



For Immediate Release

Eight Entrepreneurs in Africa Selected as Regional Finalists for Premier Social Innovation Accelerator, Held Virtually June 14-22

Accessible, affordable healthcare and agricultural technology and clean energy solutions among issues addressed by 2022 ASME ISHOW regional finalists

NEW YORK (June 10, 2022) – The American Society of Mechanical Engineers (ASME) has announced the regional finalists of the 2022 ASME Innovation Showcase (ISHOW), the prestigious international accelerator of hardware-led social innovation. Eight teams of social innovators from throughout Africa will present their design prototypes and participate in an extensive design and engineering review in a virtual event beginning June 14. Three regional winners will be announced in a **virtual awards ceremony on Wednesday, June 22 at 12 p.m. EST/7 p.m. EAT**. [Register here](#).

[The ISHOW Kenya finalists](#), whose innovations address issues including access to education, affordable healthcare and agricultural technologies, and clean energy solutions, will vie for a share of \$30,000 in seed grants and technical support to help bring their design innovations to market for the benefit of underserved communities. Judges and facilitators include experts in research, mechanical engineering and product design, manufacturing, software development, startup financing and business planning.

The regional finalists are:

- [MamaOpe Medicals](#) (Kampala, Uganda) for its “MamaOpe” solution – a non-invasive tool designed to screen for respiratory diseases accurately and automatically, with a special focus on pneumonia, in low resource settings using patient vitals, providing instant feedback to support the care provider in determining a correct diagnosis based on the World Health Organization guidelines for Integrated Management of Childhood Illness. Clinicians can use patient data uploaded to the cloud in remote consultation or telemedicine applications.
- [Matica Limited](#) (Kampala, Uganda) for its “ReadySuite” – a safety-tested, patent pending, low-cost and durable laparoscopic system that does not require a constant supply of consumable items or electricity. Clinicians can display images on a typical laptop computer with battery backup, preventing loss of function during power-outages and at a fraction of the cost of current technology, making laparoscopic surgery available in low- and middle-income countries.
- [Polystar Nanotech Ltd.](#) (Kigali, Rwanda) for its “Viscane” – a trackable electronic walking cane and inclusive IoT digital assistant for visually impaired people that helps them detect obstacles

60-200cm ahead, get weather information, and provides trackable GPS/GNSS (geofencing) coordinates, helping them to be found when lost or locate the cane if stolen. Day and night recognition with magnetometer capability of the cane helps them walk safely, avoiding hazardous situations, with data privacy pairable to a smart phone via Bluetooth, and featuring light-reflective foldable stainless light-weight aluminum tubes and safety lights.

- [**Prince Automation and Innovation Company \(PAIC\) Limited**](#) (Nairobi, Kenya) for its “M-Shamba Digital” – a smart farming solution that integrates IoT technology in providing accurate and reliable soil/crop data to farmers in real time to help them predict future harvest patterns and take necessary actions to maximize volumes. In addition, innovations around landless and vertical hydroponics farming techniques allow for effortless water conservation by automated irrigation and recycling translating to use of only 5% of water necessary for crop growth while maintaining up to 20 times harvest volumes of food.
- [**Pyro-degrade Energy**](#) (Nairobi, Kenya) for its “Pyro-diesel” innovation – an environmentally friendly diesel substitute produced from plastic waste for stationary diesel engines. Supplied at a lower cost than conventional diesel, Pyro-diesel is almost sulfur-free and has a low carbon footprint, with a processor able to run off-grid powered by the fuel it produces.
- [**Simbona Africa Healthcare R&D**](#) (Addis Ababa and Jimma, Ethiopia) for its “Automated Simbona UV Sterilizer Technology to Prevent Hospital-Acquired Infections” – a cost-effective, safe disinfection approach that uses infrared technology, motion detection, and air quality-detecting systems to remove microorganisms from material surfaces and air in less than 10 minutes using environmentally friendly, chemical-free ultraviolet germicidal irradiation (UVGI).
- [**Totosci Holdings Ltd.**](#) (Sagana-Kirinyaga County, Kenya) for its “Totosci USB Chargers” – Android, iOS, and feature mobile phone USB chargers that are reliable, convenient, affordable, and locally made
- [**Ubuntu Waterhub Africa Ltd.**](#) (Nairobi, Kenya) for “The Waterhub” – a solution for revenue collection at water points using both cellular and satellite IoT technology.

