



For Immediate Release

Silicon Wafer Shortage Starts in 2018

TECHCET's model shows all slack soon gone from supply-chain for both 300mm and 200mm diameter

San Diego, CA, July 27, 2017: TECHCET CA—the advisory service firm providing electronic materials information—today announced that the silicon wafer supply for semiconductor device fabrication is forecasted to appreciably lag demand starting next year, and could remain in shortage through the year 2021 despite investments in China. Silicon wafer area demand is forecasted to steadily increase at a CAGR of ~3.1% over the 2016-2021 period to reach over 13,000 million square inches (MSI). Executives of silicon wafer suppliers have stated that average selling prices have remained too low to allow for investment in 300mm expansions, as detailed in a quarterly update to the TECHCET Critical Materials Report™, “*Silicon Wafers Market & Supply-Chain.*”

The silicon wafer supply-chain is dominated by two suppliers--Shin-Etsu Handotai and SUMCO--combining to capture almost two-thirds of the global wafer market in 2016, and the top five representing over 92% of total revenues. The silicon wafer market is maturing as evidenced by recent mergers and acquisitions, the two most notable being the acquisition of SunEdison Semi by GlobalWafers (Taiwan) and the assumption of majority ownership of LG Siltron by SK Holdings (Korea).

"Over the last five years, the average selling price per square inch of semiconductor-grade silicon wafers has declined by about a third and more than a half from the 2007 level," explained Michel Walden, lead author of the report and senior technology analyst with TECHCET. "However, current tightness in the supply-chain has led to greater stability and even price increases in some cases, all of which is likely needed for the long-term health of the wafer suppliers."

Over the past few years, silicon suppliers decommissioned roughly 25% of the peak capacity for 200mm wafers. Of the remaining 200 mm capacity, roughly 65 % of the total demand is for epitaxial (epi) wafers, and a series of epi service companies have embraced this opportunity and provide a variety of layer configurations for their customers.

Global suppliers of silicon wafers covered in this report include:

GlobalWafers Silicon,
LG Siltron,
National Silicon Industry Group,
Okmetic Ojy,
Siltronic,
Shin-Etsu Chemical Co. Ltd. (SEH),
SUMCO Corp.,
SunEdison Semiconductor,
Wafer Works, and
Zing Semiconductor.

Purchase Reports Here: <http://techcet.com/product-category/silicon-wafers/>



Electronics Materials Information

ABOUT TECHCET: TECHCET CA LLC is an advisory service firm focused on process materials supply-chains, electronic materials technology, and materials market analysis for the semiconductor, display, solar/PV, and LED industries. Since 2000, the company has been responsible for producing the SEMATECH Critical Material Reports, covering silicon wafers, semiconductor gases, wet chemicals, CMP consumables, Photoresists, and ALD/CVD Precursors. For additional information about these reports or CMC Fabs membership please contact Diane Scott or Michel Walden at info@cmcfabs.org +1-480-332-8336, or go to www.techcet.com or www.cmcfabs.org +1-480-332-8336, or go to www.techcet.com or www.cmcfabs.org