketers; grasped the school's expertise in electromechanical, design, and management. It has executed key technology reengineering efforts in collaboration with local companies, worked to close the industrial personnel gap, improved the operational capacities of nearby enterprises, and established a win-win scenario for industry and academia. The Continuing Education Center has actively participated in various training courses on behalf of others or collaborated with businesses to develop industrial colleges.

Number of Classes Held by the Continuing Education Center and Number of Students for the 108-110 Academic Year

Academic Year	No. of courses	No. of students
108	221	1,644
109	216	2,479
110	154	1,820

Training Undertaking and Industry College

We have undertaken the "Private Enterprise Training and Disaster Prevention Experience Course for Organizations" entrusted by the National Fire Agency of the Ministry of the Interior to provide disaster prevention courses for various enterprises in Taiwan. We completed training cases for 12 manufacturers in 2020, totaling 35 training sessions and 1,158 trainees; also, we undertook training projects for 7 companies, with a total of 529 participants in 2021.

In 2021, we hosted the "AI Medical Training Program: Medical Big Data and Artificial Intelligence" (Master's Credit Class) for National Taiwan University Hospital Yunlin Branch, training healthcare professionals in utilizing advanced data analytics and artificial intelligence technologies for analysis and applications. The program trained 37 individuals with a budget of NTD 190,000.

In 2022, we hosted the "Functional Training Program Design and Teaching Practice" (Master's Credit Class) for Formosa Plastics Corporation. The training aimed to equip Formosa Plastics personnel with the skills and practical techniques for designing functional courses, teaching, and assessing training effectiveness, with a focus on the characteristics of the petrochemical industry. Training for 40 individuals, with a budget of 600,000 NTD.

In 2022, we took on the training project "Operation of Unmanned Aerial Vehicles (UAVs) and Application of Smart Agricultural Plant Protection Machines (Yunlin Class)" from the Veterans Affairs

Council Retired Officers and Soldiers Counseling Committee. The program aimed to provide participants with insights into the latest agricultural technologies in Taiwan, including the management of agricultural footprints for product traceability. Through hands-on training in UAV operation and practical field management, the program combined theoretical knowledge with practical skills to enhance learning outcomes for participants, preparing them for future entrepreneurship and cultivating secondary expertise. Training for 30 individuals, with a budget of 960,000 NTD.

No. of enterprises entrusted training sessions, and students from 2020-2022

Year	No. of enterprises trained	Sessions	No. of people trained
2020	12	35	1,158
2021	8	18	566
2022	2	2	70

Executed the Vocational Training Reengineering Program of the Work Force Development Agency, Ministry of Labor

In 2022, we undertook the "2022 Annual Industrial Talent Investment Program – Policy Courses" from the Yunlin-Chiayi-Tainan Branch of the Ministry of Labor's Bureau of Labor Development. The program included courses in Asia Silicon Valley, Smart Machinery, Performance Management, and other relevant areas, totaling six courses with a budget of NTD 1,122,040.

To strengthen the knowledge and skills of the youth, cultivate talent for key innovative industries, promote youth employment, and facilitate lifelong learning, the Education Center at the main campus and the Alumni Lifelong Learning Center in Taipei undertook five courses as part of the Ministry of Labor's "The First Industrial Talents" in the 2021-2022 academic year. These courses included the "International Marketing Strategy and Practical Planning Class" and the "Agricultural Machinery Application and Maintenance Engineer Training Class," with a total budget of NTD 9,203,966.

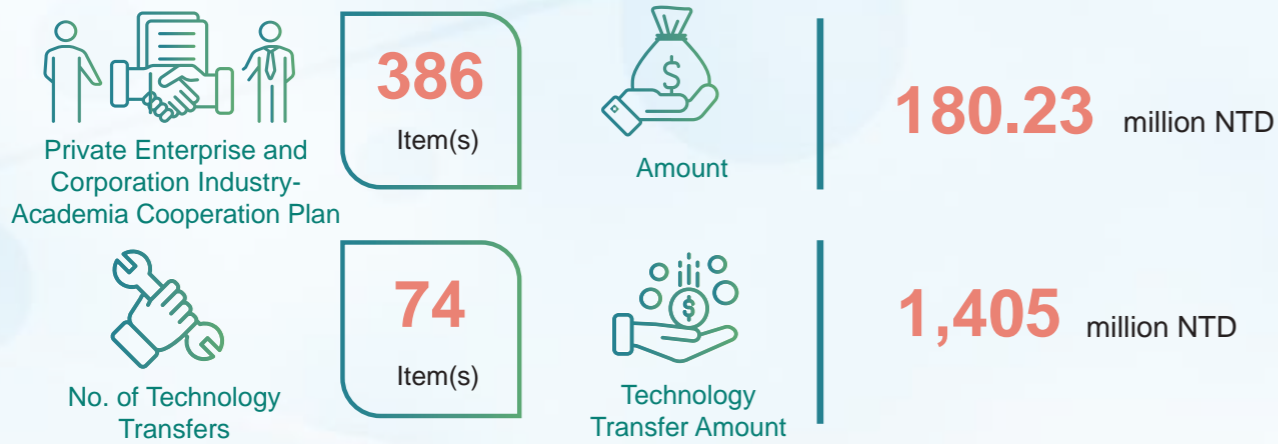
From 2019 to 2022, we continued to execute the "Industrial Talent Investment Program" for the Yunlin-Chiayi-Tainan Regional Branch of the Work Force Development Agency, Ministry of Labor and offered relevant courses based on policy demands. We also continuously implement the "Industrial Talent Investment Program" from 2020 to 2022, which won Level-A training recognition.