“We are proud to offer a forum for engineering problem-solving that truly improves lives,” says ASME Executive Director/CEO Tom Costabile, who will welcome attendees to the virtual awards ceremony.

“We are continually impressed by the creative talent of ASME ISHOW participants and their passion for helping underserved communities around the world.”



The ISHOW Kenya virtual awards ceremony will feature a keynote address by Johnson Kiwango, managing director of [**ZOLA Electric**](#), a leading technology company solving energy access problems and currently serving over 1 million users across three continents.

In addition to the three regional winners, the product with the most votes in social media for each regional event will be named the “Fan Favorite,” and those finalists will receive \$1,000 each. Follow [**@ASMEishow**](#) on Twitter for more details. The fan favorite prize is made possible and in memory of Byron G. Schieber Jr. M.S., PE, Professor Emeritus QCCNY, and Ruth L. Schieber.


ASME hosted ISHOW India online in May and will host a virtual ISHOW USA for finalists from the Americas, July 19-27.

The prestigious ASME ISHOW hardware accelerator is open to individuals and organizations taking physical products to market that will have a positive social and/or environmental impact and that improve the quality of life around the world. To date, ISHOW has enabled over 180 startups from more than 30 countries to solve critical quality-of-life challenges for vulnerable populations worldwide. ISHOW alumni have developed affordable devices to address issues including clean combustion, crop threshing, fetal health, food waste prevention, health diagnostics, safe drinking water, and many more that address the United Nations' Sustainable Development [Goals](#).

ASME ISHOW annually matches 24 carefully selected innovators with appropriate experts to ensure that the proposed hardware solutions are technologically, environmentally, culturally, and financially sustainable. ASME's panel of judges and experts includes successful entrepreneurs, academics, engineers, designers, investors, and industry representatives from leading organizations in India, Kenya, the United States, and beyond. These subject matter experts provide technical and strategic guidance based on ISHOW's four key pillars: customer/user knowledge, hardware validation, manufacturing optimization, and implementation strategy.

ASME is grateful to [The Lemelson Foundation](#) for its continued support of the ISHOW with a three-year strategic investment and to ISHOW implementation [partners](#) around the globe. Learn more about ISHOW's global impact in this [dynamic dashboard](#).

Hear from the [ISHOW 2021 cohort](#) about their experiences. Follow the journeys of ISHOW alumni including [PayGo Energy](#), [PlenOptika](#), [Himalayan Rocket Stove](#), [SAYeTECH](#) and others [here](#).

   @ASMEISHOW #ISHOW22 #ThisIsHardware

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. In 2020, ASME formed the International Society of Interdisciplinary Engineers (ISIE) LLC, a new for-profit subsidiary to house business ventures that will bring new and innovative products, services, and technologies to the engineering community, and later established the holding company, Global Knowledge Solutions LLC. In 2021, ASME launched a second for-profit subsidiary, Metrix Connect LLC, an industry events and content platform to accelerate digital transformation in the engineering community and an agent for the Mechanical Engineering® brand of media products. For more information, visit www.asme.org.

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About the ASME Foundation

The ASME Foundation is the philanthropic arm of the American Society of Mechanical Engineers, supporting an array of programs in three core pillars: engineering education, career engagement, and global development. With

the goal of empowering tomorrow's technical workforce, the ASME Foundation advances equitable access both to professional opportunities and to engineering innovations that improve quality of life. For more information, visit www.asmefoundation.org.

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