

KATERVA AWARDS

2020 CATEGORY WINNERS

KATERVA

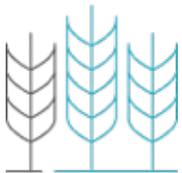
The Coronavirus pandemic has reshaped the way we connect with each other and highlighted the fragility of our shared environment. This pandemic has brought to the forefront just how quickly and abruptly life can be altered on a global scale. As this new reality draws parallels with the impending impact of climate change, solutions to global challenges have never been more relevant or more welcome. The global community is finally united around the rallying cry to reshape our way of life into a better, more sustainable version and Katerva is poised to lead the way. The Katerva Awards give a platform to the best ideas on the planet, putting a spotlight on solutions and accelerating them toward global impact.

Every year thousands of these innovations are submitted to Katerva. The submissions are reviewed by Katerva's nomination committee and up to 50 are identified as Finalists. Katerva's [global network of experts](#) evaluate those finalists through four lenses:

- **Technical, scientific and practical soundness**
- **Commercial viability**
- **The potential to scale globally**
- **The potential global impact**

We are pleased to announce the 2020 Katerva Awards Category Winners poised to reshape the world.

KATERVA'S CATEGORY WINNERS 2020



FOOD & WATER CATEGORY

Food & water category innovations support a society where everyone can have clean water and safe, nourishing food.

Category Winner:

Desert Control, Norway - 12 million hectare of fertile land is lost every year and, according to the UN, about 1.2 billion people are at risk from desertification. Desert Control has developed liquid nano-clay that can turn sand into fertile soil, as well as reduce water use by 50%, and significantly increase yields.

Runners-up:

Seawater Greenhouse, UK - Uses sunlight and sea water to grow crops in hot, arid regions.

Thrive Agric, Nigeria - A platform that brings all players of the agricultural sector together, leveling the playing field for smallholder farmers.



CITIES & MOBILITY

Cities & mobility category innovations support a society where everyone can live and move freely, safely and pollution-free.

Category Winner:

Made of Air, Germany - Construction materials make up around 40% of our global manufactured goods. Up to 50% of a building's life carbon is in its materials. Made of Air materials sequesters up to 2.5kg CO₂/kg and is energy positive, producing 3.6kWh /kg. Applications include facade paneling, interior wall paneling, thermoplastic car interior paneling, cabinetry, flooring, and furniture/furnishings.

Runners-up:

Algenesis, USA - An algae-based alternative to petrochemical foam. Algenesis is grown on non-arable land with waste-stream water, while capturing CO₂ from the atmosphere or from a waste CO₂ streams.

Sun Exchange, South Africa - Online marketplace that democratizes investment in, and use of, solar power.



ENERGY & ENVIRONMENT

Energy & Environment category innovations support a society where everyone can enjoy clean and sustainable resources and energy.

Category Winner:

Piñatex, UK - Pineapple plantations in the Philippines produce 13 m tons of pineapple waste every year, or approximately 54 m tons worldwide. Piñatex uses that waste to develop a sustainable alternative to both mass-produced leather and synthetic materials, creating a new source of income for farming communities in the process.

Runners-up:

Reefball, USA - Designs artificial reef modules that mimic natural reefs. These modules are easily deployed and are self-anchoring, simplifying the installation process.

Icebrick, Israel - A thermal energy storage cell that acts as a building block for a water-based energy storage systems. It's safer, more cost-effective and cleaner than Li-ion batteries or any other electrochemical solution.



HEALTH & WELLBEING

The health & wellbeing category innovations support a society where everyone can enjoy a long and healthy life.

Category Winner:

NitroPep, UK - Antimicrobial resistance and infections caught in hospitals are a huge challenge in developed and developing countries alike. NitroPep has developed an approach that allows antimicrobial actives and disinfectants to bond to both metal and plastic surfaces, interacting directly with the bacteria or virus killing it. Laboratory tests have shown that these surfaces can kill more than 99.99% of bacteria in less than five minutes, including strains of MRSA bacteria that have become resistant to several antibiotics.

Runners-up:

Eniware, USA - Independently powered portable medical sterilization unit, enabling safe and cost effective surgeries anywhere in the world.

DOT Glasses, Poland - Patented snap-together and adjustable one-size-fits-all eyeglass frames for only \$3/pair, providing vision to people in need around the world.



EDUCATION & HUMAN RESOURCES

The education & human resources category innovations support a society where everyone is able and willing to contribute back to the society.

Category Winner:

Livox, Brazil - Millions of people with disabilities are unable to communicate verbally. Created by a father for his daughter who has Cerebral Palsy, Livox is the first intelligent alternative communication app that uses technology and artificial intelligence to allow people with disabilities to communicate and learn.

Runners-up:

MyMachine, Belgium - Develops entrepreneurial learning through collaboration across all educational levels.

Choco4Peace, Colombia - A multi-institutional movement that uses cacao and blockchain to improve the lives of farmers by finding markets for their cacao, allowing them to escape poverty and conflict.

To find out more about the five categories, and the other Finalists, visit Katerva's website at katerva.org

PEOPLE'S CHOICE 2020

In addition to the expert selected category winners, Katerva opens voting to the public to choose a People's Choice winner in each category. In some instances, votes were split evenly amongst the top two nominees, resulting in two winners per category:

Food & Water

Seawater Greenhouse, UK - Uses sunlight and sea water to grow crops in hot, arid regions.

Cities & Mobility

Energy from sewage, Spain - Creates clean energy from purple phototrophic bacteria found in sewage.

Energy & Environment

Reefball, USA - Designs artificial reef modules that mimic natural reefs. These modules are easily deployed and are self-anchoring, simplifying the installation process.

SolarGaps, Ukraine - Designs window blinds that align to the sun to maximize energy generation while controlling indoor temperatures.

Health & Wellbeing

Cervical Cancer Test , UK - Creates DIY home urine test to detect the risk of cervical cancer.

Uganics, Uganda - Creates organic soap that helps to reduce the risk of malaria.

Education & Human Resources

Livox, Brazil - Developed an artificial intelligence communication app, giving a voice to people with disabilities.

To learn more about Katerva or The 2020 Katerva Awards, please visit: [Katerva.org](https://www.katerva.org)