Technology and Manufacturing: an Intel Advantage

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Today's presentation contains forward-looking statements. All statements made that are not historical facts are subject to a number of risks and uncertainties, and actual results may differ materially. Please refer to our most recent Earnings Release and our most recent Form 10-Q or 10-K filing for more information on the risk factors that could cause actual results to differ.

Our Core Assets Are
Increasingly Valuable

- ✓ Silicon Process Technology
- ✓ Intel Architecture based Platforms
- ✓ Market Creation
  (Capacity, Scale, Diffusion)

Source: Paul Otellini, Spring Analyst Meeting 2007

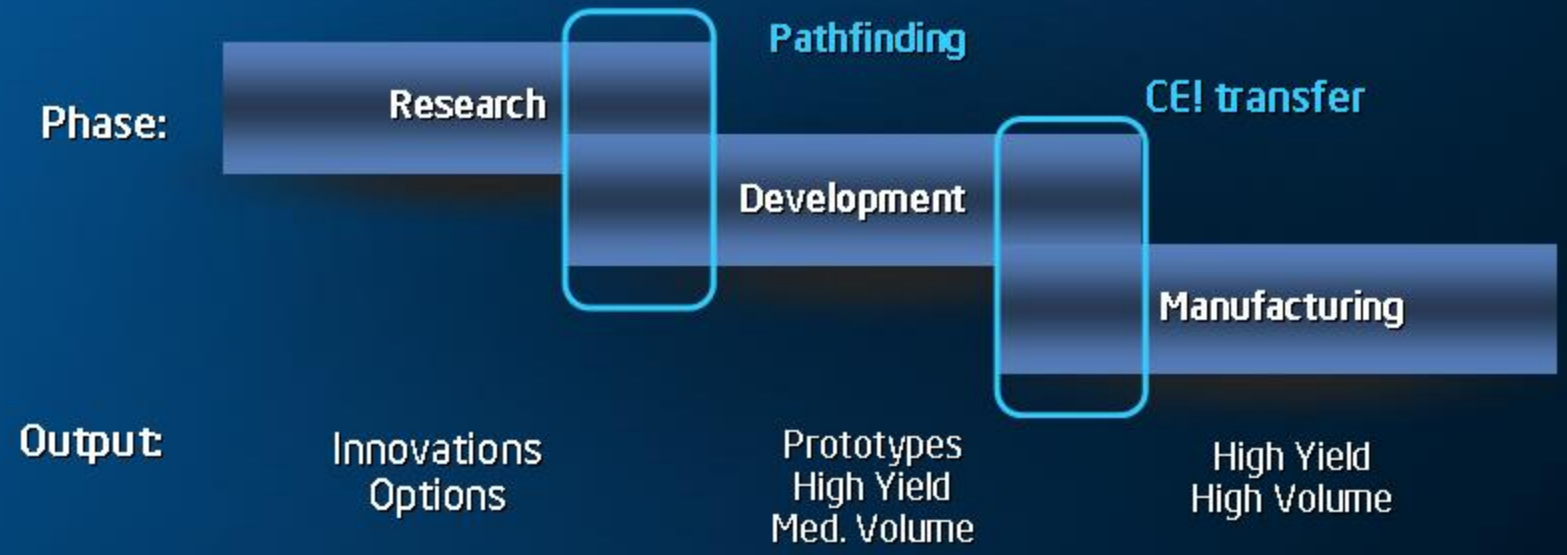
Technology and Manufacturing: An Intel Advantage

- Technology innovation is the driver
- 65nm and manufacturing excellence
- 45nm and industry leadership

We Have a Well-Honed, *Unique* R-D-M Method

Traditional R-D-M Method:

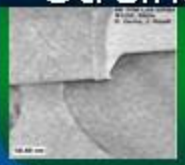
Intel's R-D-M Method:



