

Macro-trends facing the Semiconductor Industry

Mark Durcan

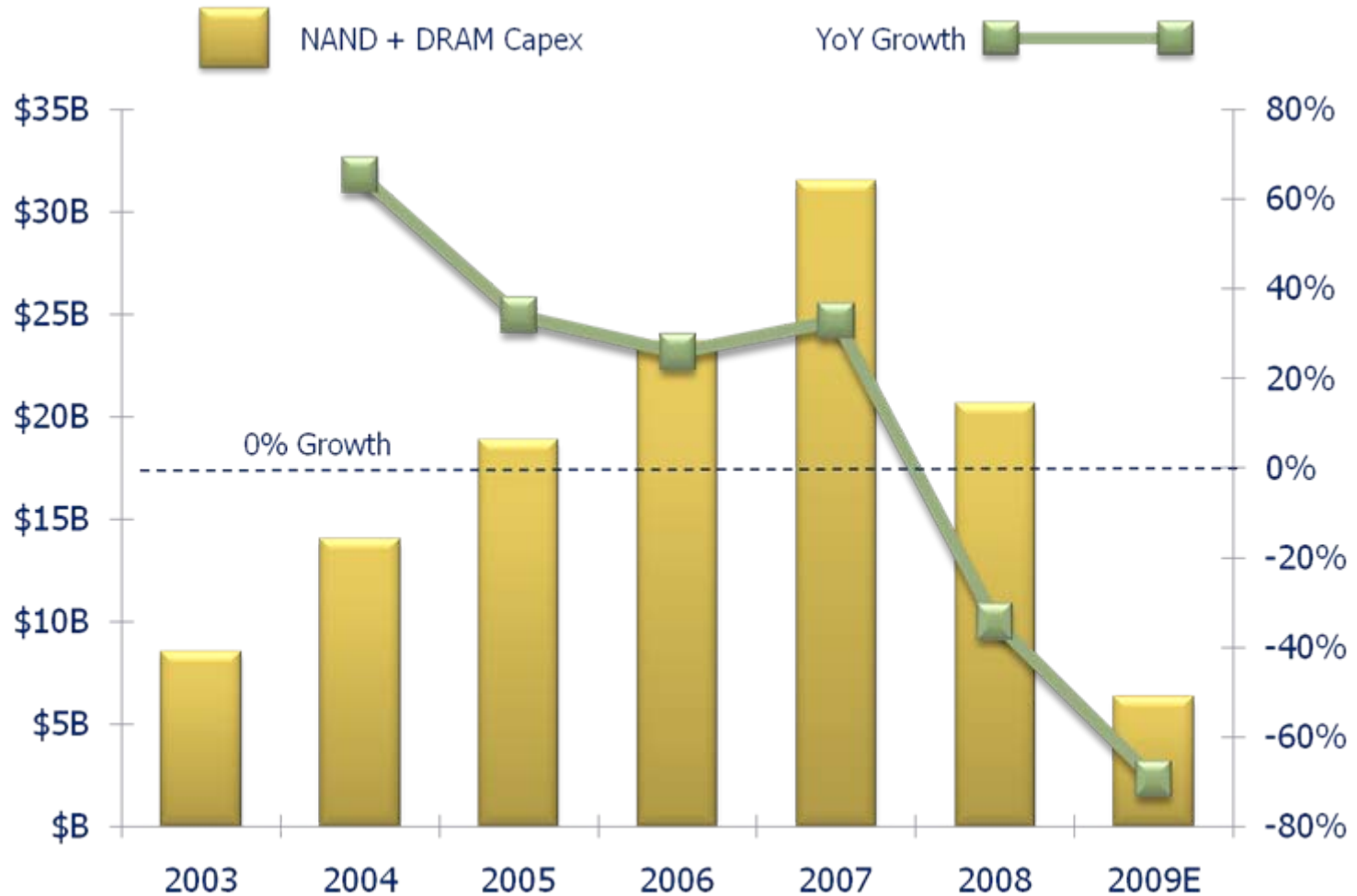
President and C.O.O.

Micron Technology



©2009 Micron Technologies, Inc. All rights reserved. Products are warranted only to meet Micron's production data sheet specifications. Information, products, and/or specifications are subject to change without notice. All information is provided on an "AS IS" basis without warranties of any kind. Dates are estimates only. Drawings are not to scale. Micron and the Micron logo are trademarks of Micron Technology, Inc. All other trademarks are the property of their respective owners.

