



| **2023** | **Sustainability x Life Science**
5th INTERNATIONAL INNOVATION COMPETITION

Registration Info. Kit

Version: 20 July, 2023

2023 SATU SMART Registration Info Kit

About SATU SMART 5th International Innovation Competition

The SMART program was initiated in 2017 to promote cross-border interaction among students in SATU member universities. Jointly organized by the Innovation Headquarters and the Office of International Affairs of National Cheng Kung University, the competition strives not only to give students cross-cultural exposure but also to stimulate their innovations and help develop an entrepreneurial mindset.

SATU SMART 5th International Innovation Competition is designed to fulfill 3 objectives:

Focus on the future and explore the unknown.

Promote cross-border collaboration to showcase sustainable solutions.

Facilitate innovative exchanges to address global challenges.

2023 Competition Themes

Revolutionizing Sustainability through Life Sciences

Eligibility

Participants must be registered students at any **SATU universities** on the date of entry into SMART.

(*Members list of SATU* : <https://satu.ncku.edu.tw/p/412-1036-82.php?Lang=en>)

Please note that all participants will need a Facebook account and Gmail/ email address to interact with other participants and form a team, so please create an account if you have not had one.

Resources

Share and express yourselves in the SMART Facebook Group. You might possibly gain partnership with students who share similar values with you.

Supportive online clips/articles are also provided during the competition. You are encouraged to digest its contents and practice them.

Way to Team Up

- No registration fees are needed. The competition is totally **FREE**.
- The registration form should be completed **before 6th of August**.

Individual Registration

If you do not have any specific experience, but are eager to contribute to building a sustainable community by life science, simply sign up for the individual section and we will do the team matching for you. Once you've submitted your application, we'll assign individual applicants to a team before 16th of August, then you and your team will work on a SMART idea together. Each team would comprise 2-5 people and no pre-team formation is required.

Group Registration

If you already have your own team, join the competition as a group. Find 2-5 people in total who are willing to participate in SMART and register as a team. Name your team and pick a team leader. The registration form should be filled in by only one representative. After that, just create and submit your SMART submission by following the guidelines.

Work Submission Guidelines

SMART Participant Regulations

- Participants are deemed as accepting of the competition rules in the Info Kit.
- Entries must be submitted in English.
- Participants will be added to a Facebook Group to form teams and communicate with each other.
- Each participant may belong to only 1 team. Each team may only submit 1 pitch deck and 1 demo video.
- Each team is fully accountable for its own teamwork and cooperation. The organizer will not arbitrate any issue involving the behavior or cooperation of any teams or its members.
- Teams that have won in previous years and wish to participate again using the same topic or technology must make improvements and upgrades to their techniques and content. The organizing committee reserves the right to verify the upgraded content.

Project Submission Requirements

1. Create a *maximum of 20 slides/pages* pitch deck in PDF format that covers topics relevant to your idea.
2. Record a 5 minutes demo video. **Each member** is required to introduce themselves by showing their face. See [this year's 500 Startups Demo Day](#) for more ideas on how you might do this.

3. In the demo video, share your **problem identification, unmet needs, background study and solutions in oral presentation.**
4. Animation/video is only allowed to present the solution of your project. You can also present your solution in oral form if you want.
5. Please upload your team's pitch deck profile and demo video to the designated cloud storage space and complete the project submission form by only 1 representative.

SMART Awards

There will be 2 rounds of judging - the preliminary and final.

Prizes For Individual Registration: Gold Award: US\$2,000/ Silver Award: US\$1,000/ Bronze Award: US\$500

Prizes For Group Registration: Gold Award: US\$5,000/ Silver Award: US\$3,000/ Bronze Award: US\$1,000

Timeline

2023.07.10 - 08.06 | Sign-up Period

2023.08.09 | Qualification Letter and Individual Team List Announcement

2023.08.10 - 10.05 | Pitch Deck & Demo Video Submitting

2023.10.30 | Announcement of the Final Contestants List

2023.11.04 - 11.05 | **ONLINE** Final Presentation (LIVE)

2023.11.07 | Announcement of Winners

Mid of November | Award Ceremony (ONLINE)

Note: (1) Final Demo Pitch is only open to finalist teams.

