Key Drivers for Long Term Growth

Warren East
CEO
Analyst Day
13 May 2004

Agenda

- Key Drivers for Long Term Growth
  Warren East, CEO
- Segment Overview
  Mike Inglis, EVP, Marketing
- Converting the Consumer
  Dave Rose, Director, Consumer Entertainment
- The Automotive Opportunity
  Wayne Lyons, Director, Automotive
- ARM Roadmap
  Simon Segars, EVP, Worldwide Sales
- Break

Agenda

- Additional Value from Systems
- Mike Inglis, EVP, Marketing
- The Embedded DSP Opportunity
  Tom Cronk, General Manager, ARM Belgium
- The Evolving Business Model
  Tudor Brown, COO
- Wrap-up and Questions
  Warren East, CEO

Strategic Context

Environment

- More digital systems permeating all aspects of our lives whether at home, in the office or on the move

Technologies

- Compute Engines, Silicon IP, tools and software. Excellent power efficiency & system cost

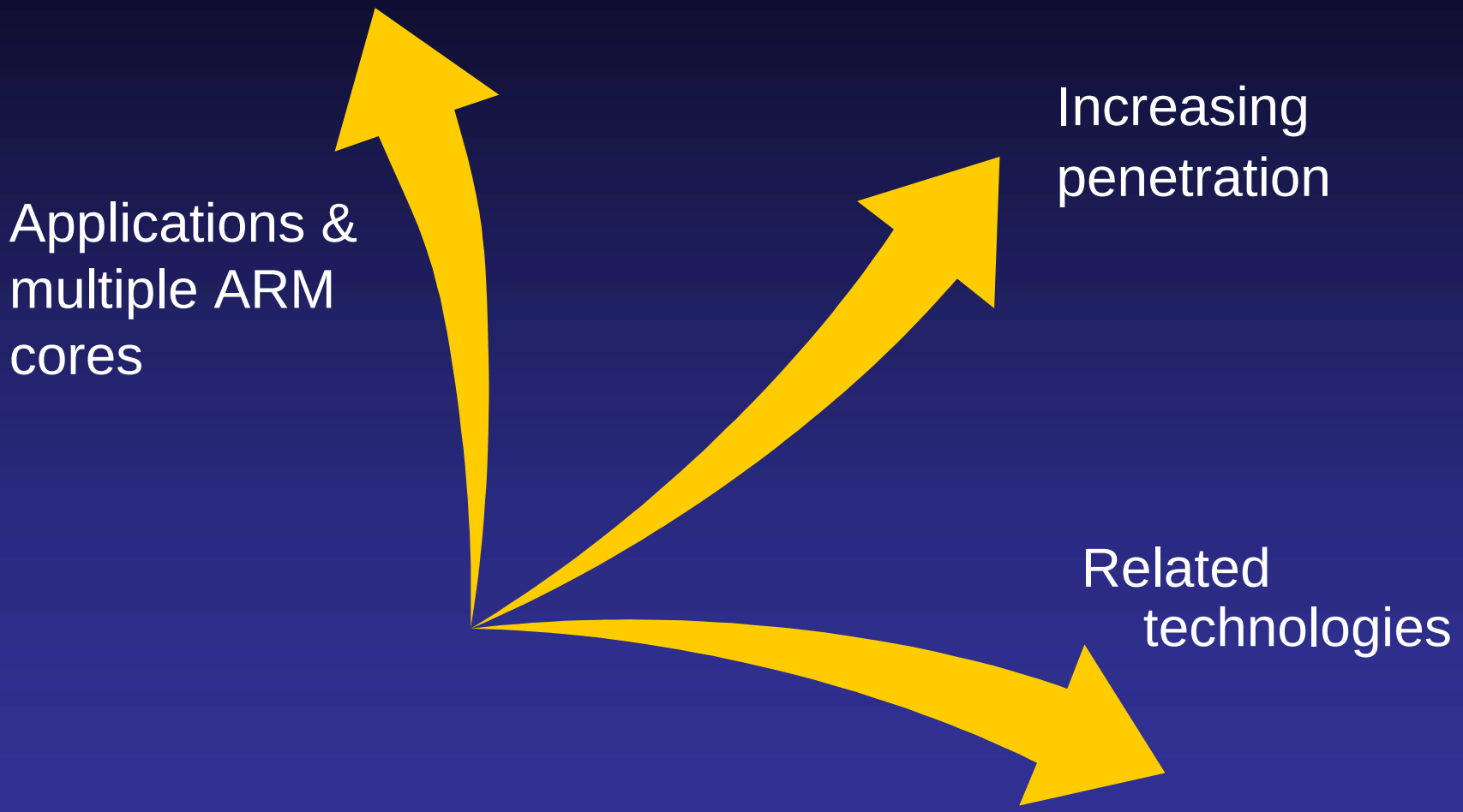
The Architecture for the Digital World

- ARM designs technology that lies at the heart of digital products

Business

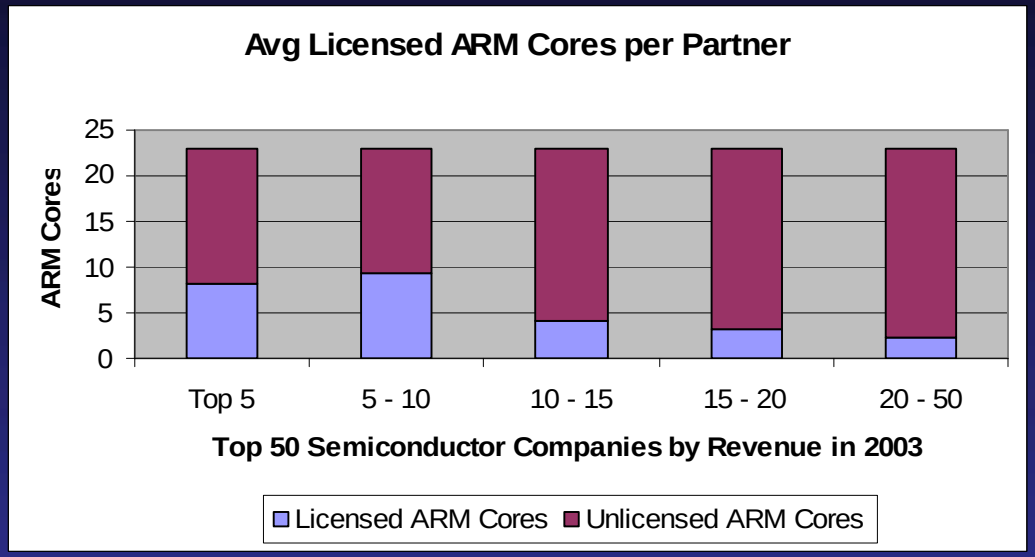
- ARM standards enable our Partners to create differentiated products for our target applications

