

## Could Intel miss out on the wearables boom?

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Longtime Silicon Valley powerhouse [Intel](#) hopes that the emerging revolution in wearable devices will put it back at the top of the chip-designing market.

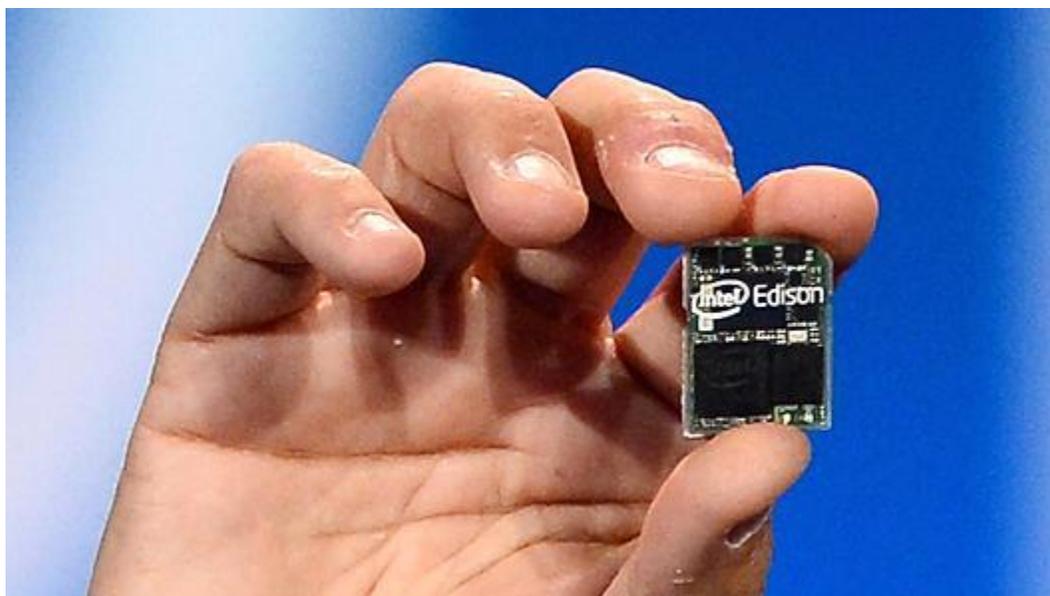
But some analysts say that the combination of sluggishness and a culture of arrogance may cause the company to lose out—much as it lost out in the mobile revolution of the last decade.

Intel's stock price rose 28 percent last year, but revenue has been stuck at about \$53 billion for a while.

The market for wearable technology will triple between 2013 and 2018, to \$30 billion, according to estimates from the market research firm IHS, and Intel sees the space it as its big chance to win back the consumer-device market from rival chipmaker ARM.

Though Intel is "well-positioned" to be a leader in wearables, there's no guarantee it will be, said Ed Snyder, managing director of Charter Equity Research.

The competition



Intel's Edison chip

Frank Gillett, an analyst at Forrester Research, said that while Intel is getting into wearables earlier than it entered mobile, it's still late in developing low-powered processors—key for wearables, and something ARM already dominates.

"I think Intel is quite challenged," he said. "It grew up making processors for PCs that had a lot of processing power but weren't very energy-efficient." Energy-efficient chips are crucial for wearable technology, he added.

"It used to be the largest processor designer in the world, and now [that's] ARM," Gillett said.

Chips in wearables require three basic components: radio connection, sensing capabilities and brain (or piece that does all the processing).

Though Intel leads the world in the brain component, [Broadcom](#) and [Texas Instruments](#) have a lot in wireless connections and sensing components, respectively, said Snyder at Charter Equity, adding that no one company has brought it all together yet.

Intel's biggest competitor, [ARM](#), designs low-powered chips for a wide range of devices, from smartphones to smartpens, and licenses its designs to others that make the components, including Texas Instruments, Broadcom and [Qualcomm](#).

(Read more: [Cramer: Chips falling the right way for Intel](#) )

Part of ARM's advantage is that has been in mobile since the early handheld days. Its chip designs were adopted by the first smartphone players, including BlackBerry and Palm, and became the heart of Apple's iPhone.

In fact, the mobile shift helped ARM knock Intel out of the top spot in chip design.

Intel clearly takes the emerging wearable market seriously.

At the Consumer Electronic Show earlier this month, Intel CEO Brian Krzanich showed off a number of wearable products—including a smartwatch and earbuds that measure a user's heart rate—powered by Intel technology, specifically its Quark and Edison processors.

In a statement to CNBC, Intel said: "We want to be a big player and would not be pursuing opportunities in this area if we didn't think that it would be additive and/or support Intel's broader business objectives. It's another evolution of computing, and we are making the investments today to get us there. It's a big opportunity, and the market is wide open for growth and evolution. Ultimately, the company that delivers the best product and experience will win the consumers' and ecosystems attention."

The company isn't predicting about how much it expects to do in wearables, according to the statement.

(Read more: [The 'Next Big Things' in Wearable Tech](#) )

"Intel really has an advantage here; the Quark is pretty close to ideal for these devices," Charter Equity's Snyder said. "But don't underestimate the political ineptitude of Intel. They completely missed the boat with mobile; they could do the same with this."

The culture

That ineptitude could end up costing the company a big loss in the wearables revolution, according to Snyder.

"The reason Intel has a problem is because they think of themselves as royalty in this industry," he said. "They become God in their own minds, and that makes you very susceptible to problems. It's that arrogance that caused the company to miss the move to mobile."

(Read more: [Wearables at work mean big business, says Fitbit CEO](#) )

In addition, said Gillett at Forrester, even though Edison is impressive, the market hasn't shown it really needs the product.

"It's not clear if this is an advantage at all," he said. "They have come to the party very late, and not with a compelling case to switch from ARM."

But that doesn't mean they won't play any role in wearables.

"Don't underestimate Intel, but, wow, is it a big challenge," Gillett said. "They will make incremental inroads, but ... they will be No. 2 for a long time, if not permanently."