About Micron

2016 Economic Outlook and Revenue Assessment Committee

Jayson Ronk

State Government Affairs Director

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Micron®

Micron at a Glance

MEMORY MAKES IT POSSIBLE

Founded
October 1978, Boise, Idaho

FY2014 Net Sales
$16.2 billion

NASDAQ Symbol
MU

Employees
~30,000 worldwide

Patents
~26,000

Products and solutions
Automotive Solutions
Client SSD Storage
Data Center
Embedded Memory
Enterprise SSD Storage
Mobile Memory Solutions
Networking Innovations
Supercomputing Memory
Ultrathin Solutions

Markets we serve
Computing
Networking
Server
Cloud / Enterprise
Consumer
Mobile
Automotive
Financial
Oil and Gas
Media
Medical
Government
Telecom Service Providers
Industrial applications

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Corporate Headquarters and R&D Facilities

BOISE, ID

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Micron by the Numbers

37 Years strong in

20+ Countries with **13** Manufacturing and R&D sites,

30,000+ Team members and

Net sales in FY2015 of

$16,100,000,000

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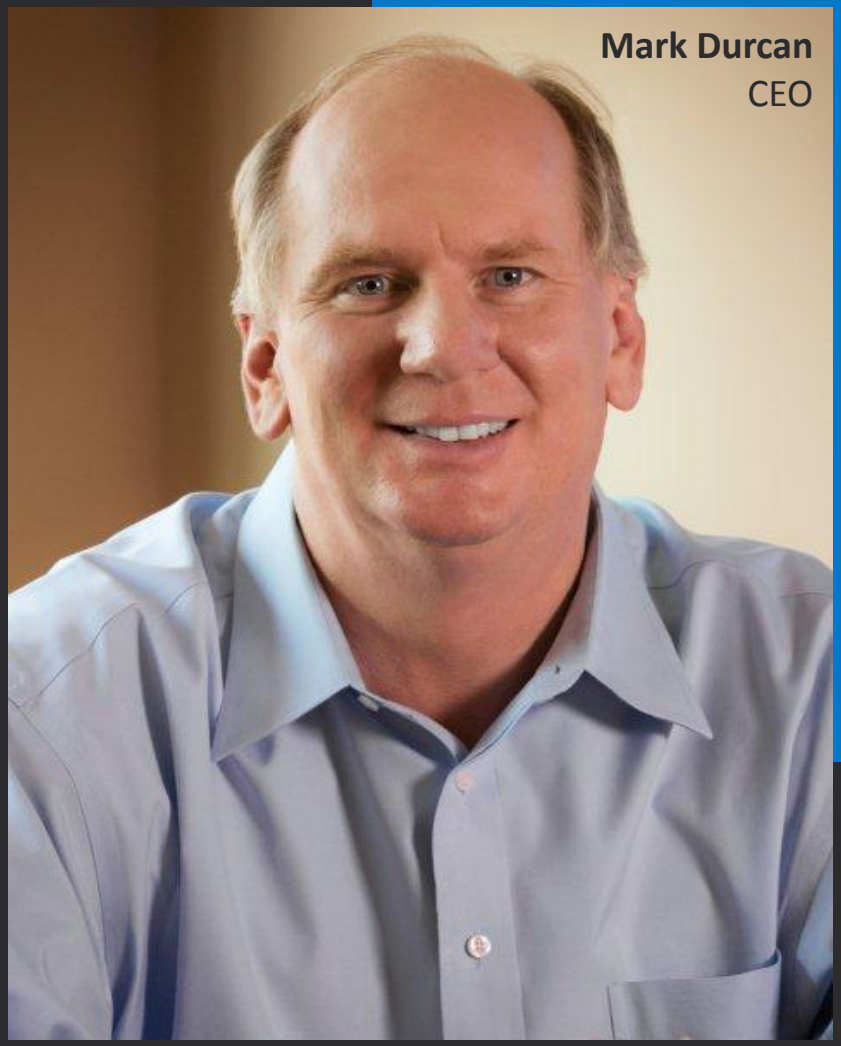
Micron Corporate Leadership



