



Technology Leadership

2003 Intel Fall Analyst Meeting

PAUL S. OTELLINI
President & Chief Operating Officer

2003: Defining Moments

- 1** *DHWG spec released*
- 100,000** *Wi-Fi Hotspots worldwide**
- 1,000,000** *Itanium[®] crosses TPM-C threshold*
- 10,000,000** *Wi-Fi access points deployed*
- 200,000,000** *Emerging market PC installed base**
- 1,000,000,000** *Connected PCs & data phones**
- 10,000,000,000** *CPU transistors shipped/minute in '03**
- 20,000,000,000,000** *FLOP/s with LLNL Itanium cluster*

Intel has moved to the “PLATFORM”

The image shows a screenshot of the Forrester Research website. At the top, there is a banner with the text "HELPING BUSINESS THRIVE ON TECHNOLOGY CHANGE" and a photo of a person at a podium. Below the banner, the Forrester logo is visible. A navigation menu on the left includes links for "REGISTER/LOGIN", "Browse Research", "Emails & Alerts", "Events & Webcasts", "Products & Services", "About Forrester", "Contact Us", "How To Buy", "Shopping Cart", "Integrity Policy", and "GigaWeb". The main content area features a paragraph about Forrester Research being an independent technology research company, followed by a section titled "RESEARCH & ANALYSIS" with a sub-header "Forrester makes the call on technology news, events, and topics." Below this, there are several bullet points, including "CIOs Still Have A Cautious Outlook For 2004 IT Budgets" and "Novel Strengthens Linux's Enterprise Standing". To the right, there is a "FEATURED EVENTS" section with a sub-header "The future of IT, live." and a paragraph about "The Emerging Technology Showcase". At the bottom right, there is an "EVENT WEBCASTS" section with a sub-header "Did you miss the Executive Strategy Forum?" and a paragraph about gaining insight on how to reduce costs and increase customer satisfaction. A quote is overlaid on the screenshot, attributed to Maribel Dolinoy, dated November 2003. The quote discusses Intel's move to a platform architecture. The Forrester logo is also visible at the bottom of the quote box.

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RESEARCH & ANALYSIS

Forrester makes the call on technology news, events, and topics. [Register as a guest](#) to access this research.

- [CIOs Still Have A Cautious Outlook For 2004 IT Budgets](#) - November 7
- [Novel Strengthens Linux's Enterprise Standing](#) - November 7

FEATURED EVENTS

The future of IT, live.
Through a series of on-stage demonstrations, [The Emerging Technology Showcase](#) presents a view to the future, illustrates what's coming next, and explains how to prepare. [Register today](#) to influence the next generation of IT.

EVENT WEBCASTS

Did you miss the [Executive Strategy Forum](#)? You can gain insight on how to reduce costs and increase customer satisfaction with extended Internet technologies by purchasing the Forum Webcast online. View a sample Webcast:
• [Executive Strategy Forum](#) - October 2003

• [Consumer Forum](#) - September 2003

• [Business Visionary Series](#)
December 2-5, 2003
([View All Forrester Events](#))

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What benefits do you get by [registering as a guest](#) on [www.forrester.com](#)? You can:

- Purchase research and Webcasts securely online.

FORRESTER

November 2003

Maribel Dolinoy

intel.

More than Processors...



ARCHITECTURAL Enhancements

(increasingly software visible)
MMX, SSE, Hyper-Threading...

CHIPSET Growth through Integration

PCI, USB, PCI-E, LAN, Integrated RAID...



Value Added SOFTWARE

Drivers, ProSet, Tiano...



BRANDING our "Ingredients"

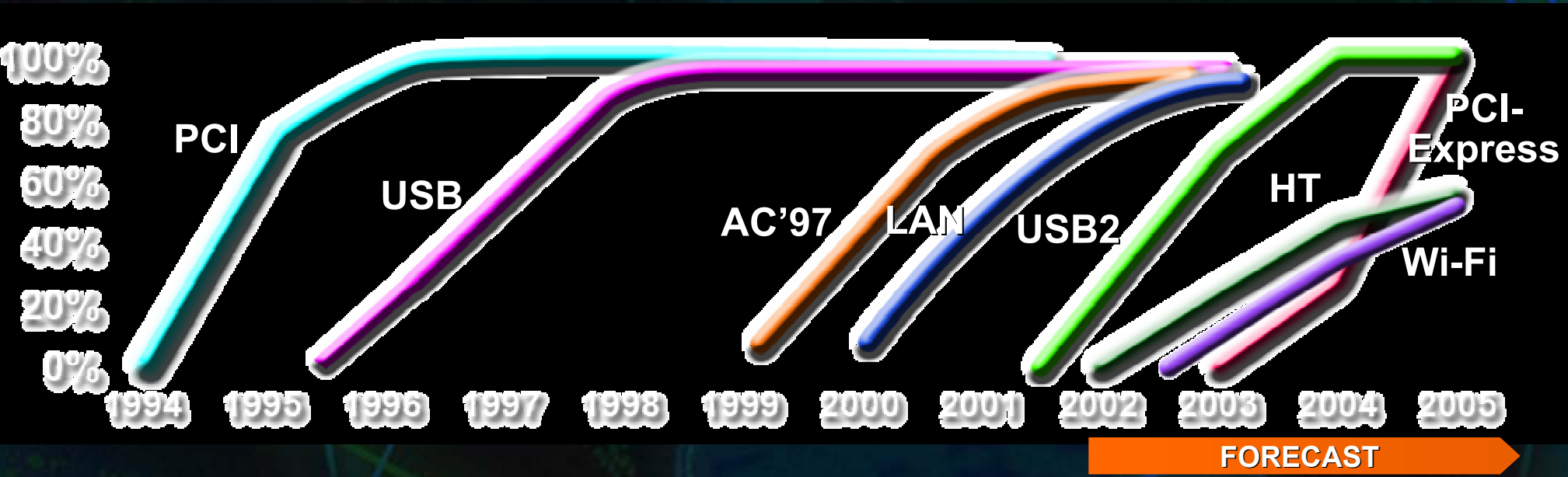
CMT...