R&D System Delivers World-Class Results

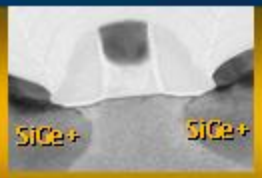
1997 1999 2001 2003 2005 2007 Forecast

Strained silicon



Development '01-'02

Production '03



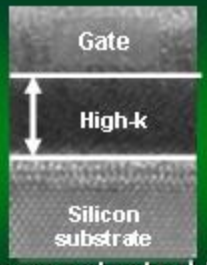
Production '05

High-k metal gate

Research: Materials & ALD '96 - '99

Materials selected 2000

Metal gates research 2001



Demonstrated '03

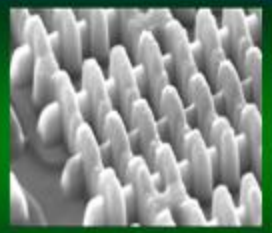
Development '05-'06

Prod. '07

Tri-gate transistor

Research

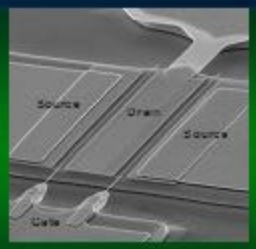
Demonstrated '02



Strain+ high k+ tri-gate '06

III-V

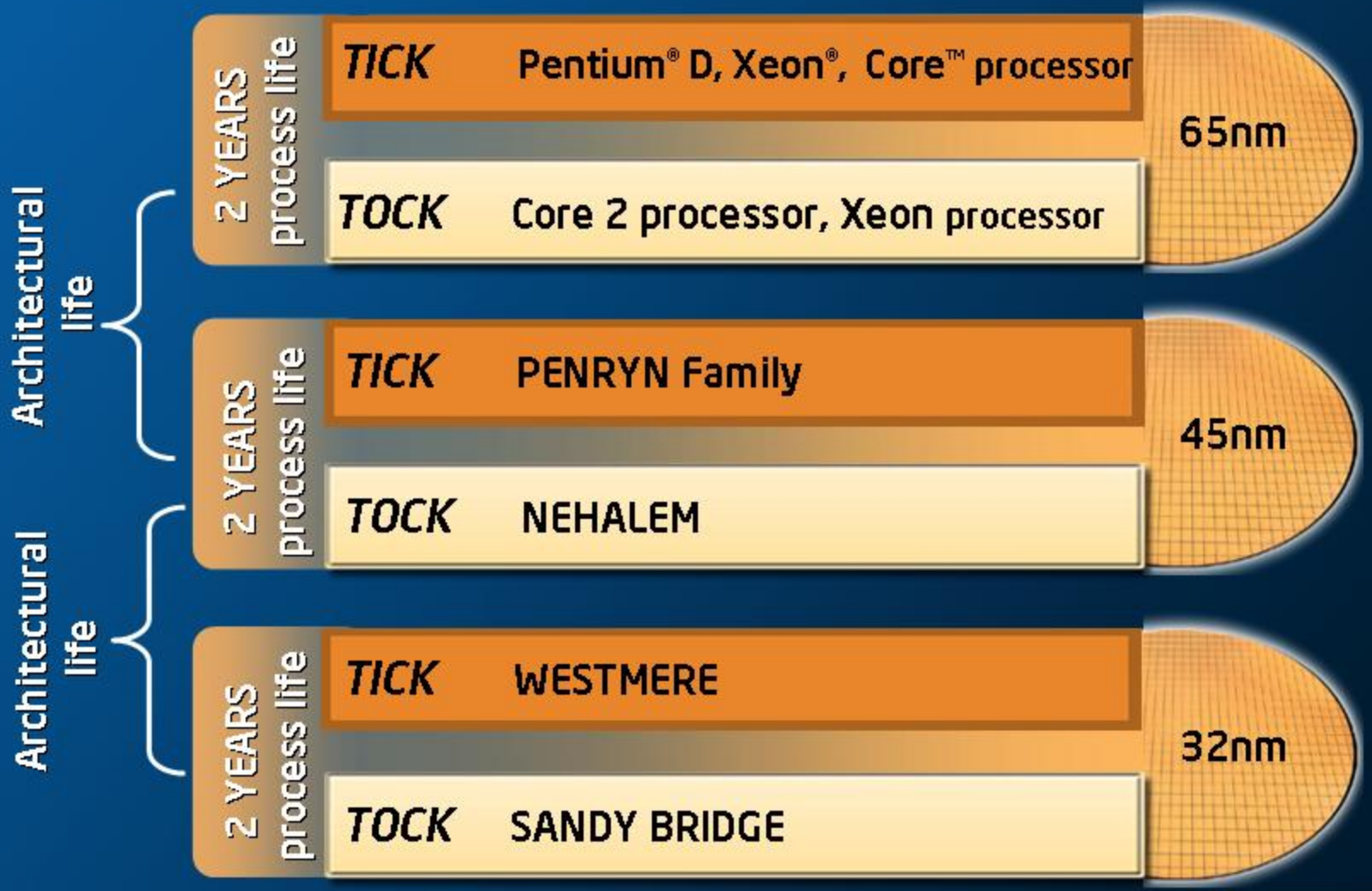
Collaborative Research



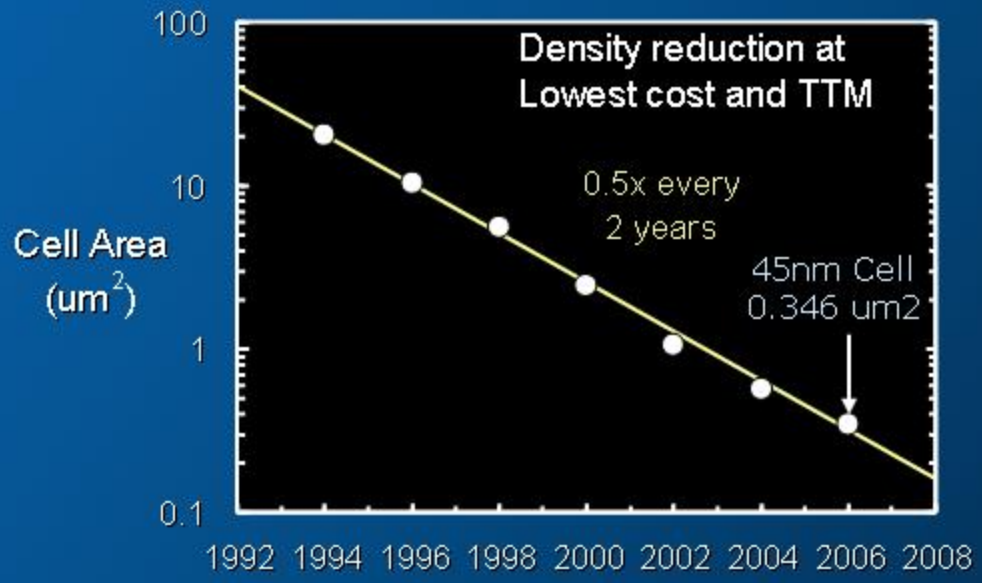
Demonstrated 2005

... and the pipeline is full

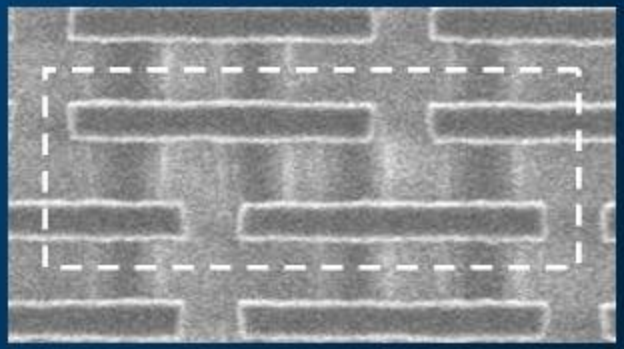
Alternating Process and Product Introductions for Sustained Leadership



Development with a Cost Focus: Dry 193 lithography for 45nm

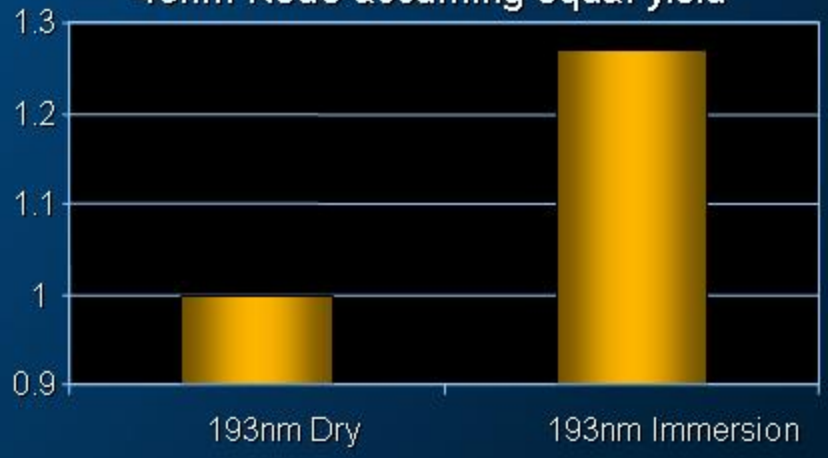


SRAM - Functional silicon in Jan '06

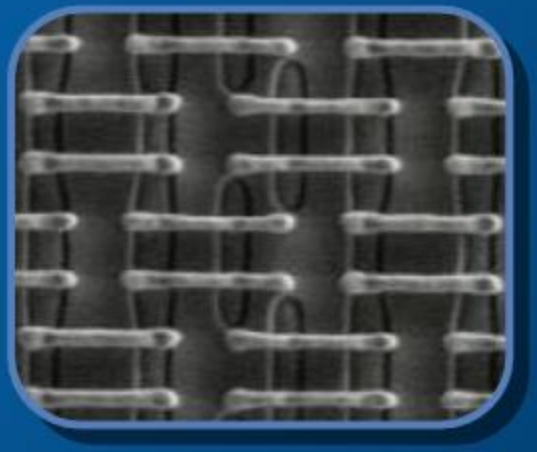


Exceptional Gate control enabled by Intel's DFM (design for manufacturability)