NAND and DRAM Capex

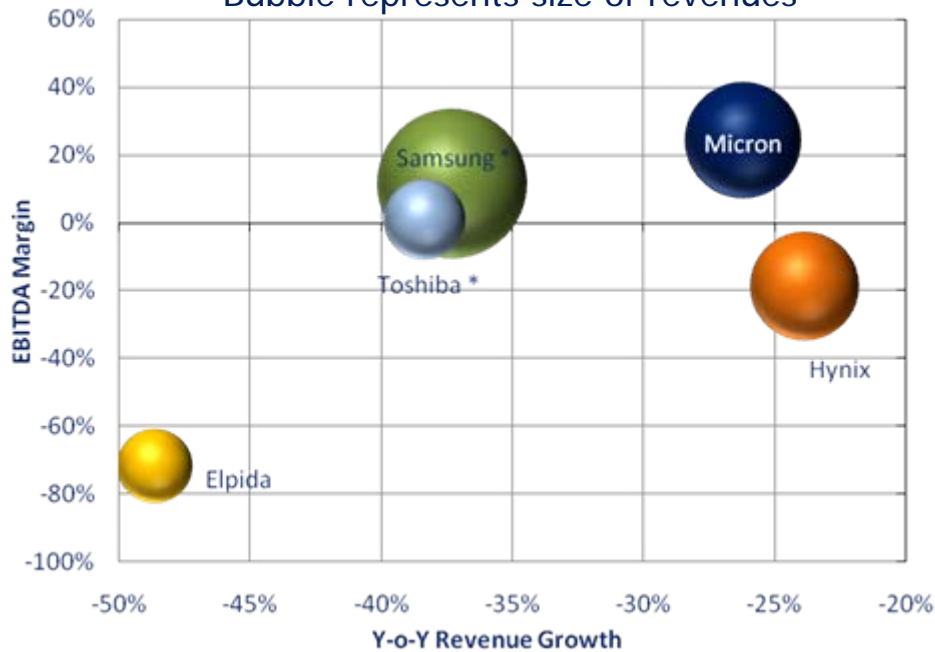


Source: iSuppli

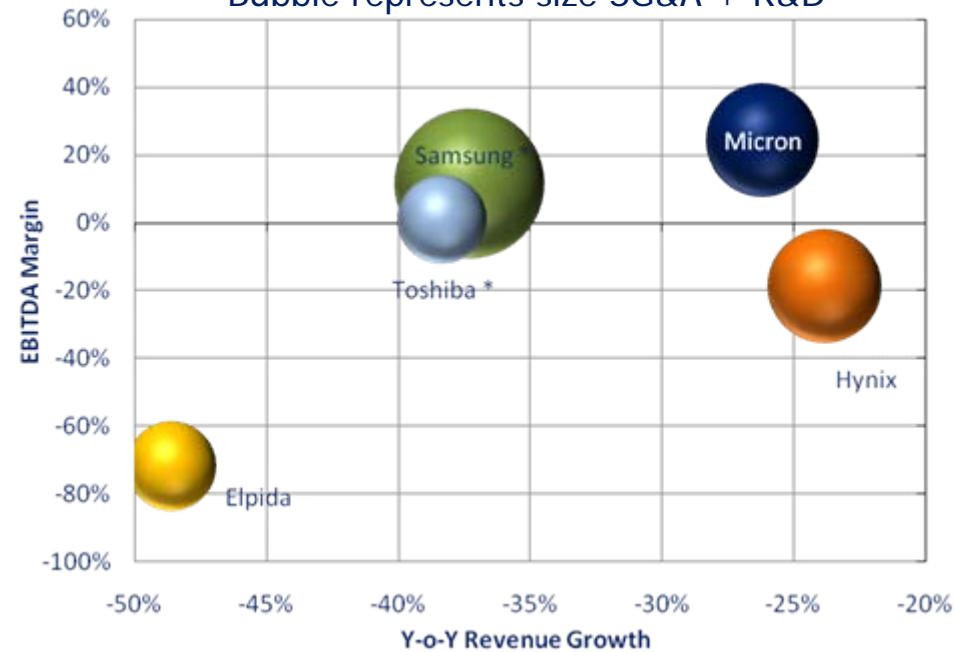
Shrinking Revenue Pressures R&D

OpEx and R&D are generally aligned to revenue

