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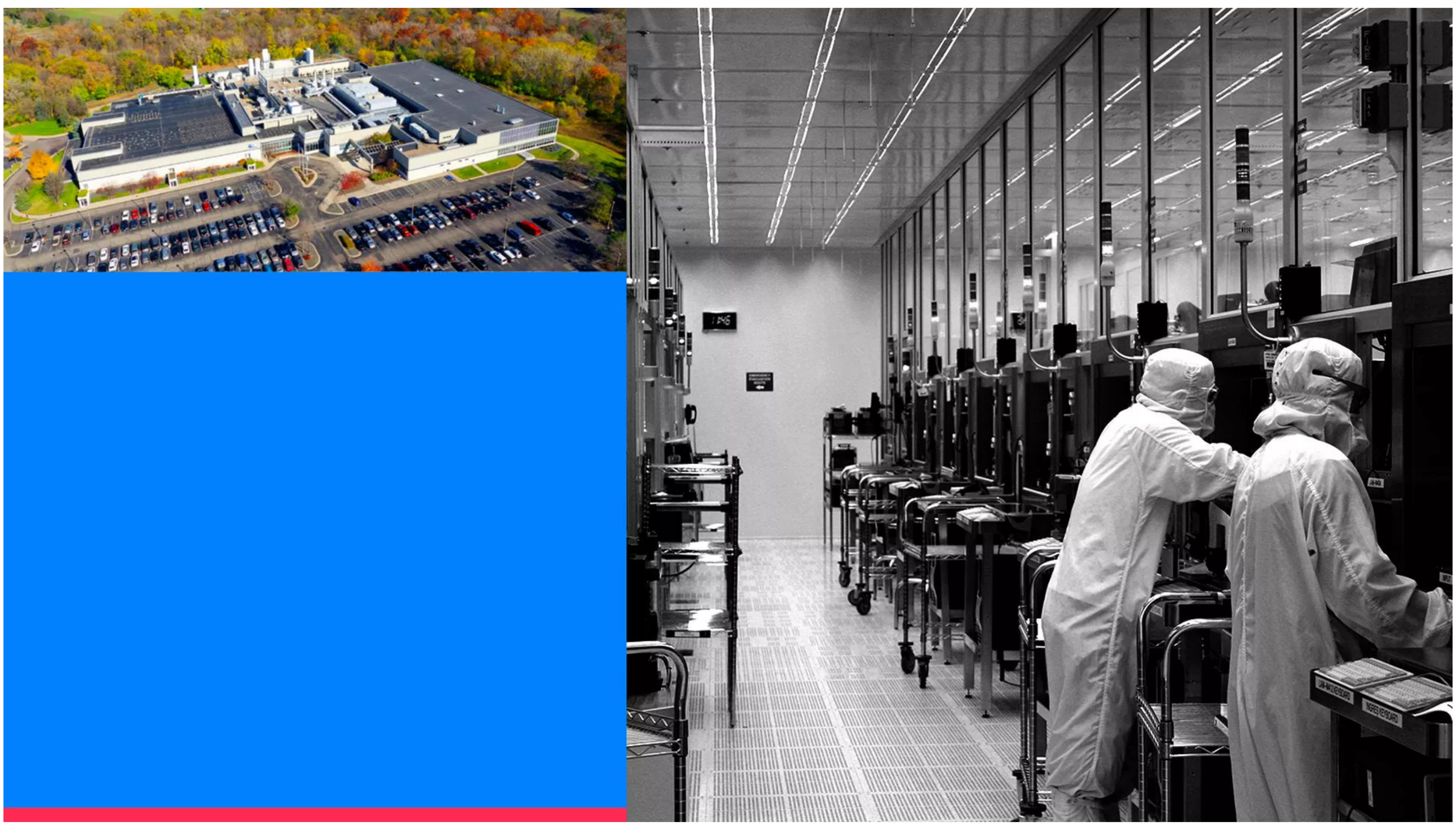
By Ina Fried

Today's newsletter is filled with a bunch of fun stuff, including a tasty treat at the end.

1 big thing: U.S. startup makes chips in Minnesota



Photos: SkyWater; Photo Illustration: Axios Visuals

In 2017, with funding from a Minnesota private equity firm, a small startup called SkyWater Technology bought a chip foundry from Cypress Semiconductor in hopes of sparking a resurgence in U.S. chipmaking. Now, with the government pining for more homegrown tech manufacturing, that bet is starting to pay off.

> *"We're kind of in the right place at the right time."*
>
> — Thomas Sonderman, president, SkyWater Technology

Driving the news: SkyWater has a deal with MIT and the Defense Advanced Research Projects Agency (DARPA) to commercialize a new kind of chip-making technology. The approach combines traditional silicon with carbon nanotubes to produce a three-dimensional structure.

Why it matters: No one is going to suddenly start making iPhones in the U.S., but chip production is one area of tech manufacturing that still has roots in the U.S. The key is finding new uses so that work doesn't just fade out like other tech manufacturing.

The basics: SkyWater has about 500 employees cranking out about 10,000 chip wafers per month at the Bloomington facility in Minnesota. The company positions itself as somewhere between factories like TSMC and GlobalFoundries and research facilities like Sandia National Labs.

The 14-acre facility, with its 80,000-square-foot cleanroom, uses an older generation of manufacturing with thicker wiring and smaller wafers, but this has benefits that commercial fabs don't — namely the freedom to experiment with new ideas and manufacturing processes. About one-sixth of the facility is devoted to developing new techniques.

History lesson: The facility began life 30 years ago and was initially owned by Control Data, which mostly did government work including top-secret projects. It was sold to Cypress Semiconductor in the early 1990s.

Even after the sale to SkyWater, Cypress remains the facility's largest customer, though Sonderman says about a third of its work is for other customers, with plans to grow that market over time.

Yes, but: There are other U.S. chip factories, but all the "pure-play" contract manufacturers are foreign-owned, such as Israeli-owned Tower Jazz, Belgian-owned Xfab and UAE-controlled GlobalFoundries. (Intel has a number of chipmaking factories in the U.S. While many are for its own use, it also does some foundry work.)