Growth Dimensions



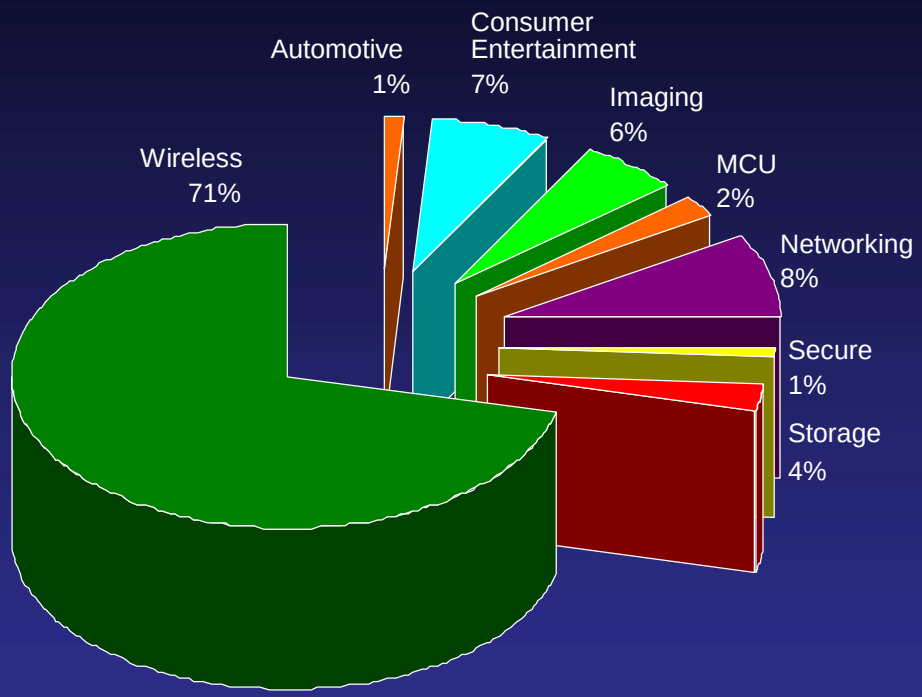
Penetration Opportunity

- Penetration of Top 50 Semiconductor companies



- 2003 statistics
  - ARM royalty (Jan-Dec) ~$80M => ~$6Bn ARM silicon
  - Semiconductor revenue $177Bn ($101Bn ASSP+ASIC+Micro)
  - Penetration growth space up to $95Bn silicon

Applications Growth



Units shipped in Q4 2003 by segment

Non-wireless volumes

- 2002 137M
- 2004 (forecast) ~ 400M
- 2007 (goal) ~1000M

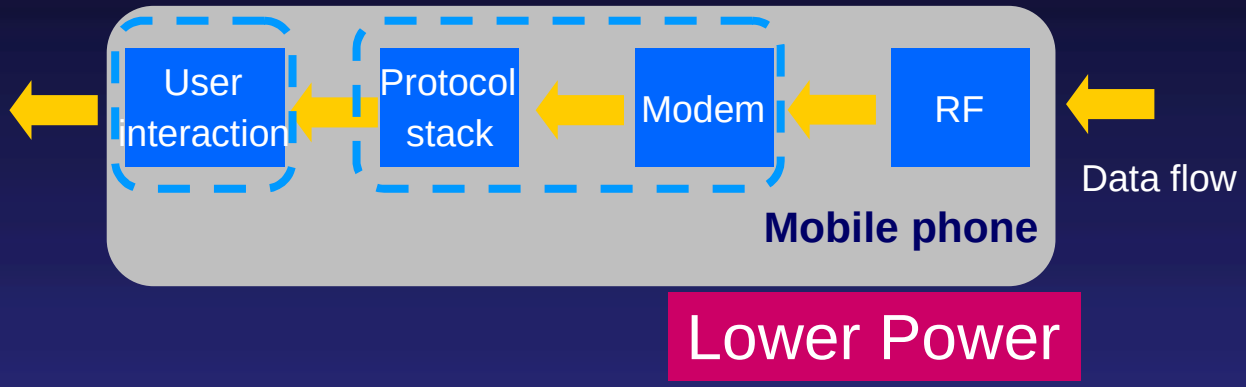
Trends

- 32-bit processing
- New applications
  - Toys, health, energy, security
- Multiple microprocessor cores per product eg Smartphone; Digital TV

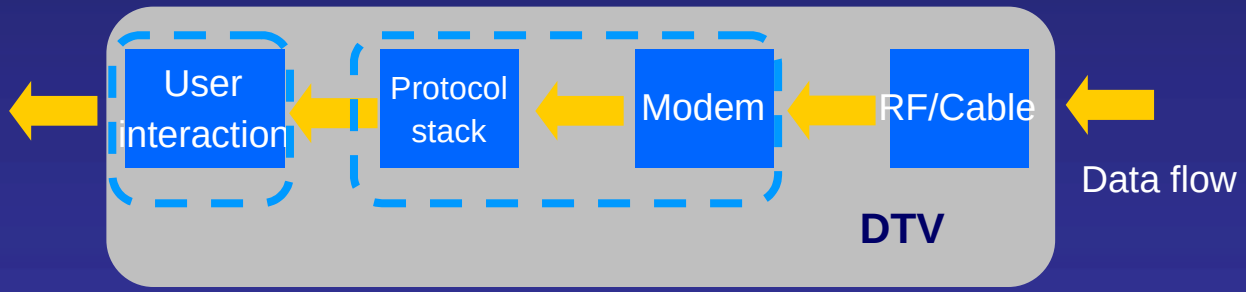
Drivers

- Cost & reliability
- Time-to-market
- Technology convergence

Broadening the Applications Reach



Lower Power



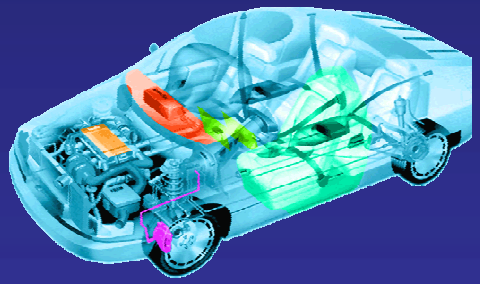
Higher Bandwidth

Broadening the Applications Reach

IDE i/f to PC ← Data Handling ← Error correction ← Analog Read Head ← Data flow

HDD Controller

Lower Power



Output to Actuators ← Control Algorithm ← Signal processing ← Sensors input ← Data flow

ABS Controller

Higher Reliability

Consumer Products

Ingredient technologies

User experience

(Secure wireless) Communication

Media Processing

Storage

Function

Form factor

Multiple ARM processors in many products

Killer Applications

Products with the potential to be as big as, or bigger than, handsets are today:

- Microcontrollers
  - Huge numbers of lower volume designs
  - Current volumes circa 5Bn
- Automotive
  - A “micro” digital world
    - Communications, entertainment, security, embedded control
    - Drivers: environment, safety, reliability, cost
    - 60Mu cars x 10+ processors plus Asian growth

System Level Design

- Mobile lags PC by 7+ years in system arch.
- MCU lags mobile by 7+ years in system arch.
  - Heterogeneous Control and Data Plane solutions
  - System level power control
- Security and reliability an increasing concern
  - User expectation of reliability
  - System (not just cores) need robustness against soft errors and design errors
  - IP, tools, system design need to be aware of this
- Higher levels of analogue integration
  - IP opportunity and analogue signal processing

