Fast Tracking Technologies … To The World

Silicon Valley's NEC X launches first graduating startup, pairing its technologies with an entrepreneur to bring innovations to market.



Shigeto Ihara
President and CEO
NEC X

Technological innovation has been growing exponentially for decades. As one breakthrough facilitates the development of another, it's a wonder humans still have the ability to understand the most advanced information on a conceptual level. Whether we truly understand it or choose to let our computers do the heavy lifting for us, breakthrough technologies and innovations still rely on human ability to apply, modify, distribute and monetize it; otherwise, it's just fascinating theory.

It's not enough in business to develop even a revolutionary technology if it can't be successfully brought to market. As concepts such as artificial intelligence (AI), machine learning and cybersecurity continue to proliferate and get more sophisticated, how can the engineers and innovators work with business experts to facilitate the leap from high concept to corporate entity?

NEC Corporation (pronounced N-E-C, formerly known as the Nippon Electric Company) is a Japanese multinational IT innovator based in Minato, Tokyo. In 2018, it launched a Palo Alto, California-based corporate incubator and accelerator called NEC X to "fast-track technologies and business ideas selected from inside and outside NEC." NEC X supports business development activities to help participants in its Corporate Accelerator Program (CAP) launch successfully, scale and achieve revenue growth. NEC X also has options for making its emerging technologies available to entrepreneurs and/or existing companies.

NEC X chose Palo Alto for its headquarters "because it's the center of Silicon Valley," says Shigeto Ihara, president and CEO of NEC X. "Our mission is to create new businesses that are taking advantage of the cutting-edge technology from NEC. We thought it was an ideal place to create an ecosystem that brings together technological and entrepreneurial elements for business success."

At the heart of the concept are Entrepreneurs-in-Residence (EIRs) – individuals with unique business skills, insights and track records. EIRs are recruited by NEC X to create startup companies and shepherd them through the incubation phase to actual corporate launch. NEC X is continually looking for new EIRs to create businesses based on the technology concepts in NEC's R&D pipeline. The CAP recently graduated – or "spun out" – its first company, a caus-

al analytics firm called Inguo.io. This venture was launched in October, about a year and a half after David Wolfe was brought on as an EIR. He is now founder and CEO of Inguo.io. The company name is a merging of Chinese and Japanese words to mean "cause and effect." It uses machine learning and AI to make a quantum leap in causal analytics.

"The fast tracking done through NEC X's CAP is possible because you are being presented with a mature technology," Wolfe says. "But you're still creating a company and you have to build everything around you. In most startups, the challenge is building the product, but here you have the core of the product built by a company with the stature of NEC. But it makes you realize why so many startups fail. There is so much to be done on the business side: marketing to early adopters, engaging investors, building a solid foundation for your business. I'm doing these things while clarifying a relationship with a multibillion-dollar corporation in Japan. That means you're not three people in a garage, so to speak, like the Microsoft origin story most of us are familiar with."

Wolfe emphasizes that, though the unique relationship with NEC does raise challenges, it also has tremendous advantages because, from a new business development perspective, he's able to approach those early adopters who might be skeptical by saying, "Look, this was built by NEC Corporation in its innovation labs; and NEC is not going to allow a technology to go to the marketplace if it doesn't work."

This allowed him to spend more time on product market fit and developing a company culture for Inguo.io.

"It was a challenge because data analytics is a huge industry and there are a lot of technologies out there that are good technologies; but this one takes it further. While I'm the new kid on the block, I still have this innovation behemoth behind me," he says. "I'm acquiring my own funding and I'm creating my own business, but I still reap the benefits of having this relationship with NEC and NEC X—where we have meetings and discuss who my users are, how they're using it, and understanding the different verticals in which this technology can be applied. It is ultimately a win/win for everybody because NEC can apply my real-world application learnings to its ongoing technology development."

Wolfe's collaboration as an NEC X EIR was a fortuitous connection. He did freelance work for