Note: (2) Award Ceremony is only open to awarded teams.

Judging Criteria

Creating a pitch deck and demo video in 8 weeks is challenging. Transform your SMART idea into a viable business plan. Research and experiment to see if it can become a real startup. Gain insights and practical knowledge about startups.

PRELIMINARY ROUND Judging Criteria

Item	Detailed Description	Percentage	
		Individual Team	Group Team
Relevance to the Yearly Theme	How the pitch and idea are related to SDGs and competition themes (life science and sustainability). The project's alignment, embodiment, and contribution to the central theme, showcasing a profound understanding of its implications and successfully addressing core objectives.	15	15
Innovation and Creativity	The degree of pitch and idea innovation and creativity including technology and prototype.	20	20
Desirability	Evaluate the scalability and replicability of the project, including the project's potential for expansion, replicability, and ability to address future challenges.	20	15
Feasibility	Evaluate the feasibility and implement ability of the project, including aspects such as technical feasibility, resource requirements, schedule, and feasibility analysis.	10	15
Viability	Evaluate the project's sustainability impact on the environment, society, and economy, including considerations for environmental protection, social participation, and sustainable economic development.	10	10
Presentation Expressiveness	Evaluate the project's presentation and communication capabilities, including aspects such as clarity, logic, professionalism, and impact.	10	10
Contribution to Social Impact	Evaluate the actual impact of the project on the target audience and society, including the effectiveness of problem-solving, generated value, and impact on social and economic development.	15	15

Note 1: Teams missing any required documents will be eliminated in the preliminary round.

Note 2: SMART team will promote some teams to the final round according to scores.

FINAL ROUND

Teams that enter the final round will attend Final Demo Pitch, which will take place online on 30th and 31st of October.

Rules

- Teams that advance to finals must give an oral presentation and answer questions from judges.
- Oral presentations may use any means, such as presentations, videos, poster board, etc.
- The presentation time for each group is 10 minutes, Q&A is 15 minutes.
- If the teams have revised pitch deck, they need to send by email the final version 3 days before the ONLINE Final presentation day.

Judging Criteria

- Evaluation will be made by a group of experts invited by the organizer.
- Evaluation criteria includes:

Individual Team | Relevance to the Yearly Theme 15%, Innovation and Creativity 20%, Desirability 20%, Feasibility 10%, Viability 10%, Presentation Expressiveness 10%, Contribution to Social Impact 15%

Group Team | Relevance to the Yearly Theme 15%, Innovation and Creativity 20%, Desirability 15%, Feasibility 15%, Viability 10%, Presentation Expressiveness 10%, Contribution to Social Impact 15%