Broadening the Technology Footprint

Software

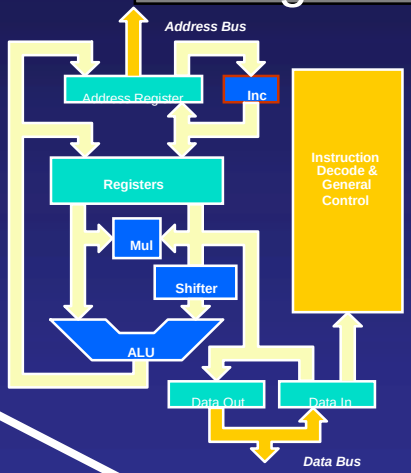
Value & barriers

Tools

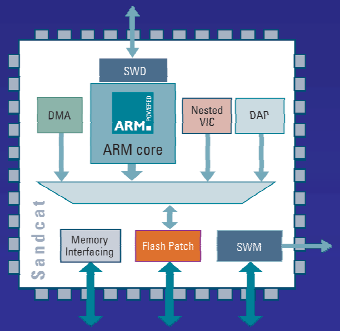
Building barriers

Platform

Engines



75% of ’03 revenue



Additional Value

Systems IP

Future Business/Growth Potential

- Longer term growth fuelled by
  - Broadening the application reach
    - Wireless → below 50% of much larger total in 5+ years as new killer applications switch to 32-bit
  - Enlarging the technology footprint
    - Compute engines → 50%
- Shorter term focus
  - Data Engines
  - Consumer applications
  - New technology roll out
- R&D focus
  - Disruptive technology

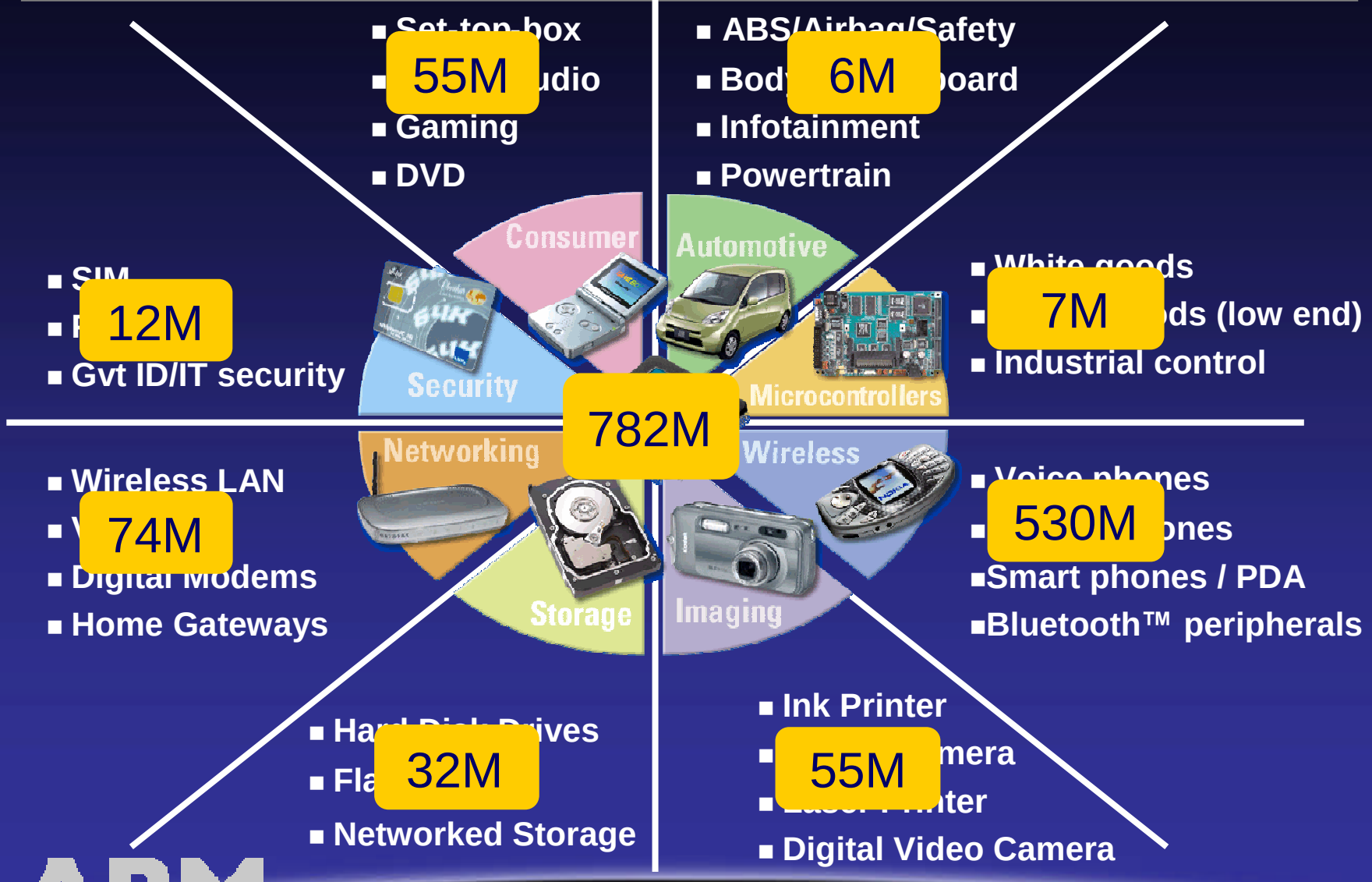
Segment Overview

Mike Inglis
Executive Vice President, Marketing
13 May 2004

The Architecture for the Digital World

ARM designs technology that lies at the heart of advanced digital products

25 cores per second in 2003



Changing Attitudes - Driving Technology

- Lifetime employment dead
  - Flexible & self reliant
- Highly networked
- In control of my life vs reacting to life
- Want to put back the ‘real’ into products, brands
- Want ‘service’ on my terms

- ‘Contacts’ are my network
- Reach me anywhere
- Music goes with me
- Desktop and phone have ‘my pictures’
- Information is available – Amazon
- Security is key
- Shift from ‘space invaders’ to a media-rich environment

Drivers to 32-bit and Product Features

- Consumers desire to access and enjoy media-rich content, while at home, in the office or on the move
  - Need for low-power devices with increased control , media and signal processing performance
- Need for secure infrastructure for the protection of personal information within advanced digital products
  - Need for authentication and security in the products
- Increased performance and flexibility in cost-critical storage applications
  - Need for real-time performance and reduced system cost
- Powering the capture, display and communication of increased quality images in the home, at the office and on the move
  - Low power control and signal processors
- The consumer's need for security and high data throughput
  - Reduced area control processors
- Automotive innovation delivering greater driver information and passenger entertainment, comfort and security
  - Low-cost functionality increased with stable supply chains
- Increased functionality in the home – sophisticated white goods
  - More performance for given area