Micron Milestones

- **1978** — Micron Technology Inc. founded
- **1980** — Ground broken on first wafer fabrication plant in Boise
- **1981** — First 64K DRAM product ships
- **1984** — World's smallest 256K DRAM product introduced; Micron publicly traded on Nasdaq
- **1987** — 1-megabit DRAM product introduced
- **1994** — Micron named a Fortune 500 company
- **1996** — Crucial Technology created to market to end users
- **1998** — Acquires Texas Instruments' worldwide memory operations
- **1999** — Micron Foundation established
- **2002** — First 1-gigabit DDR DRAM demonstration; Acquired Toshiba's DRAM operations in Virginia
- **2004** — First 2-gigabit NAND flash product ships
- **2005** — Micron and Intel form NAND joint venture in Flash technology
- **2006** — Acquired Lexar Media
- **2007** — RealSSD family of solid state drivers introduced
- **2008** — Micron, Nanya form DRAM joint venture
- **2010** — Acquired NOR manufacturer Numonyx
- **2011** — Hybrid Memory Cube technology debuts
- **2012** — Exclusive rights to Inotera output acquired
- **2013** — Micron announced development of Automata Processor; Acquires Elpida Memory and Rexchip Electronics
- **2015** — Ground broken on expansion in Singapore; 100K sq ft expansion begins of Boise R&D facility; Revolutionary 3D XPoint technology unveiled

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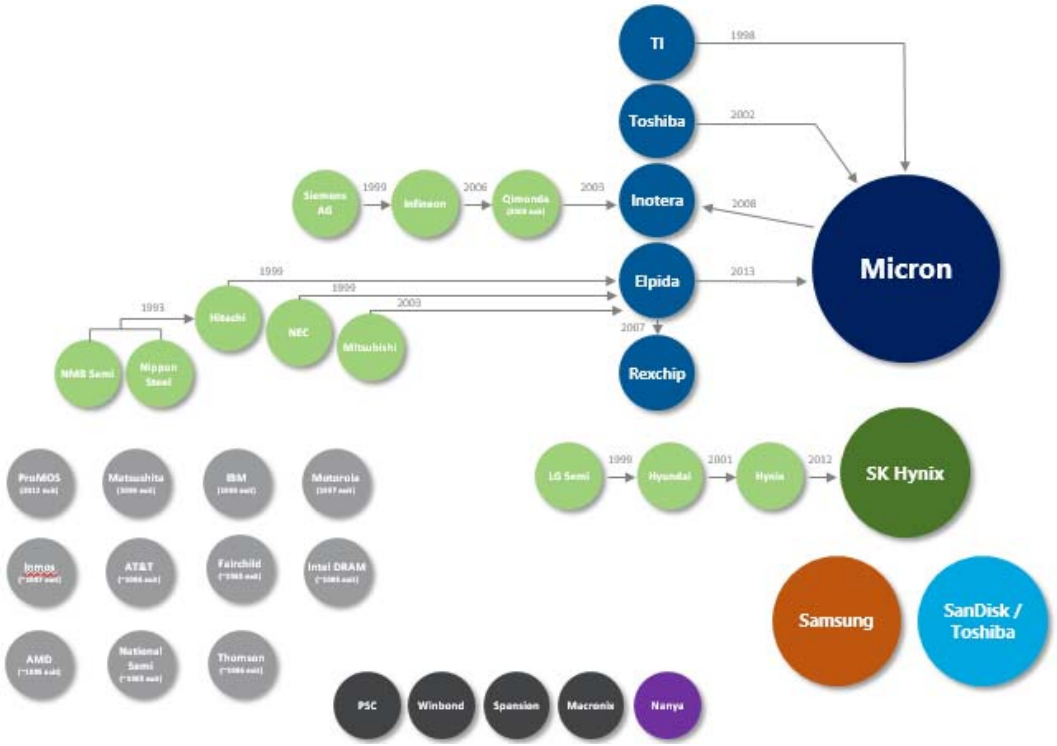
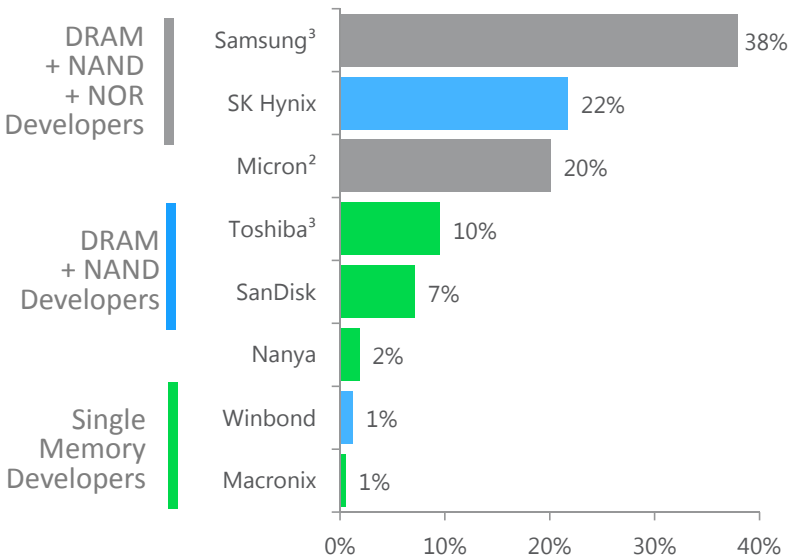
Micron Has Driven Memory Industry Consolidation

