

**AUGUST 27, 2014**

## **Major IDMs Increasingly Rely on Foundries for Logic Production**

*Fab-lite business model strengthens; IDMs aim to keep capex at or below 10% of annual sales.*

Arguably, no other trend has so quickly swept through the IC industry and stirred up so much debate about the future of chip making as the spread of fab-lite (or asset-lite) business model, which is being embraced by a growing number of major IDMs worldwide. Most recently, large Japanese IC makers—namely Toshiba, Renesas, Sony, and Fujitsu—joined the fab-/asset-lite movement after several years in which U.S. and European IDMs started reining in capital expenditures on expensive new 300mm wafer fabs and increased their use of third-party foundries. Nearly all IDMs today (excluding giant Intel and the memory makers) are now aiming to keep capital spending at or below 10% of annual sales compared to the IC industry's average of 20% in the last decade.

### **MORE INFORMATION CONTACT**

Bill McClean  
President  
Phone: +1-480-348-1133  
Email: [bill@icinsights.com](mailto:bill@icinsights.com)

The advent of fab-/asset-lite strategies has led to a rash of predictions that many IDMs are on their way to becoming fabless because they have stopped investing in leading-edge wafer plants and development of next-generation digital CMOS technologies. Indeed, some IDMs have used fab-/asset-lite strategies as steppingstones to going fabless—such as LSI and Integrated Device Technology (IDT)—but many other IC manufacturers insist “lite” business models are sustainable over the long term since they’ve narrowed their strategic product focus to categories that do not require 300mm wafer processes or expensive fabs.

According to IC Insights’ recently released *Mid-Year Update to the 2014 McClean Report*, the number of IDMs producing leading-edge logic devices has declined from 22 at the 130nm technology node to only two at the 22/20nm technology node (Figure 1). The four major pure-play foundries—TSMC, GlobalFoundries, UMC, and SMIC—will continue to be the leading benefactors of new business that transitions away from the IDMs.

With an increasing number of large semiconductor companies (e.g., ST, NXP, Infineon, Renesas, Sony, Fujitsu, Toshiba, etc.) stating their intentions to rely more on outside foundries for their IC production, it is easy to see why IC Insights forecasts foundries will impact an increasing amount of worldwide IC sales over the next several years.

## Transition of Logic Production to IC Foundries

130nm IDMs	90nm IDMs	65nm IDMs	45nm IDMs	32/28nm IDMs	22/20nm IDMs
Intel	Intel	Intel	Intel	Intel	Intel
Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
IBM	IBM	IBM	IBM	IBM	(2)
ST	ST	ST	ST	ST	
Panasonic	Panasonic	Panasonic	Panasonic	Panasonic	
Renesas	Renesas	Renesas	Renesas	(5)	
TI	TI	TI	TI		
Toshiba	Toshiba	Toshiba	Toshiba		
Fujitsu	Fujitsu	Fujitsu	Fujitsu		
AMD	AMD	AMD	(9)		
Motorola	Freescale	(10)			
Infineon	Infineon				
Sony	Sony				
Cypress	Cypress				
Sharp	Sharp				
ADI	(15)				
Atmel					
Hitachi	Foundries	Foundries	Foundries	Foundries	Foundries
Mitsubishi	TSMC	TSMC	TSMC	TSMC	TSMC
ON	UMC	UMC	GlobalFoundries	GlobalFoundries	GlobalFoundries
Rohm	Chartered	Chartered	UMC	UMC	UMC
Sanyo	SMIC	SMIC	SMIC	SMIC	SMIC
(22)	—	—	—	Intel	Intel
	Samsung	Samsung	Samsung	Samsung	Samsung

Source: IC Insights' Strategic Reviews Database

Figure 1

### Report Details: *The Mid-Year Update to the 2014 McClean Report*

Further details on foundry trends within the IC industry are provided in IC Insights' *Mid-Year Update to its 2014 McClean Report—A Complete Analysis and Forecast of the Integrated Circuit Industry*. The *Mid-Year Update* provides extensive IC Insights forecasts for the IC industry for the rest of 2014 and through 2018,

including fresh looks at regional and global GDP growth, semiconductor capital spending trends, updates to R&D spending by company, challenges with 3D manufacturing, and updates on the prospect of the industry moving to 450mm wafers. The 250-page *Mid-Year Update* features more than 200 charts and graphs that give a thorough overview, analysis, and forecast of IC industry trends.

The *Mid-Year Update* is one of several monthly updates that are provided **free** with a paid annual subscription to *The McClean Report*. **However, new for 2014, IC Insights is offering the *Mid-Year Update* for sale as a single-purchase report priced at \$1,990.**

To review additional information about IC Insights' new and existing market research products and services please visit our website: [www.icinsights.com](http://www.icinsights.com)

#### **About IC Insights**

IC Insights, Inc., based in Scottsdale, Arizona USA, is dedicated to providing high-quality, cost-effective market research for the semiconductor industry. Founded in 1997, IC Insights offers coverage of global economic trends, the semiconductor market forecast, capital spending and fab capacity trends, product market details, and technology trends, as well as complete IC company profiles and evaluations of end-use applications driving demand for ICs.

**Web Site:** [www.icinsights.com](http://www.icinsights.com) • **Phone:** +1-480-348-1133 • **E-mail:** [info@icinsights.com](mailto:info@icinsights.com)