"INNOVATE and INTEGRATE"

The Worlds Best "Platform Diffusion Engine"

% of Intel Client Silicon with New Capabilities



4 “Platform” Technologies

The “T’S”

HT

PERFORMANCE
Hyper-Threading
Technology

CMT

MOBILITY
Intel® Centrino™
Mobile Technology

LT

SECURITY
LaGrande
Technology

VT

RELIABILITY
Vanderpool
Technology

The Mobile Platform(s): **NOTEBOOKS**

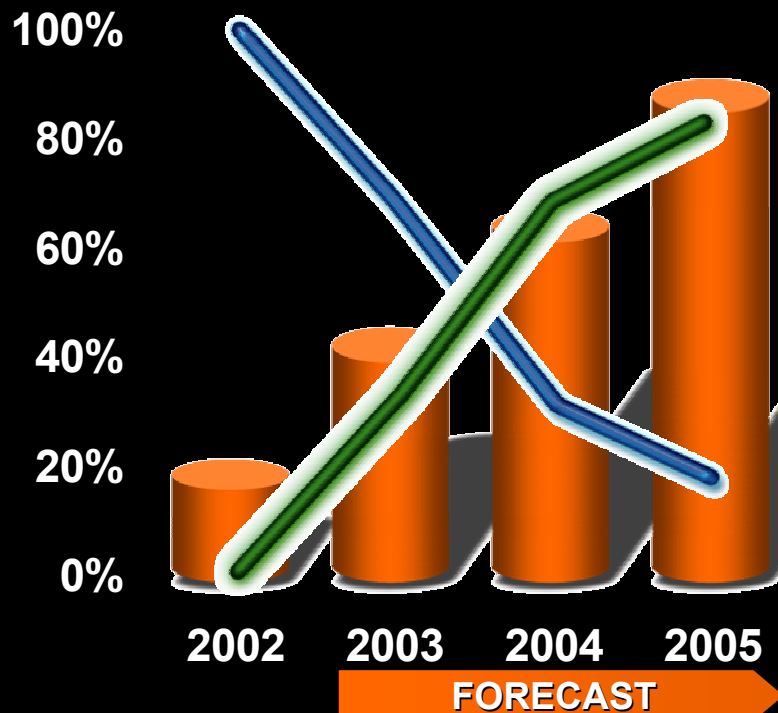
2003

Centrino™ Mobile Technology: Unwire!

- Family: >\$2Bn in 9 mo; 130 designs
- #1 802.11b Si vendor in Q4'03*
- Shipping 802.11b, a/b now; b/g in Q4

Mobile: The Growth Engine

- Worldwide: +35% YoY (>3x DT)**
- Emerging mkts: PRC +75% YoY**
- Consumer: >40% US retail units***



2004

Toggle: Dothan; Sonoma platform

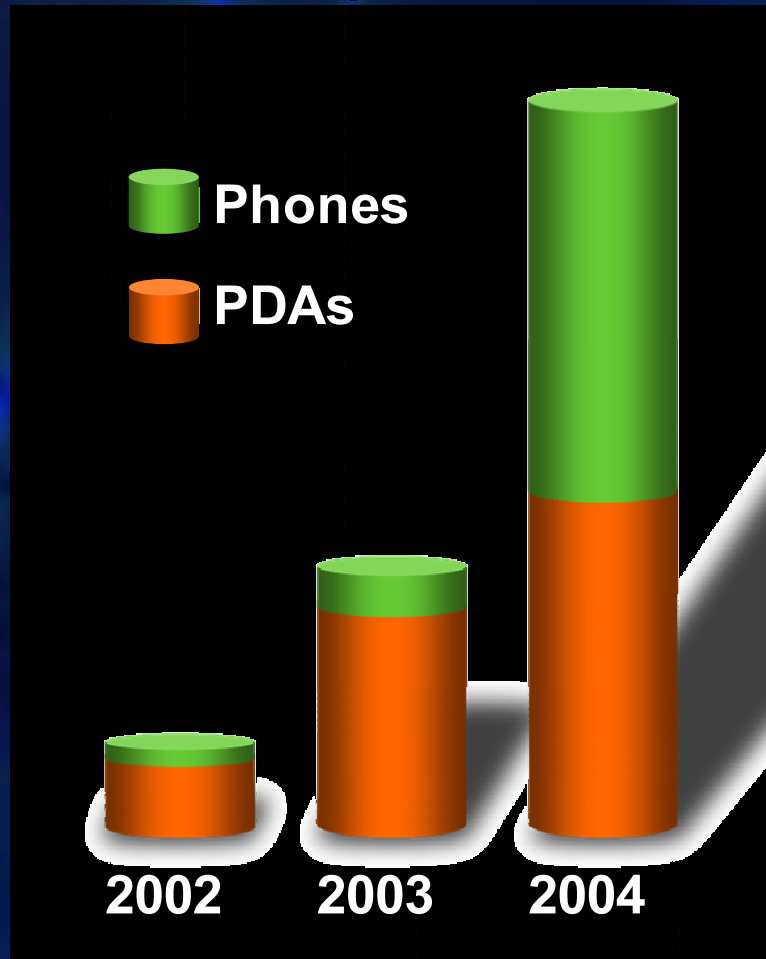
- 802.11a/b/g, Azalia audio, S-ATA, DDR2

Accelerate biz; grow consumer & EMs



The Mobile Platform(s): **HANDHELD/HANDSET**

Intel XScale® Unit Shipments*



2003

Intel won PDAs

- 0% → 45% MSS in 3 yrs; 60% by '04*

Phones

- Ramp designs: Samsung, Motorola...
- Sample Bulverde
- Launch PXA800F: integrated GPRS