Content: At Home, In the Office, On the Move

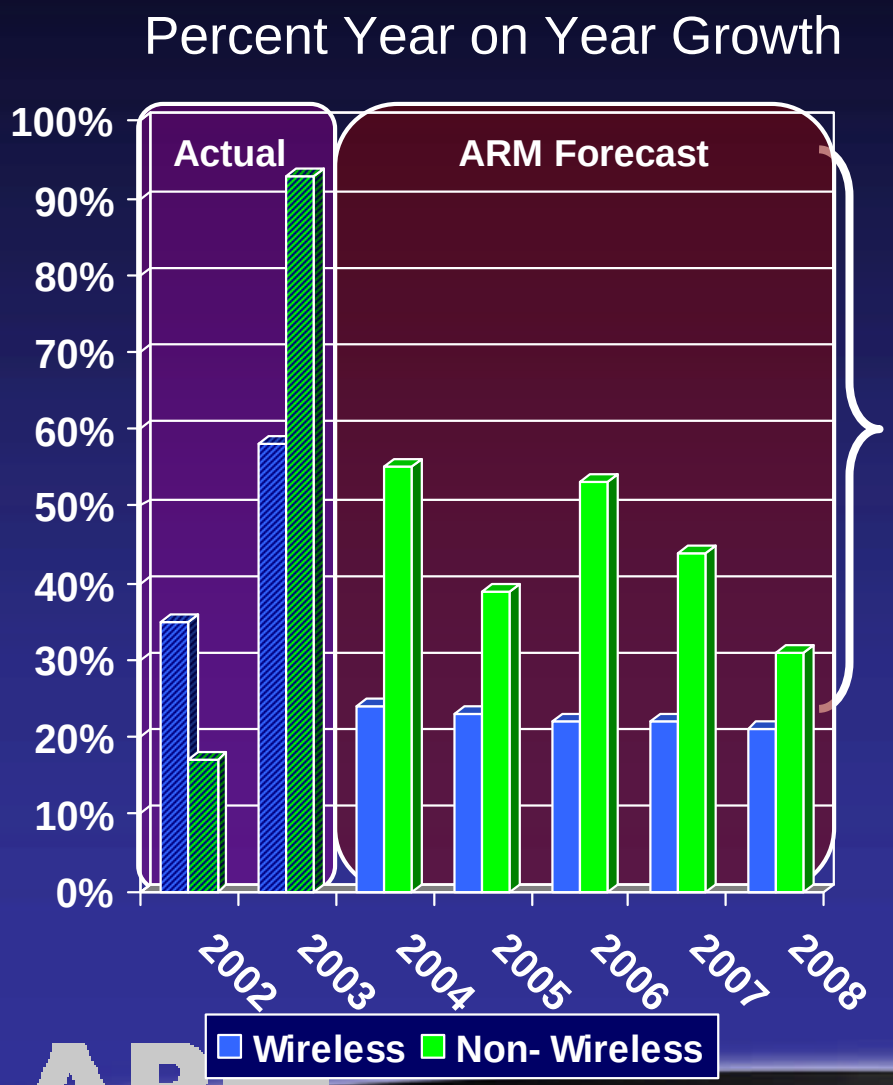
- Consumers will access and enjoy media-rich content, while at home, in the office or on the move
- ARM is playing to generic consumer shifts
- The ARM architecture provides the technology foundation
  - Portable information
  - Secure information
  - Media-rich information
- Media-rich content is for business or pleasure
  - Enterprise data
  - Digital images
  - Digital music
  - Gaming

The Architecture for the Digital World

35 ARM Powered® products shipped per second Q1 2004

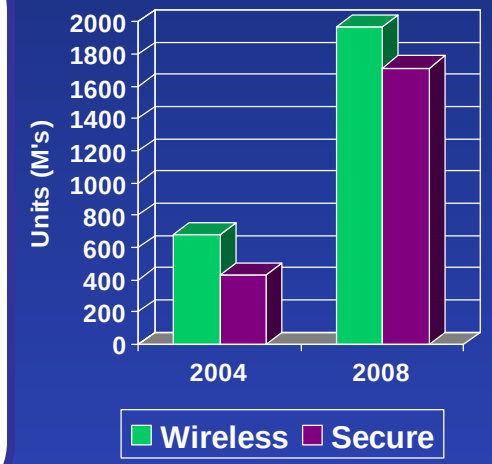
Vision is 65 cores per second in 2007

Unit Model



- Wireless and non-wireless cross in 2007/8
- Near term growth from wireless, imaging , storage and consumer
- Longer term growth from MCU, automotive
- Storage innovation pace slowed slightly in 2003

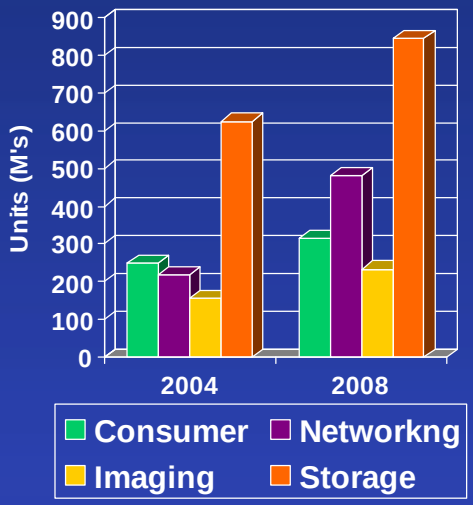
Wireless and Secure Solutions



- Over 500M units shipped into wireless applications
- Nearly 80% of mobile phones shipping today are ARM core-based
- MBX and Swerve technologies have been adopted by many leading handset OEMs for 3D graphics
- Oberthur and G&D have introduced ARM core-based SIM cards
- First ARM1136™ core-based chipset, OMAP2, was announced at 3GSM
- Symbian, Microsoft, Linux and Palm are all supported by the ARM architecture

Source: Gartner , ARC Group, ARM

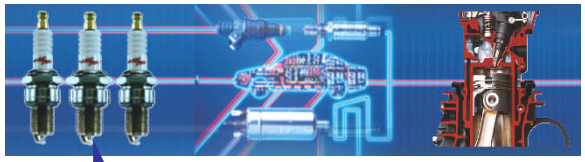
Consumer and Home Networks



- **Consumer Entertainment & Networking**
  - ARM ships more than 100M units into CE and networking applications
  - Diverse product mixture from next-generation Nintendo GameBoy 'DS' to Netgear and Linksys MP3 Wireless Router
- **Imaging & Storage**
  - Over 70M units shipped from OEMs ranging from Sony to HP
  - Approximately 40% of DSCs shipped today are ARM core-based
  - Over 30M units shipped into storage applications

Source: Gartner, ABI, IDC, Instat, Lyra Research, ARM

Automotive and MCUs



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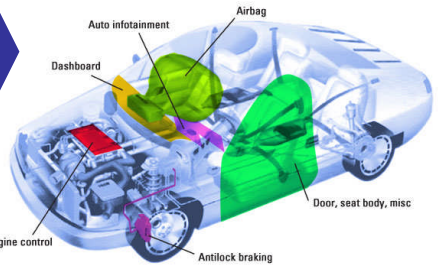
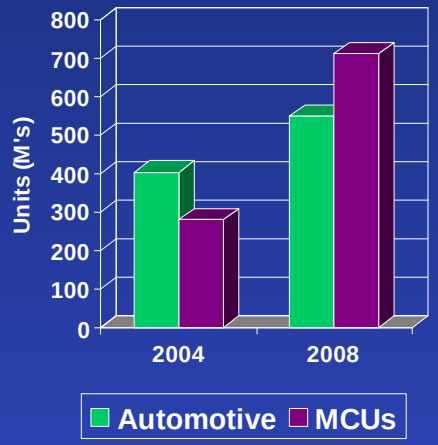
Continuous Convergence

