

Summary Status of < 120nm and 90nm Nodes

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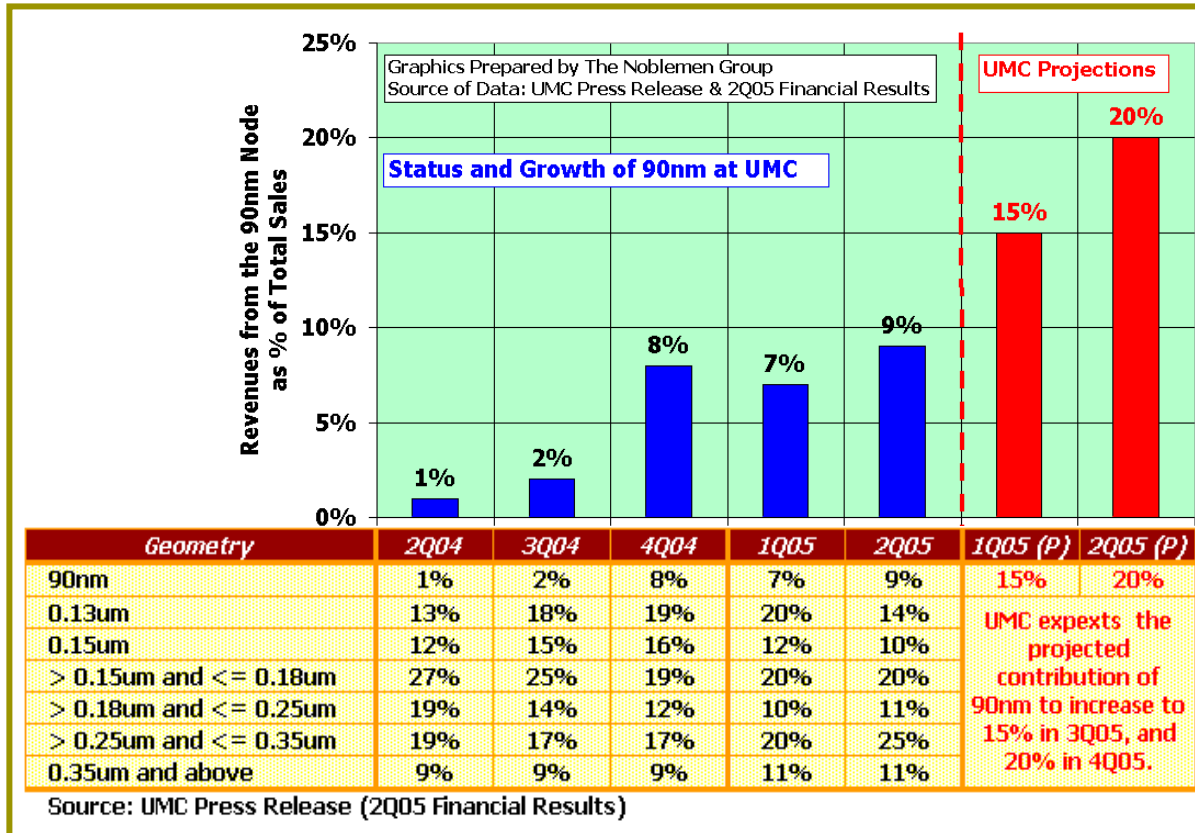
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Status of 90nm Node in Foundries Recent Public Announcements

- **The 90nm production is taking off in leading foundries.**
- **Press Releases Announcing 2Q05 Financial Results (July 2005)**
 - **UMC**: Reported that in 2Q05, the 90nm contribution was 9% of total sales (up from 7% in 1Q05). It expects, this amount to increase to 15% in 3Q05, and 20% in 4Q05.
 - **Chartered**: Expects that in 3Q05, revenues from 90nm to contribute to ~ 24% of its sales.
 - **TSMC**: Expects the 90nm to contribute ~ 10% to its revenues in 3Q05, and over 10% in 4Q05.
- **However, so far, pure play foundries have accounted for a smaller portion of the 90nm starts than IDMs.**
- **A significant portion of the 90nm production is still at IDMs.**

UMC Revenue Breakdown by Geometry



Growth of 90nm is underway and has recently accelerated.