#1 Apps processor shipments**

2004

Ramp XScale phones: >10Mu

- MOUs with 5 of 10 largest carriers

Extend to EDGE & WCDMA



Flash

2003

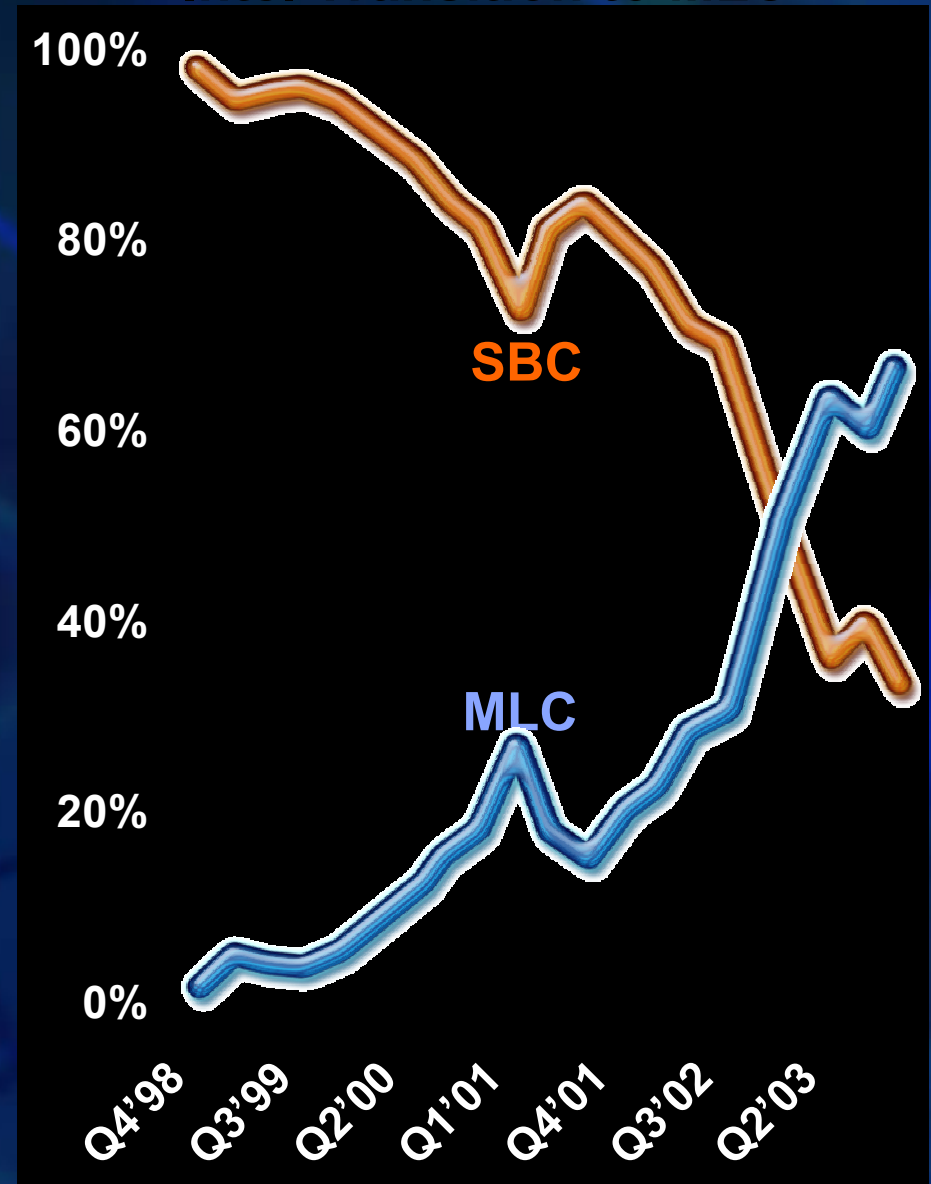
- Pricing missteps
 - overall MSS & rev down
- But... wireless flash grows
- MLC: 2/3rd of Intel bits; 4th gen.

2004

- Wireless Memory System = complete solution
 - Low cost, high perf. (to 1Gb)
 - DWs @ most wireless OEMs
- MLC > 80% bits; move to 90nm



Intel Transition to MLC



FORECAST

The Digital Home Platform: **VISION to REALITY**

2003



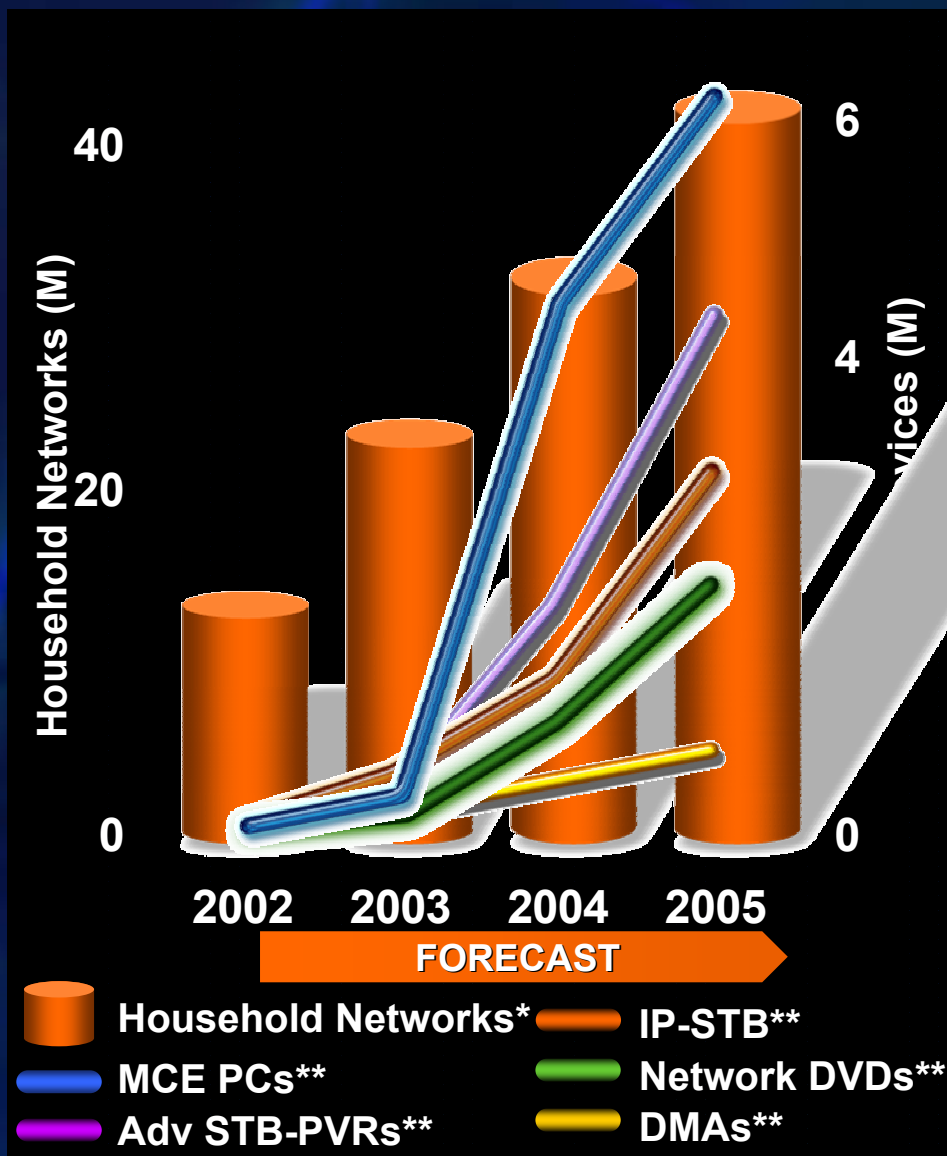
- Digital Home Work Group ann'd June
 - v1.0 Spec Q1'04, 1st products 1H'04
- DTCP/IP spec for premium content
- Products: ref. designs → mainstream
 - 17 DMAs; 4 networked DVD, IP STB
 - Media Center PCs, “My Room” PCs
- Intel® 865 & 875 chipsets: ship >35Mu*
 - 60% with gfx; >50% DT mix by EOY
- Pentium® 4 Processor Extreme Edition
- HT: Premium price for premium tech