Number of classes and students participating in the Vocational Training Reengineering Program of the Work Force Development Agency, Ministry of Labor, from 2019 to 2021

Year	No. of courses	No. of students
2020	5	94
2021	4	69
2022	6	119

6-4 Industrial Exchange

SDGs correspondence: 8.2, 8.3, 8.6

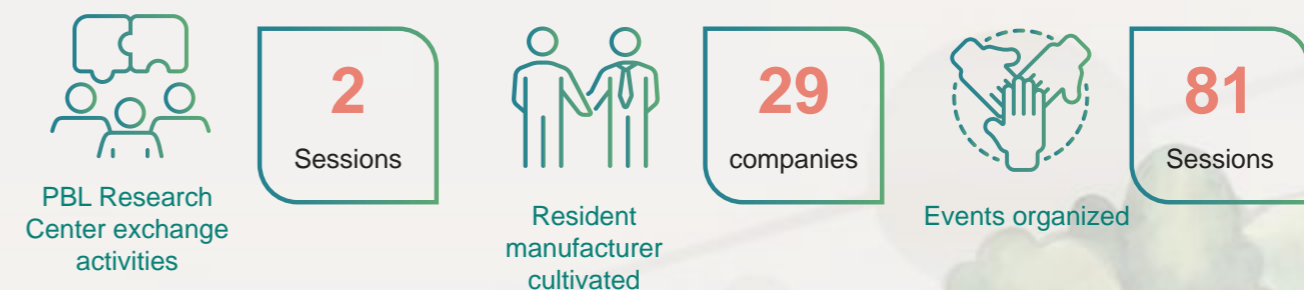


Actively organize industrial forums, lectures, industry-academia exchanges, or large-scale activities to establish a close relationship for enterprise docking and sustainable cooperation. In 2022, a total of 20 events were held with a total of 148 teachers, 118 manufacturers, and 297 people participating in the events.

Undertaking date	Topic	No. of participating teachers	No. of participating manufacturers
01 / 20	Foundry Industry Small Forum	4	19 manufacturers/ 24 people
03 / 25	Net Zero Carbon Emission Industry Forum	10	13 manufacturers/ 21 people
03 / 25	Industry-University-Teacher Thanksgiving Exchange Meeting	16	25 manufacturers/ 36 people
04 / 07	Support for the groundbreaking ceremony of the Future Technology Building and arrangements for the luncheon reception	9	10 manufacturers/ 11 people
04 / 13	Junior Year Week - Technology Enthusiasts (Storytelling by Grandma Chen) Chairman Mei-Chi Chen's School Visit and Lecture Collaboration	-	On-Campus Lectures
05 / 11	Chen Ronghua Lecture - Baolong Electronics, Chairman Ben-Lin Liao's School Visit and Lecture	11	1 manufacturer/ 5 people
05 / 13	Health Industry Forum - Health Planning for Individuals and Organizations in the Post-Pandemic Era	3	11 manufacturers/ 63 people
05 / 23	Elite Sewing Machine Manufacturing Forum and STEM Project Results Presentation	3	1 manufacturer/ 59 people
06 / 09	2022 [National Science and Technology Council Industry-Academia Collaboration Project Second Phase Application] On-campus Briefing	19	On-Campus Information Session

08 / 15	Chang Gung Co-hosted Smart Health Sensor Exchange Seminar	11	4 manufacturers/ 12 people
08 / 25	YunTech and Central Defense Development Center Signing Ceremony (Co-hosted)	8	1 manufacturer/ 8 people
10 / 07	YunTech and Yunlin County Environmental Protection Bureau Industry-Academia Collaboration Memorandum Signing Event	4	2 manufacturers/ 3 people
10 / 26	Fengtai Lecture - Kenton PPC - General Manager Yun-Tzu Chen's School Visit and Lecture	-	On-Campus Lectures
11 / 16	Fengtai Lecture - ExcelTek Taiwan - Chairman Yi-Cheng Chiu's School Visit and Lecture	-	On-Campus Lectures
11 / 18	Passive Components Industry Association Recruitment and Lecture Event (Co-hosted with the Research and Development Office)	5	7 manufacturers/ 18 people
11 / 22	Innovation Design Industry Forum and Public Welfare Industry-Academia Cooperation and Tsung Cho-Chang Achievements Exhibition	16	5 manufacturers/ 6 people
12 / 06	2023 [National Science and Technology Council Industry-Academia Collaboration Project First Phase Application] On-campus Briefing	7	On-Campus Information Session
12 / 07	Chen Ronghua Outstanding Master Yuzhi International - Chairman Wen-Chih Lin's School Visit and Lecture (Senior Week Event)	-	On-Campus Lectures
12 / 09	(Co-hosted) Zero Net Smart Alliance Pledge Ceremony	18	18 manufacturers/ 21 people
12 / 15	YunTech and SIRUBA Industry-Academia Cooperation Signing Ceremony	4	1 manufacturer/ 10 people

The "Incubation Center for Industry-Academia Collaboration and Intellectual Property" has implemented the "SME Innovation Institution Development Project, Industrial Park Industrial Guidance Innovation Project," established the Yunlin Science and Technology Industrial Zone Education Sub-office, and served as the leading unit of the Central District Entrepreneurship Alliance. Below are the SME promotion and counseling operation results.

