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Lenovo

## **What the world's largest computer company is doing to help combat climate change**

From energy-efficient products and innovative packaging to working with likeminded partners and suppliers, Lenovo goes all in on sustainability

BY FASTCO WORKS

This content was co-produced with Lenovo and Fast Company.

Aectual, an architectural-products firm headquartered in Amsterdam, has a novel approach to designing buildings. Instead of working with conventional construction materials, the company uses 3D printing to produce customized building elements: a temporary facade made of bioplastic that can be shredded and then reprinted, a sun roof that mimics the crest of a tree, a custom staircase that uses 50% less concrete.

To do its work quickly, efficiently, and on-site when the situation calls for it, Aectual partnered with a company whose technology is as sophisticated as it is mobile: Lenovo. “Lenovo Workstations are used during every step of the process, from initial design to final production,” says Hedwig Heinsman, the CCO and cofounder of Aectual.

There was another important reason that Lenovo was a natural partner for Aectual: Both companies share a commitment to sustainability. Lenovo is truly a global company: It employs 57,000 people across the world and conducts business in 180 markets. A company of that size is capable of helping combat climate change, and Lenovo takes that responsibility very seriously.

### THE INCREDIBLE BULK

Over the past ten years, Lenovo has reduced its greenhouse emissions 92% by streamlining its packaging, cooperating with ethical suppliers, and proactively adhering to environmental regulations, all while employing a good-for-the-bottomline business savvy.

One of the first areas Lenovo identified for improvement was its packaging. Not only did the company start sourcing its cardboard from sustainably managed forests, it also began shipping its products in bulk. “Instead of getting an individual box for a laptop, we can bulk pack 20 or 50 laptops in a single carton, greatly reducing the amount of material needed, as well as reducing our carbon footprint and shipping costs,” says Lane Jesseph, the mobile workstation senior product manager.

Bulk packaging saves Lenovo money and results in fewer disposable materials for its customers, which is the kind of business-savvy calculus that has guided the company’s other sustainability initiatives.

For example, almost 80% of Lenovo's Workstation platforms are energy efficient enough to have earned the ENERGY STAR certification. Jesseph explains how such citations have evolved from what once were merely "nice" feel-good honors. "Now you have to have some of these certifications because there are tax incentives when our customers hit these green initiatives," he says. "There's real money behind this."

### SUPPLY-CHAIN ECONOMICS

Moreover, if Lenovo wants to do business in certain markets, its products must adhere to specific environmental standards. "Our customers have requirements, and we are a supplier to our customers," Jesseph says. "We're seeing those in [requests for proposals] quite often. 'What is your EP Gold status? Are you GREENGUARD certified?'"

According to Jesseph, Lenovo also monitors those regulations proactively in order to be compliant before the customers ever ask. "Europe has very stringent environmental standards, especially in the Nordics," he says. "So, you look at all the countries that we sell in, and then we work backward through our supply chain and drive those requirements back into our suppliers."

Many of Lenovo's suppliers have already committed to high ethical and environmental standards through organizations such as the Responsible Business Alliance and Responsible Minerals Initiative. Even so, Jesseph says that Lenovo occasionally asks them to modify their practices. "Some of them can make changes rather quickly," he says. "But we use a lot of materials inside the chassis, like rare-earth elements, metal, plastics, and carbon-fiber-reinforced polymers, so some of [the changes] can take longer."

Regardless of how complicated the request is, however, Lenovo makes sure to handle its supplier relationships with care, which benefits both parties. "We try to be as transparent as possible," Jesseph says. "We try to be as early as we possibly can with the requirements, and we try to work hand-in-hand. It's not something we want to surprise our supplier with. It's an ongoing conversation, and we don't want to have any type of adversarial relationship."

