

Semiconductor Manufacturing & Supply

Silicon Application Market Forecast Tool (AMFT)™

By Len Jelinek, Director and Principal Analyst

Key Issues Addressed:

- How much silicon will be required to support 300mm manufacturing operations? How much silicon will be used for mature technologies?
- As the industry goes through its cycles of rapid growth followed by periods of slowing, what applications will continue to demand increased silicon capacity?
- What will the impact of technology transitions be for silicon manufacturers?
- What market applications are driving silicon consumption?
- What will be the impact of technology transitions for the equipment and material suppliers?

Applicable To:

- Strategic Manufacturing Managers
 - Managers in charge of expanding capacity for IDM's and foundries
 - Managers responsible for purchasing equipment for IDM's and foundries
 - Controllers forecasting capital expenditures
 - Planners determining if wafer technology transitions will obsolete mature wafer sizes
- Material Suppliers
- Equipment Manufacturers

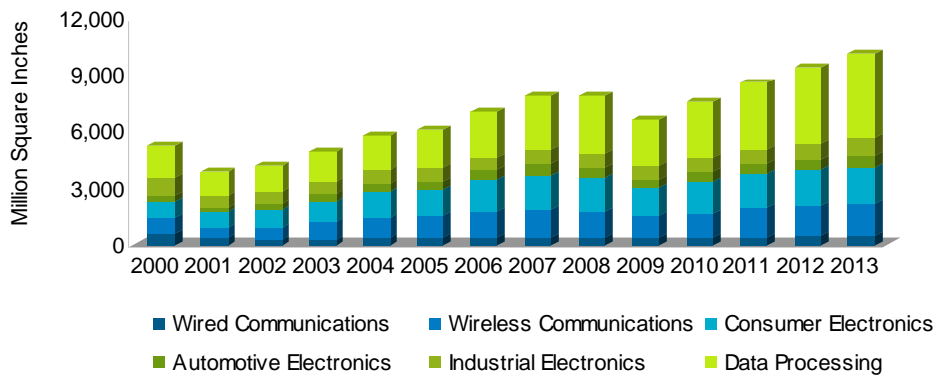
Since the middle of February, semiconductor companies have been experiencing a significant increase in manufacturing run rates. Integrated Device Manufacturers (IDMs) and foundries are approaching these increases with cautious optimism. Is the increase in demand a result of a recovering economy driven by governmental stimulus programs or can the demand be traced to inventory replenishment required to simply sustain existing business?

By analyzing what applications are driving silicon demand and by looking at the technology being used, corporate strategic analysts can assess where in the market resources should be focused in order to achieve maximum gains in market share.

Building on iSuppli's semiconductor applications forecasting expertise, the Silicon Application Market Forecast Tool (AMFT)™ translates technology migration data into silicon demands. This easy-to-use database tool will provide users with an overall view for silicon demands by technology - Memory, Logic, Analog, Discrete, Microcomponents, as well as by wafer size -- 4-inch, 5-inch, 6-inch, 8-inch and 300mm. In order to enhance planning, users will be able to adjust the rate of technology transition cycles, which will provide the added feature of identifying best case and worst case scenarios.

iSuppli will update this tool on a quarterly basis, as it adjusts all of its application forecasts, giving the user visibility by year through 2013.

Silicon Demand by Market Segment



Technologies Covered

- Discrete
- Logic
- Memory
- Analog
- Microcomponent

Applications/Products Covered

- 93 applications within the major application markets of:
 - Consumer Electronics
 - Data Processing
 - Mobile Communications

Lead Analyst

Len Jelinek, Director and Principal Analyst

Since joining iSuppli, Len has focused his research on capacity management and technology transitions within the semiconductor industry. Len works with clients to access individual corporate strategies that may be impacted by additional wafer manufacturing capacity in China as well as other global locations.

Len has developed an extensive database of wafer manufacturing suppliers both leading IDM's and pure play foundries service providers. This database can be used by clients to define corporate manufacturing strategies such as expand internal capacity versus transitioning to an outsourcing model.

Len came to iSuppli after 28 years of experience in semiconductor manufacturing and business management in the semiconductor industry. He has gained invaluable experience with specific emphasis on program management, financial analysis, and manufacturing during his employ with ON Semiconductor and Motorola.

Len holds a BS in Chemistry from Arizona State University and an MBA from the University of Phoenix.

Forecast

Frequency, Time Period

- Annual through 2013
- Updated quarterly

Measures

- Wafers
 - 4-inch
 - 5-inch
 - 6-inch
 - 8-inch
 - 300mm
- Technology
 - >0.5-micron
 - 0.35-micron
 - 0.25-micron
 - 0.18-micron
 - 0.15-micron
 - 0.13-micron
 - 0.11-micron
 - 90 nanometer
 - 65 nanometer
 - 45 nanometer
 - 32 nanometer