

CES 2023: Companies tout environmental tech innovations

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People look at a John Deere electric excavator at the John Deere booth during the CES tech show Friday, Jan. 6, 2023, in Las Vegas. Credit: AP Photo/John Locher

The mottled bright green leaves of a pothos plant stood out against the

flashy expanse of electric vehicles and smart products at the CES tech show in Las Vegas this year. This particular version of the familiar houseplant was bioengineered to remove 30 times the amount of indoor air pollutants of a typical house plant, according to Neoplants, the Paris-based company that created it.

Customers are already joining a waitlist for seedlings still in the nursery.

Neoplants founder and CEO Lionel Mora is a passionate former Google employee who sings a bit of a different tune than other founders at the electronics convention, with its technology-can-solve-anything vibe. He says before people turn to engineering solutions, they need to address consumption. But, "when it comes to innovation, we believe that biology is the way to go because it's sustainable by design," he said.

As countries grapple with how to limit global warming and protect natural resources and biodiversity, more companies are growing their own commitments to building sustainable supply chains and slowing emissions. For others, like Neoplants, addressing environmental issues is their whole reason for being.

Companies and start-ups at CES touched on a broad range of those efforts. Austin-based Pivet showcased biodegradable phone cases. Electric watercraft company Candela unveiled [a 28-foot electric speedboat](#). Ukrainian start-up Melt Water Club presented its water purification method that uses freezing.



The Candela electric hydrofoiling speedboat is shown at Candela booth during the CES tech show Friday, Jan. 6, 2023, in Las Vegas. The Candela's C-Pod is the first electric pod motor designed for high-speed boats. Credit: AP Photo/Rick Bowmer

The Department of Energy even had a booth—a first, said Energy Secretary Jennifer Granholm, who spoke with The Associated Press ahead of her keynote on Friday.

Granholm said she is excited about a range of technologies at CES and beyond, from John Deere's newest electronic farm equipment, to battery storage using alternative materials such as sodium salt, both of which she said the Department of Energy has helped fund.

Granholm also spoke about expanding the use of clean energy, including some forms of hydrogen, fusion and geothermal energy, highlighting the latter as an opportunity for the oil and gas industry.

"If they've used fracking to be able to get to oil and gas, they could be using that same technology to be able to extract the heat beneath our feet," she said.

It could be a while before the oil and gas industry walks away from extracting fossil fuels. In the meantime, more companies are taking emissions reductions seriously. And the first step to reducing emissions is having a full understanding of them, said GreenSwapp founder Ajay Varadharajan. The Dutch company intends to help online grocers and food delivery services understand their carbon footprint, including those in their supply chain or "Scope 3"—often the toughest to track.



A charging station is on display with a John Deere electric excavator at the John Deere booth during the CES tech show Friday, Jan. 6, 2023, in Las Vegas.

Credit: AP Photo/John Locher

Varadharajan wrote an algorithm that pulls information about various edible products from published research papers, which allows him to assign a carbon footprint to every food's barcode. The algorithm then fine tunes that number with information about a product's farming techniques and packaging.

Using GreenSwapp's app, CES attendees could scan the barcode of various milk containers on display to instantly compare their carbon footprint. The company claims this works on any food item with a barcode.

The information is helpful for conscious consumers, but Varadharajan says the real impact happens when food companies use it to track their emissions.

Some companies may want to share the information with customers. But he expects many to use it internally, preparing for possible regulations, he explained. The Securities and Exchange Commission is expected to soon require publicly traded U.S. companies to disclose their greenhouse gas emissions. The largest ones may need to disclose Scope 3 emissions related to their supply chain. Once finalized, the U.S. would join a growing number of countries including the U.K. and Japan that require large companies to disclose this information. The European Union is finalizing reporting standards.



An image from the Orbisk food waste monitor is displayed on a computer during CES Unveiled, before the start of the CES tech show, Tuesday, Jan. 3, 2023, in Las Vegas. The device uses AI image recognition to track food as it is thrown away, displaying the data on a computer dashboard. Credit: AP Photo/John Locher

Goodyear Tire and Rubber Company didn't have a booth this year, but it did demo new tires on vehicles plastered in blue and yellow that rolled around Las Vegas.

The company currently has the largest market share for replacement consumer tires in the U.S. It says its new demo tire contains 90% sustainable materials, and has improved rolling efficiency, which helps

people save energy, even when the tires are on electric vehicles.

Goodyear didn't specify how much carbon is reduced in the new tire manufacturing process, or how much energy is saved through rolling efficiency.

"It's very dependent on the type of vehicle and the type of tire being used," said CEO Rich Kramer.

But the company's line of ingredients appear to move in the right direction. Tires use many materials and this new one transitions away from petroleum products to surplus soybean oil to maintain pliability. It uses silica from rice husk waste residue for grip and fuel efficiency. The list goes on, and Kramer says the tire is an important step toward the company goal of reaching zero emissions by 2050.