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SICAS Statistics (1Q05)

WSPW = Wafer Starts per Week

■ Reported Total MOS WSPW

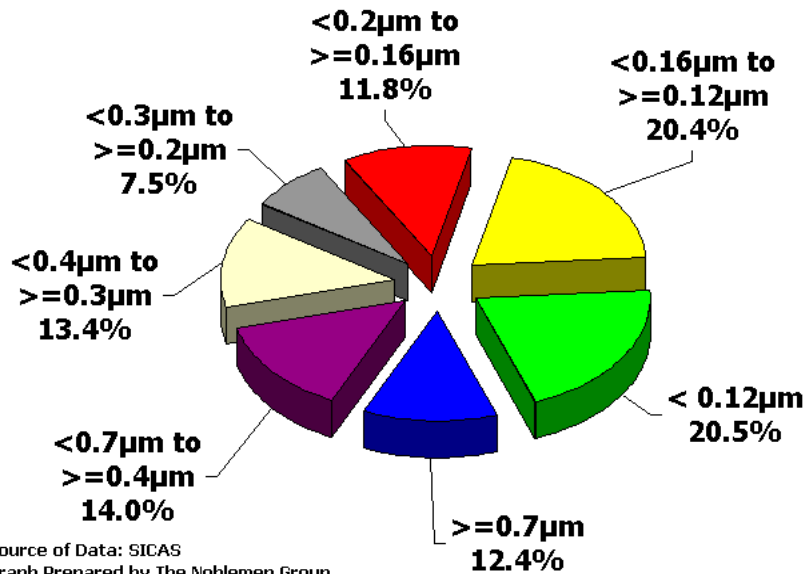
- < 120nm Nodes (WSPW x1000) ~ 277.1 (8" equiv.)
- Total for All Nodes (WSPW x1000) ~ 1,201.6 (8" equiv.)
- < 120nm Nodes as a % of All Nodes ~ 23.1% of Total MOS WSPW

- Also, according to SICAS, WSPW for < 160nm has increased from 31.3% of the total MOS WSPW in 1Q04 to 45.1% in 1Q05. Bulk of this increase can be attributed to the growth in the 90nm node.

MOS Capacity & Actual Starts by Node (1Q05 SICAS Statistics)

% MOS Capacity Wafer-Starts per Week (WSPW) by Node (1Q05)

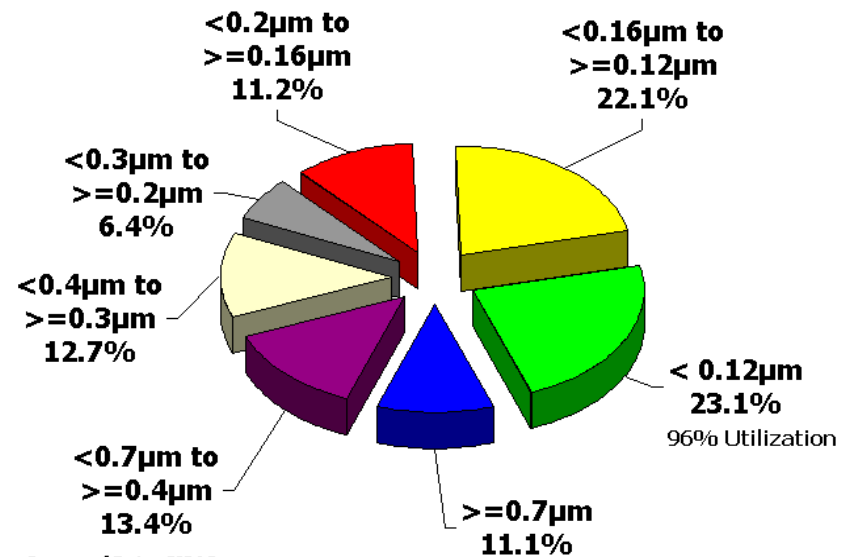
(Total Capacity WSPW: 1403.9 [Wafer-Starts per Week x1000])
(8" Equivalent Wafers)



Source of Data: SICAS
Graph Prepared by The Noblemen Group
August 2005

% Actual MOS Wafer-Starts per Week (WSPW) by Node (1Q05)