Memory Market Consolidation



LTM Memory Revenue (% of Group Total)[1]



Top Five Market Share: 97%

Micron data is FQ1-15 – FQ4-15; Competitor data from CQ4-14 – CQ3-15.
[1]Group total defined as only those companies listed on this page, although others may also exist.
[2]Micron Includes NAND sold to Intel from IM Flash
[3]Samsung and Toshiba include total memory revenue as reported.

Source: Micron and Industry Analysts

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* Total Memory includes DRAM, NAND & NOR

Micron Has Global Manufacturing Scale

1

Boise, Idaho USA

2

Lehi, Utah USA

3

Manassas, VA USA

4

Agrate, Italy

5

Muar, Malaysia

6

Singapore

7

Taiwan (Inotera)

8

Taiwan

9

Xian, China

10

Hiroshima, Japan

11

Akita, Japan

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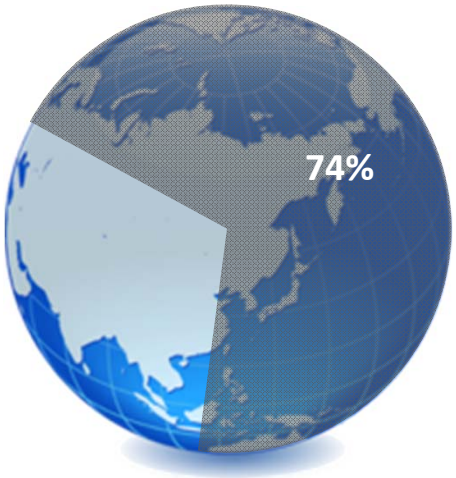
Micron FY15 Revenue % by Geography

Europe

Americas
(including US and others)



Asia
(including China, Japan, Asia Pacific, Malaysia, and Taiwan)

Source: Micron Technology, Inc. 2014 Form 10-K

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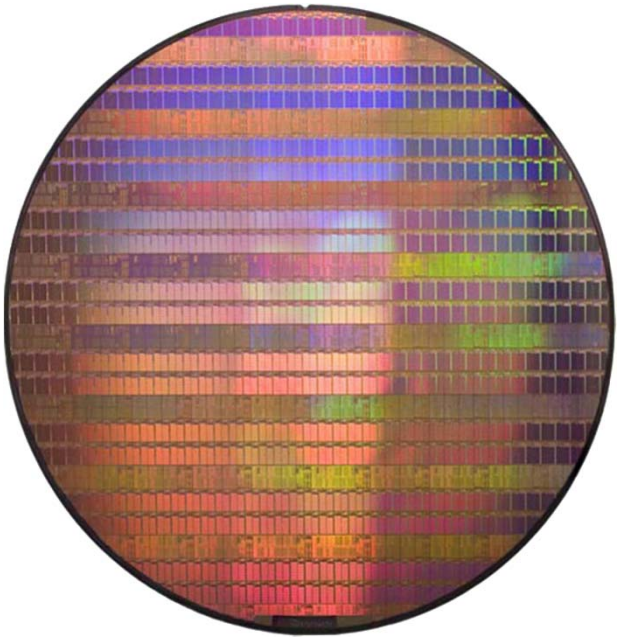
And an expansive product offering

