

Apple's new German semiconductor design center signals further turn away from interconnected global supply chains

Article

A new **Apple** semiconductor design center is coming to **Munich, Germany** by late 2022, **according to** Bloomberg. In a statement, Apple CEO Tim Cook said the new facility, which is part of its plan to invest \$1.2 billion to develop custom chips, will further develop 5G technology and explore a “new generation of technologies that bring power, speed, and connectivity to the world.” News of the design center comes as companies and governments around the world **continue** reeling from a raging global semiconductor chip shortage.

The ongoing global chip shortage has renewed interest by governments around the world to shore up domestic supplies of semiconductors. Apple’s new German chip facility comes just days after **European Commission** announced new goals challenging member states to produce around 20% of the world’s chips by value by 2030, as part of its **Digital Compass** plan. For context, EU members accounted for 10% of global chips by value in 2020, **per** the BBC.

And the EU’s not alone. Last month, the **Biden Administration** **pushed** forward an executive order requiring federal agencies to conduct a 100-day review of supply chains related to semiconductor chips. While the order is unlikely to address the immediate chip shortage, it signals a renewed US interest in seeking out long-term technological self-sufficiency, a trend that began well before 2020 but was accelerated by the pandemic.

In **China**—which **relies heavily** on chips from other countries—businesses are bracing for a further global chip disruption by stockpiling equipment. A recent Bloomberg **report** found the country had purchased nearly **\$32 billion** of chip production equipment last year from companies in **Japan, Taiwan, and South Korea**. That \$32 billion is a **20% increase** from 2019.

Just as different regions signal interest in shoring up semiconductor production, Apple has plans of its own to become less reliant on competitors for chips and other technology.

- Last year Apple ditched Intel chips and **created** its own in-house **ARM-based M1 processor** which rolled out in its new MacBooks and the Mac Mini.
- A still-in-development **Apple modem** could significantly reduce the tech giant’s reliance on **Qualcomm**.
- Apple may be preparing to get in early ahead of competitors with **6G connectivity** according to a recent job listing.

If these semiconductor trends continue, it could mark a significant shift away from the global, highly interdependent status quo and toward a more fractured system of regional competitors. While drastic changes to international technological trade are unlikely to happen overnight, recent US government policy changes and location moves by chipmakers signal a potential shakeup. This month, in a **filing** with the Texas state government, **Samsung** revealed plans to invest \$17 billion into a US-based semiconductor manufacturing plant, **called** Project Silicon Silver. That comes in addition to plans **announced** last year by chipmaker **TSMC** that it would spend \$12 billion to build out an Arizona-based chip factory.

Most Important Global Business Risk Factors According to Executives Worldwide, Nov 2020

% of respondents

	2020	2021
Business interruptions (including supply chain disruption)	37%	41%
Pandemic outbreak (e.g., health and workforce issues, restrictions on movement)	3%	40%
Cyber incidents (e.g., cyber crime, IT failure/outage, data breaches, fines, and penalties)	39%	40%
Market developments (e.g., volatility, intensified competition/new entrants, M&A, market stagnation, market fluctuation)	21%	19%
Changes in legislation and regulation (e.g., trade wars and tariffs, economic sanctions, protectionism, Brexit, Euro-zone disintegration)	27%	19%
Natural catastrophes (e.g., storm, flood, earthquake, wildfire)	21%	17%
Fire, explosion	20%	16%
Macroeconomic developments (e.g., monetary policies, austerity programs, commodity price increase, deflation, inflation)	11%	13%
Climate change/increasing volatility of weather	17%	13%
Political risks and violence (e.g., political instability, war, terrorism, civil commotion, riots and looting)	9%	11%

Note: n=2,769

Source: Allianz, "Allianz Risk Barometer 2021," Jan 27, 2021

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