Beat

Bluetooth-enabled tracking startup Wiliot raises $200M

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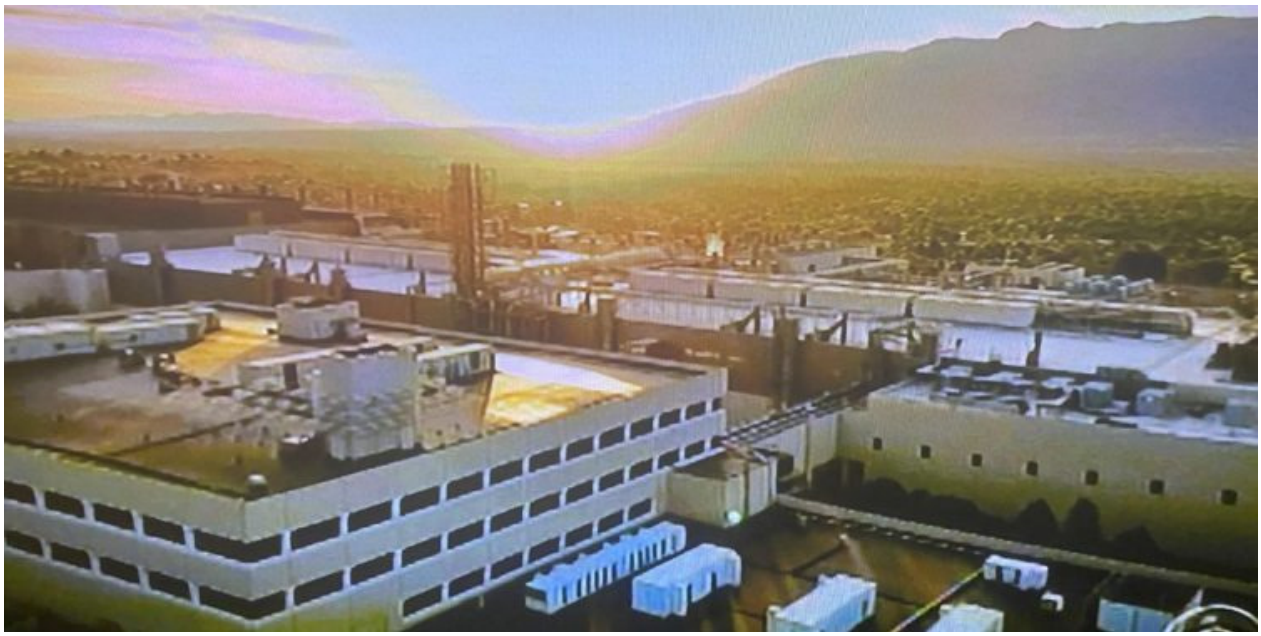
July 27, 2021 5:00 AM



Intel's chip factory in New Mexico.
Image Credit: Intel/CBS

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Wiliot, a startup creating a low-cost, self-powered chip that attaches to products to sense physical and environment data, has raised $200 million. The company's latest tranche, a series C, was led by Softbank Vision Fund 2, and brings the company's total raised to date to $270 million.

Wiliot says that the new money will be invested into hiring engineering, sales, and marketing staff; building out and scaling Wiliot's software-as-a-service platform; and productizing new sensors and capabilities. The company also plans to integrate with a larger set of partners and invest in silicon production capacity to ensure supply during the worldwide shortage.

Trillions of products travel billions of miles from factories to customers' doorsteps, but for the majority, it's difficult — if not impossible — to track their real-time status or whereabouts. Lacking this information, global supply chains have been in the dark, with products remaining "off the grid" during their manufacturing, shipping, and consumption journeys. A 2018 Statista survey found that the biggest challenge for global supply chain executives was visibility.

Wiliot was founded by the leadership of millimeter-wave company Wilocity, a group of wireless engineers now headquartered in Israel, with a business development team located in California and Germany. In 2017, the team launched a platform consisting of Wiliot's IoT Pixel sensors and the Wiliot Cloud, which manages privacy and access controls while providing data visualizations.