Bare Die
Multiple
Technologies

NAND Flash
TLC, MLC, SLC
Serial NAND
Enterprise NAND
NAND MCP
3D NAND

DRAM Families
SDRAM
DDR
DDR2
DDR3
DDR4
RLDRAM®
Mobile LPDRAM



Solid State Drives
Client SSD
Enterprise SATA
Enterprise SAS
Enterprise PCIe

Managed NAND
MCP
eMMC™
Embedded USB

DRAM Modules
FBDIMM
RDIMM
VLP RDIMM
VLP UDIMM
UDIMM
SODIMM
SORDIMM
Mini-DIMM
VLP Mini-DIMM
LRDIMM
NVDIMM

NOR Flash
Parallel NOR
Serial NOR
NOR MCP

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Leading with new innovations: 3D NAND

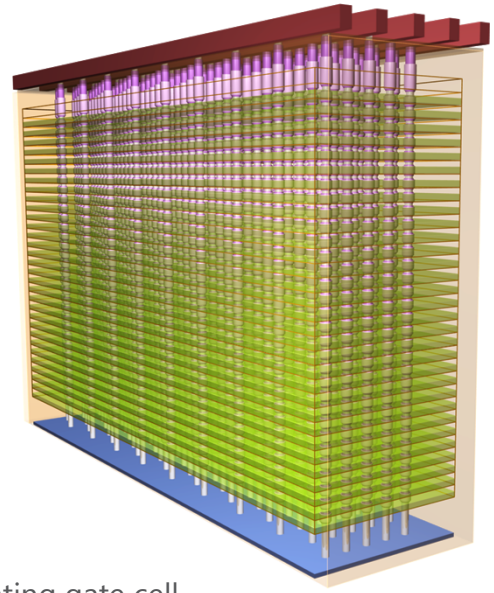
HOW 3D NAND ENABLES INNOVATION

Our 3D NAND solutions bring significant performance, power, and capacity advantages to storage applications

Pack in More Capacity
Get 3 times the capacity of existing NAND products—enough to enable 3.5TB gum stick-sized SSDs or more than 10TB in standard 2.5-inch SSDs.

Boost Performance
Achieve significantly higher read/write bandwidth and I/O speeds, as well as improved random read performance, thanks to our 3D NAND's fast 4K read mode.

Save Power
Reduce power consumption significantly in standby mode thanks to 3D NAND's new sleep mode features that cut power to inactive NAND die (even when other die in the same package are active).



How did we do it?
We're the first to employ floating gate cell technology in 3D NAND—a proven cell technology that enables better performance, quality, and reliability. We stack 32 storage tiers to achieve the highest-capacity NAND die available today: 256Gb multilevel cell (MLC) and 384Gb triple-level cell (TLC) 3D NAND.