Liability and Rights

- You must be a student at a SATU university as of the date that you sign up for the competition. Note: this rule has been clarified to include/make eligible participants who would otherwise be eligible on the date they sign up, but would graduate before the competition ends.
- If any of the following conduct is found upon the individual or team of this contest, the Organizer retains the right to disqualify them, or revoke their awards or prizes: a. The entry of the team/individual is false or untrue, b. The entry of the team/individual infringes upon the intellectual property right of any third party, c. If the content of entry infringes any intellectual proprietary rights, the individual/team shall at his/her sole expense, defend or settle against such claims. The individual/team shall indemnify, defend, and hold harmless the Organizer from and against any suit, claims, liabilities, loss, cost, or expenses, which the Organizer may be required to pay arising out of such infringement of any third party's right.
- You can discuss your ideas with anyone and ask anyone for help, and indeed asking for help is encouraged. Feel free to join our Facebook group to get feedback on your ideas in general.
- The decisions of the organizers/judges are final.
- The winning team members will be asked to provide the required bank account information to receive the cash prizes.
- The cash prize will be split evenly among team members.
- International transfer fees/currency conversion fees/income tax will be deducted from the award amount, so recipients may not receive the full amount.
- Each team member will be required to complete a member contribution sheet, as we don't want any team members disappearing after signing up only to magically reappear upon learning the team to which they were assigned won a prize.
- If you're on a winning team, you'll need to provide a tolerably professional-looking headshot photo so that we can publicize your triumph and display it as part of the awards presentation.
- SMART does not endorse any submission or messages expressed therein, and SMART expressly disclaims all liability in connection with the submitted proposals including disputes between collaborators related to a submission.
- The participants retain sole ownership of their original work. The submission remains the intellectual property of the participants, and SMART makes no claim of copyright as to the work of any individual who enters the competition. Participants specifically agree to give SMART permission to use all content submitted for purposes of judging the competition. Finalists and/or winners will be required to grant SMART, with proper attribution through whatever means they deem appropriate, a worldwide, non-exclusive, royalty-free, sub-licensable and transferable license to use, reproduce, distribute, prepare derivative works

of, and/or display the submission in any media formats and through any media channels in perpetuity in connection with the activities and operations of the competition.

- Participants agrees to indemnify and hold harmless SMART, their parent, subsidiary, and affiliated companies, officers, directors, employees, interns, and agents, from and against any and all claims, damages, obligations, losses, liabilities, costs or debts, and expenses (including but not limited to attorney's fees) arising from (i) violation of these Official Rules; (ii) violation of any third party right, including without limitation any copyright, trademark, intellectual property, privacy, publicity, or other proprietary right in connection with the competition; or (iii) any claim that a competition submission caused any harm, including financial, to any third party. These indemnifications and hold harmless obligations will survive indefinitely beyond the conclusion of the competition.
- All the students must uphold Academic Integrity in the competition and ensure that all project related information submitted and presented is their original work.
- SMART reserves the right to amend the terms and conditions above due to unforeseen reasons.
- SMART reserves the right to disqualify any student who does not meet the eligibility or any team that violates academic integrity and/or does not meet the objectives of the competition.

Contact Us

Follow SATU SMART on Facebook and Instagram. Or you can also email us: satu.smart.competition@gmail.com

Organizer

SATU Presidents' Forum

Office of International Affairs, National Cheng Kung University

Innovation Headquarters, National Cheng Kung University

Appendix 1_ Suggestions of competition topic

Revolutionizing sustainability through life science requires a multi-faceted approach that combines scientific advancements, innovative technologies, and widespread adoption of sustainable practices. Here are some concepts and examples to drive sustainability through life science:

- **Research and Development:** Encourage research and development in life science disciplines to discover sustainable solutions. This includes studying alternative energy sources, developing eco-friendly materials, and advancing agricultural practices that minimize environmental impact.
 1. Development of sustainable and cost-effective methods for extracting valuable compounds from natural sources.
 2. Exploration of novel drug delivery systems that enhance efficacy while minimizing environmental impact.
 3. Research on innovative biomaterials for tissue engineering and regenerative medicine applications.
- **Biotechnology and Genetic Engineering:** Harness the power of biotechnology and genetic engineering to develop sustainable solutions. This could involve engineering crops for higher yields, disease resistance, and drought tolerance, as well as developing biofuels from renewable sources.
 1. Genetic modification of crops for enhanced nutritional content and improved tolerance to environmental stressors.
 2. Development of biotechnological approaches to produce biofuels from renewable sources.
 3. Engineering microorganisms for the efficient degradation of plastic waste and environmental remediation.
- **Sustainable Agriculture:** Promote sustainable agricultural practices that minimize the use of chemicals, reduce water consumption, and optimize resource utilization. Embrace techniques such as precision agriculture, vertical farming, hydroponics, and organic farming methods to enhance productivity while minimizing environmental impact.
 1. Implementation of precision farming techniques using advanced sensors and data analytics for optimized resource utilization.
 2. Development of sustainable aquaponics systems that integrate fish farming with hydroponic plant cultivation.
 3. Promotion of regenerative agriculture practices to restore soil health and sequester carbon dioxide.
- **Waste Management and Recycling:** Utilize life science principles to improve waste management and recycling processes. Develop biodegradable materials, implement

composting techniques, and explore innovative ways to convert waste into valuable resources, such as biofuels or bioplastics.