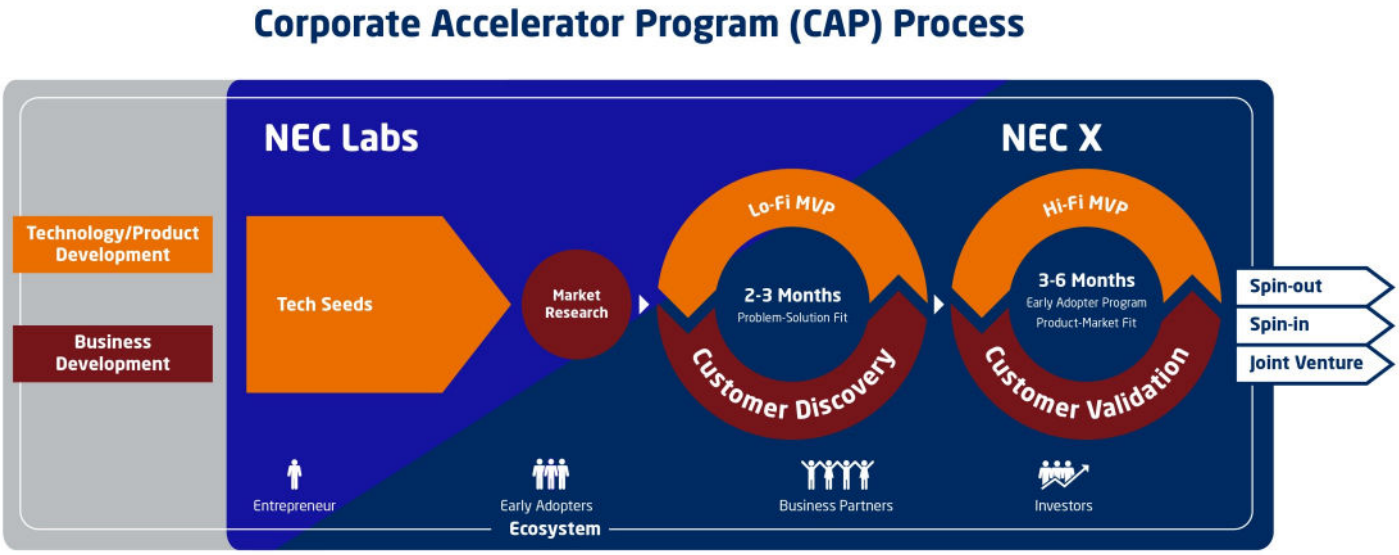
David Wolfe, Founder and CEO of Inguo.io

NEC about a decade ago, and one of the teams he worked with remembered him and arranged a meeting at a Quirk's Event in Brooklyn in March 2019.

"I've run and built organizations, so I had that experience; but I also had a way of looking at the technology from the viewpoint of the customers NEC was looking to address," he says. "I understood the behavior science, psychology and social science they were realizing was going to be necessary for a proper fit."

He was also selected because he attended university in Japan for two years and is familiar with the language and culture. Being the first project at the genesis of NEC X helped him and the company because, together, they were able to refine the initial CAP process and smooth over cultural barriers that may have existed with an entrepreneur without his background.

"There were still hiccups, but overall it was a good learning experience for NEC X to understand, as it was entering a new marketplace and bringing in EIRs from different cultures. Through its CAP, NEC X is developing greater flexibility to understand how to work with people and optimize what it is trying to do," he adds.



NEC X is incubating several projects. So far, two have been incorporated, Inguo.io being one, and another is a computer-vision technology startup called Gaziru. Another CAP project is currently seeking external funding, while two others show strong potential for moving to incorporation. In total, there are 34 "tech seeds" from NEC Labs working through the NEC X accelerator process. The steps for this program include customer discovery, customer validation, development and launch.

Gaziru offers an image-recognition technology that enables users to trace and manage merchandise distribution based on a smartphone image.

Other pending technologies in the NEC X CAP pipeline include an AI-assisted code reviewer that can find and identify bugs in large amounts of code that would usually need human review. This can revolutionize software development, making it far more efficient than current methods. "It is highly accurate and can achieve 10 times higher productivity over manual code review," Ihara says.

NEC X is always scouting for EIRs with the expertise or background to bring those tech seeds through the process and launch them as the lead products from new startup companies. Prior to COVID-19, NEC X had a strong presence at Silicon Valley job fairs and MBA programs at local universities, which helped make the connections necessary to find EIRs. Because those conduits are not currently available at the level they were a year ago, the company is relying on virtual events and successful CAP graduates such as Inguo.io to get the word out.

"There is no magic or secret sauce for finding EIRs," Ihara says. "You find talent in the market based on your network. And, as NEC X successfully launches graduating businesses, our awareness will grow and bring interest. We'll get further traction with people who have the EIR capabilities and mindset. We expect our network to grow through positive feedback as each successive venture from our CAP graduates and launches into the market."

Networking through others with expertise is also a viable means to connect to talent. Ihara says the company has received intriguing international prospects via email, but until travel restrictions are lifted, much of the interaction will be done virtually.

"Every six months, we launch three to four CAP projects for the customer discovery journey," Ihara says. "We are now planning for the next cohort in Q1-Q2 of 2021, where we will restart the process for the next tech seeds from NEC."

Wolfe emphasizes that NEC and NEC X are focused "only on projects that are revolutionary and forward thinking."

"I can honestly say that the technologies from the companies NEC X is spinning out are going to change our world for the better," Wolfe adds. "This is why I admire what its doing; because a lot of corporations would keep these innovations to themselves and slowly roll them out to see where they work. But NEC is committed to finding ways to deliver these innovations to the world through NEC X and its graduating startups. It's truly impressive." — By Susan Belknapp, Senior Writer, California Business Journal.

Copyright © 2021 California Business Journal. All Rights Reserved.