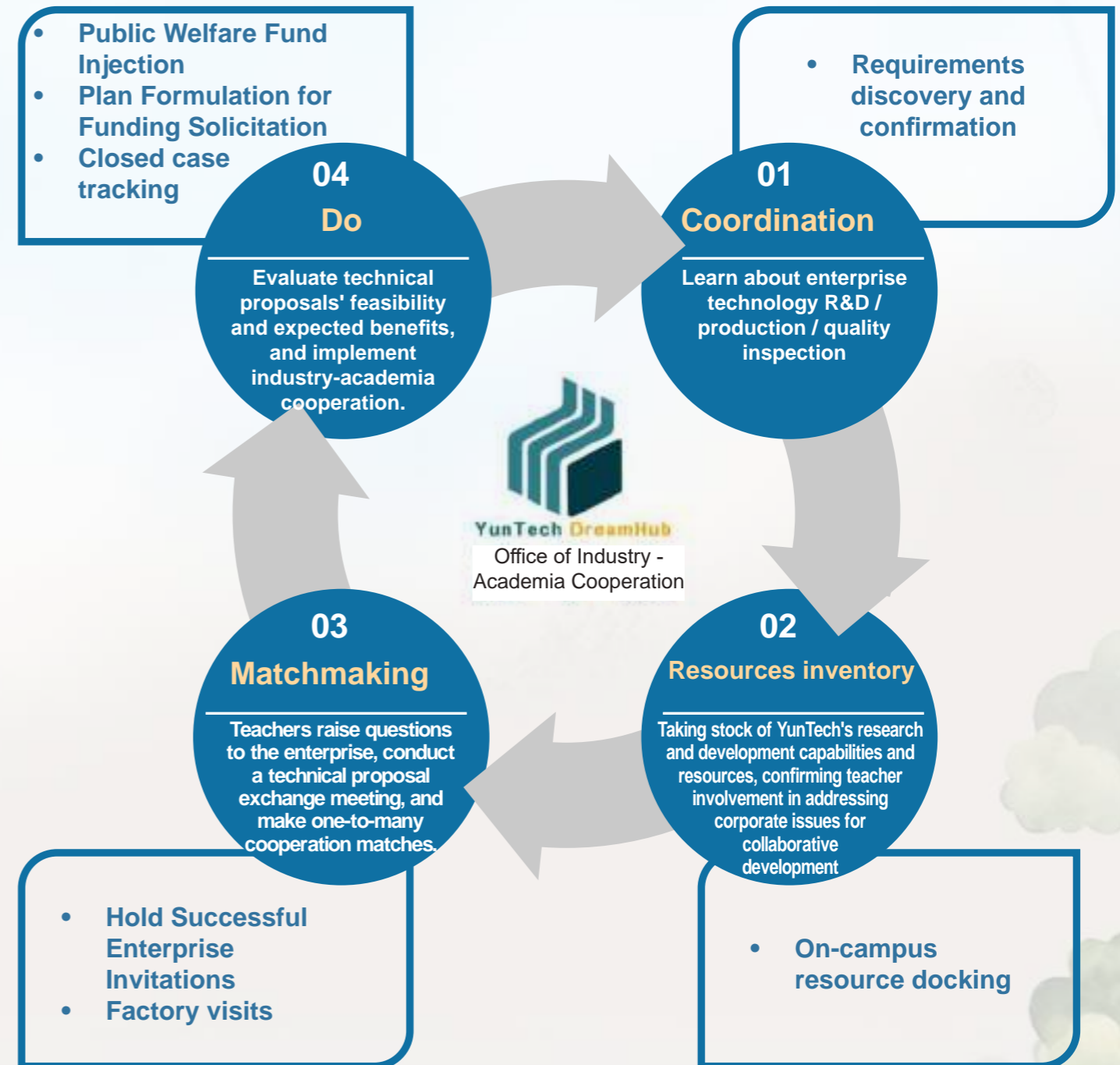


Office of Industry-Academia



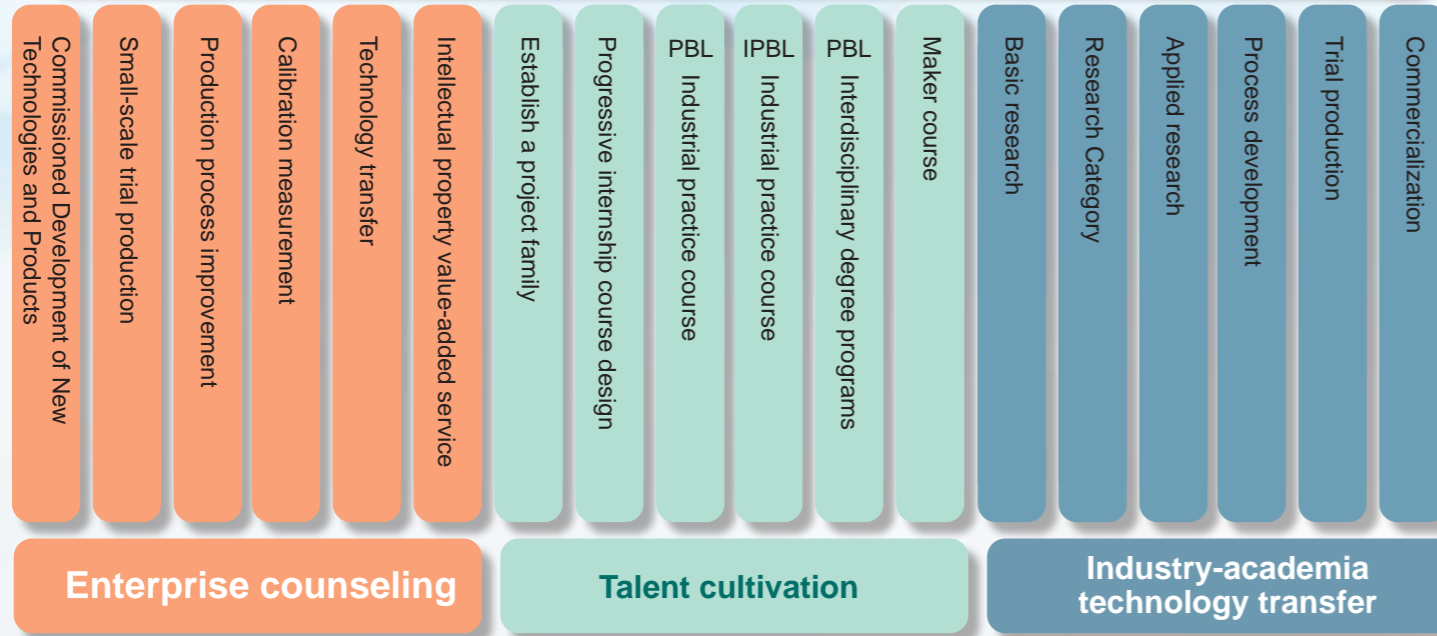
The goal is to broaden cross-departmental collaboration, cultivate practical and practical professionals, integrate technology into commercial applications, steadily develop industry-academia cooperation, and deepen the link between industry-academia and practical operations. The Office of Industry-Academia has integrated core technology and professional workforce in the school to serve as a matchmaking platform for industry-academia collaborations with enterprises and a portal for enterprises to connect with YunTech. The goal is to enhance pioneering and interdisciplinary technologies for national industrial development, promote the B2B service corporate counseling mechanism, upgrade industry-academia cooperation from the previous point-to-point model to a one-stop systematic solution model, and enhance the cooperation link between industry and academia. In addition to matching industry-academia cooperation, the agency facilitates regional and local industrial upgrades.