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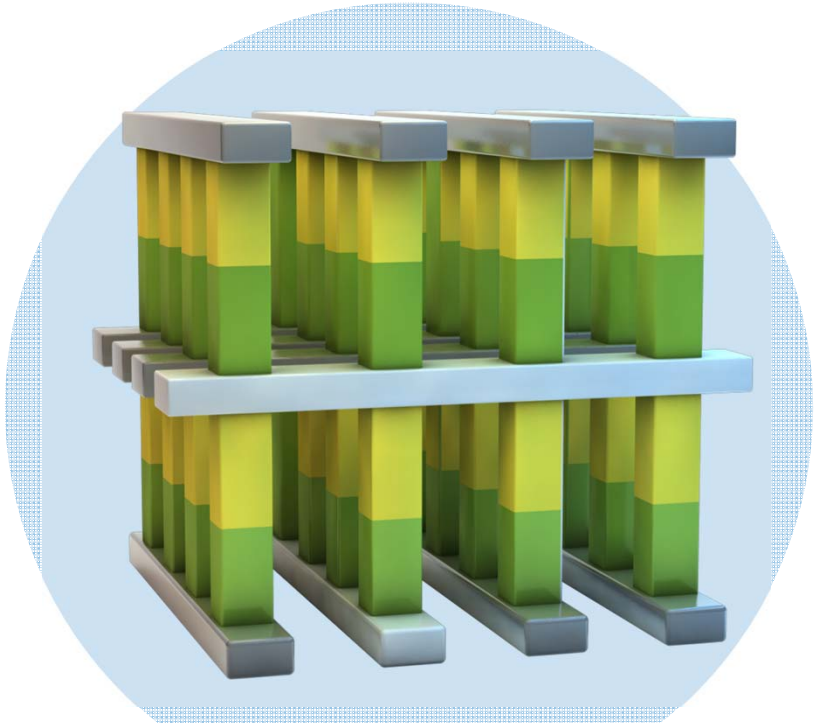
Leading with new innovations: 3D XPoint™ Memory

FIRST NEW MEMORY CATEGORY IN DECADES

- Combining the very best capabilities of existing technologies, 3D XPoint has the potential to dramatically transform computing architectures



1000X
FASTER
THAN NAND

1000X
ENDURANCE
OF NAND

10X
DENSER
THAN CONVENTIONAL MEMORY

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We breed award-winning innovation

Inducted to Idaho Technology Council Hall of Fame - 2015

TechInsights Most Innovative Memory Device and Semiconductor of the Year - 2014

Ranked No. 1 on Top 50 Employers in Electronic Design magazine - 2015

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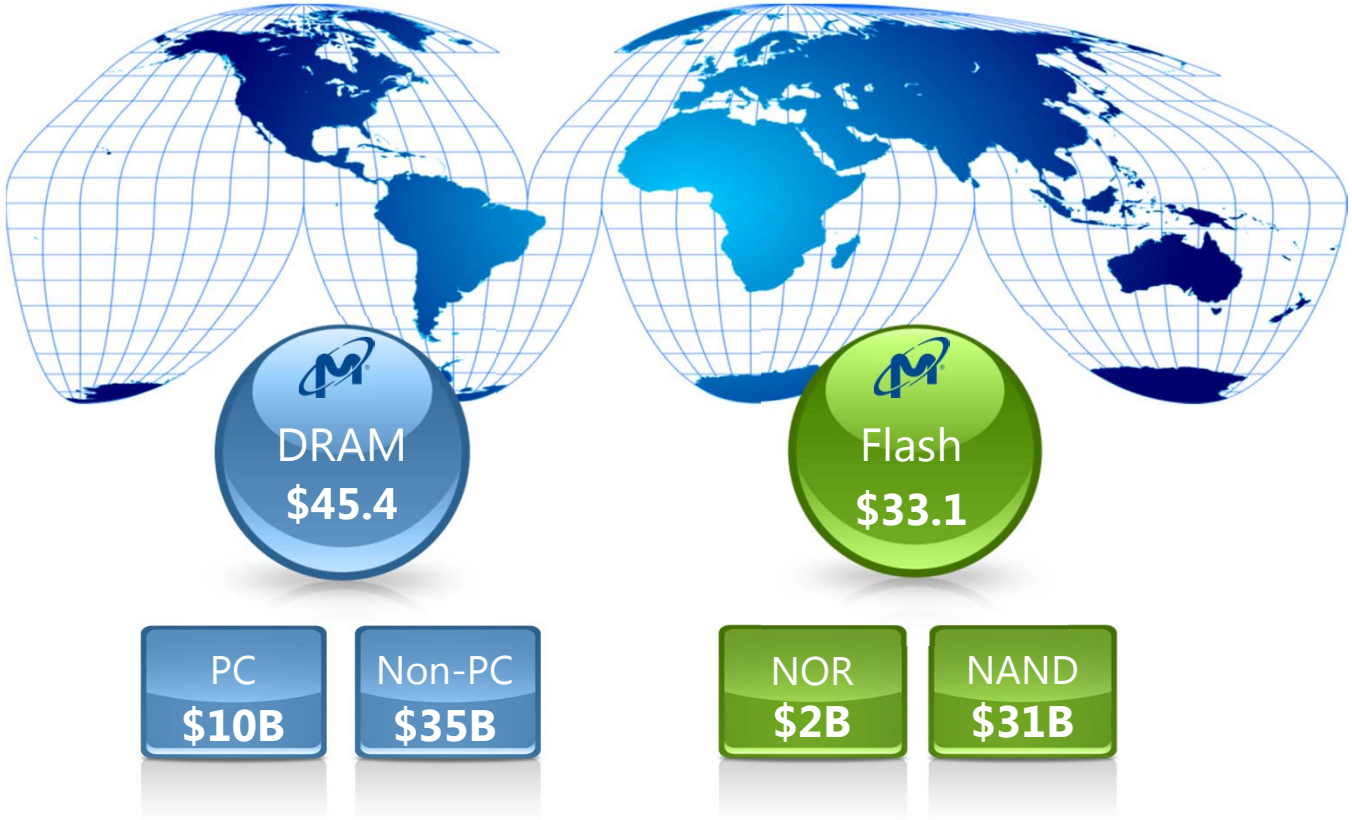
2015 Semiconductor Market Forecast



