

Ten startups to test socio-environmental ideas in Heineken challenge



During Heineken Green Challenge All Stars, ten startups will implement their socio-environmental initiatives in real-world operations to measure their impact.

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Ten Mexican startups are set to implement their social and environmental solutions in Heineken Green Challenge All Stars, a special edition of the challenge that brings together startups that have already completed the program and are now ready to measure their impact in real-world operations.

Sponsored by **Heineken Mexico** and [Tec de Monterrey](#), the initiative selected projects dealing with challenges such as **CO2 reduction, decarbonization, water management, the circular economy, sustainable agriculture, and energy efficiency** with the goal of ensuring that these proposals do more than simply gain momentum but instead find concrete opportunities for implementation, business, and impact.

According to **Alejandra Zamudio**, national coordinator of the [Heineken Green Challenge](#), the most significant change took place in 2024, when the initiative began to link the startups' solutions more directly to **Heineken Mexico's** operations and value chain.

For 2026, the **Heineken Green Challenge All Stars** edition invited startups accelerated in previous years to identify which were ready to propose pilot projects to **Heineken Mexico and Ocesa**, a corporate partner that joined the platform this year.

"We brought together all the solutions that had been accelerated since 2018 (across the series of challenges) and asked, 'Let's see, which of you would raise your hand because you feel you might be ready to do a pilot project with Heineken Mexico?'"
Zamudio said.

The Heineken Green Challenge was launched in 2018 as an open innovation platform to promote solutions addressing socio-environmental challenges.



A diferencia de otras ediciones, **All Stars no se concentra en una sola categoría**. En esta ocasión participan startups provenientes de distintas generaciones y temáticas del reto.

Unlike previous years, **All Stars does not focus on a single category**. On this occasion, the participating startups, which work on different challenge topics, are run by alumni from different graduating classes.

*“There isn’t one single topic: they cover all the topics we’ve seen before,” **Zamudio** explained. “We have initiatives related to decarbonization, water, energy efficiency, the circular economy, and sustainable agriculture. In other words, we have a bit of everything.”*

This selection includes solutions ranging from **agricultural biostimulants and wastewater treatment to logistics platforms, smart waste management, energy storage, and solar biopanel made of microalgae.**

The [Heineken Green Challenge](#) in partnership with **Tec de Monterrey** seeks to promote the development of sustainable innovation ecosystems and foster initiatives that address socio-environmental challenges through acceleration programs.

“We brought together all the solutions that had been accelerated and asked, ‘Which of you would raise your hand because you feel you might be ready to do a pilot project with Heineken Mexico?’”

The ten startups selected for Heineken Green Challenge All Stars

1. Neptunus Biotech: Seaweed-based Biostimulants

[Neptunus Biotech](#) develops biostimulants from seaweed. Their proposal aims to improve soil conditions, alleviate stress on cropland, and support bioremediation processes in agricultural crops.

*“What they do is produce biostimulants from seaweed. It’s really their greatest contribution,” **Zamudio** explained.*

The solution, which was developed at the [Orión Technology Park](#) on the Tec’s Chihuahua campus, uses materials derived from saltwater and has already been tested on crops, which makes it a promising alternative for enhancing **sustainable agriculture**.

2. 2. EcoScience Lab: Microorganisms for Crop Improvement

[EcoScience Lab](#) works with microorganisms to release nutrients trapped in the soil by dissolving silicates. This technology aims to improve the performance of crops under stressful conditions.

The national coordinator of the [Heineken Green Challenge](#) explained that this solution can help crops affected by climate stress or soil conditions.

“They release nutrients trapped in the soil by dissolving silicates, which allows crops to perform better under stress.”

3. CPlantae: Wastewater Treatment

[CPlantae](#) is developing modular technology for treating wastewater using nature-based systems like worm filters and wetlands.

Their proposal makes it possible to **treat wastewater** so that it can be reused in various settings from homes to industrial facilities.

“They can treat wastewater using these nature-based systems,” said **Alejandra Zamudio**.

One of the advantages of this startup is that its solutions can be scaled to meet the user’s needs.

“Since they’re modular, they can range from a single-family home for three or four people to much larger facilities that supply an entire industry,” she added.

CPlantae is developing a wastewater treatment system designed to handle high organic loads.



4. Lluvia Sólida: Retaining Water for Crops

Lluvia Sólida is a granule that is placed directly at the base of plants to retain water. This material can absorb up to **four hundred times** its weight and help keep crops hydrated for longer.

*“They look like the little grains of salt they are, which are applied directly to the root,” explained **Alejandra Zamudio**. “It keeps the **little plants hydrated for a very long time.**”*

The material can last up to **seven years** and be used on various types of soil and vegetation from sports fields to agricultural crops.

[Un producto que salva los cultivos de la sequía \[\] \[\] \[\] | Temporada 9 | Shark Tank México](#)

Lluvia Sólida es un sistema de riego que emplea polímeros para reutilizar el agua de lluvia, al tiempo que reduce en un 90% la frecuencia de riego. Este sistema permite almacenar y transportar una cantidad considerable de este líquido a regiones donde hay escasez de agua. #SharkTankMx Nueva Temporada Lunes y jueves 9PM por YouTube y Viernes 10:30PM por Sony Channel. #SharkTankMéxico #Negocios #Emprendimiento #Mexico #InnovaciónAgrícola #AhorroDeAgua #LluviaSólida

Posted by [Shark Tank México](#) on Sunday, November 17, 2024

5. Vida Líquida: Waterless Cleaning

[Vida Líquida](#) develops cleaning formulas that require very little or virtually no water to work. The startup has over **fourteen formulas** designed for various uses, both domestic and industrial.

