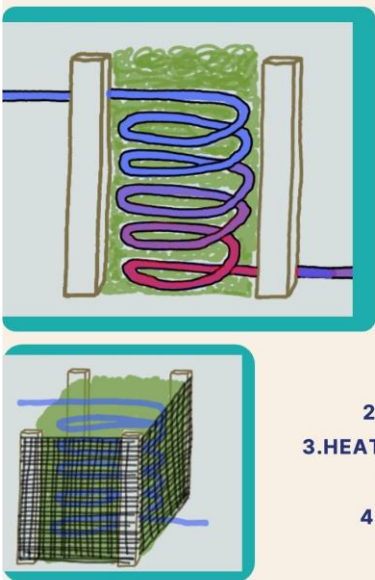


Students Reimagine the Future in Global Sustainability Competition

Fourteen teams from across the globe gathered via Zoom on Dec. 7, 2024, for the fourth annual *Reimagine Our Future* sustainability competition awards ceremony.

The competition brought together 249 students from 11 institutions in the United States, United Kingdom, Ukraine, South Africa, China, Austria, Colombia, and Italy, who spent eight weeks crafting innovative solutions for the United Nations' Sustainable Development Goals and showcasing contributions of diverse disciplines such as engineering, health sciences, agriculture, and architecture to sustainability through factsheets.

The overall winner was Georgia Shear from the University of Pretoria, South Africa. Georgia's project proposed a low-cost and simple way of sanitizing water using the heat generated from compost heaps. The proposed heat exchanger temperatures range from 140 to 176 degrees Fahrenheit and could be implemented for as little as \$150, making it a viable solution for rural areas facing water contamination. Georgia received a \$2000 prize for her innovative solution.



STAGE 2
GEORGIA SHEAR

HEAT FROM COMPOSTING

BASIC COMPOST HEAP WITH PLASTIC PIPES COILED THROUGH THE VOLUME OF THE HEAP

- WATER HEATED ABOVE 60°C EFFECTIVELY KILLS HARMFUL PATHOGENS AND WATER BORNE DISEASES.
- COMPOST HEAPS REACH MAX TEMPERATURES OF 80°C DUE TO MICROBIAL DECOMPOSITION.

HOW IT WORKS

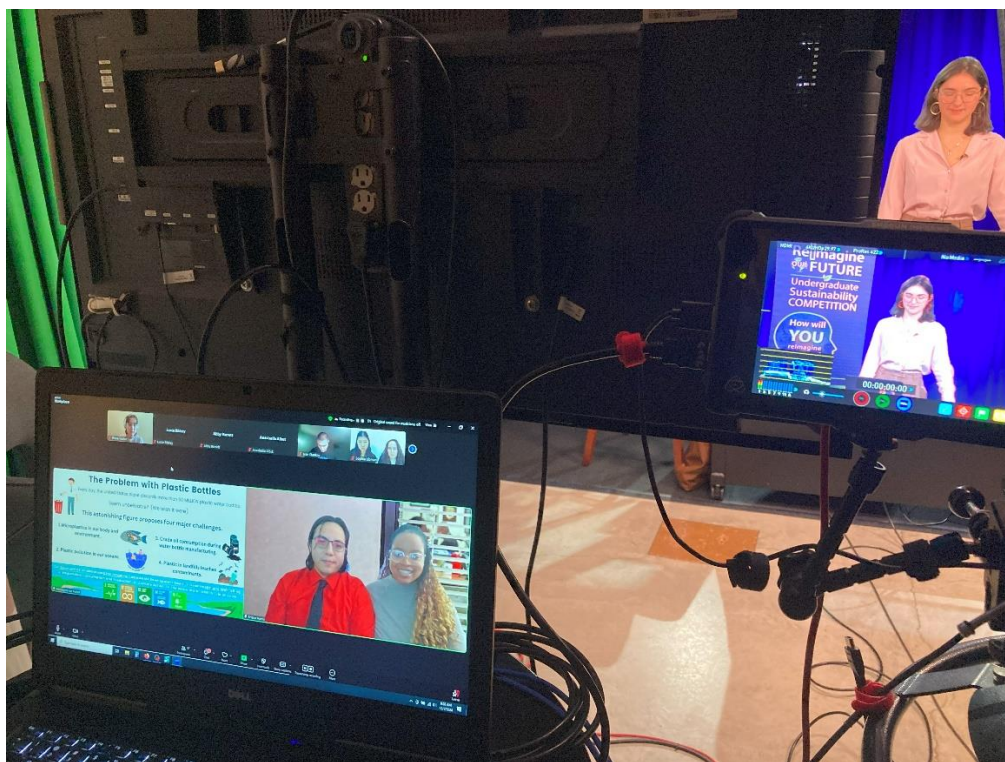
1. CONTINUOUS PIPE CONNECTS STAGE 1 TO STAGE 2
2. PIPE IS COILED THROUGH THE VOLUME OF COMPOST HEAP
3. HEAT OF THE COMPOST HEAPS UP THE WATER IN THE PIPE (WITHOUT CONTAMINATION OF WATER WITH COMPOST MATERIAL)
4. WATER HEATED TO 60°C KILLS HARMFUL PATHOGENS AND STERILIZES THE WATER.