(Total Actual WSPW: 1201.6 [Wafer-Starts per Week x1000])
(8" Equivalent Wafers)

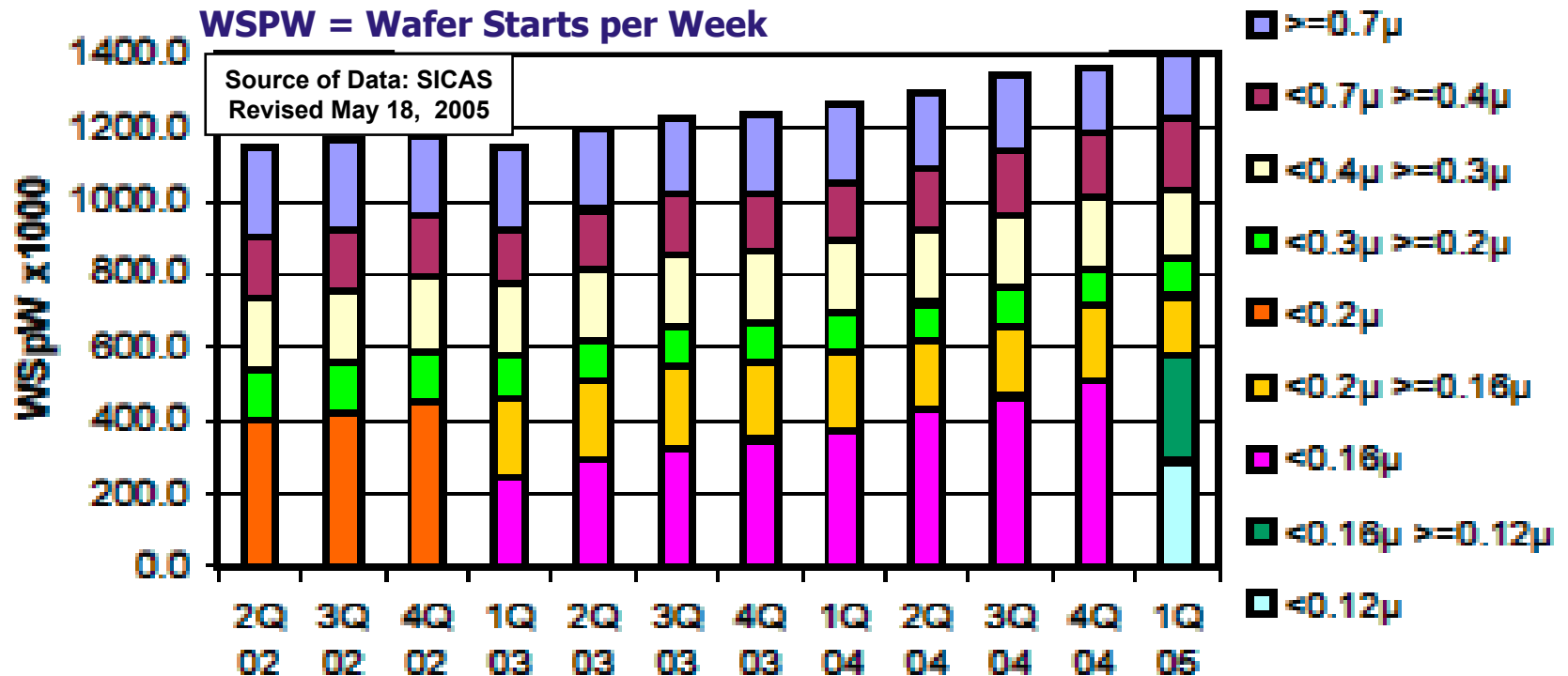


Source of Data: SICAS
Graph Prepared by The Noblemen Group
August 2005

96% Utilization

Weekly wafer starts for < 120nm nodes are well over 20%.

MOS Capacity by Node (SICAS Data: 2Q02 - 1Q05) Average Weekly Wafer Starts -- 8" Equivalent



Weekly wafer starts for < 160nm nodes have been rising.