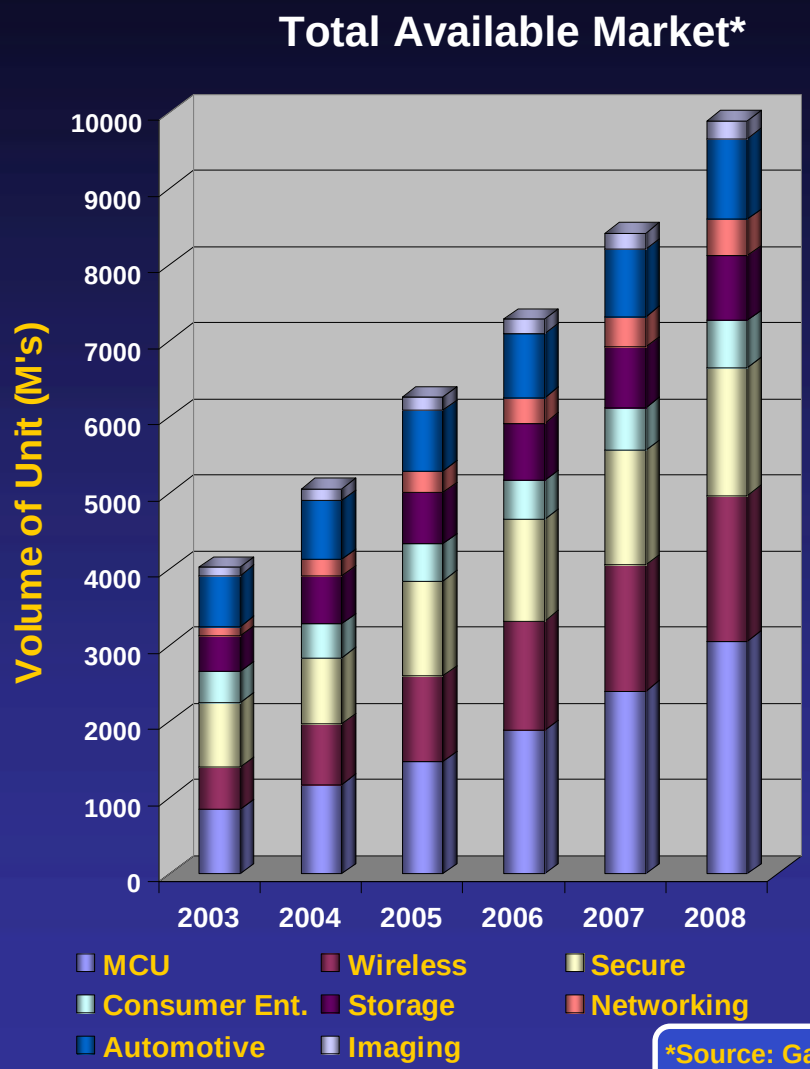


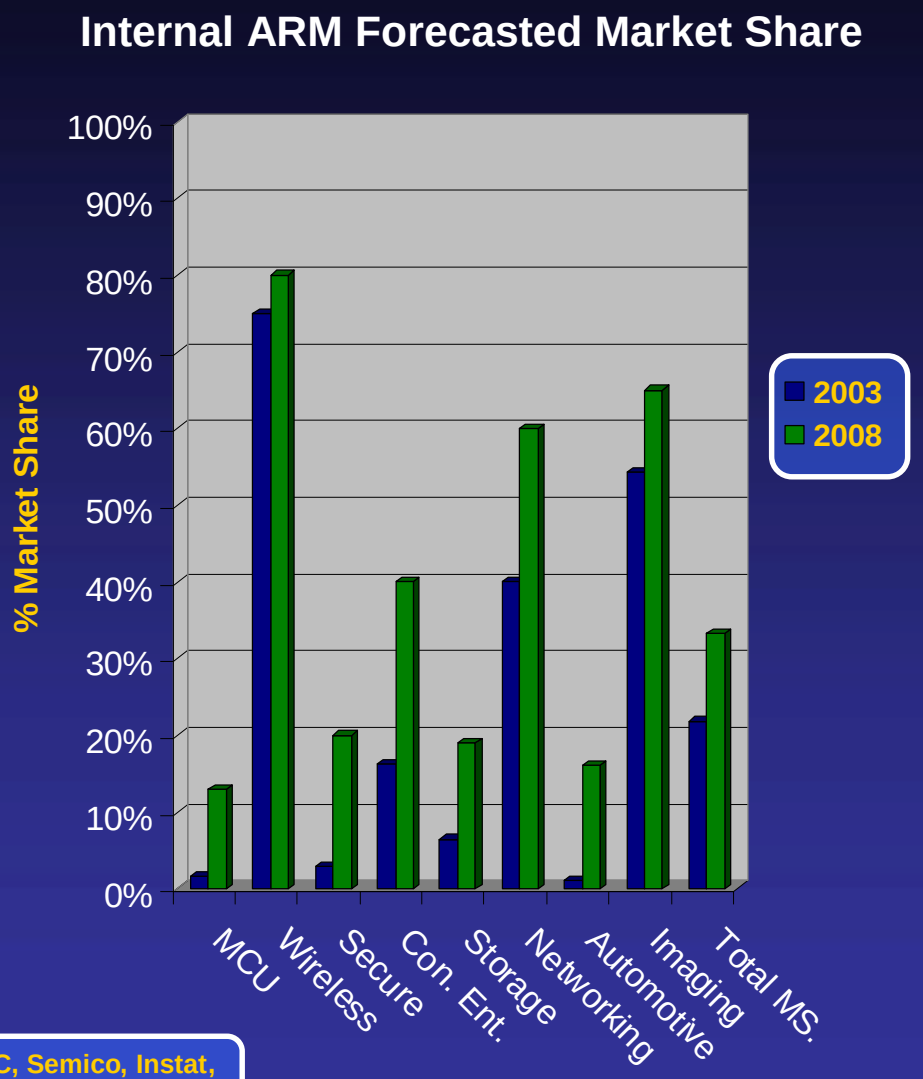


- Average MCU per car will increase from 12 to 20 by 2009 (includes low end autos)
  - 60% will be 16/32-bit architectures
- First ARM core-based Powertrain design announced – Honda Life
- 16 Semiconductor companies now shipping microcontrollers including Philips, ST, OKI and TI
- ST and OKI announced targeted toolkits for ARM core-based MCUs

*** Source: Strategy Analytics, Gartner, Semico, ARM**

Market Share Forecast





*Source: Gartner, IDC, Semico, Instat, ARC Group Strategy Analytics, Lyra Research, ABI