Worldwide semiconductor market
$338B

Source: Gartner 3Q15

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Five Big Technology Trends

Networking

Machine To Machine

Mobile

Cloud

Big Data

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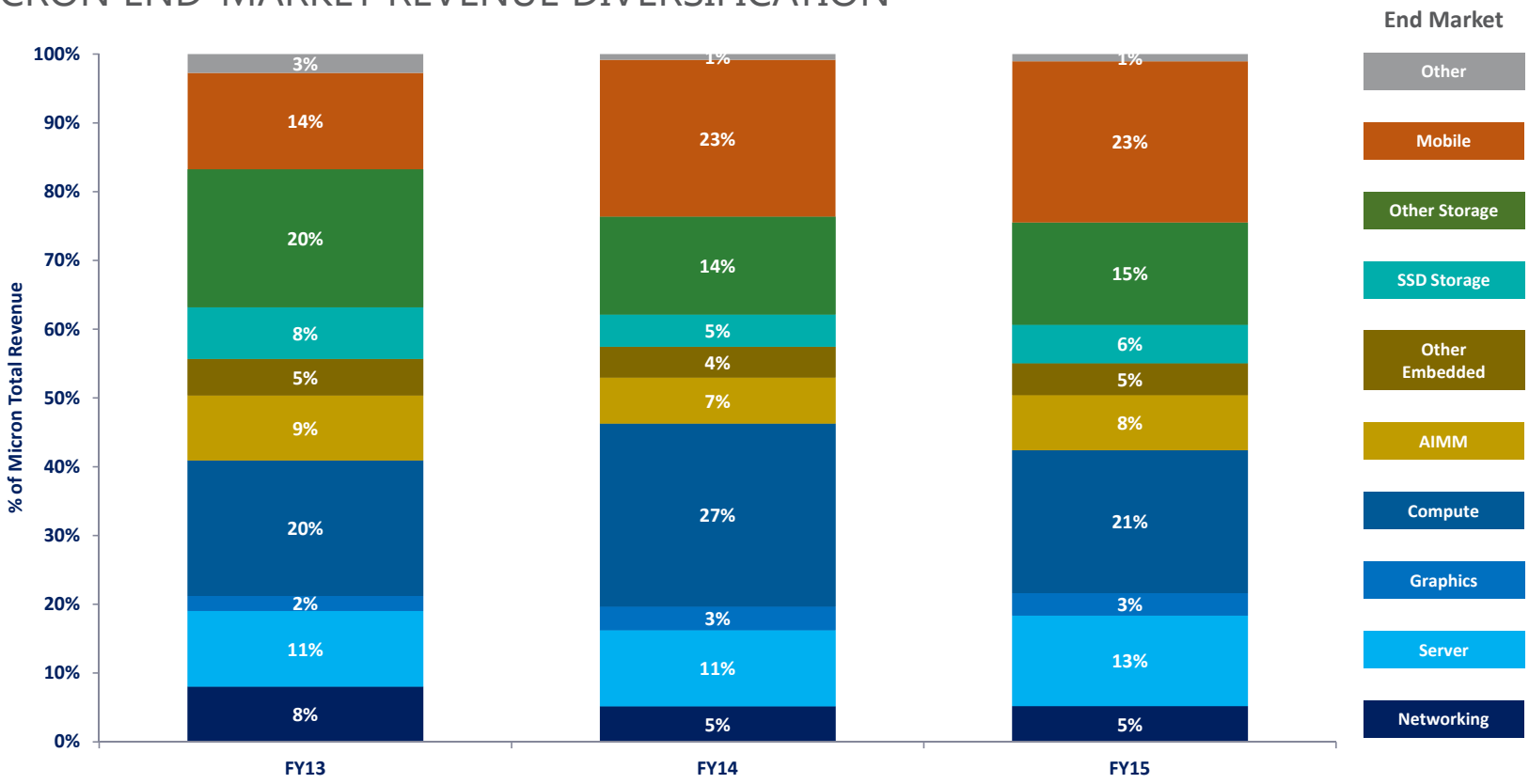
We Serve Diverse End Markets

