AI FOR SDGs
2025 GLOBAL YOUTH AI FUTURE INNOVATION COMPETITION

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1 Overview

The UNU Global AI Network launches the AI for **SDGs—Global Youth AI Future Innovation Competition**, an international science and technology innovation competition with the goals of empowering social innovation[1], advancing youth development, and addressing sustainable development challenges through artificial intelligence (AI).

The competition will choose a major theme each year and create tracks centered upon it. AI for the environment is the theme of the inaugural competition in 2025, and its tracks are: 1-Climate change adaptation; 2- Environmental Protection; 3-Clean Energy and 4-AI for Less Developed Countries.

The competition will showcase innovative solutions with a high technology readiness level (TRL) that are prepared for soft landing and commercialization in China.

A comprehensive growth support system, including financial support, industry and investment mat chmaking, and international promotion, will be provided to the winning teams. In addition to receiving a monetary award, the winning team or individual, will have the opportunity to pilot its solution in China to promote the application of its technology in real-world situations.

Renowned academics, industry professionals, and institutional investors from both domestic and international institutions form up the competition jury.

2 Organization Structure

Guided by: United Nations University

Organizer: UNU Global AI Network

Co-organizer: UNU Macao, Venture Cup China

Exclusive Academic Support: Institute for AI International Governance of Tsinghua University

Outreach Partners: Members of the UNU Global AI Network

3 Competition Tracks

2025 Theme: Ecological Environment and Green Transition Challenges

Track categories include:

1. **Climate Change Adaptation**: Focused on the use of AI to predict the impacts of climate change and to increase the resilience of societies and ecosystems to cope with them.

- Key AI application scenarios: extreme weather prediction, early warning systems, disaster response and recovery, climate-smart agriculture, water resource management, public health and climate related disease control, ecosystem and biodiversity resilience, food security, use social media data to better understand people's reactions in the case of disaster risks to understand the effects on mental health, urban climate resilience planning, developing AI tools specifically for informal settlements to measure maximum temperature

[1] Social innovation refers to the use of new methods, concepts or technologies to solve social problems and create positive social impacts. This type of innovation is not limited to the business or technology fields, but also covers multiple aspects such as policy making, education, environmental sustainability, social inclusion, etc., aiming to improve social welfare and promote equitable development. Social innovation also often involves
cross-sector collaboration, with governments, enterprises, research institutes and communities working together to create more sustainable and inclusive social solutions。

and precipitation, automated differential vulnerability analysis, customized ML for urban adaptation baselines, optimization of irrigation, pest control, and crop selection under shifting climate conditions, adaptive infrastructure design for flood-prone cities and small Islands, detection and prediction of maladaptation, etc.

- SDG Reference: SDG 13, SDG3 (Good health and well-being), SDG 2 (Zero Hunger), SDG 6 (Clean Water), SDG 11 (Sustainable Cities), and SDG 15 (Life on Land).

2. **Environmental Protection and Conservation**: Focused on the use of AI to enhance monitoring, resource management, protection, conservation, and mitigation strategies for the environment.

- Key AI application scenarios: wildlife conservation, contamination tracing and treatment, smart waste management, and circular economy, granular dynamic sector/region specific carbon emission dashboard; AI based life cycle cost benefit models for conservation, AI-enabled camera traps, track endangered species, deforestation via satellite imagery (e.g., Global Forest Watch), oil spills (e.g., NASA's SAR-based spill detection) and optimize wastewater treatment, use satellite to detect if cotton for example is being irrigated with pesticides. Computer vision systems (e.g., Bin-e) automate recycling sorting, and AI predicts landfill capacity (e.g., Greyparrot's waste analytics), minimize waste in supply chains.
- SDG Reference: Live on Land (SDG 15), Life Below Water (SDG 14), and Climate Action (SDG 13).

3. **Clean Energy**: Focused on the use of AI to enhance renewable energy efficiency and accelerate the low-carbon transition of energy systems.

- Key AI application scenarios: smart grids and energy prediction, energy storage system (ESS) optimization, AI based IoT driven off grid clean energy systems, and new energy material R&D.
- SDG Reference: Affordable and Clean Energy (SDG 7).

4. **AI for Less Developed Countries**: Focused on the use of AI to develop affordable and accessible technology to support climate adaptation and green transition in Less Developed Countries (LDCs).

- Key AI application scenarios: smart supply chain optimization, low-cost manufacturing technology, climate-resilient infrastructure and AI for leapfrogging capacities of key stakeholders to advance NAPs implementation.
- SDG Reference: Industry Innovation and Infrastructure (SDG 9) and Reduced Inequalities (SDG 10).

4 Highlights and Timeline

1. Companies, organizations, groups and individuals from all around the world may register; there are no restrictions based on their background or nationality.
2. The technology maturity of the participating projects should be above the Technology Readiness Level (TRL) 6[2], i.e., they have completed the laboratory stage, meet the conditions for on-the-ground validation in real-world scenarios, have the technology readiness level that is close to commercialization, and have a certain degree of innovation and market space.
3. For projects from an established enterprise, the company should have been established less than 10 years ago.
4. Applications and accompanying materials must be submitted in English. The evaluation will also be done in English.
5. There are no registration, training or any fees charged by the competition.

2 That is, TRL 7-9. TRL 7: System prototypes are validated in real-world scenarios. TRL 8: Systems are completed and tested, ready for commercialization. TRL 9: The technology is successfully applied to real-world scenarios and commercialization is complete.

6. The 2025 Global Youth AI Future Innovation Competition consists of three stages, i.e., initial round, semi-final round and final round. The overall schedule of the competition is as follows (proposed):

① Internal communication with UNU Global AI Network Member 06.20.2025-06.31.2025

② Publish the call for application: 07.01.2025 - 08.15.2025 (Launch ceremony on July 27th at WAIC in Shanghai)

③ Application Link https://lxi.me/44SX65

Inquiry Email: ai4sdgs@venturecup.cn

④ Initial round: 08.15.2025 - 09.15.2025 (Online)

⑤ Semi-final round: 09.15.2025 - 09.30.2025 (Online)

⑥ Final competition and award ceremony 10.23.2025 The award ceremony will be held during the conference. (Offline in China)

⑦ Cash award to category winning team: 1000 USD per team (before Tax). Winner team will have opportunity to pilot its project in China: from November 2025 to October 2026