intel.

Sources: Intel

* Certain names and brands may be claimed as the property of others

The Digital Home Platform: **VISION to REALITY**



2004

Toggle: Prescott + HT + Grantsdale

- PSC, HT > 60% of perf DT in Q2
- PSC: >70Mu in '04; 4GHz in '04
- Grantsdale: >50% of c/s by EOY

Launch next gen DH platform

- PCI-E gfx, DDR2, Azalia Audio, next gen S-ATA, Int. Access Point

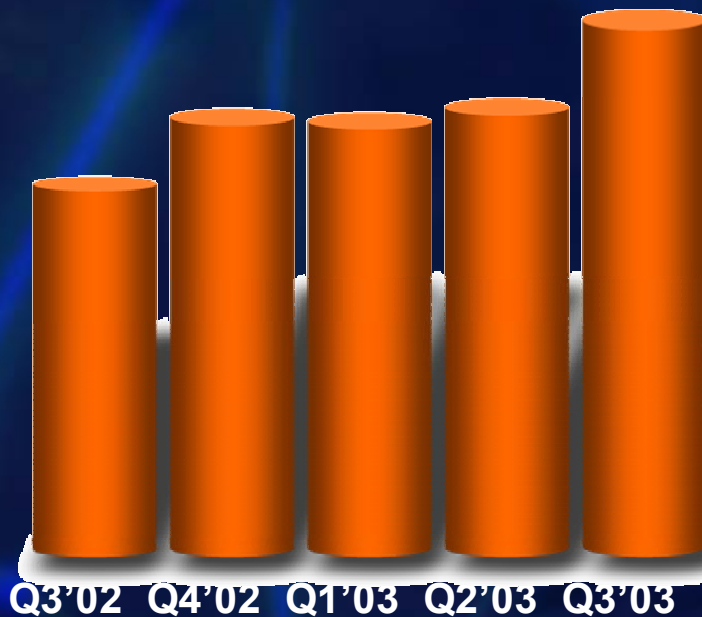
Drive the Digital Home Reality

What's Next? Dual core in '05



The Digital Office Platform: IA-32

EPG Revenue



2003

Ignite: +10M clients; jumpstart refresh

- Biz PC growing 17% YoY in Q3

Servers: Record quarter**

- +20% rev, +17% vol QoQ**
- Gartner: IA systems +23.3% YoY***

2004

Ramp 1st 90nm svr & ws CPU in 1H

DP/MP/WS chipsets: 100+ designs

- DP 800MHz FSB, DDR2, PCI Express

Server Unit MSS*

	Q2'00	Q2'03	
Sun	8%	5%	Δ -3 pts
Intel	84%	88%	Δ +4 pts



The Digital Office Platform: **Itanium® Processor**

Lawrence Livermore National Laboratory selects Intel® Itanium 2 processors for world's most powerful Linux cluster

END USER

ISV

OS

2001 **2002** **2003**

END USER

P&G, THOMSON, PetroChina, OXY, FUJIFILM, FIRST TRUST, Pacific Northwest National Laboratory, NCSA, The First American Corporation, COMPUSA, CFE, RAYMOND JAMES, ING, COMERCIAL AMERICA, jetBlue AIRWAYS, CISER, FTAT

ISV

VERITAS, ANSYS, LS-DYNA, ORACLE, ca, Microsoft SQL Server, Computer Associates, RSA SECURITY, SYNOPSIS, SAP, SUNGARD, sas, bea, Borland, MSC SOFTWARE, DB2 Information Management Software

OS

SuSE, Microsoft Windows Advanced Server Limited Edition, HP-ux11i, redhat, UNITED LINUX, Microsoft Windows .NET Server 2003

'03: Year of Itanium

- >100Ku in '03
- New products (IBM X455...)
- Enterprises & ISVs embrace

What's Next?

