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Samsung, Micron Say Memory Needs to Go Vertical to Keep Up

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Samsung Electronics Co. is teaming up with rival [Micron Technology Inc. \(MU\)](#) to spur the chip industry into switching to stackable memory, part of an effort to cut energy use and speed up computers.

Makers of dynamic random access memory, or DRAM, should start making the transition to a so-called hybrid-cube approach, which stacks chips on top of one another, the companies said today in joint statement. The technique will make the chips more efficient and faster at supplying data to computer processors.

“You can move a lot more data with a lot less energy than what the traditional technologies use today,” said [Scott Graham](#), general manager of memory marketing for Boise, Idaho- based Micron, the largest U.S. memory manufacturer. “We’re able to realize energy savings of up to 70 percent.”

Companies in the \$39 billion memory-chip industry have always sold DRAM chips that lie side-by-side on small circuit boards, which are plugged into the main board of a computer. As demands for memory and processors speeds increase, that layout causes bottlenecks and demands too much power, Samsung and Micron say. It also takes up more space in devices.

The new design eliminates the need for the second circuit board by having the memory chips send data through to a controller layer, which then delivers the information to a processor -- the brains of a computer.

Samsung, based in Suwon, [South Korea](#), is the biggest global manufacturer of memory. The rare collaboration with Micron is aimed at setting an industry standard, which would then be ratified by other competitors. Unlike some other parts of the chip industry, computer memory closely follows universal standards, so that products from rival manufacturers can be used interchangeably.

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