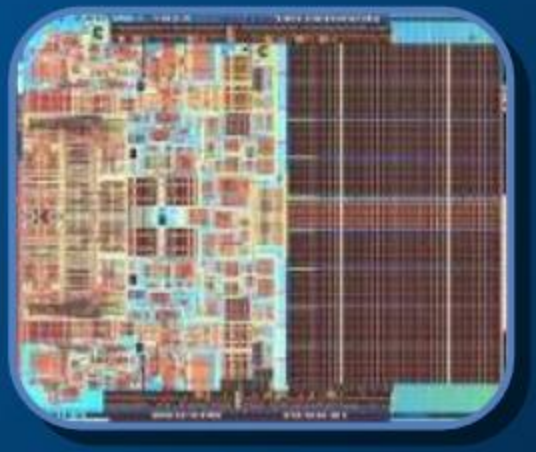
Critical Layer Lithography Cost Comparison
45nm Node assuming equal yield



Complete Internal Capabilities Enable Practical DFM that delivers real benefits

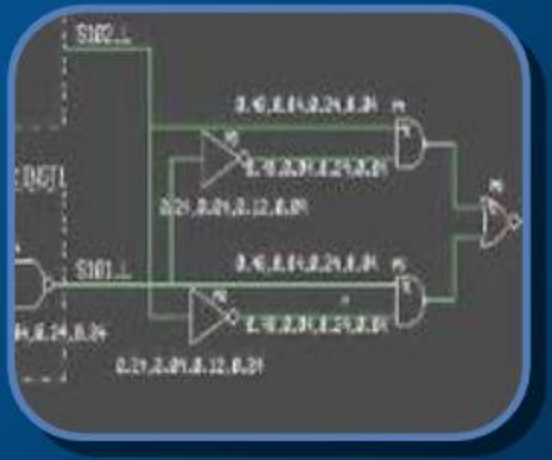


Process



Product

Leading-edge Capacity



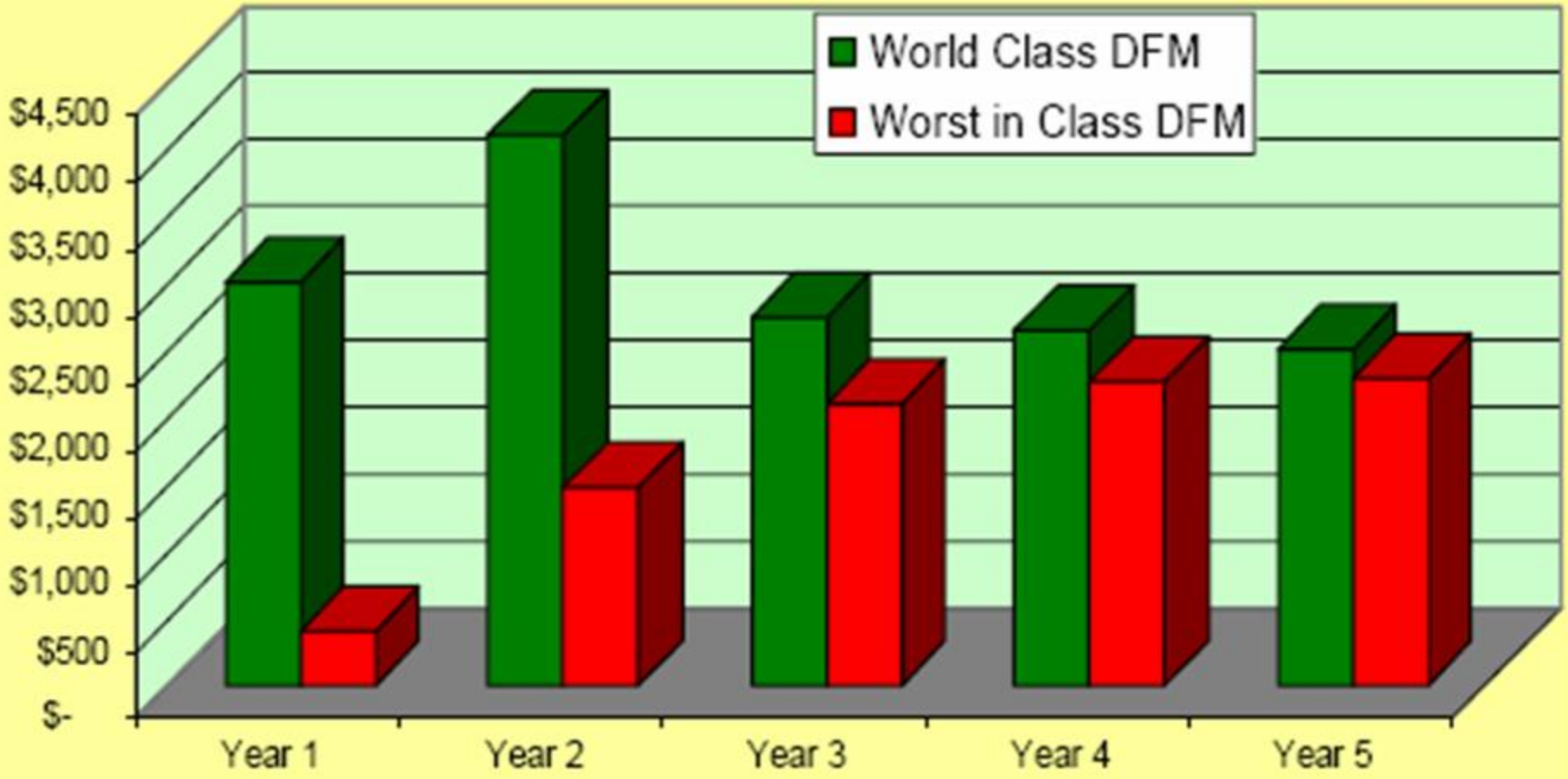
Design Tools

Masks

Packaging

How DFM Can Affect Annual Revenue

(from a 300mm fab in $M)