To provide a broad range of corporate counseling, the Office of Industry-Academia has incorporated the highlights of the school's business-academia collaboration to organize four industry forums each year. The goal is to focus on the current national development policies such as smart identification, digital transformation, electric vehicles, digital design, net-zero carbon emissions, and other school highlights; and invite manufacturers to participate in exchanges, and create opportunities for industry-academia collaboration by interacting with manufacturers and implementing horizontal integration in the school. We have also organized three on-campus teacher communities: the smart technology innovation teacher community, the intelligent automatic electric vehicle teacher community, and the smart agricultural technology teacher community. Their goals are to manage various exchange activities irregularly, boost R&D capability, and increase the effectiveness of industry-academia collaboration matchmaking.



The school has aggressively promoted the concept of industry-academia collaboration employment to meet enterprises' urgent workforce employment needs and obtain the benefits of priority selection for industry-academia cooperation firms. We have also discussed with the enterprise establishing joint research centers or exclusive industry learning teams for the enterprise. The goal is to provide a high-quality workforce for businesses while encouraging supervisors to advise master students in using the enterprise's genuine challenges as thesis topics so that the students' master thesis can be more practical.

YunTech PBL Research Center



YunTech PBL Research Center Organization Chart

Office of Industry-Academia

PBL Research Center

- Maker Center
- Intelligent & Local Design Service Center
- Creative Integration Design Research Center
- Brand Empathy Research Center
- Intelligent Agriculture Park Research Center
- Intelligent Learning Research Center
- Cultural Technology Research Center
- Small Hydropower Equipment R&D and Application Research Center
- Bicycle and Health Leisure Industry Research Center
- Artificial Intelligence Research Center
- Big Data Research Center
- Intelligent Business Research Center
- Intelligent Living Research Center
- Intelligent Recognition Industry Service Research Center (IRIS)
- VR Technology Center
- Renewable Energy Research Center
- Intelligent Medical Research Center
- Intelligent Electronics Center
- Intelligent Manufacturing Research Center
- Industrial Security Risk Management Platform Foresight Research Center
- Clean Green Sustainable Innovation Research Center
- Hyperspectral Telemetry Engineering Technology Center
- Intelligent Robot and Automation Application Service Center
- Intelligent IC Research Center
- Nanofiber Research Center
- Intelligent Decision Research Center
- Intelligent Engineering Management Consulting Service Center

The Office of Industry-Academia continues to handle industry-academia matchmaking activities, such as inviting companies to school for matching activities or arranging research teams to visit companies and conduct business diagnoses. The research team then proposes solutions to the enterprise through Successful Enterprise Invitations. In 2022, the total number of industry-academia matchmaking exceeded 132 cases. The main goal is to match the needs of enterprises with the professional skills of the school's R&D team, solve the demands of enterprises' technology R&D and innovation operations, and provide administrative assistance for industry-academia cooperation projects.

The school has entered into intimate development partnerships with listed or large-scale companies Chenbro Micom, Gallant Precision Machining, Excel Cell Electronic, All Horng Gear, KAULIN MFG. CO., LTD., and Taiwan Optical Platform. The Office of Industry-Academia has also cooperated closely with the College of Management. The teachers in the school have been trained to obtain certificates and formed the carbon inventory team in response to the global net zero carbon emission trend. The goal is to enable the school's energy conservation and carbon-reduction team to collaborate with businesses to improve ESG performance.



Establishing a Joint Research and Development Center with SIRUBA



Q&A Session for YunTech Innovative Design Industry Forum Event

Our university's Industry-Academia Collaboration and Intellectual Property Incubation Center integrates the distinctive features of the five colleges, focusing on fields such as chemical engineering, electronics and information, and cultural and creative technology. The center provides entrepreneurship guidance, technology research and development, digital marketing exposure, and cross-industry collaboration. It customizes guidance and technical development support based on the specific needs of businesses. In recent years, it has actively facilitated collaborations between large enterprises and small businesses, utilizing resources from over 30 partner units, including public departments, private incubators, and venture capital firms. This expansion of the guidance scope and resources has created a resource-sharing mechanism where 1+1>2, greatly assisting young entrepreneurs returning to their hometowns and promoting the upgrade of traditional industries. The center has received consecutive recognitions from the Small and Medium Enterprise Administration of the Ministry of Economic Affairs as an "Excellent Creative Education Institution - Innovator in Real Estate Industry" from 2018 to 2021!

LESSON PRO+

In addition to taking advantage of its five colleges to focus on different fields, the YunTech Incubation Center has also actively cooperated with public sector, private incubation, venture capital, and other resources to create the "Yunlin Root Economic Demonstration Zone." In 2020, it became the leading unit of the Central District Innovation and Education Alliance with over 20 alliance partners. They lead the schools in the Central District to integrate regional innovation resources and interdisciplinary cooperation and exchanges. The goal is to achieve the vision of mutual learning, mutual benefit, and common prosperity. The projects include the first "Entrepreneurship Counseling Experience" interdisciplinary co-counseling for enterprises, regular manager information exchange meetings, and co-organized activities. The efforts have significantly increased the breadth and depth of counseling energy, promoted creation and investment matching in the real estate industry, and offered comprehensive and diverse counseling for enterprises.



Industry exchange activities

YunTech Incubation Center has been established for 24 years and has undertaken the "Industrial Park Industry Counseling and Innovation Program" entrusted by the Industrial Development Bureau of the Ministry of Economic Affairs for over 9 years. It has closely interacted with the real estate industry, promoted industrial exchanges through active factory visits, held technical lectures, and actively participated in exchange activities in industrial zones and local enterprise associations. Various activities were also held online in response to COVID-19 to facilitate sustainable development while promoting the center's businesses and the school's momentum.