ARM

THE ARCHITECTURE FOR THE DIGITAL WORLD™

ARM Connected Community

- Leverage investment
- Jointly solve complex technology problems
- Reduce risk

Converting the Consumer

Dave Rose
Director, Consumer Entertainment Segment
13 May 2004

Current Consumer Devices

- Low End STB
- Portable Audio
- DVD Player
- Analogue TV
- GameBoy SP

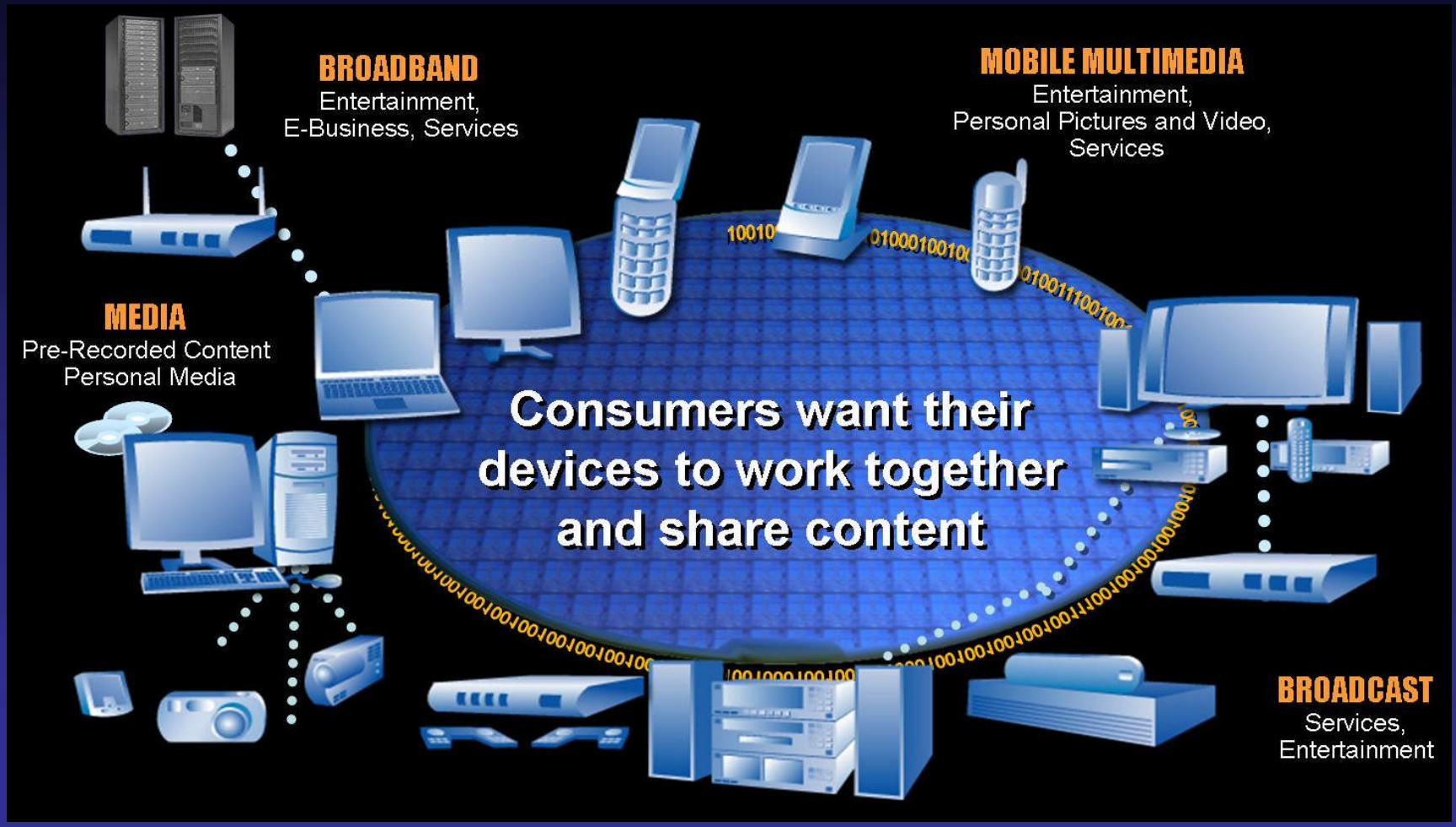
Where We Are Heading

- Portable Video
- Advanced STB
- DVD Recorder
- Personal Video Recorder
- LCD TV
- Plasma Screens
- Media Servers
- Integrated Consoles

Market Drivers

- DVD quality user experience
- OEMs need feature-rich devices
- VoIP, broadband, PVR
- Analogue switch off
- FCC mandate for integrated digital tuners
- Huge investment in LCD & plasma screens
- Media on the go, anywhere, anytime
- Evolving video codec standards
- PC OEMs moving to consumer

Digital Home Vision



Source: dhwg homepage

Enabling Digital Home Vision Challenge

Today

- Fragmented
- Unconnected
- Incompatible
- Not Secure
- Expensive

Tomorrow

- Converged
- Connected
- Compatible
- Secure
- Cost Effective

Equipped for the Challenge

Complete Toolchain

RealView

Advance Bus Interconnect

AMBA

3D Graphics

MBX

System Solutions

Primexsys

'Sub-ARM7'

ARM7

ARM9

ARM10

ARM11

SMP

'Tiger'

Methodologies

Standardisation

IEM

Energy Savings

Thumb-2

Code Density

TrustZone

Security

OptimoDE™
Optimal Data Engine technology

ARM

Target Markets (M units)

	2003	2004	2005	2006	2007	2008	2005-2010 Total Available Market
DTV	10	18	32	48	72	93	521
DVD Player	98	100	88	73	59	51	346
DVD Recorder	3.7	9	16	26	50	63	333
STB < 100 MIPS	17.4	17	16.4	15.6	14.7	12.3	76
STB >100 MIPS	22	27	33	38	43	51	297
Games Consoles	34	29	34	40	50	48	308
Portable Video*	1	2.5	4.5	8	10	13	75
Portable Audio	17	24	28	32	37	44	248
	203.1	226.5	251.9	280.6	335.7	375.3	2.2Bn
DSC / DVC	56	62	71	82	94	104.5	635
Printers (All)	101	113	125.5	140	156.5	164	966
	360.1	401.5	448.4	502.6	586.2	643.8	3.8Bn

Source: ARM's consolidation of research forecasts from IDC, Strategy Analytics, In-Stat/MDR, & Gartner

*ARM Estimate

Summary

- ARM is committed to consumer entertainment market
  - Regional support through offices in Tokyo, Munich and California
  - Drives co-ordination between OEMs, SiPs, OS suppliers, and middleware / application providers
- Competitive Advantage
  - Our competition is just focused on performance
    - This is very important……but not enough on its own
  - R & D spend is 3x greater than our nearest IP competitor
  - Extensive & divergent processor roadmap
  - Differentiation through enabling technologies
  - Single architecture enables designs across all applications
  - Strong position for the converged digital home