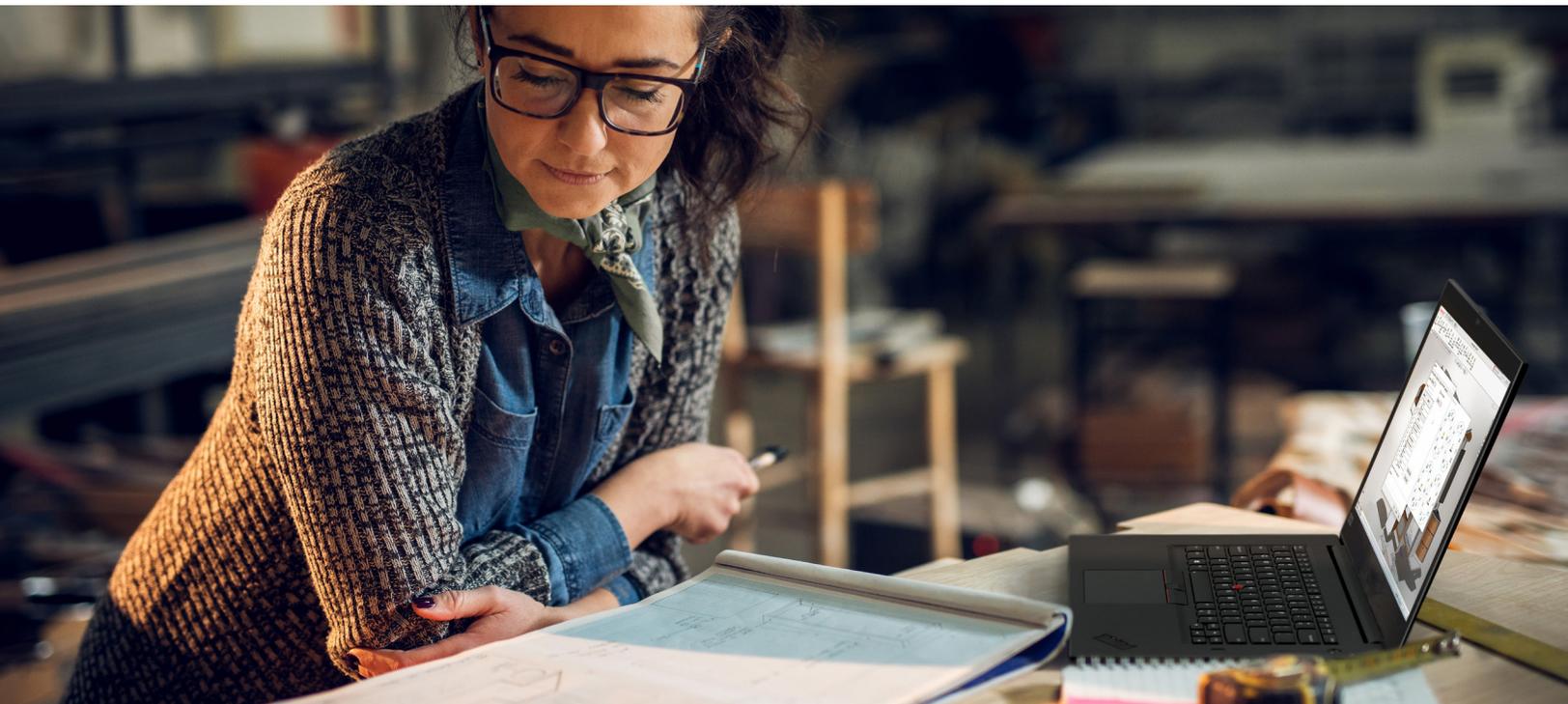
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### SUSTAINABILITY STARTS AT HOME

Lenovo's commitment to sustainability extends even to its physical plants. Thanks to solar panels on its buildings in North Carolina and China, the company currently generates six megawatts of sustainable energy, a number it hopes to grow to 30 in the near future. Their North American headquarters is also expanding its recycling program and offers free charging for electric vehicles.

These cost-cutting approaches to sustainability help explain why Lenovo is the partner of choice for innovative companies like Aectual. Not only do Lenovo's Workstations provide the horsepower they need to perform complex computational research, but they also allow them the freedom to work on the job site, whether it's a low-emissions concrete staircase or bespoke pavement tiles. "In the future, I think the [architecture] industry will be much more about customized design because of digital manufacturing and, in particular, the 3D we developed over the past eight years," Heinsman says. "We really need equipment that works at the highest levels so that we can focus on the most challenging problems."



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