Bubble represents size of revenues



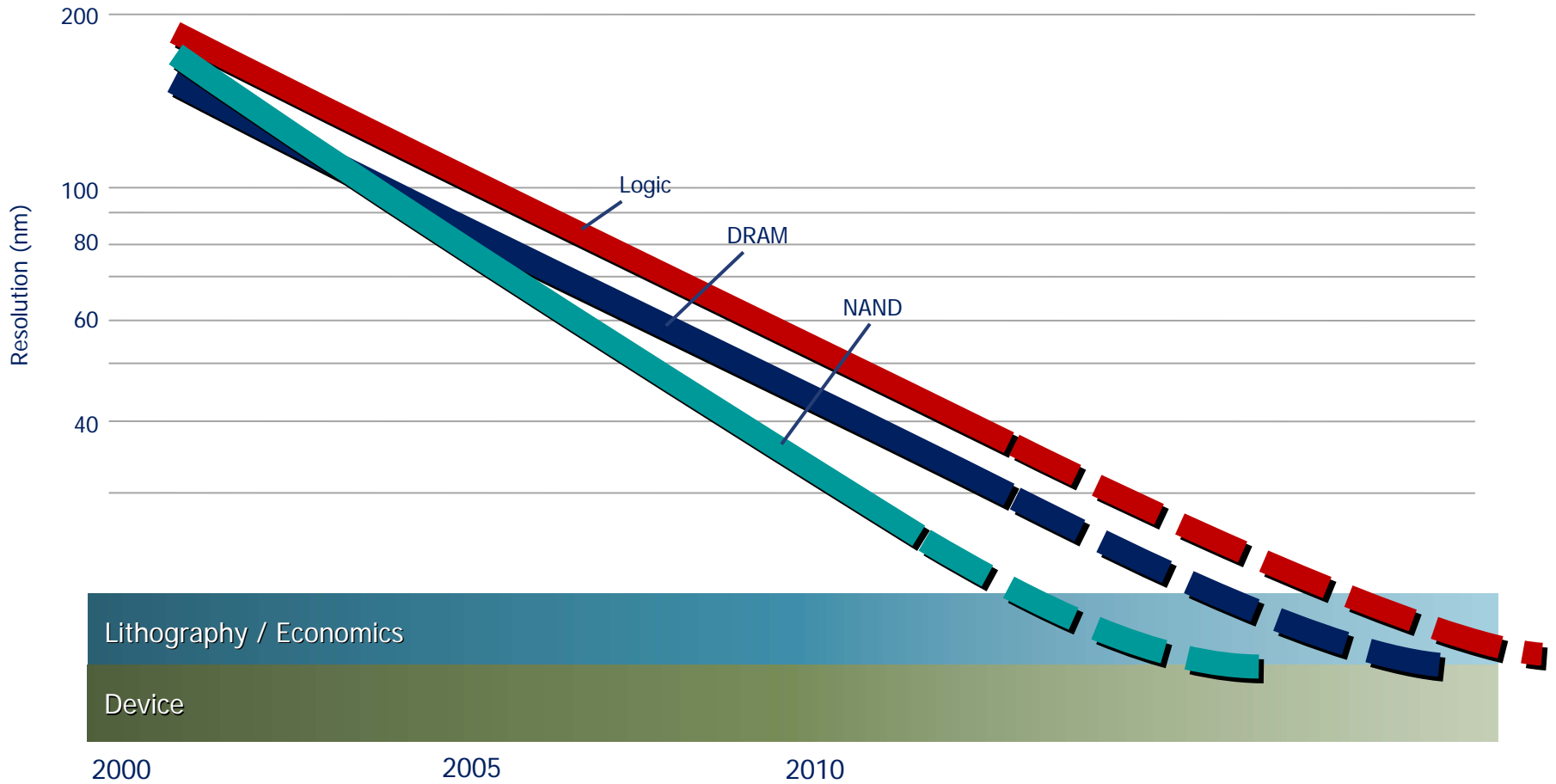
Bubble represents size SG&A + R&D



- Samsung and Toshiba data reflects only memory business except for EBITDA number