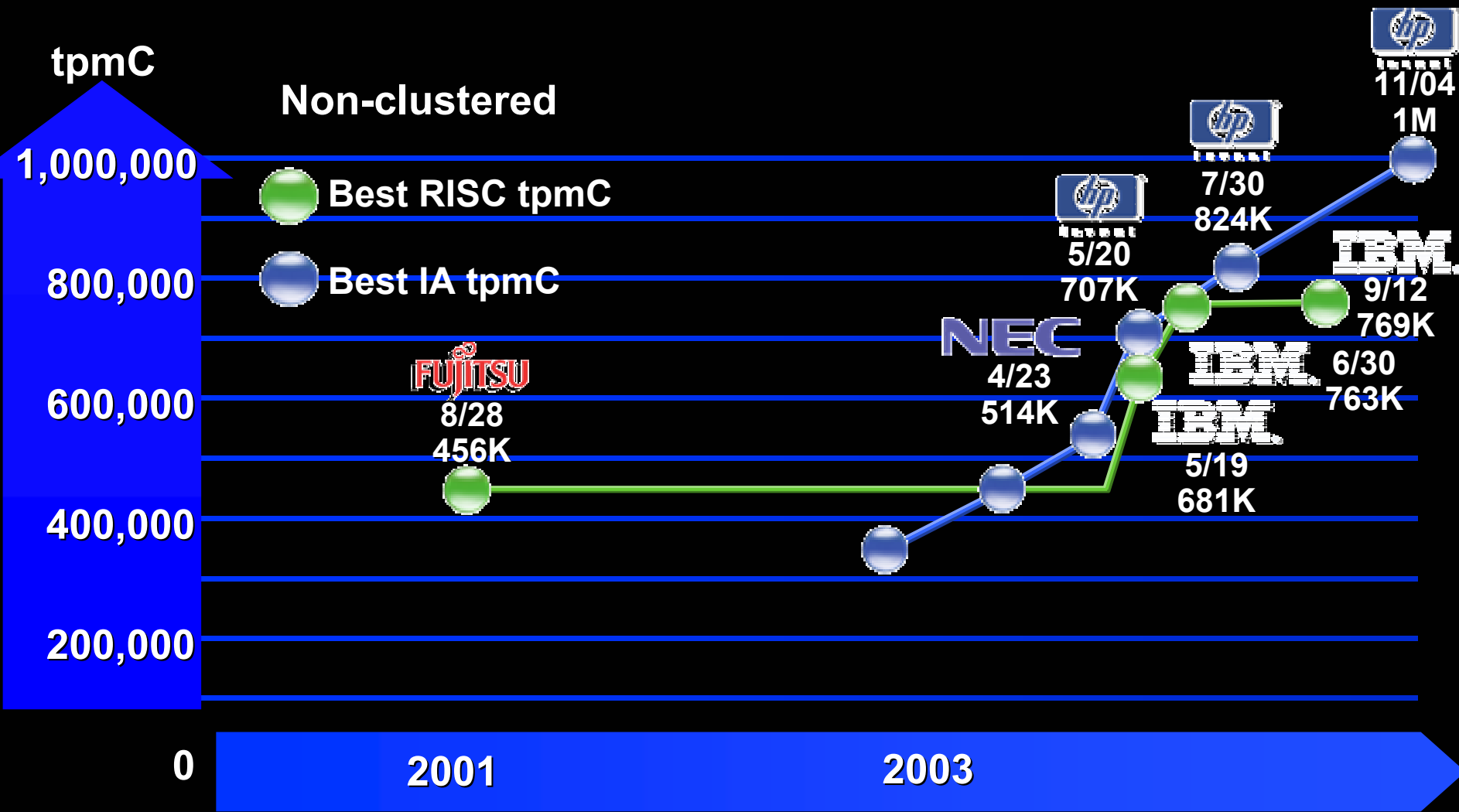
- '04: add 9MB cache
- '05: Montecito
- Next: Tanglewood

intel.

*Source: www.tpc.org. Results as of 11/4/03. See backup slide for details on tpmC, \$/tpmC and Availability dates. TPC-C version 5; www.sap.com/benchmark; <http://www.specbench.org/jbb2000/results/jbb2000.html>

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Competition Brings Out the Best: Itanium® Won...



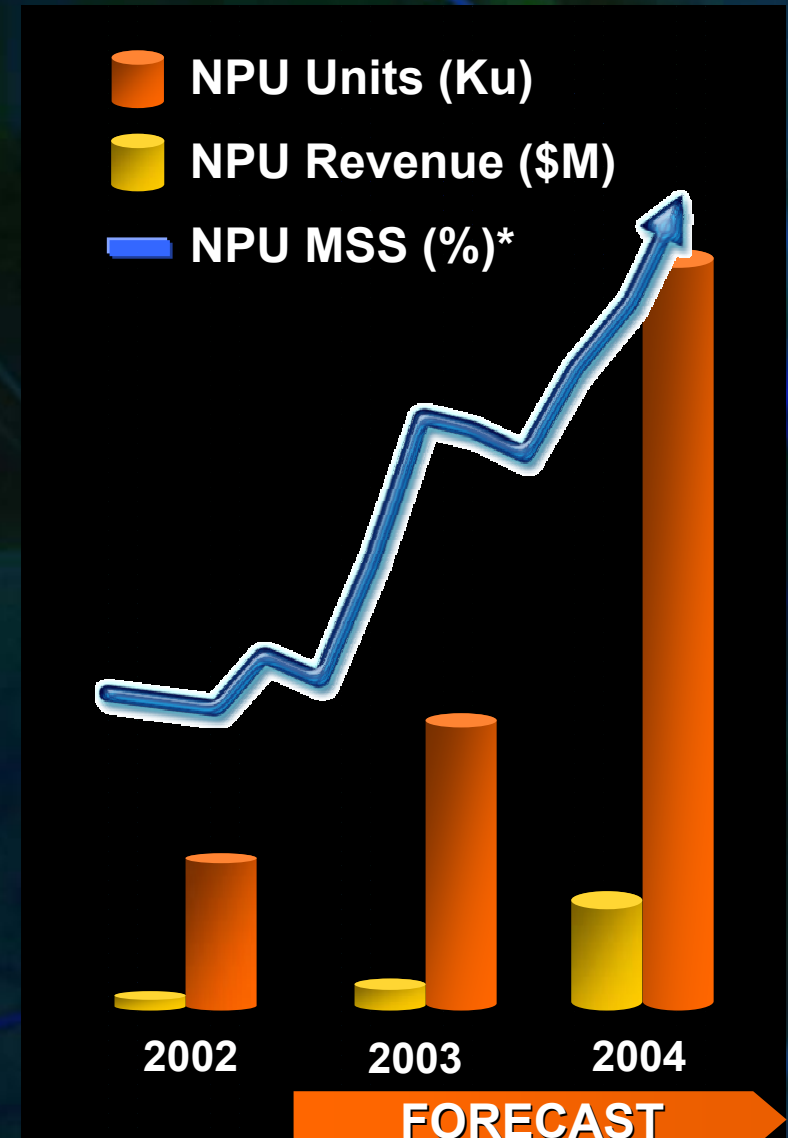
The Telco Platforms

2003

- Modularity happening, ATCA gaining
- #2 in NPU MSS: 11% ('02) → 17% ('03)
- ~20M GbE connections in '03

2004

- Accelerate modularity; est. ATCA
- #1 NPU MSS (IXP2650, Westport, Asuza)
- >25% growth in GbE connections
- Grow wireless beyond client:
 - Sample low-power handheld Si (Wi-Fi + BT)
 - Ship WiMAX Si