Status of 90nm

- **The 90nm and below nodes are growing at a much faster pace than last year.**
- **< 120nm nodes account for over 20% of total MOS weekly wafer starts.**
- **It is estimated that 90nm and below nodes to comprise between over 10% to >15% of total MOS wafer starts in the upcoming quarters.**

**Backups Slides on
Semiconductor International
Capacity Statistics (SICAS)**

SEMICONDUCTOR INTERNATIONAL CAPACITY STATISTICS (SICAS)

- **SICAS program provides worldwide statistical data on wafer fab capacity and utilization. It was set up in 1994 by the leading semiconductor industry associations of the world, and is managed by a committee of industry representatives.**

SPONSORING INDUSTRY ASSOCIATIONS

- **EUROPEAN ELECTRONIC COMPONENT MANUFACTURERS ASSOCIATION (EECA-ESIA)**
- **JAPAN ELECTRONICS AND INFORMATION TECHNOLOGY INDUSTRIES ASSOCIATION (JEITA)**
- **KOREA SEMICONDUCTOR INDUSTRY ASSOCIATION (KSIA)**
- **SEMICONDUCTOR INDUSTRY ASSOCIATION (SIA)**
- **TAIWAN SEMICONDUCTOR INDUSTRY ASSOCIATION (TSIA)**

More about SICAS

- **Currently 42 companies are participating in SICAS program. They represent over ~ 75% to 80% of the total worldwide chip sales. The list includes all the top 20 chip suppliers.**
- **SICAS statistics are published quarterly, based on confidential data supplied by participating companies.**
 - **SICAS statistics cover MOS and Bipolar integrated circuit wafer fabs.**
 - **The CMOS statistics are sub-divided into several line-width technologies, different wafer sizes, and foundry / non-foundry.**
 - **No geographical breakdown of the statistics is provided.**
- **Starting in 1Q05, SICAS has begun to provide statistics on technology nodes of < 120nm, as the smallest feature size category.**

PARTICIPATING COMPANIES (Status May 16, 2005)

Grouped according to association membership / region
(* Also participating in the foundry statistics)

From JEITA (13):

- Fujitsu
- Matsushita
- New Japan Radio
- NEC
- OKI
- Renesas
- Ricoh.
- Rohm
- Sanyo
- Seiko Epson
- Sharp
- Sony
- Toshiba

From KSIA (3):

- DongbuAnam *
- Hynix
- Samsung

From SIA (14):

- AMD
- Allegro
- Chartered *
- Fairchild
- Freescale *
- IBM
- Intel
- Intersil
- Jazz *
- LSI Logic
- Micron
- National
- ON
- TI

From China (1):

- CSMC *

From EECA-ESIA (6):

- Austriamicrosystems
- Infineon
- Micronas
- Philips
- Robert Bosch
- STMicroelectronics

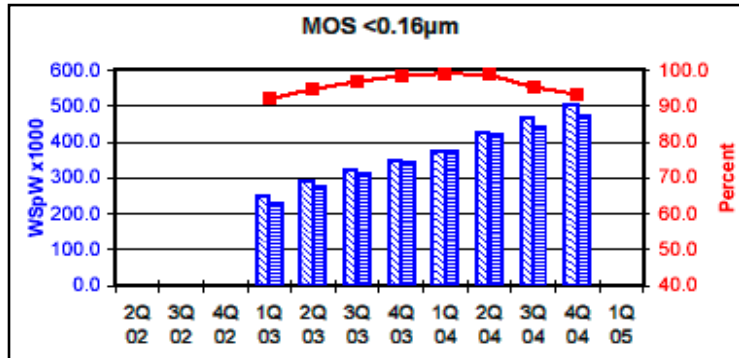
From TSIA (5):

- Macronix
- TSMC *
- UMC *
- Vanguard *
- Winbond

A total of 42 companies representing over ~ 75% to 80% of worldwide semiconductor revenues (both IDM and foundry).

SICAS Statistics

<160nm & <120nm Actual WSPW



All MOS data are expressed in 8 inch equivalent wafers.

WSpW = Wafer-Starts per Week.

Source of Data: SICAS
Revised May 18, 2005

Legends: Capacity WSpW Actual WSpW

Utilisation of capacity in percent