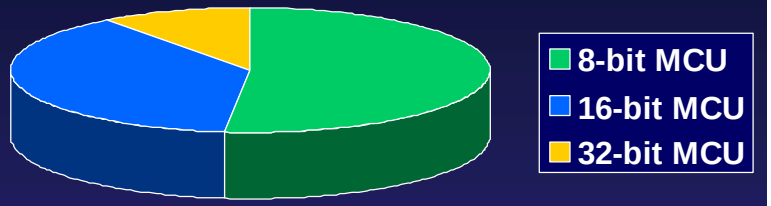
The Automotive Opportunity

Wayne Lyons
Director, Automotive Segment
13 May 2004

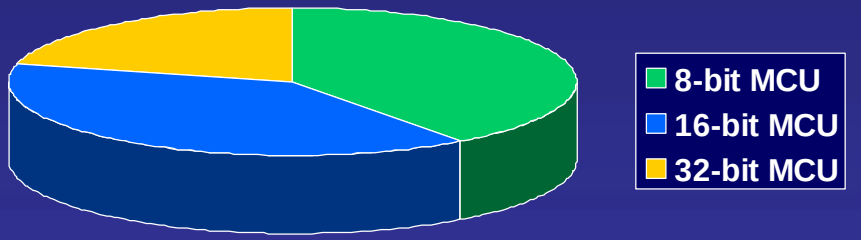
Automotive Segment Overview

- Car production is around 60Mu / year
- MCU content today worth approximately $3Bn per year
- Increasing volume of MCU per car
  - Up to 20 per car in 2009
- Volume opportunity increasing
  - Strong migration to 16/32-bit architectures over the next 5 years
- Cost still dominates
  - Leads to constant value engineering
  - Adding extra processing load to each element
- Europe progressive in terms of MCU content, safety
- Japan progressive in terms of car multimedia and navigation

MCU Volume 2004: 770Mu*



MCU Volume 2008: 1,060Mu*

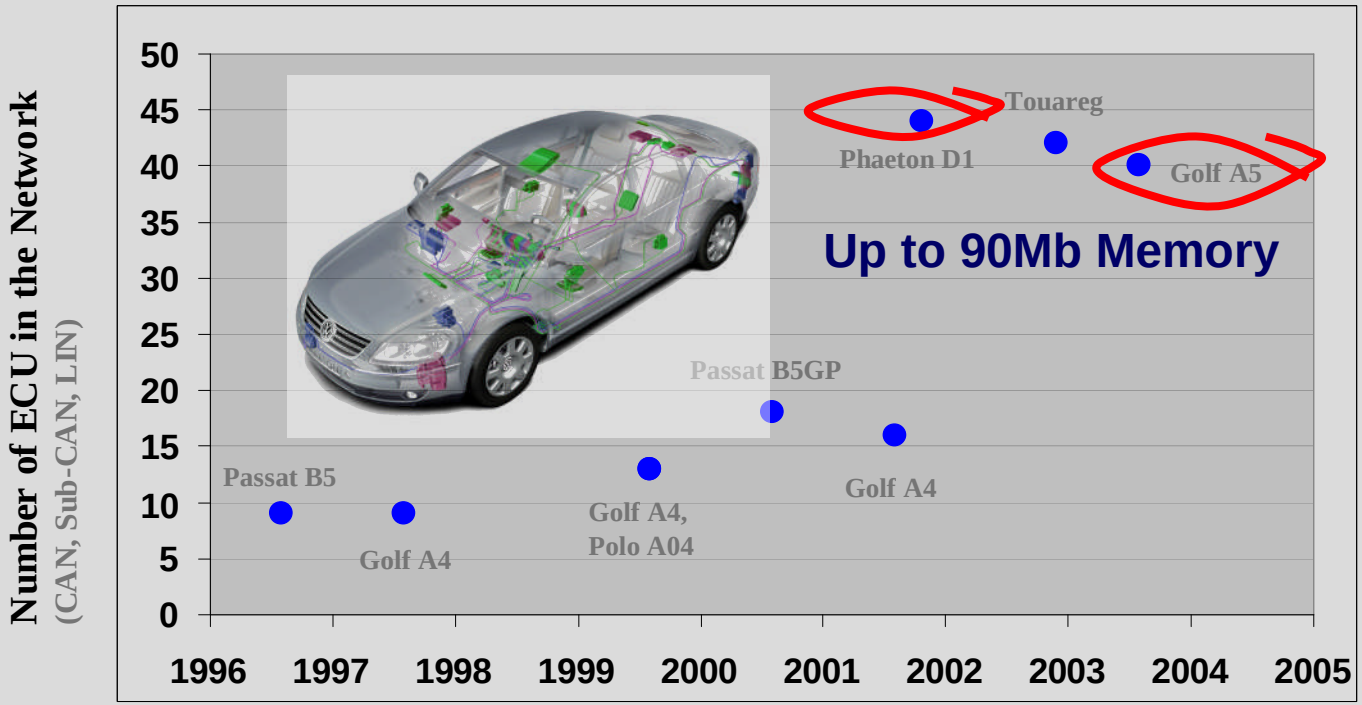


* Source: Strategy Analytics

Market Trends: Evolution of Network

Automotive electronics

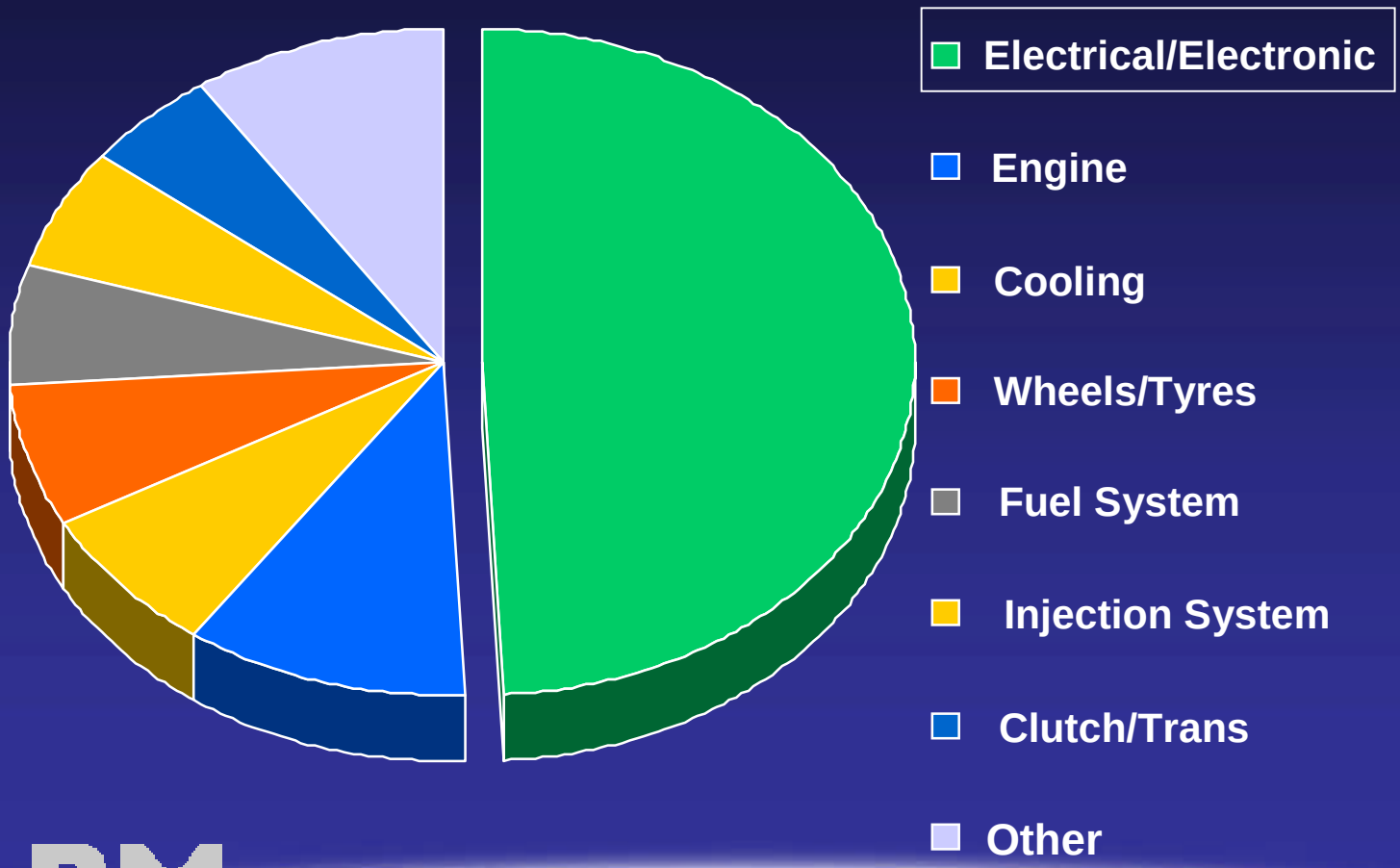
From a mechanical industry to an industry driven by electronics



