

For Immediate Release

Engineering for Change and Siemens Announce Finalists in Innovate for Impact: Siemens Design Challenge

Eight teams selected for outstanding innovations that address fundamental need for clean water and adequate food supply; Winners will be announced September 2020

NEW YORK, August 5, 2020 – With software and a computer, anyone, anywhere, has the tools they need to address the world’s greatest challenges. It is this spirit of open innovation that is at the heart of the [Innovate for Impact: Siemens Design Challenge](#), an initiative created by global industrial company [Siemens](#), in collaboration with The American Society of Mechanical Engineers (ASME) and Engineering for Change (E4C). Announced in February, the challenge was a call to action for socially minded engineers and hardware innovators to address two of the United Nations sustainable development goals -- zero hunger and clean water. [Participants](#) made up of engineering students, practicing engineers, faculty, entrepreneurs, and global development practitioners from 34 countries, representing 43 universities, took part in the challenge and proposed more than 220 solutions addressing the quality of life in underserved communities. Last week, E4C and Siemens announced four finalists in each track.

The Zero Hunger Track finalists are:

- **EcoLife Cold Room** - *Hadijah Nantambi, Ian Williams, and Kyle Gaiser, Uganda and U.S.*
A cold room for fresh produce that prioritizes cooperative design, affordability, sustainability, and technological innovation to benefit rural produce farmers in central and southern Uganda.
- **Hybrid Multi-Crop Greenhouse Dryer** - *Mobolaji Oluyimika Omobowale, Nigeria*
Solar drying at a large scale that mitigates post-harvest loss of grains, fruit, and vegetables amongst sub-Saharan African farmers.
- **OnlyFresh** - *Chuma Asuzu, Canada*
A standalone refrigerated unit for transporting fresh vegetables that will assist farmers, distributors, and retailers in Nigeria.
- **Solar Thermal Absorptive Refrigerator (STAR)** - *Angelica Errigo, Brianna Dooley, Sergio Andre Jordan Villena, Sandra Vergara Davila, and Dr. Amy Ciric, United States and Peru*
Reliable, sustainable charcoal and ethanol refrigeration unit that increases food safety for rural farmers and consumers in Peru.

The Clean Water Track finalists are:

- **Apu uya Wuin – The Guardian of Water** - *Jhonn Aguilar, Manuel Mejia, Monica Gutierrez, Aliex Trujillo, Colombia*
A ready-to-assemble device for solar water desalination augmented with an education strategy to assure social appropriation of the technology for the Parenskat-Wayuu ethnic community in the arid region of La Guajira, Colombia.
- **Desalination Battery for Electrochemical Brakish Water Treatment** - *Lukas Hackl and Bilen Akuzum, U.S. and Germany*
An electrochemical desalination system with significant energy efficiency and system scalability advantages over reverse osmosis and distillation methods that help almond and cashew farmers in California’s Central Valley and globally.
- **Desalination for Santa Elena Communities, El Real** - *Francisco X. Plaza, Ecuador*
Humidification and dehumidification technology that will provide a steady supply of potable water to reactivate the economy of drought impacted coastal communities in the Santa Elena province of Ecuador.
- **Water Water Everywhere** - *Daniel Hodges, United States*
A wind-powered vacuum distillation system to help water-stressed coastal small families around the world.

“When we launched this initiative, none of us had any idea that a global pandemic would soon bring society to a standstill. I’ve been encouraged not only by the strong response we’ve received from innovators worldwide, but by witnessing people leverage this opportunity during such challenging times to collaborate virtually, united under a common mission to serve society,” said Barbara Humpton, CEO, Siemens USA. “We received brilliant submissions from more than 30 countries, and our eight finalists exemplify Siemens’ core belief: that a combination of ingenuity nurtured with the right digital tools enables us to expand what’s humanly possible.”

E4C, a platform and community from the American Society of Mechanical Engineers (ASME), architected the application and evaluation process, educated participants on human-centered design principles and provided a variety of other tools and resources. Siemens provided free access and training on cutting-edge technology tools for digital design and engineering from its [Xcelerator™ portfolio](#), including Solid Edge® software and a new co-creation platform developed with Siemens’ Mendix™ software for low-code application development. Siemens’ software is widely used by many of the world’s leading companies to design, engineer and manufacture all types of products and infrastructure.

The co-creation platform for the challenge opened on March 4 coinciding with [World Engineering Day for Sustainable Development](#). During the “plan and learn” pre-application phase of the challenge,

prospective applicants were invited to review and consider participation in one of two tracks: zero hunger and clean water. Participants had the opportunity to learn more about the issues, access online training, review best practices and case studies in human centered design, and submission criteria for the Challenge. They chose to either design a postharvest off-grid preservation technology to reduce farm-to-table food loss in lower resource settings that lack electricity, or to design a very low-cost, energy-efficient, scalable technology for desalinating brackish water.

Over the course of the challenge, participants have been asked to:

- Submit a 60-second video introducing their team and product concept
- Research and explore the needs of their end user
- Design their concept in 3D CAD software
- Iterate their design based on their research and provide justification for decisions
- Simulate how their product works
- Submit a video pitching their product concept.

“The diverse teams and unique solutions assembled through the *Innovate for Impact: Siemens Design Challenge* demonstrate the capacity of the global technical community as a tremendous force for good,” says Iana Aranda, director of engineering global development programs for ASME. “While the COVID-19 pandemic has imposed limits around the globe, this digital challenge shows us that there are no limits to the social innovation drive of our community.”

Winners will be announced on September 15, 2020. Each winning solution will be awarded \$10,000.

For more information about Innovate for Impact: Siemens Design Challenge, please visit <https://bit.ly/2UTJKmS>.



@Engineer4Change #innovateforimpact #SiemensChallenge #TodayMeetsTomorrow

About Engineering for Change (E4C)

Engineering for Change (E4C) is a knowledge organization dedicated to preparing, educating and activating the international engineering workforce to improve the quality of life of underserved communities worldwide. E4C provides access to resources, talent and platforms that accelerate the development of impactful solutions and infuse engineering rigor into global development. Our diverse, global community of over 1 million people is comprised of engineers, technologists, social entrepreneurs and development practitioners.

Jointly founded by ASME and other leading engineering societies, E4C has attracted the support of a variety of [partners](#) and sponsors ranging from industry, academia, non-profits and multilateral organizations, and corporations including Siemens.

About ASME

ASME helps the global engineering community develop solutions to real-world challenges. Founded in 1880 as the American Society of Mechanical Engineers, ASME is a not-for-profit professional organization that enables collaboration, knowledge sharing and skill development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education and professional development programs provide a foundation for advancing technical knowledge and a safer world. For more information visit asme.org.



About Siemens USA

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