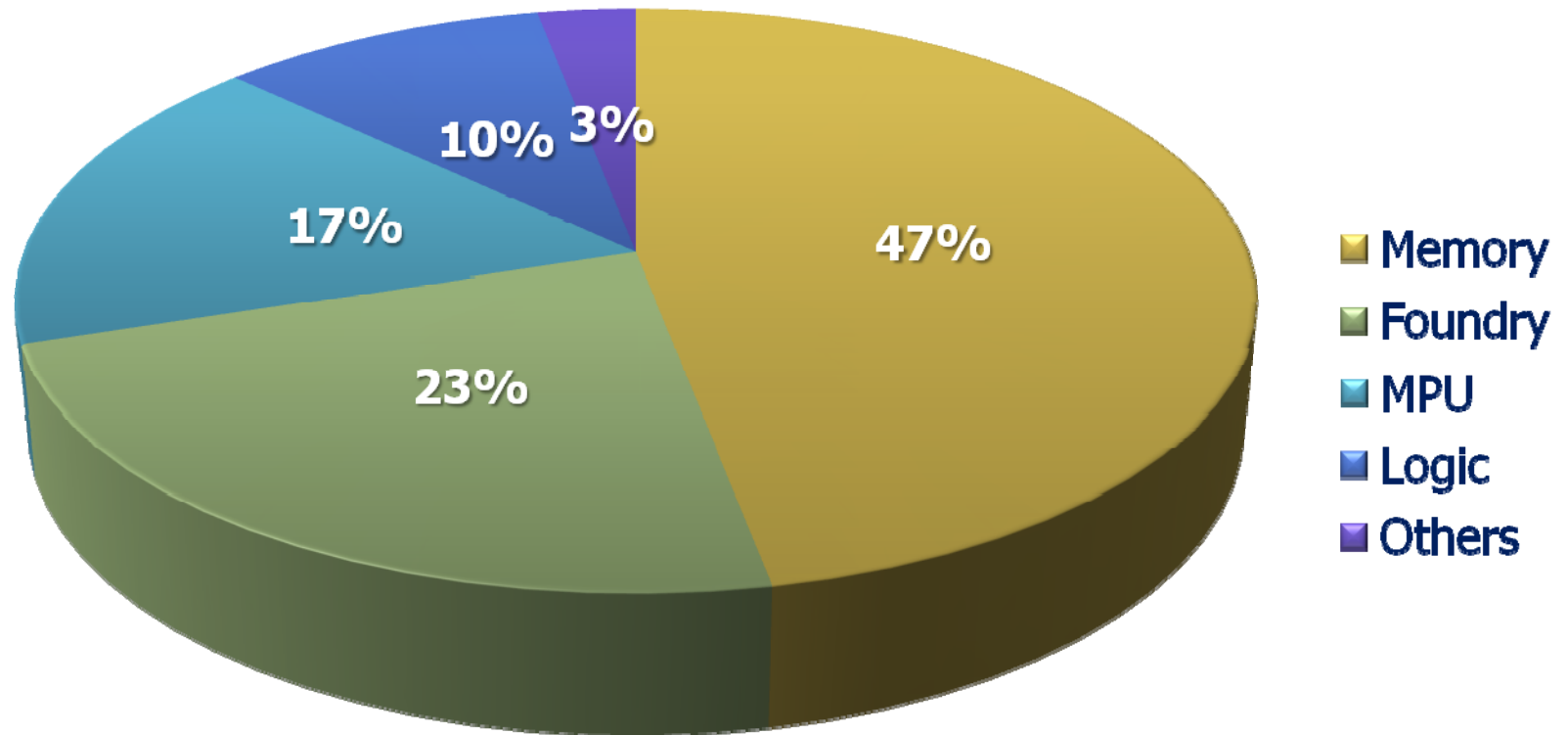
Source: Company Data, Analyst Estimates

"Bending" of Moore's Law



Semiconductor International, Micron

Semi: Share for Spending on Equipping Front-end Facilities

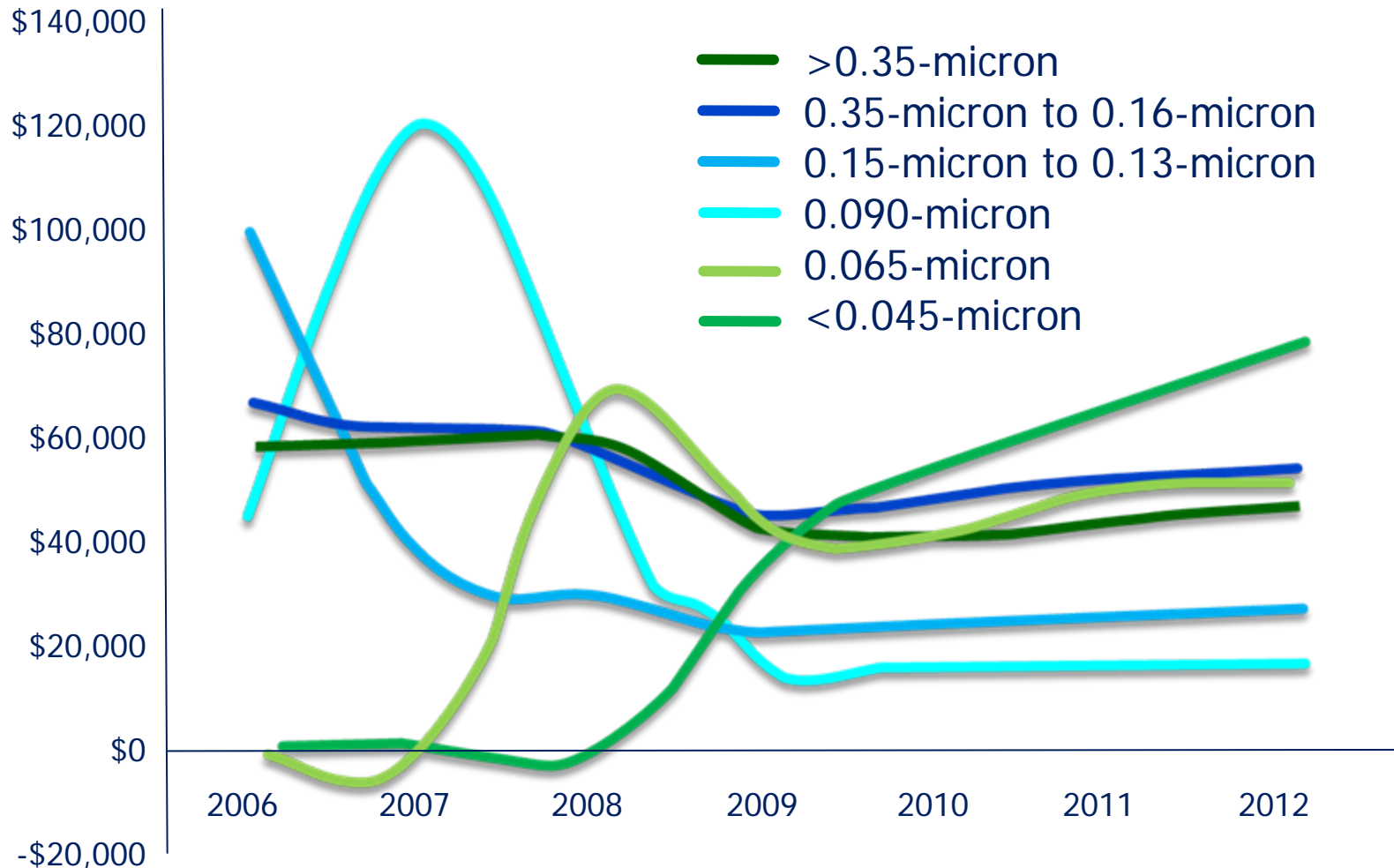


By Product Type, 2010

Source: SEMI, compiled by Digitimes, July 2009

Slowing Logic Migration

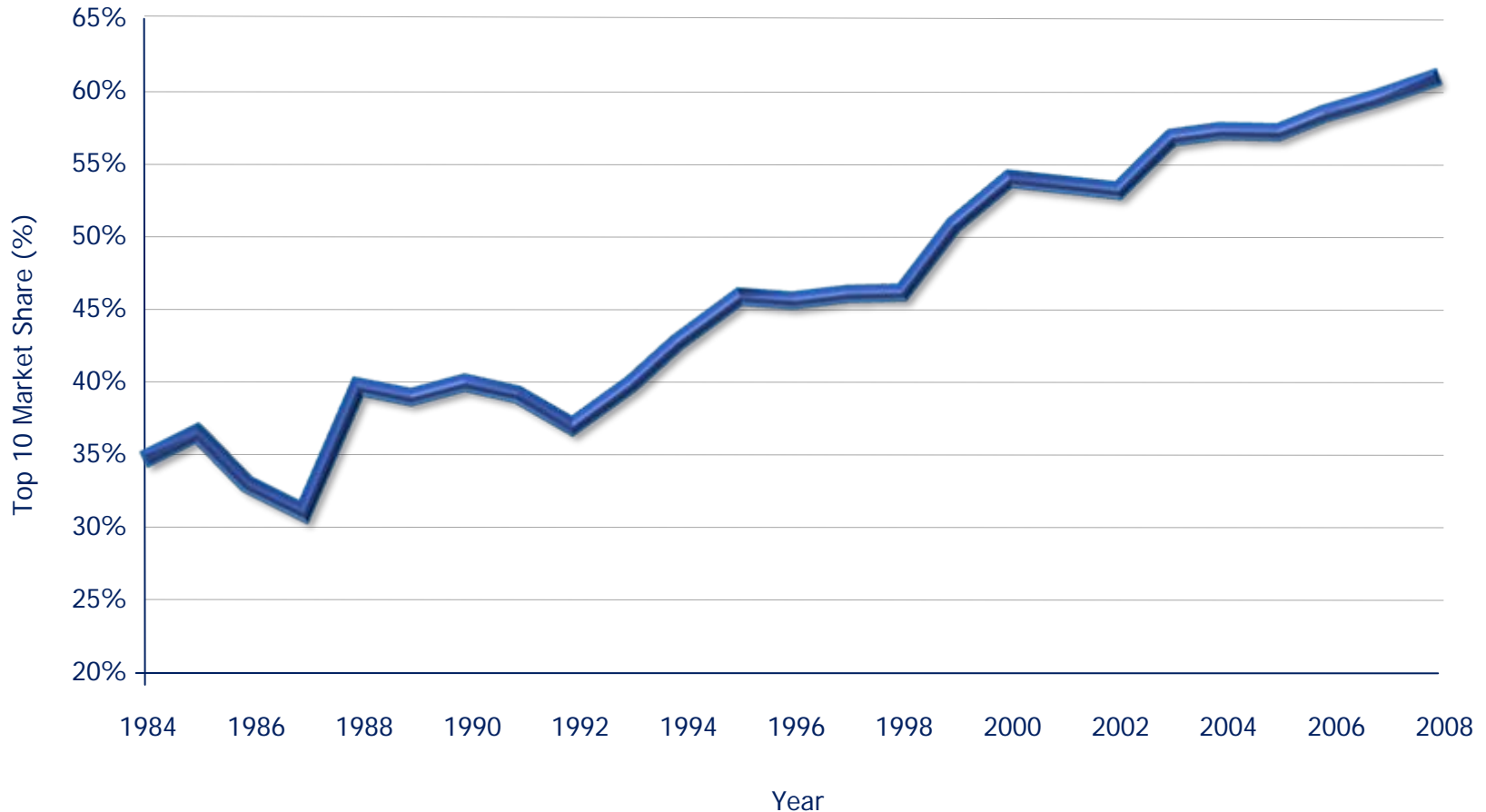
Estimated Global Revenue by Semiconductor Process Node
(Millions of US Dollars)



Source: iSuppli

Equipment Supplier Consolidation

Top 10 Semi Equipment Supplier Market Share
(Top 10 Suppliers each year vs. the total Semi equipment market)



Historical DRAM Producers - 1980

- AMD
- AMI
- AT&T
- Elpida
- Eurotechni
- Fairchild
- Fujitsu
- Hynix
- Hitachi
- IBM
- Infineon
- Intel
- Intersil
- Inmos
- ITT
- LG
- Matsushita
- Micron
- Mitsubishi
- Mosel Vitelic
- Mostek
- Motorola
- Nanya
- National
- NEC
- NMB/PNX
- Oki
- PowerChip
- ProMos
- Samsung
- Sanyo
- SGS
- Sharp
- Signetics
- TSMC
- TI
- Toshiba
- Vanguard
- Winbond
- Zilog
- SMIC

Source: de Dios and Associates

DRAM Producers 1985

- AMD
-
- AT&T
- Elpida
- Eurotechni
-
- Fujitsu
- Hynix
- Hitachi
- IBM
- Infineon
- Intel
-
- Inmos
- ITT
- LG
- Matsushita
- Micron
- Mitsubishi
- Mosel Vitelic
-
- Motorola
- Nanya
- National
- NEC
- Oki
- Powerchip
- ProMos
- Samsung
- Sanyo
-
- Sharp
-
- TSMC
- TI
- Toshiba
- Vanguard
- Winbond
-
-