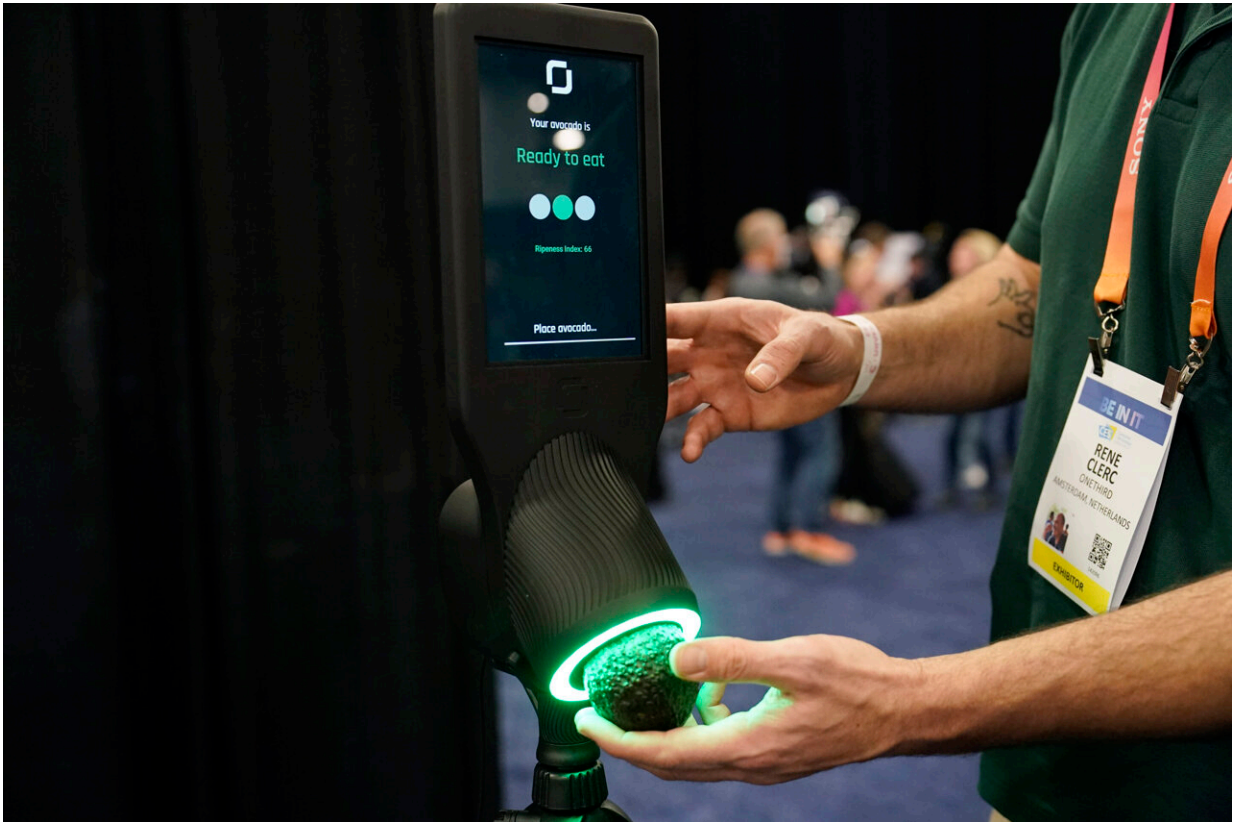
Marco Kollimeier, Managing Director of HOLON poses in the doorway of the HOLON at the HOLON booth during the CES tech show Thursday, Jan. 5, 2023, in Las Vegas. The HOLON mover operates autonomously and with maximum speed of 60 km/h (37mph) It has a range of about 290 kilometers (180 miles). Credit: AP Photo/Rick Bowmer

But sourcing these materials in large quantities is an issue, he said.

"Can you get them at scale to be able to increase production? And then how do you change the manufacturing process for that? That's a challenge, but a challenge we welcome," he said.

There's still some room for improvement in the sourcing of Goodyear's rubber, said Sean Nyquist of Forest Stewardship Council, which works to certify sustainable rubber.

"In the last 20 years, there's been significant deforestation as a result of natural rubber," he said, as demand grew for rubber from trees instead of synthetic versions made in a lab.



An exhibitor demonstrates the OneThird avocado ripeness checker during CES Unveiled before the start of the CES tech show, Tuesday, Jan. 3, 2023, in Las Vegas. More than a thousand startups are showcasing their products at the annual CES tech show in Las Vegas, hoping to create some buzz around their gadgets and capture the eyes of investors who can help their businesses grow. Credit: AP Photo/John Locher, File

Goodyear's rubber sourcing follows the guidelines of the Global Platform for Sustainable Natural Rubber. Nyquist says this is an important step, but third-party certification would add even more validity to sustainability claims.

Several tire companies are on a similar path, he said. The tires Pirelli makes for the plug-in version of the BMW X5 have obtained FSC

certification, which guarantees rubber was sourced ethically, including forest management and labor practices.

There may not be a simple path to reducing emissions and building sustainable supply chains. But one place U.S. companies may now get more help is the record federal funding available to decarbonize buildings and transportation through the Inflation Reduction Act. Granholm says she believes the incentives to reduce energy use and scale clean technology are powerful.



A ChargePoint electric vehicle charging hub, center, is on display at the Mercedes-Benz booth during the CES tech show Thursday, Jan. 5, 2023, in Las Vegas. Mercedes-Benz says it will build its own worldwide electric vehicle charging network starting in North America in a bid to compete with EV sales leader Tesla. Credit: AP Photo/John Locher

"There's policy innovation and there's technology innovation, she said. "We're all scanning to see what has the best impact on reducing greenhouse gas emissions and getting to our ultimate goal of saving the planet."

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