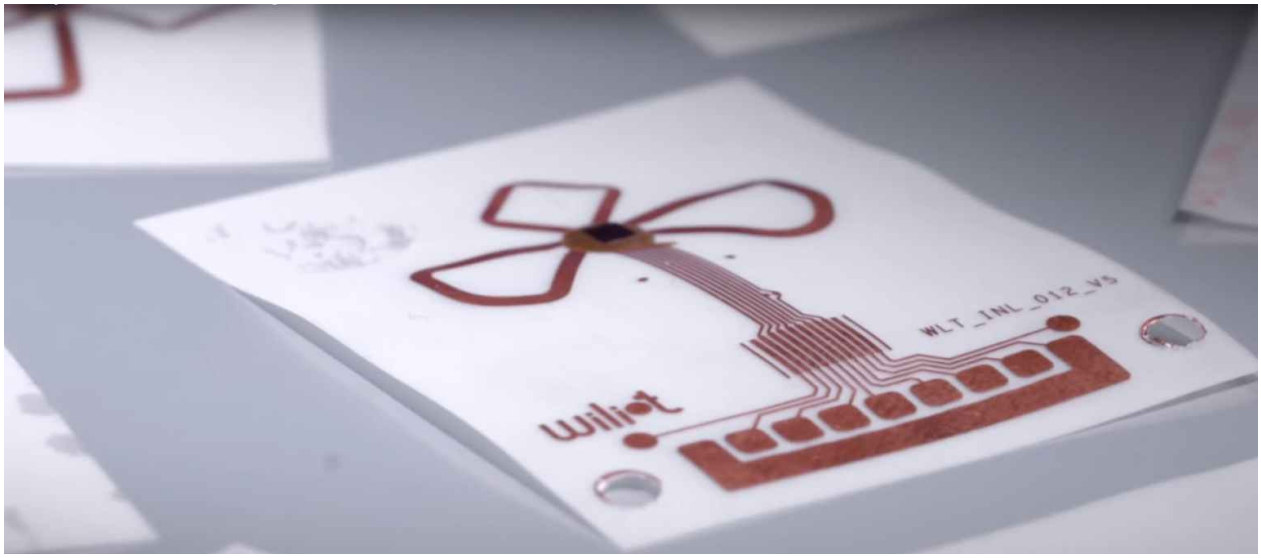
"Wiliot is transforming the way products are made, distributed, sold, used, reused and ultimately recycled by enabling a new level of visibility of products in the wholesale channel. By providing these real-time insights into products wherever they are used, Wiliot cuts the capital tied up in inventories and establishes more transparency surrounding the environmental footprint — all while driving up sales," Wiliot senior VP of marketing Stephen Statler told VentureBeat via email.

Internet of things

Wiliot's IoT Pixel tags, which are about the size of a postage stamp, continuously collect data about the world around them. They're Bluetooth-enabled, encrypted, and designed to be manufactured into clothing, food packaging, and more. And because they harvest radio

The self-charging nature of Wiliot's tags make them a potentially more attractive solution than technologies like Ossia's. They don't need a dedicated power source, receiver module, or home base, meaning they can draw energy as long as radio waves are within range.

At the platform level, Wiliot says it taps AI algorithms to make sense of inputs from its tags. Frequency shifts detected by components on the chips are used to infer events like the dilution of vaccines in vials, for example, and changes in freshness of vegetables in plastic crates. Calibration algorithms running in the cloud have even enabled Wiliot to perform fill level, motion, humidity, temperature, and proximity sensing at a lower cost compared with on-device processing.



Above: A close-up of Wiliot's IoT Pixel tags.

Image Credit: Wiliot

The lofty goal is to foster an ecosystem of IoT Pixel-embedded goods that can reveal how they're used and transported, from warehouses to homes. Wiliot even anticipates subscription-based products that will be able to self-reorder based on usage data.

"Competing low-power Bluetooth chip providers are focused on printed circuit board designs for devices such as battery-free wireless keyboards," Statler said. "[Meanwhile,] RFID is limited by the cost of the infrastructure, an inability to integrate directly with consumer devices, lack of security, lack of sensing, and ... features to enable privacy, security, data ownership, and true unique ID. [As for] QR codes, they're very low-cost, but don't scale, don't facilitate data ownership by the brand, don't have sensing, require manual scanning, and often are not visible."

Use cases

Wiliot sees retail, health care, and food and beverage as its core markets. Indeed, the company claims it already works with dozens of the world's largest consumer packaged goods and pharmaceutical companies, as well as "many leaders" in furniture and apparel.

"In the retail market, Wiliot's IoT Pixels imbue products with intelligence to transform a supply chain into a demand chain. A demand chain provides retail brands with a continuous view of what's happening with their product inventory as it is distributed, sold, and used," Statler continued. "In pharma and health care, Wiliot provides value by connecting everything from equipment and supplies to vials of medicine. It can measure temperature over time, sensing adherence and dilution ... [And] in food and beverage, the Wiliot platform can monitor the location and condition of perishable items, improving distribution processes and inventory availability in the store. Wiliot helps brands increase shelf life and reduce food waste while serving up product movement, traceability, and freshness information."

Wiliot, which expects its staff of 75 employees to grow to 100 by 2022, believes the pandemic will spur further demand for its products as clients reengineer supply chains and retail experiences. Pandemic and post-pandemic retail is moving from fulfillment to

inventory becomes essential.

“When competing with shopping from the couch, a smaller number of retail staff have to be able to find the right product instantly, [so location tracking] is table stakes, requiring real-time inventory accuracy,” Statler said. “Enabling item-level visibility to retailers allows them to maintain less inventory and sell more products.”

Beyond Softbank, 83North, Amazon Web Services, Avery Dennison, Grove Ventures, M Ventures, Maersk Growth, Norwest Venture Partners, NTT Docomo Ventures, Qualcomm Ventures, Samsung Venture, Vintage Investment Partners, and Verizon Ventures participated in Wiliot’s latest round of financing.

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