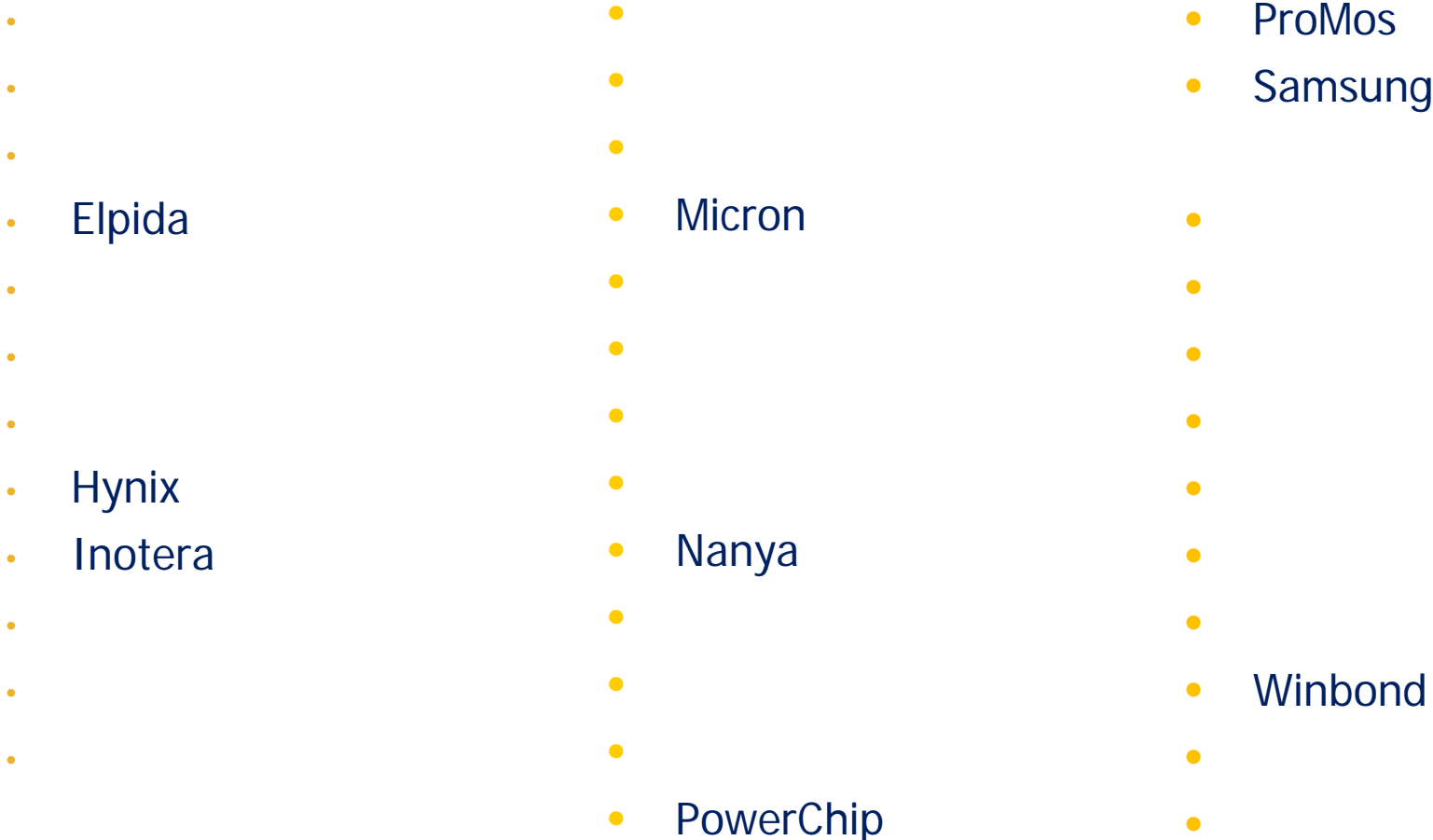
Source: de Dios and Associates

DRAM Producers 1995

-
-
-
- Elpida
-
-
-
- Hynix
- Hitachi
- IBM
- Infineon
-
-
-
-
-
- LG
- Matsushita
- Micron
- Mitsubishi
- Mosel Vitelic
-
- Motorola
- Nanya
-
- NEC
- Oki
- Powerchip
-
- ProMos
- Samsung
- Sanyo
-
- Sharp
-
-
- TI
- Toshiba
- Vanguard
- Winbond
-
-