In addition, YunTech takes the initiative to organize industry-academia collaboration activities, coupled with technical exhibitions and incubation programs to showcase the university's technological capabilities. These efforts create opportunities for local small and medium-sized enterprises (SMEs) in industrial zones to better understand the technological expertise of the university. This, in turn, facilitates collaboration between industry, academia, and the government, fostering partnerships and cross-industry connections.



6-5 International Exchange

SDGs correspondence: 4.3, 17.16



No. of foreign students

412 People



In response to the internationalization of higher education and the vigorous development of international academic exchanges, the Office of International Affairs has enhanced its competitiveness and planned to implement the internationalization of the campus. The goal is to attract outstanding international teachers and students to join the teaching and R&D team and turn YunTech into an internationally renowned university featuring innovative teaching and industry connection. We aim to promote international exchanges by actively encouraging teachers and students to go abroad for exchanges or participate in overseas study activities, to increase our students' global mobility, to cultivate

Number and Ratio of International Degree Students between the 109 and 111 Academic Years

Academic Year	No. of overseas degree students	No. of students	Ratio of overseas degree students
109	477	9,808	4.86%
110	440	9,885	4.45%
111	412	10,027	4.10%

international vision and outlook, and to promote understanding and tolerance of different cultures. The goal is to inspire teachers and students to acquire new knowledge, absorb foreign cultures subtly, and establish channels for international communication. We also welcome and accept international students and scholars to come to our country. By increasing the number and amount of scholarships for international students, we can attract international students to study in our school and stimulate more achievements in cross-cultural exchanges and research.

Sign International Academic Exchange Agreements

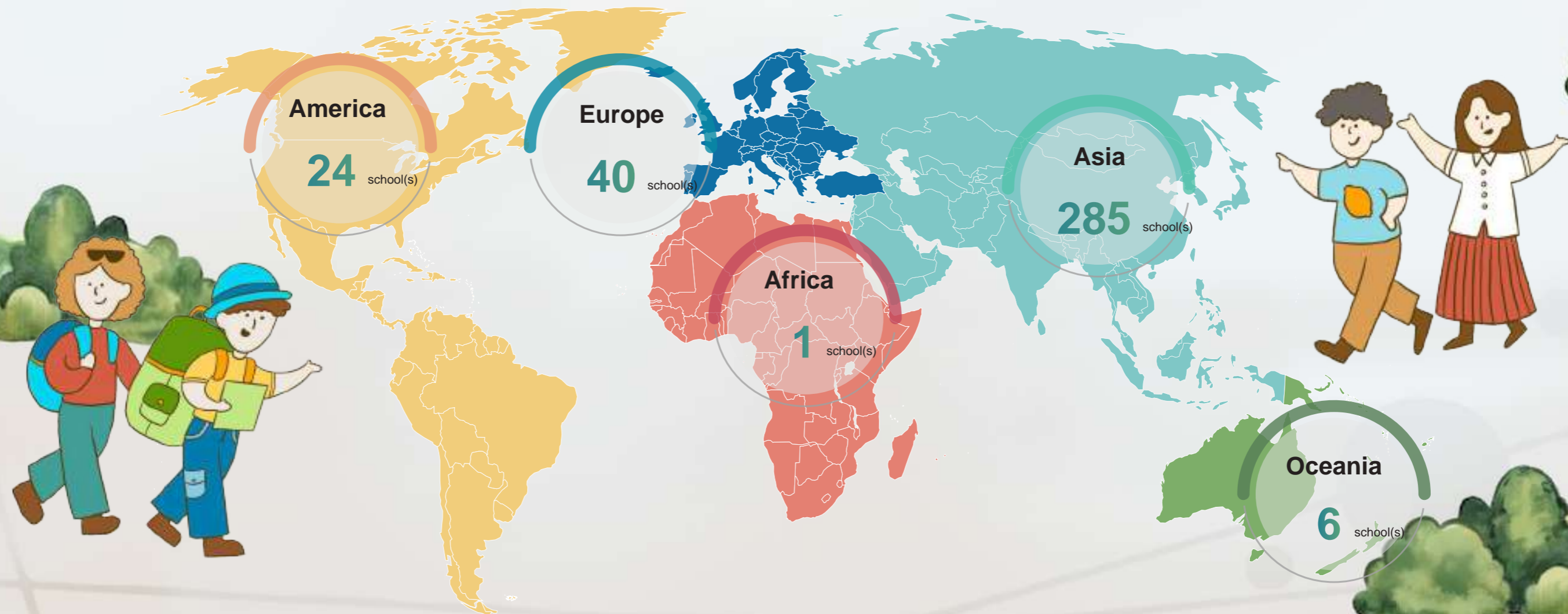


No. of sister schools

356 school(s)

As of 2023, we have established **356** sister schools distributed in **39 countries across 5 continents**.

Furthermore, our school joined the TALtech Alliance and formed an international alliance with the German HAWtech Alliance. Teachers and students will have more opportunities to travel to Germany for various exchanges in the future.



Teachers Participating in International Exchanges and Visits by Foreign Guests

We encourage departments and institutes to exchange lectures with well-known foreign schools; to invite foreign experts, scholars, and scientific and technological talents to our school for short-term visits; to exchange seminars and special lectures; to improve the campus's macro-research atmosphere; and to promote transnational academic research cooperation between colleges, departments, foreign industries, or related research institutions. Teachers are encouraged to apply for grants from the Ministry of Science and Technology or other institutions for cross-border industry-academia cooperation exchanges and professional talent training programs based on special research projects that are currently underway. In 2020 and 2021, the school received 1 grant from the Ministry of Science and Technology for scientific and technical personnel to conduct short-term research abroad, and the teachers who received the grant went to the United States for short-term study in 2021 and 2022.