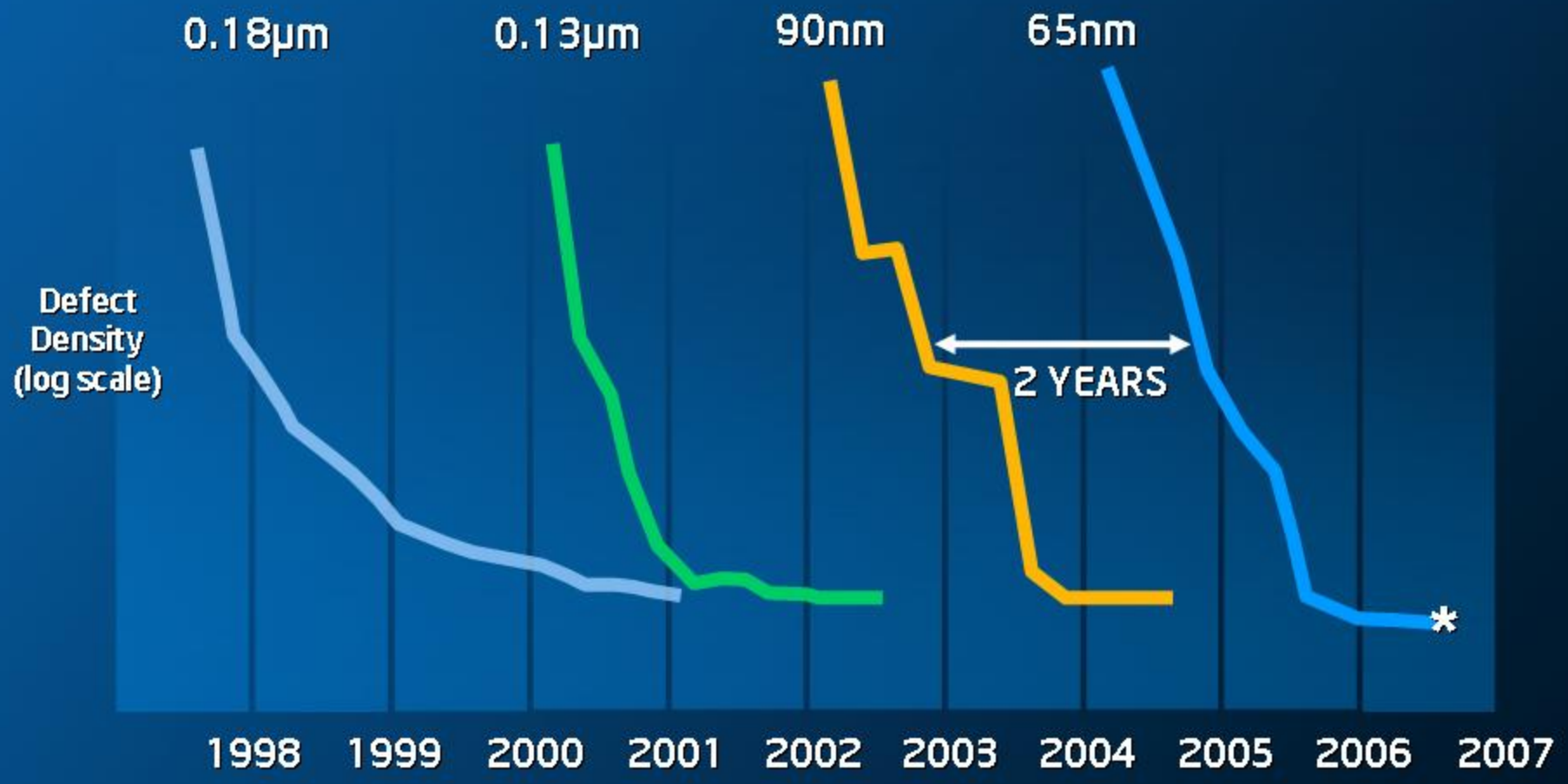


Source: VLSI Research, January '07
Used with permission

Technology and Manufacturing: An Intel Advantage

- Technology innovation is the driver
- 65nm and manufacturing excellence
  - Leading on Multiple measures
- 45nm and industry leadership

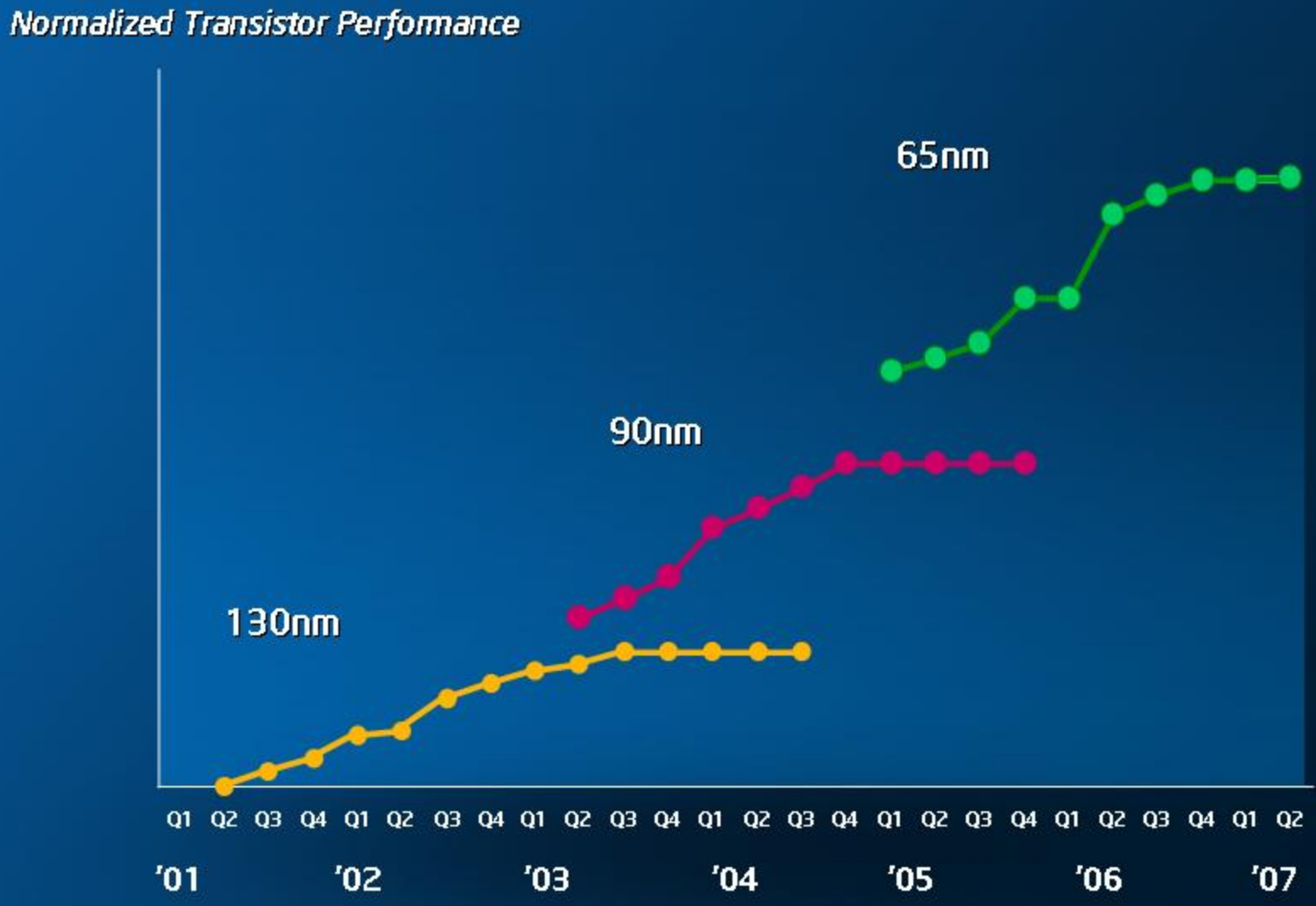
Yields are a Key Measure of Manufacturing Excellence



