A global hackathon takes aim at sustainability

EY's developers team up to make
a real-world difference

by Dave Fawcett

5-minute read

When Mayank Pandey moved from rural India to a more urban setting in Australia as a child, his parents were determined to hold onto the deeply held values that had grounded their lives. Perhaps most pervasive, he recalls, was the importance of maintaining a balance with nature. "The fact that my parents were so dedicated to recycling, composting, and other green practices had a huge impact on me growing up," he says. "That same mindset took root in me and has only grown with time."

Today, as a Senior Technology Consultant at EY Oceania in Melbourne, Pandey is part of a development team that helps EY clients solve their business problems—an activity he considers both challenging and intrinsically rewarding. When he heard about a different kind of a challenge, a hackathon sponsored by EY and IBM focused on addressing global sustainability issues, something

clicked. "As a developer, I envisioned links between the technology I know and a cause that I care about," Pandey explains. "I saw it as a great opportunity to make a difference, and to learn something from the experience."

In a matter of weeks—and working on their own time—Pandey and his four developer teammates from around the world built a cloud-based solution that

uses AI to show consumers the carbon impact of the products they use in their everyday lives. The solution, which they call No More Ripe Bananas, was one of 24 submissions from over 1,200 EY employees that took up the challenge, and was selected as a finalist.

The backdrop of the hackathon challenge is EY's strong alliance with IBM, which is both highly collaborative in nature and intensely focused on sustainability and other ESG-oriented motivated initiatives. Within EY, the driving force behind the hackathon is a globally distributed developer support team known as the IBM TechHub@EY. As part of their longstanding alliance, IBM and EY created the IBM TechHub@ EY to make it easier for EY developers around the world to access IBM's open hybrid cloud platform, AI offerings, and other transformative technologies. Tools and skills enablement are central to its mission.

Generated sustainability app submissions from

1,200

EY developers from around the world

Participants voluntarily completed

23,000

hours of product-specific training over 4 weeks

Building skills and solving problems

To Brad Artigue, the IBM TechHub@ EY Global Leader, the Call for Code Global Sustainability Challenge—the hackathon's official name—proved particularly effective at addressing a perennial challenge for all companies: giving employees the chance to build their skill sets. "One of the best ways to motivate people to experiment with new technologies is to present opportunities they wouldn't normally have, around issues they care deeply about," Artigue explains. "We see the Call for Code as a big success because it unleashed their problem-solving instincts, while providing them with powerful tools and training to

collaboratively build solutions, and the IBM Hybrid Cloud platform to make them available anywhere in the world."

Ultimately, the fact that EY participants voluntarily completed 23,000 hours of product-specific training over four weeks—again, all on their own time— stands as a testament to the power of sustainability as a motivating factor. But there's also another harder-to-measure dimension of the project where the outcome exceeded expectations: call it global team building.

By design, EY gave participants the freedom to seek out and form their own teams from its global network of developers. On a practical level, this approach served to promote a culture of global collaboration among employees. But it also tapped into the powerful notion that solving "borderless" problems—like climate change and environmental

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sustainability—requires innovation and teamwork that transcend borders.

Take the case of Anthony Wong, an EY data analytics consultant in Auckland, New Zealand who saw the challenge as a hands-on opportunity to learn more about sustainability issues. Eating lunch with coworkers in the company cafeteria, Wong was struck by not only the food that was discarded, but also the plastic plates and cups that overflowed their bins. "It troubled me that I didn't really know where it was all going, and the idea that our food consumption habits were contributing to a global problem," he says. "And that's exactly why I joined this challenge."

His project team—hailing from New Zealand, Australia and the Philippines—found they had a lot in common, like a shared reliance on takeout food during the pandemic and a general revulsion at its unnecessary packaging. More importantly, though, they shared a common determination to design their solution with a laser focus on the end user experience. "We didn't want to fall into the trap of developing something 'gee wiz' that wasn't as impactful as it could be," Wong explains.

That, says Wong, was where the diversity of the team members' backgrounds proved valuable. "All members of the team brought in their own local experiences and situations

to define what the solution did and how information was presented," he explains. "The fact that we were able to incorporate so many different perspectives made it a better solution." Known as Sussit, their team's solution was declared the hackathon's winner.

Sussit uses crowd-sourced data and cloud-based AI models to rate eateries on the overall sustainability of their practices, ranging from where they source their food to the use of compostable packaging. By helping consumers figure out—or "suss"—how well various eatery options align with their personal sustainability priorities, the Sussit app empowers consumers to put their values into action.

A platform for innovation

As post-project discussions revealed, the same instinct—acting on a personal interest in environmental, social and governance (ESG) causes—was also a major motivating factor for the hackathon's participants. But certainly not the only one. At the core of most developers' identities is an urge to create and experiment. To that end, one of the core functions of the IBM TechHub@EY is to provide developers with a platform to access a broad range of IBM tools and technologies, including those they wouldn't ordinarily encounter in the course of their "day job."

To further support this immersion in new technologies, IBM TechHub@EY also provided participants with access to technical assistance and workshop-

based training when they needed it. It was through this combination of technology, tools and training that EY sought to create a fertile ground for innovation.

Few solutions exemplified this spirit in action like Project Net Zero, another hackathon finalist. Developed by a pair of EY innovation engineers from southern India, the solution is designed to provide a kind of X-ray view into a company's carbon-reducing efforts, with a scorecard to match. What sets the solution apart is the comprehensive and sophisticated approach it takes to both validate and incentivize each company's sustainability activities.

Companies seeking to establish their green credentials begin by submitting empirical information—the evidence— into the app. Once ingested, Project Net Zero uses machine learning (ML) models to both verify the information and, in the

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process, assign what it calls a carbon reduction index (CRI) value. On the basis of that calculation, the app then issues crypto tokens called ZeroCarb Coins that are recorded on an IBM blockchain ledger. According to Nandu Krishna, one of the app's developers, this two-track approach "helps companies identify where they need to invest to improve their sustainability practices, while also providing a way to generate 'green' capital to support these investments."

EY's decision to run a sustainability-themed hackathon is entirely consistent with the broader societal values espoused in its corporate motto: "Building a better working world." But it goes further. Underlying the company's ESG vision is the deeply held conviction that while sustainability may be a matter of responsibility, it's also a huge source of opportunity—for EY and for its customers.

One strong indicator of this commitment was EY's 2020 decision to create the role of Global Vice Chair of Sustainability—a first amongst the Big Four. In that role, Steve Varley helps EY clients create business value from sustainability, while also leading the company's overall environmental sustainability strategy. To Varley, the hackathon challenge represents the kind of collaborative innovation that's critical to unlocking the value of sustainability. "The key impetus for sustainability is business value, whether it's improving energy efficiency, rethinking supply chains or reinventing business models," says Varley. "We see the success of the Call for Code Challenge as a great example of how global teams are best equipped to solve global challenges like sustainability."

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