X-Platform Software

Influence the Platform, Win Developers, Build Solutions

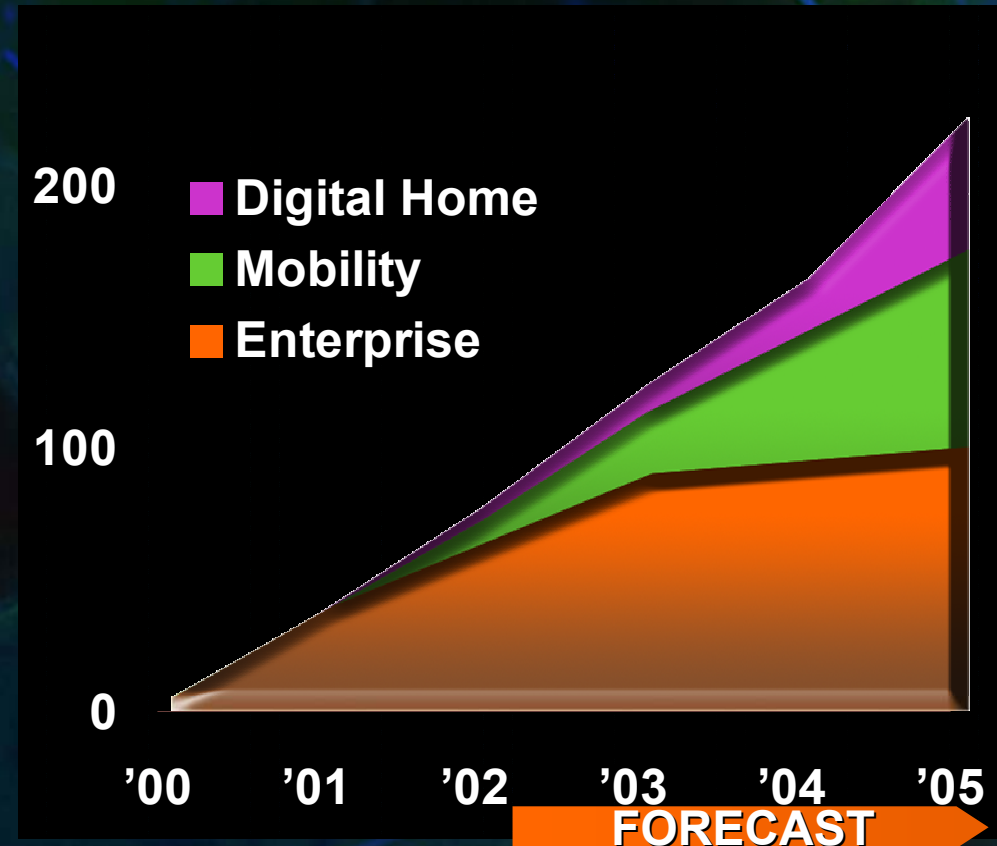
2003

- Established unified tools
 - compiler, threading, libraries...
 - IPF, IA-32, XScale; Linux & Windows
- Change legacy BIOS; speed innovation
- Developer services: mobilized sw initiative

2004

- Enable “T’s” in OS & apps
- Extend ISV reach x-platform

IDS: Developers ('000s)



intel.

orange intel.

www.orangelab.biz Optimize your code for Xscale - 05-11-2003

Dear developer,

Orange and Intel are collaborating on Intel(r) PCA based phones that are expected to be rolled out on the Orange network shortly. We are interested in incorporating your software in this solution.

RFID: Example Growth Driver...

RFID

- 100s of billions of objects generating TBs of data
- Will change real-time data flow → actionable information

Adoption

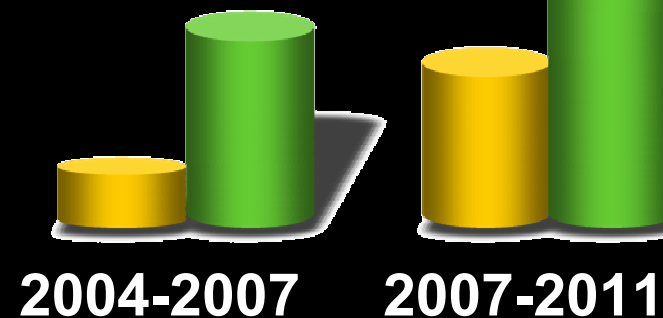
- Leaders: Retail & DoD
- Next: Mfg. + Pharma.

Expanding Usage

- '04-'07: case & pallet tags
- '07-'11: tags for high value (>\$10)

Intel Opportunity (Mu)

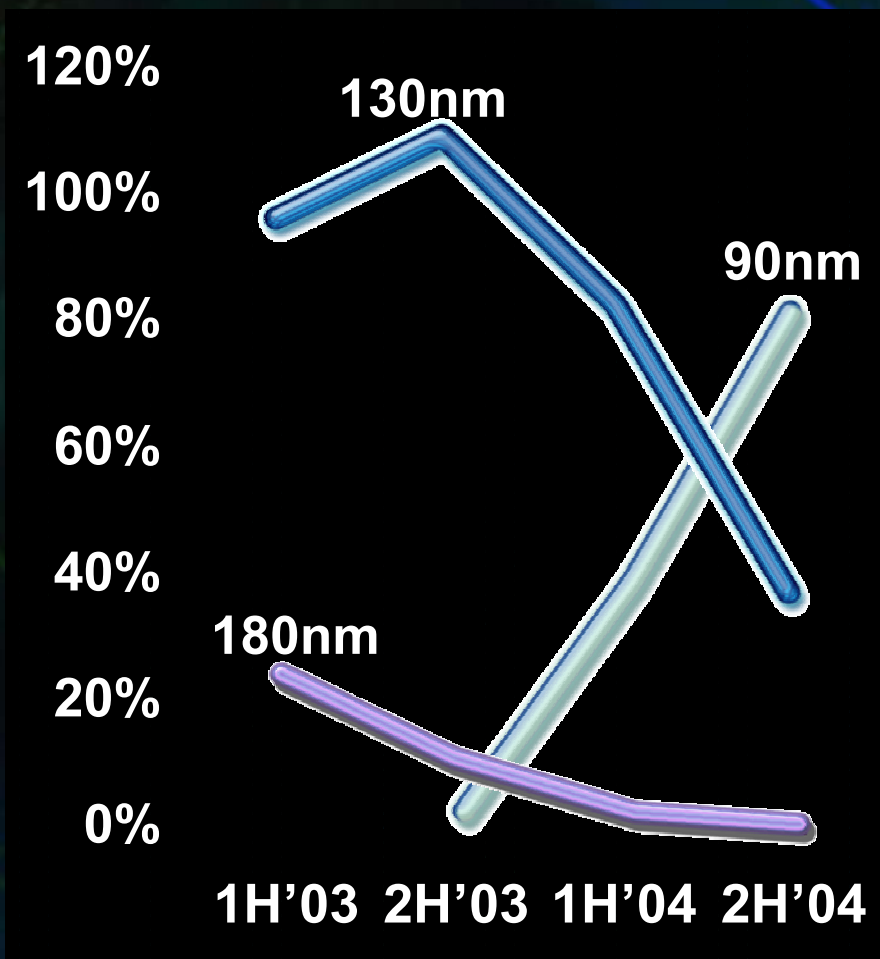
- Itanium® & Xeon™ Servers
- XScale™-based Readers & Network Gear