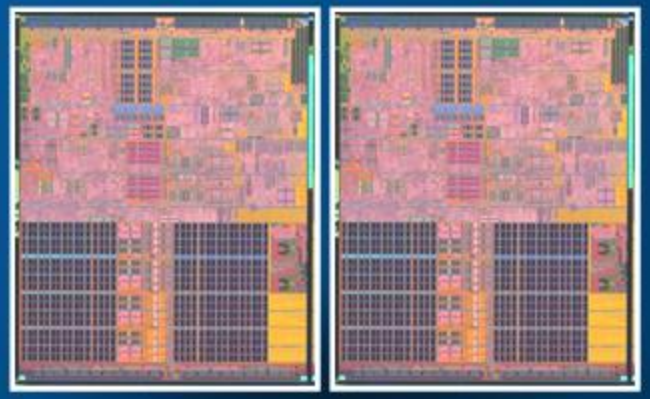
R-D-M Pipeline Benefit - better yields, faster ramps, lower costs

* 65nm CPU Shipment Crossover

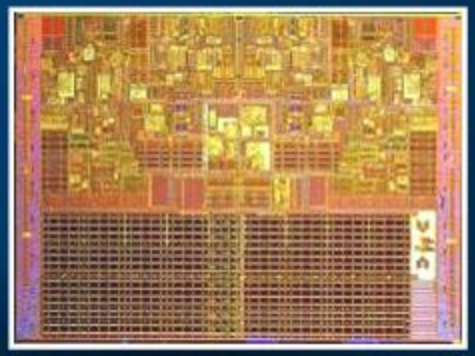
Continuous Improvement Is Nothing New



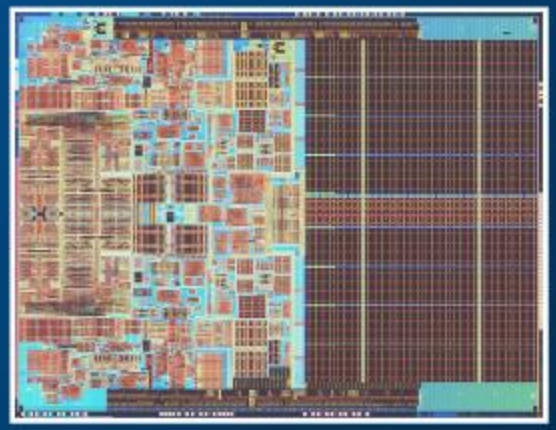
120M 65 nm CPUs Shipped through April '07



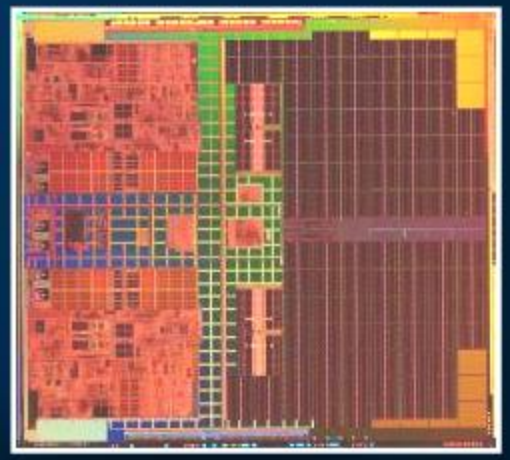
Intel Pentium® D Processor
Q4'05



Intel Core™ Duo Processor
Q4'05



Intel Core™2 Duo Processor
Q2'06



Intel Dual-Core Xeon® 7100
Processor, Q3'06

*Die not to scale

Technology and Manufacturing: An Intel Advantage

- Technology innovation is the driver
- 65nm and manufacturing excellence
- 45nm and industry leadership
  - Optimized for performance and cost

Extending the Lead at 45nm Technology with High-k/ Metal Gate Transistors

~2x improvement in transistor density –
for either smaller chip size or increased transistor count

>20% improvement in transistor switching speed

or

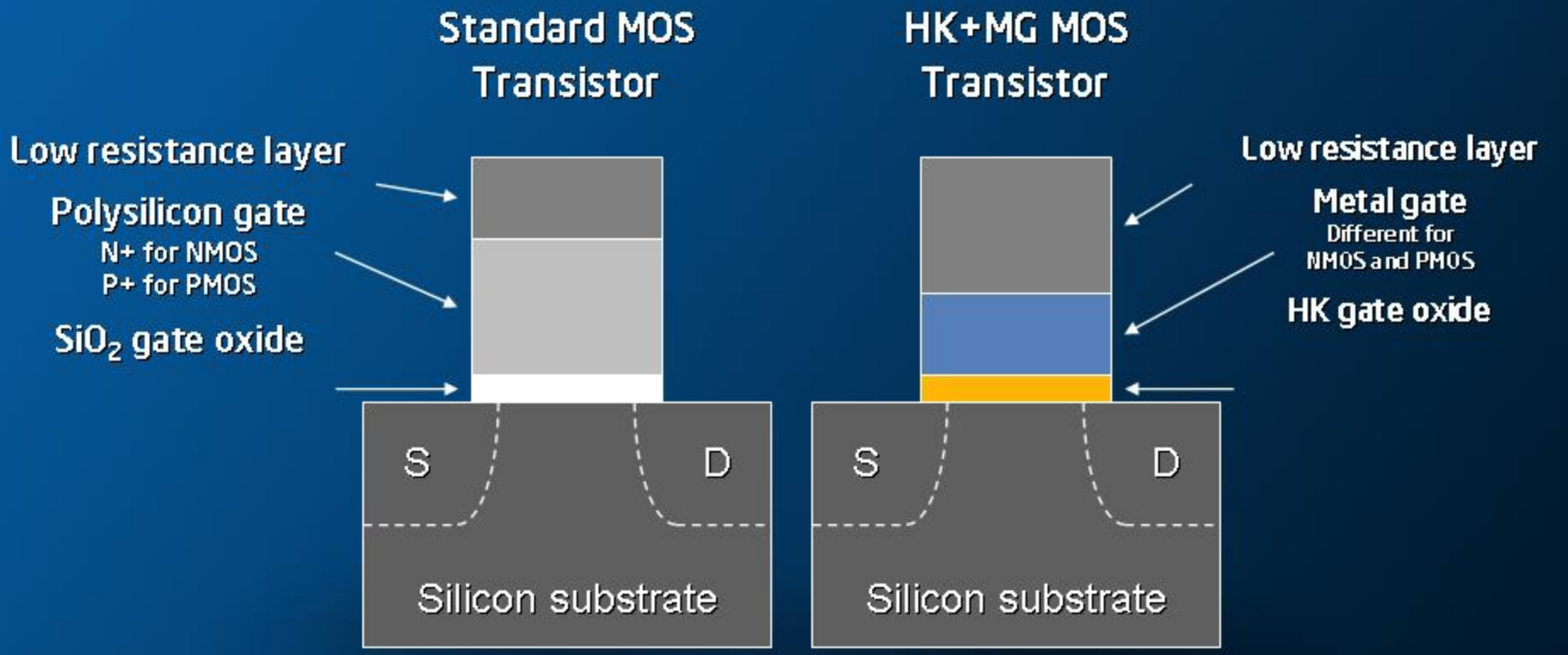
>5x reduction in source-drain leakage power