In 2020, our school was subsidized by the Ministry of Science and Technology to establish the "Taiwan-Vietnam Environmental Protection Overseas Research Center." The center is the first for YunTech, which combines technology and academic and technical energy to promote international industry-academia collaboration. In the same year, YunTech jointly established the "Scientific Research Industrialization Platform (Global Research & Industry Alliance [Gloria])" with nine universities in the central and northern regions, which has strengthened the school's domestic and foreign industry-academia cooperation capacity. Foreign teacher visits can enhance the school's international visibility and stimulate teaching research and innovation. Continue to promote foreign visits for our teachers to promote the school and related enrollment publicity, facilitate talent introduction, and discuss future cooperation plans with foreign guests.

Students Participating in International Exchanges

Our students have a global outlook, regularly attending international academic conferences and exchange events. Whether self-funded or supported by the university, they actively pursue overseas internships and research opportunities. The university strongly promotes and supports students in gaining international exposure through study and exchange programs. Due to the impact of the COVID-19 pandemic, the Ministry of Education has notified a reduction or temporary suspension of various overseas study and exchange activities for teachers and students. This has resulted in a decrease in the number of students participating in international exchange programs. However, communication via video or other alternative methods was still encouraged among students. In the future, we will continue to negotiate cooperation with foreign universities, sign agreements on off-site teaching and exchange students, and encourage students from both sides to continue communicating with each other and participate in exchanges or cooperation courses.



Professor Lin Chun-Chiang from the Department of Chemical and Materials Engineering received the grant from the 59th session of the National Science Council to support short-term research abroad. This funding facilitated his short-term research visit to the United States in 2022, during which he presented a paper based on his research findings.



In February 2023, a research team of seven members from the University of Science, Vietnam, visited Taiwan and was arranged by the Taiwan-Vietnam Environmental Protection Overseas Science and Technology Innovation Center at YunTech to tour three laboratories. This visit aimed to gain insights into YunTech's research resources and equipment, facilitating the advancement of future collaborations. Professor Zheng Yushen leading a tour of the Biochemical Engineering Laboratory



◆ Appendix I: Content Comparison with GRI Standards

GRI Guidelines			No. of disclosure items	Disclosure Items	Corresponding Chapters	Page	Remarks
[General Guidelines]	GR12	General Disclosures 2021	2-1	Organizational Details	1-1 School History and Organizational Framework	P.9	
			2-2	Entities included in the sustainability report	1-1 School History and Organizational Framework	P.9	
			2-3	Reporting period, frequency, and contact person	About the Report	P.3	
			2-4	Restatements of information	About the Report	P.3	
			2-5	External guarantee/assurance	About the Report	P.3	
			2-6	Activities, value chain, and other business relationships	1-1 School History and Organizational Framework	P.9	
			2-7	Employee	1-1 School History and Organizational Framework	P.9	
			2-8	Non-employee workers	1-1 School History and Organizational Framework	P.9	
			2-9	Governance structure and composition	1-3 Sustainable Development Core Goals and Strategies 2-1 Governance Procedures	P.13, P.27	
			2-10	Nomination and selection of the highest governing body	2-1 Governance Procedures	P.27	
			2-11	Chairman of the highest governing body	2-1 Governance Procedures	P.27	
			2-12	Highest governing body plays a supervisory role in overseeing crisis management	1-3 Sustainable Development Core Goals and Strategies 1-5 Identifying Material Topics	P.13, P.19	
			2-13	The person in charge of crisis management	1-5 Identifying Material Topics	P.19	
			2-14	Highest governance body's role in sustainability reporting	1-3 Sustainable Development Core Goals and Strategies Picture 1-5 Identifying Material Topics 2-2 Risk Analysis and Internal Control System	P.13, P.19, P.29	
			2-15	Conflict of interest	-	-	Our university is a public technical and vocational college, without boards of directors or shareholder issues.
			2-16	Key significant events in communication	2-1 Governance Procedures	P.27	
			2-17	The collective intelligence of the highest governance body	2-1 Governance Procedures	P.27	
			2-18	Performance assessment of the highest governance body	2-1 Governance Procedures	P.27	
			2-19	Compensation policy	3-1 Talent Attraction and Retention	P.47	The highest governance body and management level are both composed of faculty members with administrative roles. Compensation is in accordance with central legal and governance policies.
			2-20	Compensation determination process	3-1 Talent Attraction and Retention	P.47	The highest governance body and management level are both composed of faculty members with administrative roles. Compensation is in accordance with central legal and governance policies.
			2-21	Annual total compensation ratio	3-1 Talent Attraction and Retention	P.47	
			2-22	Statement of sustainable development strategy	Words from the President	P.7	
			2-23	Policy commitments	2-4 Supply Chain Management	P.36	
			2-24	Incorporated policy commitments	2-2 Risk Analysis and Internal Control System, 2-4 Supply Chain Management	P.29, P.30, P.36	

[General Guidelines]			2-25	Procedures for addressing negative impacts	2-3 Financial Plan and Operating Performance 3-1 Talent Attraction and Retention Chapter 4 School Performance Chapter 5 Environment Sustainability Performance Chapter 6 Social Inclusion	P.31, P.42, P.56 P.66, P.85	
			2-26	Mechanisms for seeking advice and raising concerns	1-4 Stakeholder Inclusion	P.19, P.20	
			2-27	Legal Compliance	1-5 Identifying Material Topics 2-3 Financial Plan and Operating Performance 3-1 Talent Attraction and Retention Chapter 4 School Performance Chapter 5 Environment Sustainability Performance Chapter 6 Social Inclusion	P.31, P.42, P.56 P.66, P.85	
			2-28	Membership of associations	2-1 Governance Procedures	P.28	
			2-29	Stakeholder Consensus Policy	1-4 Stakeholder Inclusion	P.16-18	
			2-30	Collective bargaining agreements	-	-	The school, while not having established a labor union or collective agreement, has a labor-management meeting to enhance cooperation and negotiation between labor and management.
	GRI3	Major Topics in 2021	3-1	Process of determining the major topics	1-5 Identifying Material Topics	P.19-21	
			3-2	Tables for Major Topics	1-5 Identifying Material Topics	P.23	
			3-3	Major Topics Management	1-5 Identifying Material Topics	P.22	

[Economic Guidelines]