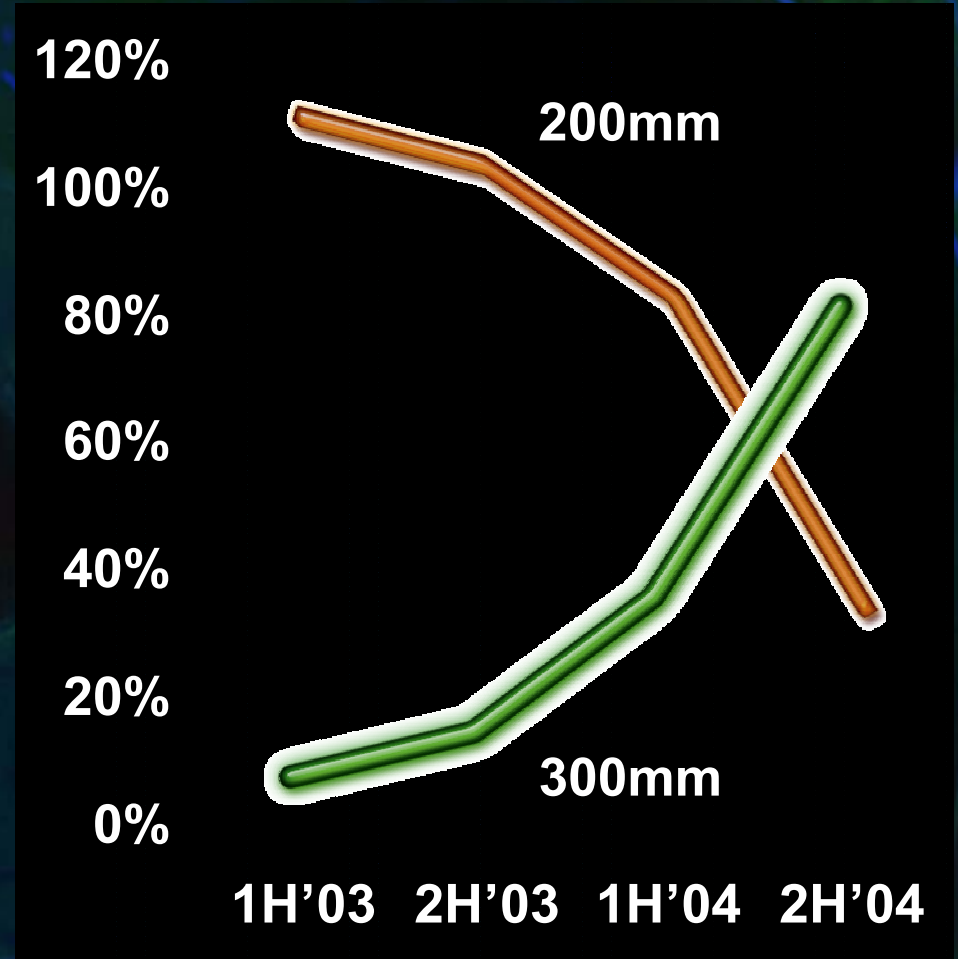
FORECAST

Microprocessors* Ramping on Advanced Technology

Share of Microprocessor Unit Sales*



FORECAST

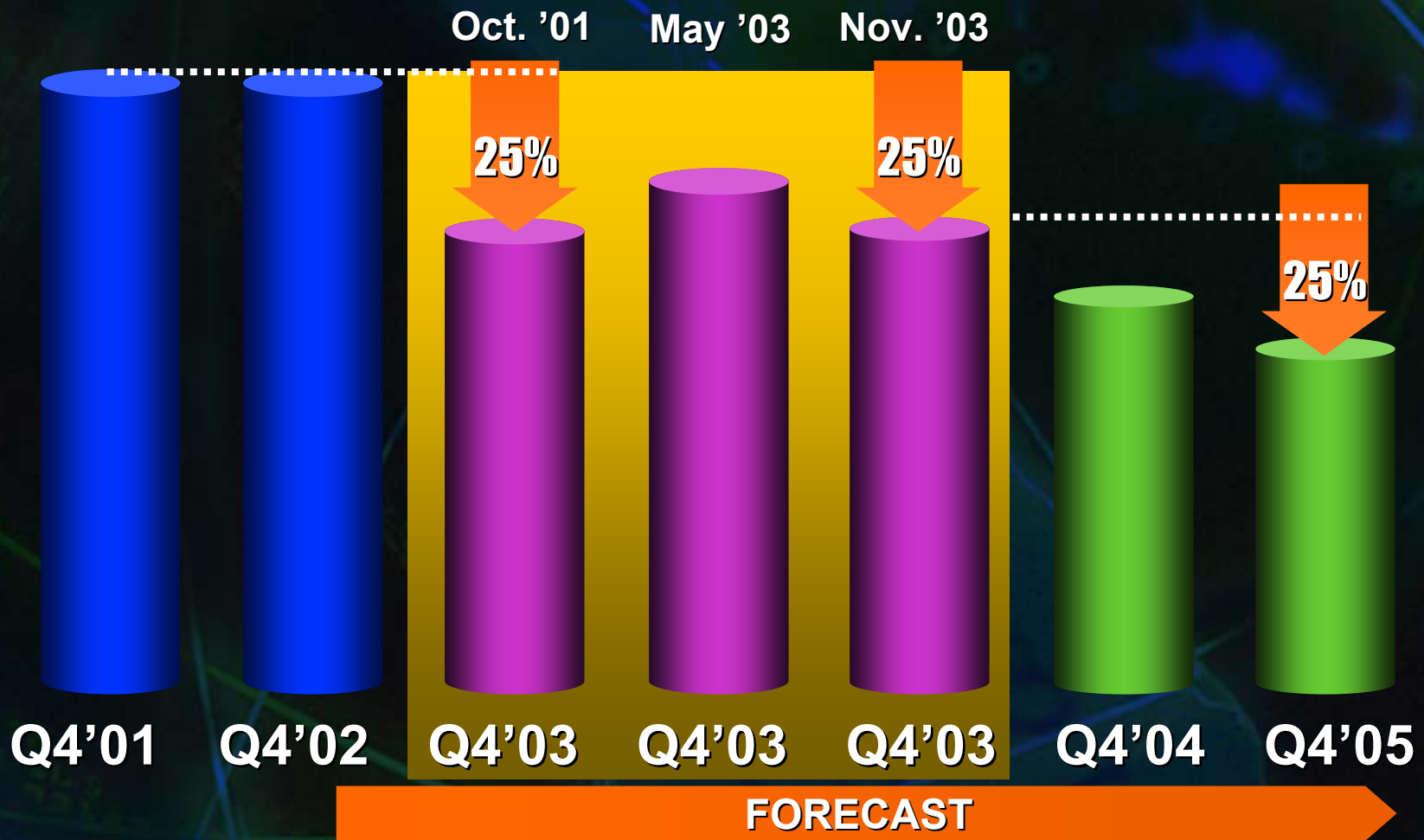


FORECAST



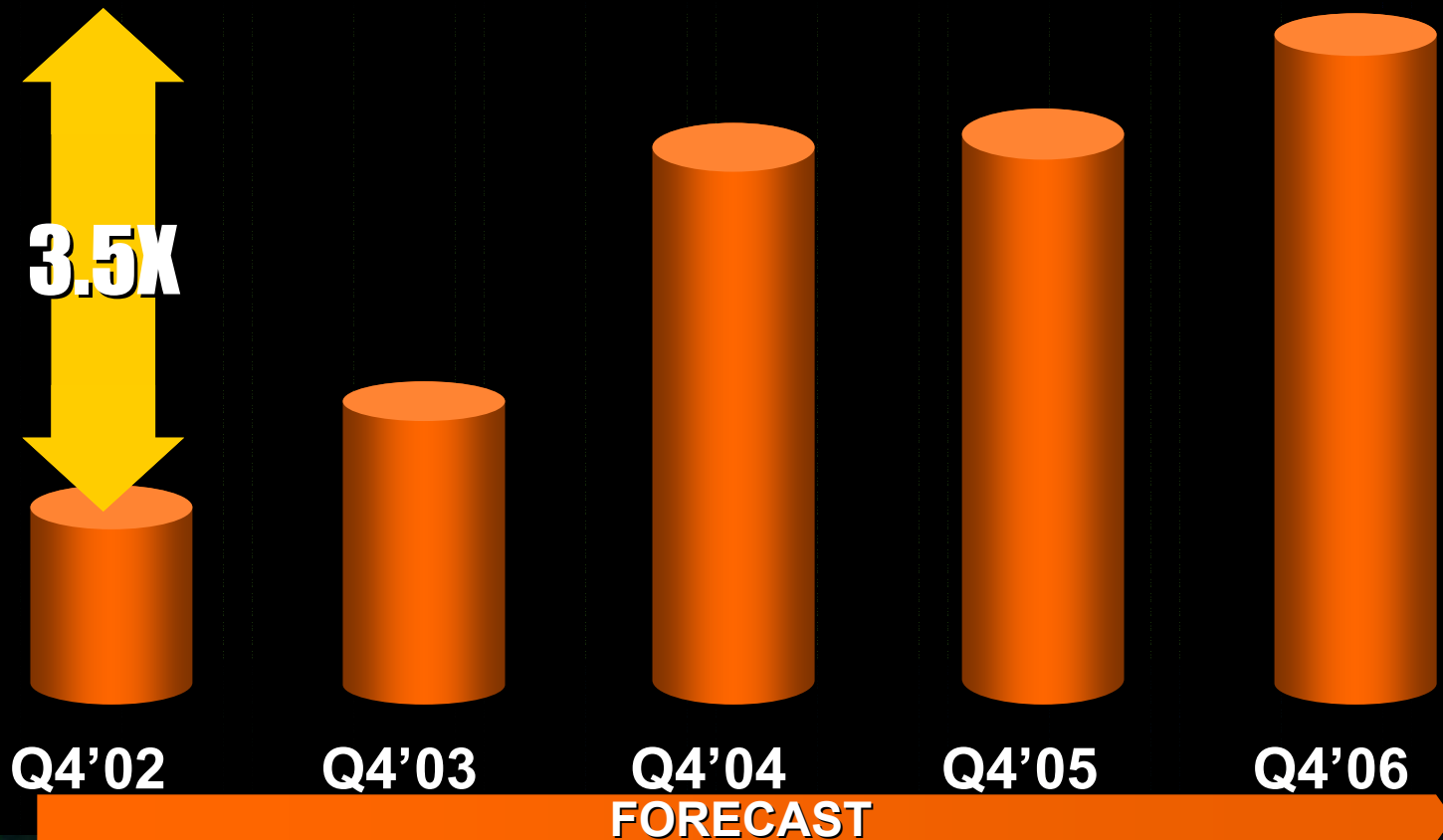
*Intel Architecture CPUs

CPU Product Cost Trend



Geometry & Technology Driving Die per Wafer

Average Good CPU Die / Wafer Start



130nm
200/300mm

90nm
300mm

65nm
300mm

intel.

Source: Intel

After 3 years of the industry's deepest recession, we are exiting 2003...

1 Stronger than when we entered...
relative to ourselves

2 Stronger than when we entered...
relative to the industry

3 Extremely well positioned to grow...