>10x reduction in gate oxide leakage power

>30% reduction in transistor switching power

Benefits of Intel's 45nm technology compared to 65 nm technology

High-k + Metal Gate: The Biggest Change in Transistors in 40 Years



High-k + metal gate enables continuation of transistor scaling

High-k + Metal Gate Delivers True Performance per Watt Improvement

#1: Power Reduction
(energy efficient computing)

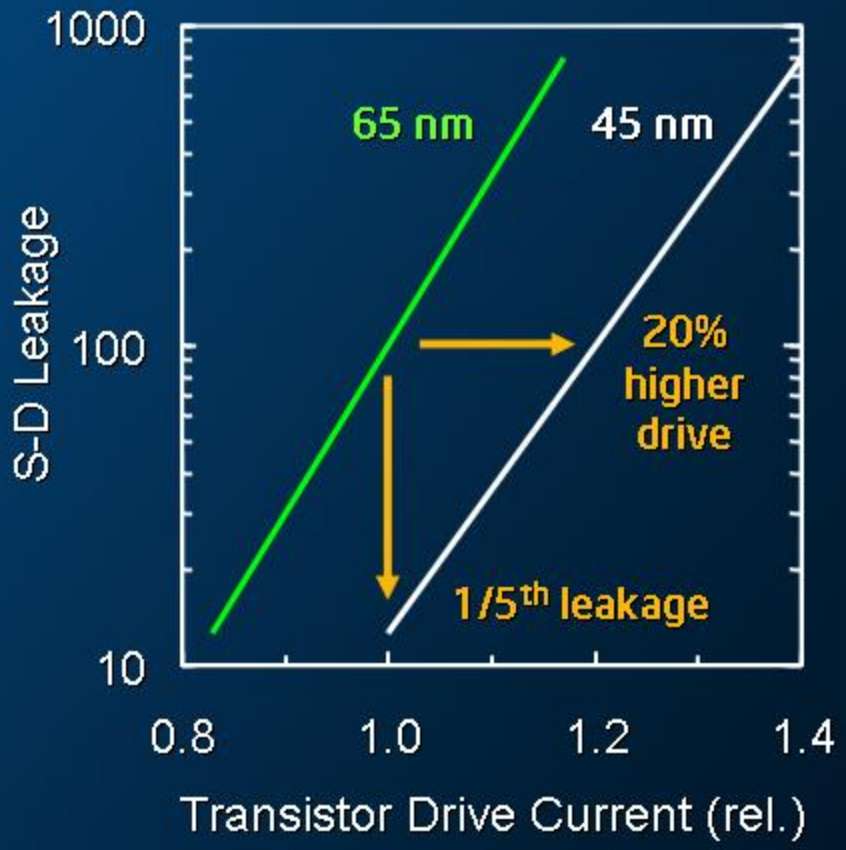
- 1/10th gate oxide leakage
- 1/5th S-D leakage