GRI Guidelines		No. of disclosure items	Disclosure items	Corresponding Chapters	Page	Remarks
Economic Guidelines	GRI 201 : 2016	Economical Performance	201 - 4	Receipt of government assistance	2-3 Financial Plan and Operating Performance	P.32-33
	GRI 202 : 2016	Market Status	202 - 1	Ratios of standard entry level wage by gender compared to local minimum wage	3-1 Talent Attraction and Retention	P.47
	GRI 203 : 2016	Indirect economic impact	203 - 1	Development and Impact of Infrastructure Investment and Support Services	6-1 Social Practice	P.90-94

[Environmental Guidelines]

GRI Guidelines		No. of disclosure items	Disclosure items	Corresponding Chapters	Page	Remarks	
[Environmental Guidelines]	GRI 302 : 2016	Energy	302-1	Energy consumption within the organization	5-2 Green Campus	P.77-78	
	GRI305	Emissions	305-2	Energy indirect (Scope 2) GHG emissions	5-2 Green Campus	P.74	
	GRI 306 : 2020	Waste	306-1	Waste Generation and Significant Waste-Related Impacts	5-2 Green Campus	P.80	
			306-2	Management of significant waste-related impacts			
			306-3	Waste generated			

[Social Guidelines]

GRI Guidelines		No. of disclosure items	Disclosure items	Corresponding Chapters	Page	Remarks	
Social Guidelines	GRI 401 : 2016	Employment Relations	401-1	New employee hires and employee turnover	3-1 Talent Attraction and Retention	P.45-46	
			401-3	Parental leave	3-1 Talent Attraction and Retention	P.47	
	GRI 405 : 2016	Diversity and equal opportunity	405-1	Diversity of governance bodies and employees	3-1 Talent Attraction and Retention	P.43-44	
	GRI 406 : 2016	Non-discrimination	406-1	Discrimination incidents and improvement action taken by the organization	3-1 Talent Attraction and Retention	P.47	
	GRI 406 : 2016	Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	2-6 Information Security	P.38-40	

[Other Topic Disclosures]

Custom Issues	No. of disclosure items	Disclosure items	Corresponding Chapters	Page	Remarks
Teaching Quality and Effectiveness	-	-	4-1 Teaching Quality and Guidance	P.56-58	
Teaching Environment	-	-	4-1 Teaching Quality and Guidance	P.56, P.58	
Internships and Employment	-	-	4-2 Student Employment and Internship	P.56, P.59-61	
School Governance	-	-	1-2 School Development Vision, Goals, and Strategies 2-1 Governance Procedures	P.12, P.27-28	
Sustainable Natural Ecological Resources	-	-	5-3 Environmental and Natural Resources Education	P.81, P.83	
Campus Safety and Health	-	-	3-2 Campus Safety and Health Promotion	P.48-52	

◆ Appendix II: SASB Guidelines Corresponding Table

Table1.

Topic	Accounting Indicator	Accounting Indicator Code	Nature	Corresponding Chapters	No. of Pages	Remarks
Information Security	Identify and resolve information security risks	SV-ED-230a.1	Qualitative	2-6 Information Security	P.38-40	See next page
	Policies and practices for the collection, processing, utilization, and storage of student personal information	SV-ED-230a.2	Qualitative	2-6 Information Security	P.38-40	See next page
	(1) Number of data breaches (2) Percentage of personally identifiable information involved (3) Number of students affected	SV-ED-230a.3	Quantitative	2-6 Information Security	P.38-40	(1) No data security protection or threat attack events. (2) No personally identifiable information involved. (3) The data breach did not impact any students.
Educational quality and employment	Graduation Rate	SV-ED-260a.1	Quantitative	4-2 Student Employment and Internship	P.59	The graduation rate for students within the prescribed period of study is 81.27%, calculated as the number of graduates divided by the difference between the incoming new students and those who withdrew or took leave. (Undergraduate level)
	Current Year Graduation Rate	SV-ED-260a.2	Quantitative	4-2 Student Employment and Internship	P.59	The on-time graduation rate for students within the prescribed period of study is 79.89%, calculated as the number of graduates divided by the incoming new students. (Undergraduate level)
	Employment Rate	SV-ED-260a.3	Quantitative	4-2 Student Employment and Internship	P.59	93.99%
	(1) Ratio of debt to annual earnings (2) Ratio of debt to discretionary income	SV-ED-260a.4	Quantitative	-	-	This disclosure scope is applicable to education programs classified as GE (Gainful Employment, a U.S. employment regulation) for entities. However, it does not apply to our university.
	Ratio of student loan repayment	SV-ED-260a.5	Quantitative	-	-	Not applicable
Marketing and recruitment	Ensure the key performance data disclosure policy is explained to incoming students before charging fees.	SV-ED-270a.1	Qualitative	-	-	Not applicable
	Financial losses resulting from legal actions related to advertising, marketing, or mandatory disclosure violations	SV-ED-270a.2	Quantitative	-	-	Not applicable
	(1) Teaching tuition and miscellaneous fees (2) Marketing and personnel expenses	SV-ED-270a.3	Quantitative	2-3 Financial Plan and Operating Performance	P.33	See next page
	Income source: (1) Title IV funds (2) GI Bill funds (3) Student loans	SV-ED-270a.4	Quantitative	-	-	Not applicable

Table 2.

Activity indicator	Activity indicator codes	Nature	Corresponding Chapters	No. of Pages	Remarks
Actual number of students registered	SV-ED-000.A	Quantitative	1-1 School History and Organizational Framework	P.9	9700 people
Number of registrable students	SV-ED-000.B	Quantitative	-	-	Not applicable
Ratio of registered credits per student to online courses	SV-ED-000.C	Quantitative	-	-	Not applicable
(1) Number of teachers (2) Number of employee	SV-ED-000.D	Quantitative	1-1 School History and Organizational Framework 3-1 Talent Attraction and Retention	P.9 , P43-44	Number of full-time teachers: 405 Number of part-time teachers: 199 Number of foreign teachers: 21 Number of employee: 329

◆ Appendix III: Independent Assurance Opinion Statement



National Yunlin University of Science and Technology 2022 Sustainability Report

The British Standards Institution is independent to National Yunlin University of Science and Technology (hereafter referred to as YunTech in this statement) and has no financial interest in the operation of YunTech other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of YunTech only for the purpose of assuring its statements relating to its sustainability report, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by YunTech. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to YunTech only.