*“Their value proposition underscores that you can clean practically anything with a very small amount of water, or almost no water at all,” **Zamudio López emphasized.***

Their solutions can be used to **clean kitchens, greasy surfaces, workshops, or production areas**. Furthermore, the startup has identified new potential uses for some of its formulas.

The national coordinator of the [Heineken Green Challenge](#) commented how *“they are constantly innovating to develop more formulas.”*

Vida Líquida develops cleaning solutions for kitchens, greasy surfaces, workshops, and production areas.



6. Earth IoT: Weather Sensors

Earth IoT is an integrated monitoring system that uses sensors to collect field data to help farmers make better decisions.

The startup has also developed an app that allows users to interpret that information and apply it to their daily operations.

“They use an integrated monitoring system with sensors that can provide an impressive amount of data to help farmers make better decisions,” **Zamudio**

explained.

Although its primary application is agricultural, its sensors can also generate useful information about **rainfall, wind, and other variables** which, according to Alejandra Zamudio, opens up possibilities for industries like the **large events sector**.

7. SIR Ambiental: Integrated Waste Management

SIR Ambiental offers an integrated smart waste management system. Their proposal makes it possible to use digital tools to collect, process, and track waste.

Zamudio explained that, *“What they have is an integrated smart waste management system. It’s not just about collecting waste but also treating it and tracking it.”*

The startup focuses on the **circular economy** and can help companies and institutions track what happens to their waste after it is collected.

The coordinator of the **Heineken Green Challenge** revealed that SIR Ambiental was responsible for **waste management at the stadium in Mexico City** during the **2026 World Cup**.

She emphasized that the startup has worked on large-scale operations and that its solution can handle different types of waste, which enhances its impact on **circularity and decarbonization**.

8. S8. SISAT: Last-Mile Operations Management

SISAT is developing a technology platform to optimize and manage last-mile operations. Their solution aims to make impacts on **logistics, distribution, and decarbonization**.

This solution enables users to plan territories, optimize routes, monitor operations in real time, and track inventory in transit.

*“It brings about improvements in logistics and distribution, which obviously has an impact on decarbonization,” Zamudio **explained**.*

According to Zamudio, one of its main advantages is that it enables decisions to be made during the operation, as opposed to reacting to a problem that has already occurred.

“Part of its value proposition is that you can make decisions on the spot.”

The company was founded in 2008 by **Tec graduate** Rogelio Martínez de la Peña.

9. BioEsol: Energy Storage Systems

BioEsol develops integrated battery energy storage systems managed by artificial intelligence. Its technology aims to ensure a constant flow of energy for industries that are unable to suspend operations.

*“What they have are battery energy storage systems integrated with management systems. They distribute the energy from these batteries intelligently using artificial intelligence,” **Zamudio** explained, and expressed her opinion:*

The solution addresses a common problem in Mexico: **intermittent power supply**, which can result in high costs for manufacturing plants.

“That’s very important in the industry sector because, as a rule, and especially in Mexico, power cuts are common.”

BioEsol also features a modular architecture that allows it to scale its technology and offer it as a service without the customer needing to make a large initial investment.

The technology was developed by four **Tec graduates**: **Alejandra Alfaro, Samuel Arriola Rodríguez, Gabriel Bracamontes, and Felipe Arriola Rodríguez.**

BioEsol offers an energy storage solution that helps address power intermittency and cost reductions at production facilities.



10. Greenfluidics: Solar Biopanel Made of Microalgae

Greenfluidics develops smart solar biopanel using microalgae. Its technology has been used on building facades, but it is now exploring new possibilities in the entertainment industry.

“They use microalgae as well, but what’s interesting here is that they’ve applied it to building facades,” explained **Alejandra Zamudio**.

The startup works with modular panels that can be assembled into visual structures. This opens up the possibility of using them at **shows or festivals**, where, in addition to serving as visual elements, they could help absorb CO₂ from the atmosphere.

“The little triangles you assemble can be used as screens, so during performances you can create an interaction, an experience with something that also helps absorb CO₂ from the environment,” she went on to explain.

Greenfluidics is currently in the prototype testing phase and is also exploring new applications for its technology.

What do startups obtain from the Heineken Green Challenge All Stars?

In addition to the opportunity to develop pilot projects with companies, one of the main benefits startups get from this new challenge is **staying connected to the ecosystem of innovation**, entrepreneurship, and sustainability.

“Taking part in the Heineken Green Challenge community keeps them active and connected to the innovation and entrepreneurship ecosystem, no matter which edition they belonged to,” Zamudio pointed out.

The **national coordinator of the Heineken Green Challenge** noted that Tec de Monterrey plays a key role as a facilitator between **startups, corporations, society, and other stakeholders in the ecosystem**.

“Tec de Monterrey serves as a bridge between startups, corporations, and society. We have the opportunity to talk with corporate representatives, other entrepreneurs, and other organizations, and we bring them together.”

The ten selected startups participate in a mentoring process to design pilot proposals that are viable and address the challenges faced by corporations.

Zamudio explained that the process includes sessions with companies, workshops for developing pilot projects, and *speed-matching* events where startups can learn firsthand about the technical and operational needs of **Heineken Mexico and Ocesa**, the latter of which operates in the entertainment industry.

The next stage involves in-person presentations of proposals in Monterrey, where up to two **startups** will be selected to conduct pilot projects with one of the participating corporations.

“We’re currently providing support to the startups so that they can present their pilot proposals in the best possible way. As of August, our focus will be on implementing these pilot tests,” Alejandra Zamudio concluded.

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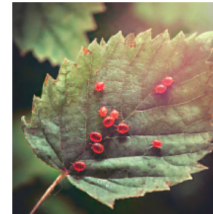
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