#2: Performance Increase

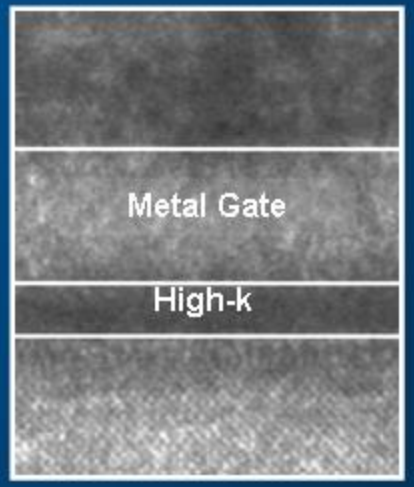
- 20% higher drive current

#3: Scaling

- Higher drive allows scaled transistor width

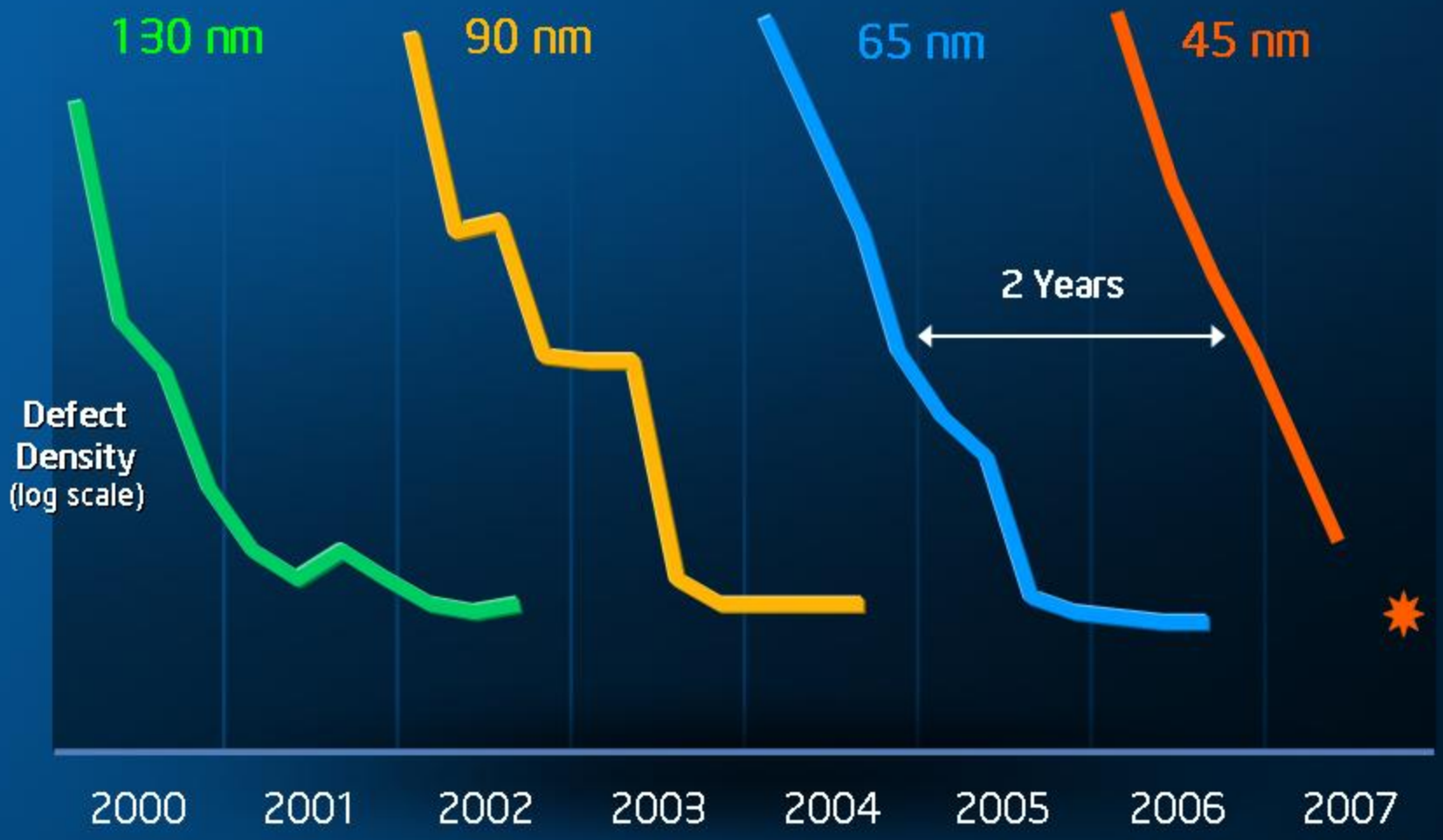


… And a Bargain at That



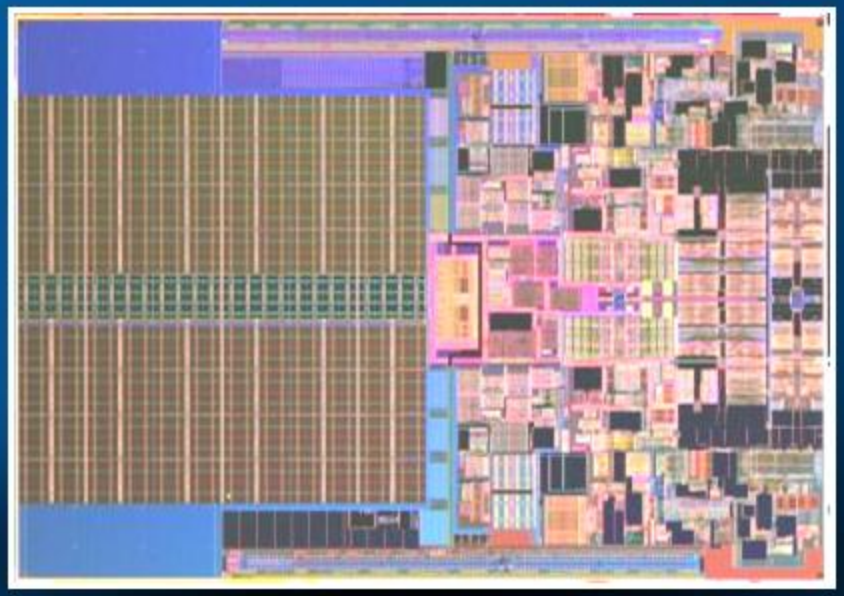
- HK+MG adds ~4% to processed wafer cost
- About same cost as a metal + via layer
- Less than 1/3 the cost adder of SOI wafers