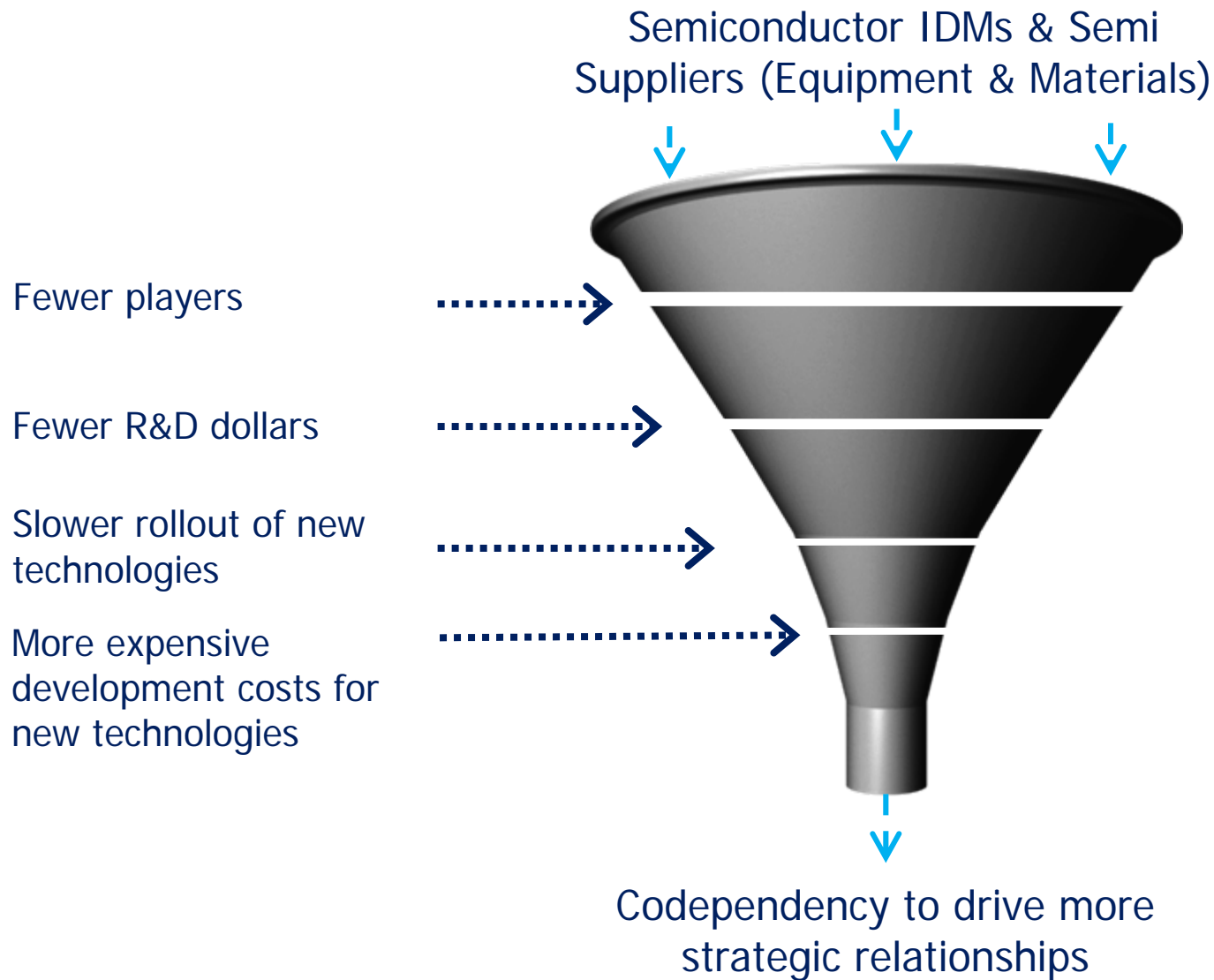
Source: de Dios and Associates

DRAM Producers 2009

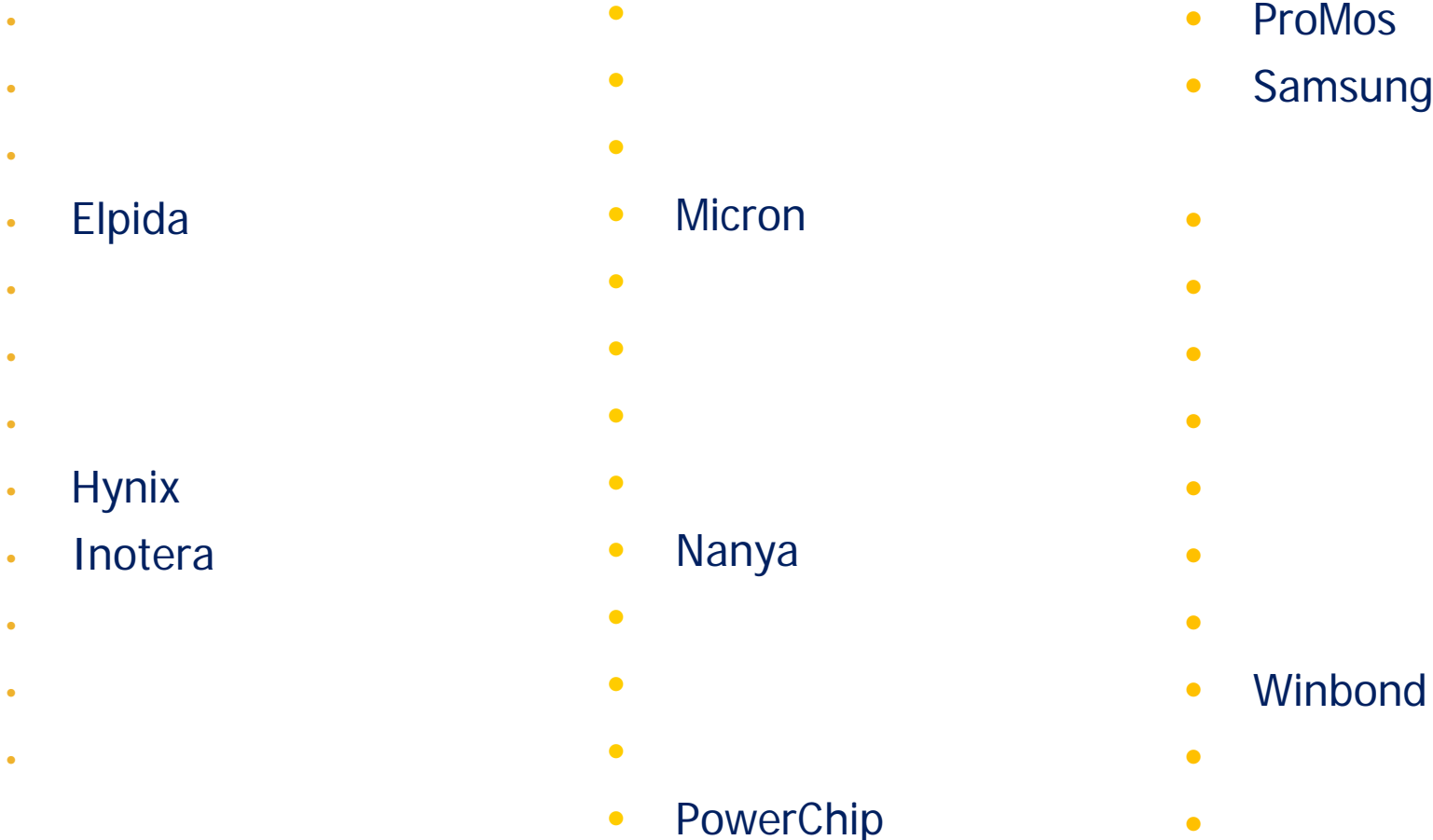


Source: iSuppli

Evolving Landscape for Supplier Based Relationships

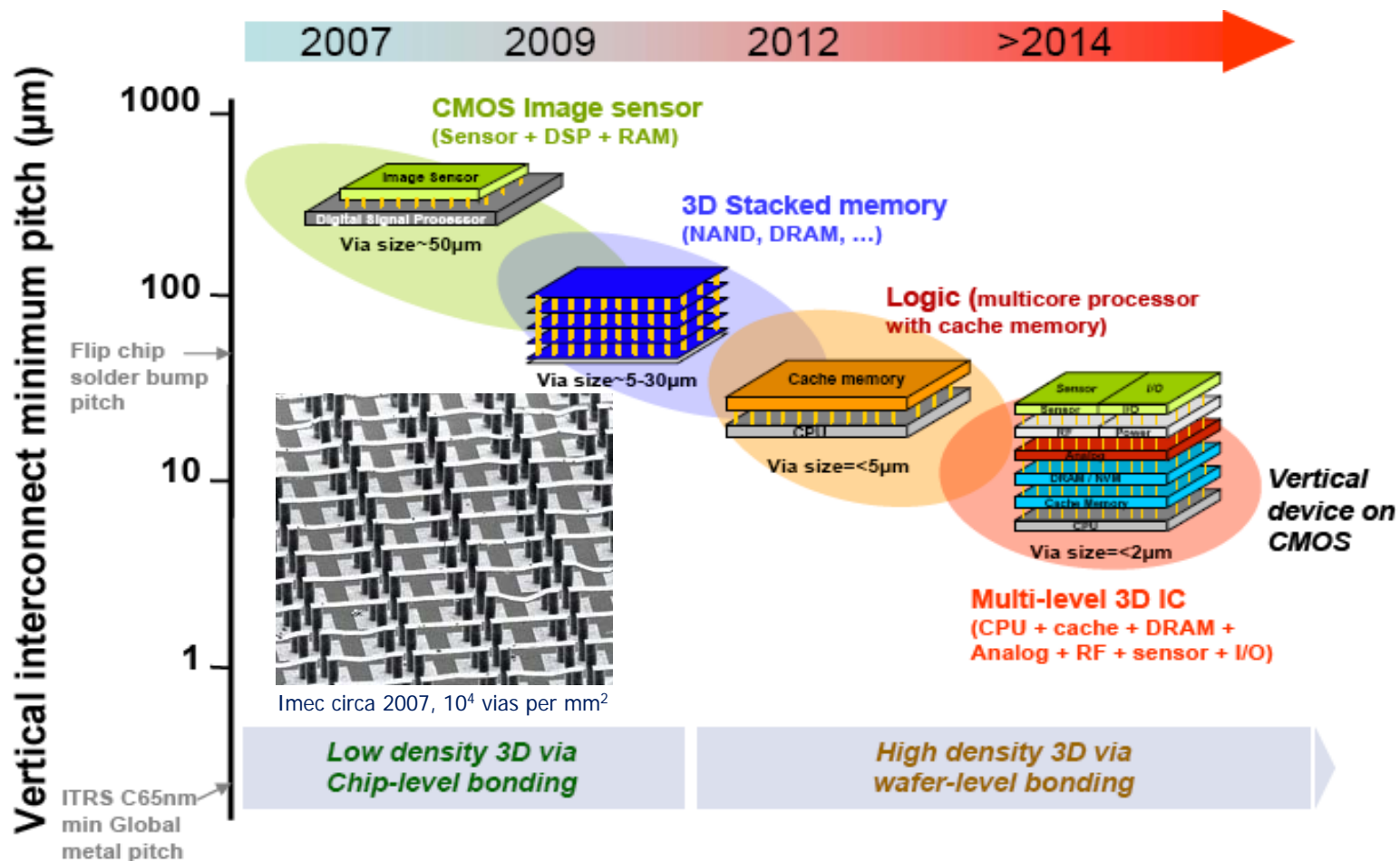


DRAM Producers 2009



Source: iSuppli

Accelerating System Integration



Scannell, EMC 3D 2007

Going Green

Micron's Three Pillars of Energy Management

	Generation	Delivery	Conservation
Key Challenges	<ul style="list-style-type: none">• Supply/demand imbalance (nuclear)• Harmful (coal)	<ul style="list-style-type: none">• Billions of Edison sockets• Power storage• Current solutions are inefficient	<ul style="list-style-type: none">• Power hungry solutions with low performance
Opportunity	<ul style="list-style-type: none">• Semiconductor assets and know how applied to generation opportunities	<ul style="list-style-type: none">• Solid state lighting• Nano-engineered storage materials• Smart Grid control	<ul style="list-style-type: none">• SSD solutions• Aspen "DRAM"• New Memory Hierarchies• Low Power Displays