Excerpt from Georgia Shear's award-winning idea, entitled "From Waste to Worth: Clean Water for All".



Excited Georgia Shear from the University of Pretoria discovers that she has won the 4th annual Reimagine Our Future competition for undergraduates.

Two runner-up teams were also recognized for their creative contributions. Briana Harris and Kevin Bustamante Fontanel from Waubensee Community College designed a 100% biodegradable water bottle that could fully decompose within two years, presenting a sustainable alternative to traditional plastic bottles.



The runner-up team, consisting of Briana Harris and Kevin Fontanel, captivated the audience with their engaging and lively presentation.

The team from the International Humanitarian University in Ukraine developed a dual-purpose solution to regenerate soil by removing landmines while simultaneously tilling the soil. Team members Ivan Stankov, Uliana Mihachova, Katheryna Vavryk, Uliana Frolova, and Marina Knyazeva emphasized addressing both environmental and safety concerns.

Both runner-up teams received a \$1000 prize and, together with the competition's overall winner, will be mentored by Professor Mike Yao from the University of Illinois Urbana-Champaign to move their projects further.



Master of ceremony, Sandra Voskoboynikova, a graduate advertising student at the University of Illinois Urbana-Champaign, enthralled the Zoom audience with sustainability stories from across the world.

Three teams earned a third-place prize for their impactful ideas. The team from the University of Quindío (Colombia) proposed a circular economy model using composite materials from waste plastic. A team from the University of Illinois Springfield highlighted the critical role of bats in controlling pests for crops, while a team from the U. of I. suggested a collapsible solar

fabric canopy to combat extreme heat and provide energy to underserved areas. These awards were presented by Allie Garlin, a previous winner of the competition.

The *Sustainable Health Solution Award*, sponsored and presented by Professor Holly Rosencranz, went to a team from Ukraine for their proposal to deploy a multi-faceted rehabilitation center for traumatized soldiers. The *Climate Change Award*, presented by Professor Donna Tonini from the Center for Global Studies at Illinois, was awarded to a U. of I. team for their decentralized renewable energy trading scheme.

The *Most Multi-Disciplinary Idea* award was presented to two teams from the University of Birmingham (U.K.). One team focused on gene editing to eliminate pesticides in sugar beet crops while another proposed a festival waste passport app to reduce event waste.

The *Sustainable Education Solution Awards* went to a team from the University of Birmingham for demystifying recycling and a U. of I. team who addressed food insecurity by canning food waste.

Illinois College of Law Professor Warren Lavey, co-founder of the competition, commended the students' impressive range of solutions and their potential to offer hope in tackling global crises. He paid tribute to his late colleague, Professor Robert McKim, who co-founded the competition and whose legacy continues to inspire future generations. McKim's words resonated throughout the event: "We have all contributed to causing the problems and we therefore all have an obligation to contribute to finding and pursuing solutions."

Leon Liebenberg, Professor of Nuclear, Plasma, and Radiological Engineering at Illinois and co-founder and coordinator of the competition, stated that *Reimagine Our Future* continues to provide a platform for students to turn their sustainability ideas into action, driving forward the change needed to secure a better, more sustainable future for all.

Planning for the 2025 competition is already underway. Stay updated on the competition website: <https://www.herox.com/reimagine2024/>.