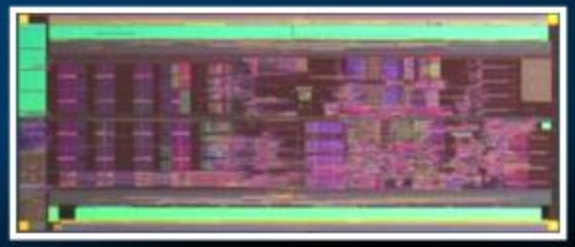
Yield on Track for 45nm Production



Source: Intel Internal

World's First Working 45 nm CPUs





Penryn

45 nm Intel® Core™2 family processor

Mobile, desktop, workstation, and server applications

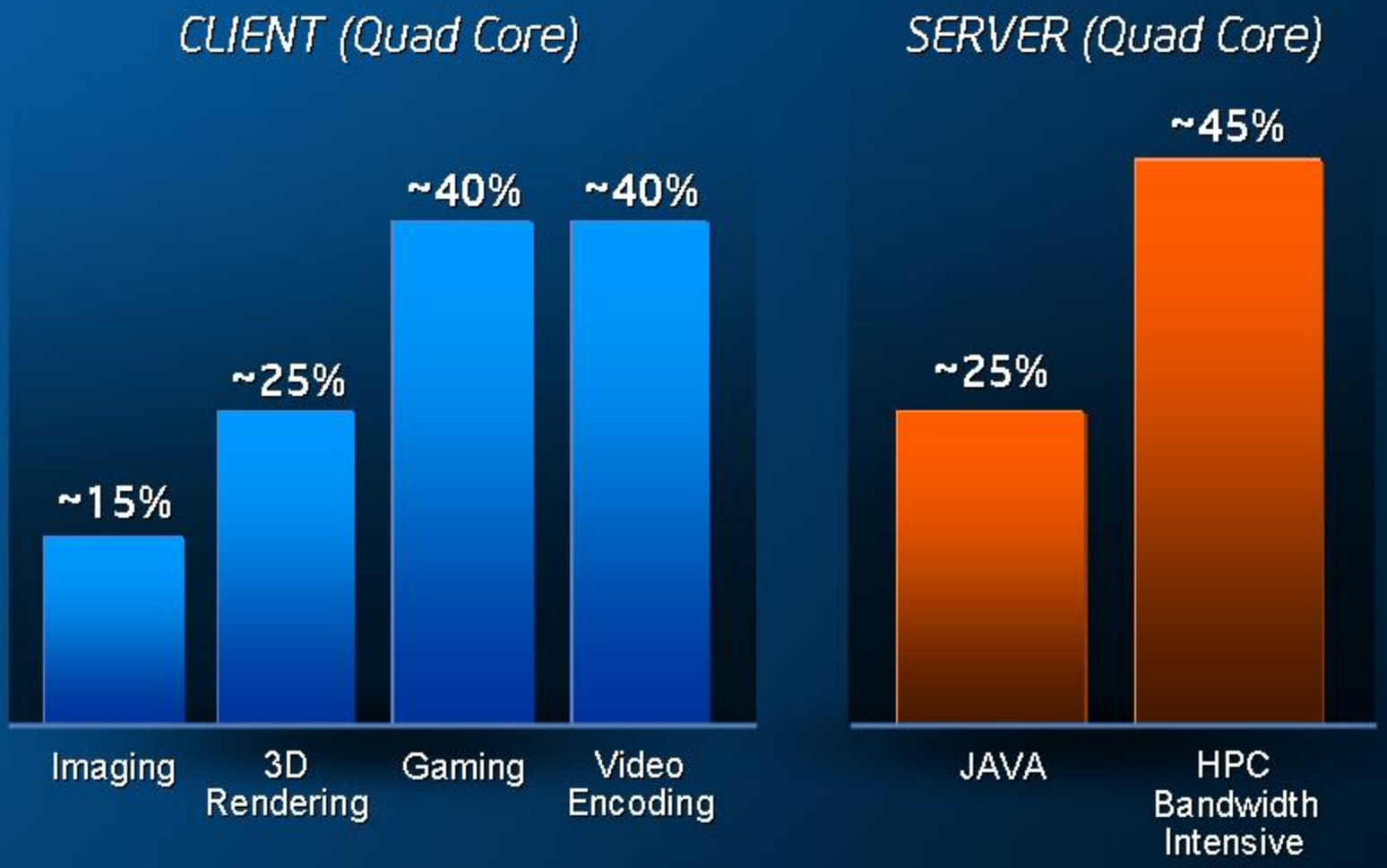
Silverthorne

45 nm Intel Ultra Low Power Processors

For mobile internet devices and ultra mobile PCs

Early Penryn Family Performance Indicators

45nm High-k vs. 65nm Intel® Core™ 2 and Xeon™ Processors



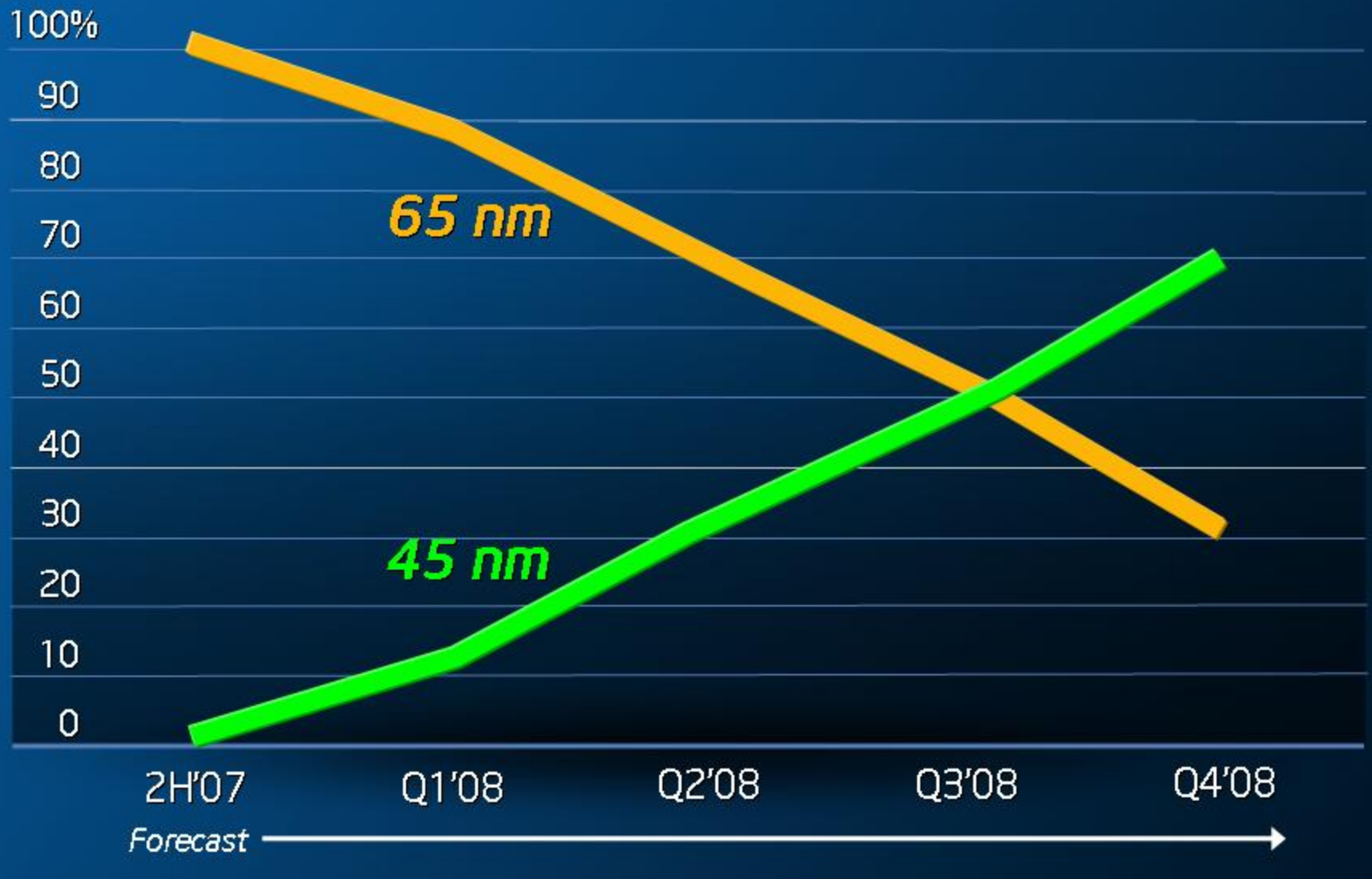
Source: Intel

Impact of Silverthorne on Power and Size

CPU + CHIPSET

Source: Intel Forecast

Projected CPU Shipments



Source: Intel Internal

Technology and Manufacturing: An Intel Advantage

- Technology innovation
  - Effective R & D pipeline delivers sustained results
- 65nm and manufacturing excellence
  - Leading on Multiple measures
- 45nm and industry leadership
  - Optimized for performance and cost

Thank You

Risk Factors

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