Scope

The scope of engagement agreed upon with YunTech includes the followings:

1. The assurance scope is consistent with the description of National Yunlin University of Science and Technology 2022 Sustainability Report.
2. The evaluation of the nature and extent of the YunTech's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000AS v3 sustainability assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the National Yunlin University of Science and Technology 2022 Sustainability Report provides a fair view of the YunTech sustainability programmes and performances during 2022. The sustainability report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the YunTech and the sample taken. We believe that the performance information of Environment, Social and Governance (ESG) are fairly represented. The sustainability performance information disclosed in the report demonstrate YunTech's efforts recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurers in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that YunTech's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a review of issues raised by external parties that could be relevant to YunTech's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 43 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that YunTech has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for the information of Environment, Social and Governance (ESG) in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the YunTech's inclusivity issues.

Materiality

YunTech publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of YunTech and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the YunTech's management and performance. In our professional opinion the report covers the YunTech's material issues.

Responsiveness

YunTech has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for YunTech is developed and continually provides the opportunity to further enhance YunTech's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the YunTech's responsiveness issues.

Impact

YunTech has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. YunTech has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the YunTech's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

YunTech provided us with their self-declaration of in accordance with GRI Standards 2021 (For each material topic covered in the applicable GRI Sector Standard and relevant GRI Topic Standard, comply with all reporting requirements for disclosures). Based on our review, we confirm that sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the YunTech's sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

Responsibility

The sustainability report is the responsibility of the YunTech's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan



Statement No: SRA-TW-791300
2023-07-31

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◆ Appendix IV: Greenhouse Gas Emission Verification Statement

bsi. Opinion Statement



Greenhouse Gas Emissions Verification Opinion Statement

This is to verify that: **National Yunlin University of Science and Technology** 國立雲林科技大學
No.123, Sec.3, Daxue Rd. 臺灣
Douliu City 雲林縣
Yunlin County 斗六市
64002 大學路3段123號
Taiwan 64002

Holds Statement No: GHGEV 772950

Verification opinion statement

As a result of carrying out verification procedures in accordance with ISO 14064-3:2006, it is the opinion of BSI with reasonable assurance that:

- The Greenhouse Gas Emissions with National Yunlin University of Science and Technology for the period from 2021-01-01 to 2021-12-31 were verified, including direct greenhouse gas emissions 848.3253 tonnes of CO₂ equivalent and indirect greenhouse gas emissions from imported energy 7,983.7511 tonnes of CO₂ equivalent.
- No material misstatements for the period from 2021-01-01 to 2021-12-31 Greenhouse Gas Emissions calculation were revealed.
- Data quality was considered acceptable in meeting the principles as set out in ISO 14064-1:2018.
- The emission factor for electricity of year 2021 is 0.509 kgCO₂ per kWh.

The other selected indirect GHG emissions listed in the attached table on the next page were also reported and thus verified with limited assurance, and data quality was not considered unacceptable in meeting the principles as set out in ISO 14064-1: 2018.

For and on behalf of BSI:


Managing Director BSI Taiwan, Peter Pu

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The greenhouse gas emissions information reported by the organization for the period from 2021-01-01 to 2021-12-31 are as follows:

EMISSIONS		Notes	tonnes CO ₂ e
Category 1: Direct GHG emissions and removals			848.3253
1.1	Stationary combustion		300.0353
1.2	Mobile combustion		114.1465
1.3	Industrial processes(anthropogenic systems)		3.8203
1.4	Fugitive(anthropogenic systems)		430.323
1.5	Land use, land use change and forestry	N/A	-
Direct emissions in tonnes of CO ₂ e from biomass			0.0000
Category 2: Indirect GHG emissions from imported energy			7,983.7511
2.1	Indirect emissions from imported electricity	location-based approach	7,983.7511
2.2	Indirect emissions from imported energy (steam, heating, cooling and compressed air)	N/A	-
Category 3: Indirect GHG emissions from transportation			56.9028
3.1	Emissions from upstream transport and distribution for goods	NS	-
3.2	Emissions from Downstream transport and distribution for goods	NS	-
3.3	Emissions from Employee commuting	NS	-
3.4	Emissions from Client and visitor transport	NS	-
3.5	Emissions from Business travels	Estimated based on business travel expenses(domestic)	56.9028
Category 4: indirect GHG emissions from products used by organization			235.1486
4.1	Emissions from Purchased goods	tap water only	79.2517
4.2	Emissions from Capital goods	NS	-
4.3	Emissions from the disposal of solid and liquid waste	Solid waste only	155.8968
4.4	Emissions from the use of assets	NS	-
4.5	Emissions from the use of services that are not described in the above subcategories	NS	-
Category 5: indirect GHG emissions associated with the use of products from the organization			466.9878
5.1	Emissions or removals from the use stage of the product	NS	-
5.2	Emissions from downstream leased assets	Including Electricity, Natural gas and tap water.	466.9878
5.3	Emissions from end of life stage of the product	NS	-
5.4	Emissions from investments	NS	-

* NS: Non significant

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Location	Verification Information
National Yunlin University of Science and Technology No.123, Sec.3, Daxue Rd. Doulu City Yunlin County 64002 Taiwan 國立雲林科技大學 臺灣 雲林縣 斗六市 大學路3段123號 64002	The Greenhouse Gas Emissions with National Yunlin University of Science and Technology for the period from 2021-01-01 to 2021-12-31 were verified, including direct greenhouse gas emissions 848,3253 tonnes of CO ₂ equivalent and indirect greenhouse gas emissions from imported energy 7,983.7511 tonnes of CO ₂ equivalent.



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SUSTAINABLE DEVELOPMENT GOALS



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National Yunlin University of Science & Technology