1. Design of innovative recycling processes for electronic waste, focusing on resource recovery and minimizing environmental harm.
 2. Development of bio-based materials as alternatives to traditional plastics, reducing waste generation and pollution.
 3. Implementation of advanced composting techniques for organic waste management and soil enrichment.
- **Conservation and Biodiversity:** Use life science knowledge to protect and conserve biodiversity. Conduct research to understand ecosystems, identify endangered species, and develop conservation strategies. Promote sustainable practices that preserve natural habitats and protect wildlife.
 1. Evaluation of the impact of climate change on vulnerable ecosystems and development of adaptation strategies.
 2. Study of endangered species and development of conservation plans to protect their habitats.
 3. Investigation of the ecological benefits and feasibility of restoring degraded ecosystems through rewilding initiatives.
 - **Green Chemistry:** Apply the principles of green chemistry to develop environmentally friendly materials and processes. This involves reducing or eliminating the use of hazardous substances, designing efficient chemical reactions, and developing sustainable manufacturing methods.
 1. Development of greener and more sustainable methods for chemical synthesis, reducing or eliminating hazardous substances.
 2. Exploration of environmentally friendly alternatives to traditional solvents and reagents in chemical processes.
 3. Design of sustainable and biodegradable materials for various applications, such as packaging or construction.
 - **Education and Awareness:** Promote education and awareness about sustainability within the life sciences field. Encourage students to pursue careers in sustainable sciences, organize workshops and conferences to share knowledge and best practices, and collaborate with educational institutions to integrate sustainability into curricula.
 1. Creation of educational programs and materials that raise awareness about sustainable practices and their importance.
 2. Integration of sustainability-focused modules or courses into existing educational curricula.
 3. Organization of workshops and events to promote knowledge sharing and best practices in sustainable living.

- **Collaboration and Partnerships:** Foster collaboration among scientists, researchers, industries, and policymakers to address sustainability challenges. Encourage public-private partnerships to fund research and implement sustainable initiatives. Facilitate knowledge sharing and technology transfer to accelerate sustainable innovations.
 1. Establishment of partnerships between academia, industry, and government to foster sustainable innovation and research collaboration.
 2. Development of public-private partnerships to fund and implement sustainable initiatives in various sectors.
 3. Formation of international collaborations to address global sustainability challenges and share best practices.

- **Policy and Regulation:** Advocate for policies and regulations that support sustainable practices in the life sciences industry. Encourage governments to provide incentives for sustainable research and development, implement eco-friendly standards, and promote the adoption of sustainable technologies.
 1. Advocacy for policies and regulations that incentivize sustainable practices in industries such as agriculture, energy, and manufacturing.
 2. Development of guidelines and standards for environmentally friendly product labeling and certification.
 3. Assessment of the effectiveness and impact of existing sustainability policies and recommendations for improvements.

- **Public Engagement:** Engage the public in sustainable practices and encourage individuals to make environmentally conscious choices. Raise awareness about the importance of sustainability, promote responsible consumption, and empower individuals to contribute to a sustainable future.
 1. Creation of awareness campaigns and initiatives that encourage individuals to adopt sustainable lifestyle choices.
 2. Development of digital platforms or mobile apps that provide information and tools for sustainable living.
 3. Organization of community events and projects focused on environmental conservation and sustainable practices.

These suggestions can serve as starting points for exploring innovative topics within each area. Feel free to further refine or expand upon them based on your interests and the specific requirements of the competition.