MICRON END-MARKET REVENUE DIVERSIFICATION



Source: Micron

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Micron's Portfolio, Solutions, and Customer Engagement

Innovative Technology → **Solutions and Products** → **Business Units and Sales** → **Diverse Customers**

- DRAM

1Xnm DRAM

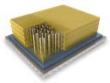
- NAND

3D NAND

- Emerging Memory

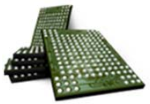
3D XPoint™

- Packaging



Through Silicon Via (TSV)

Server DRAM Modules



Mobile DRAM/NAND Packages

Enterprise PCIe SSD

High Performance DRAM Modules

Client/PC SSD

Flash Cards and USB Drives

Low Power DRAM

CNBU
Compute & Networking Business Unit

EBU
Embedded Business Unit

MBU
Mobile Business Unit

SBU
Storage Business Unit

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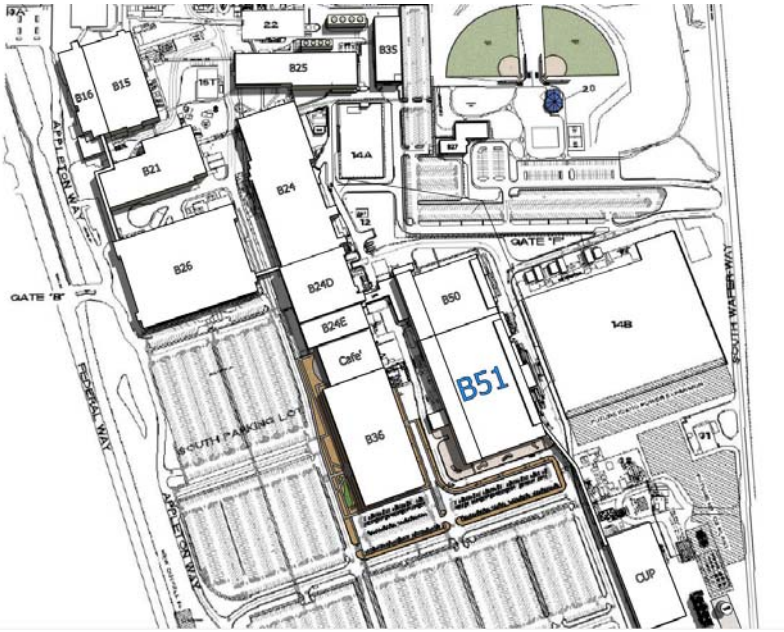
Continuing to Invest in Idaho

$200M Expansion of R&D Facility



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Continuing to Invest in Idaho

$25M Micron Foundation gift to create new Materials Research Center

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