Market Trends: Reliability Issues

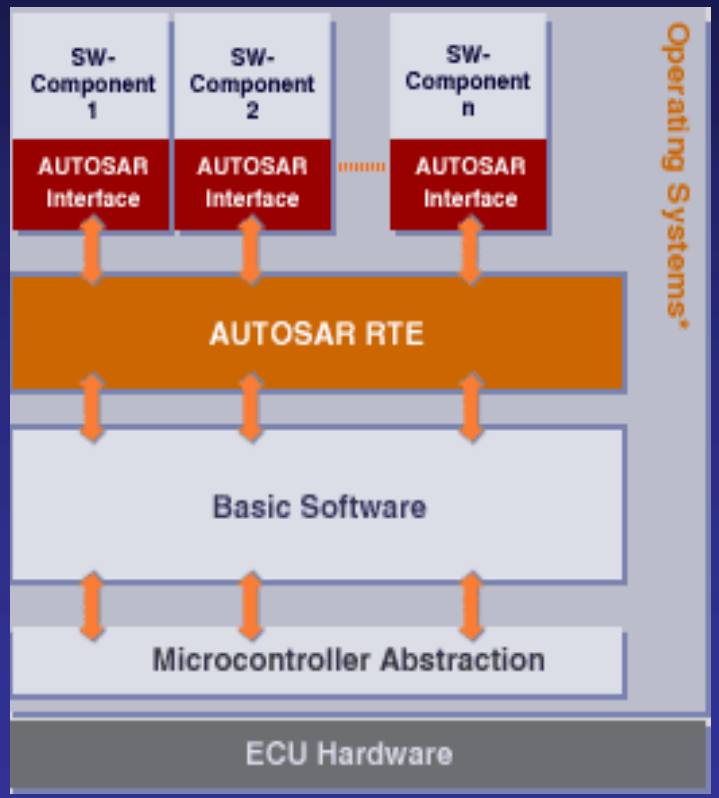
Electronic systems account for
49.2% of registered breakdowns
Source: ADAC

Focus is on improving quality
And reliability of exisiting systems



Market Trends: Standards Initiatives

Formal software methods require an efficienct software engine



BOSCH
BMW Group
Continental
DaimlerChrysler
Ford
PSA PEUGEOT CITROËN
SIEMENS VDO Automotive
TOYOTA
VOLKSWAGEN AG

DENSO
ETAS
3SOFT
HELLA Ideas today for the cars of tomorrow
LiveDevices ETAS Group
vector

Result: Migration to 32-bit

Bosch ABS

- ABS, Chassis Systems
- Dashboard
- Powertrain
- Telematics
- Car Multimedia
- Airbag
- Steer by Wire
- Body Control

VW Touran

Honda Life

Acura TL Sedan

Entry Level Telematics: Case Study

Problem:

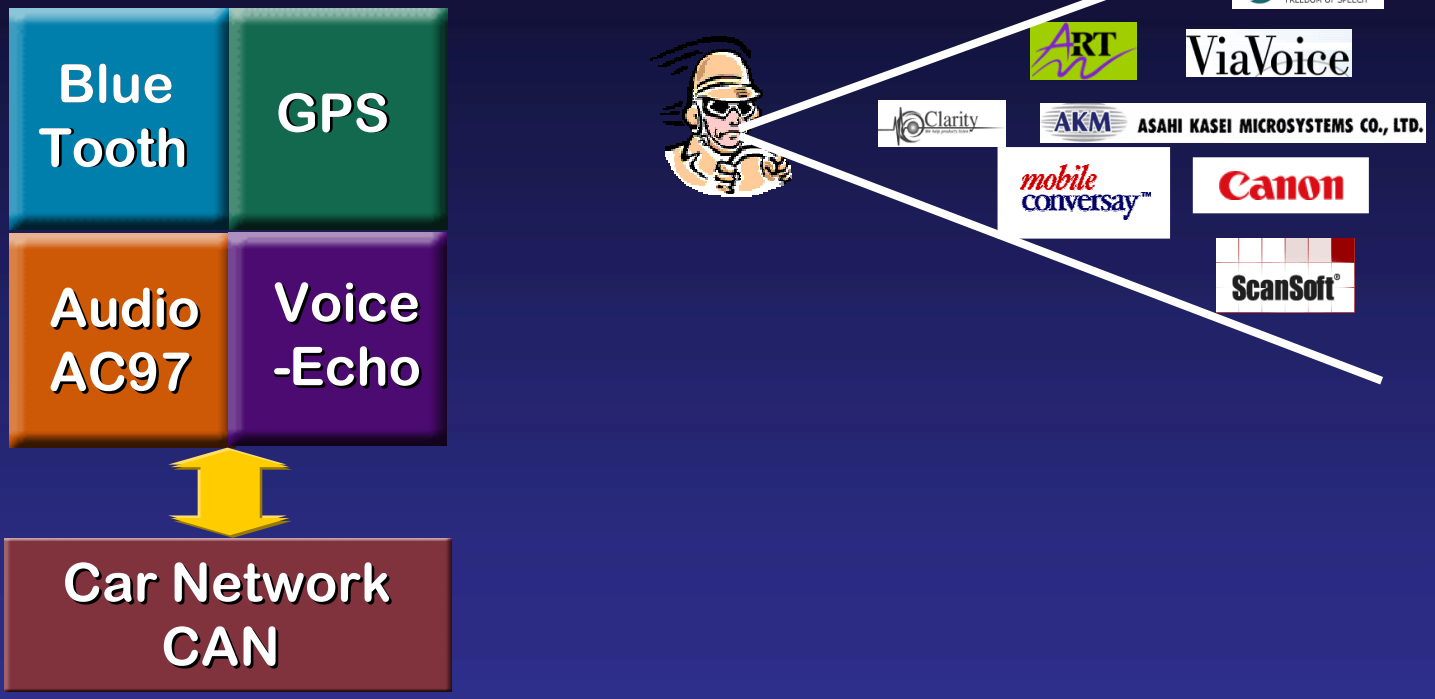
- Cumbersome, incompatible car kits
- Dial-up and text messages still cause distraction
- Most importantly: legislation…forces innovation

Acura TL Sedan
"HandsFreeLink"

Solution:

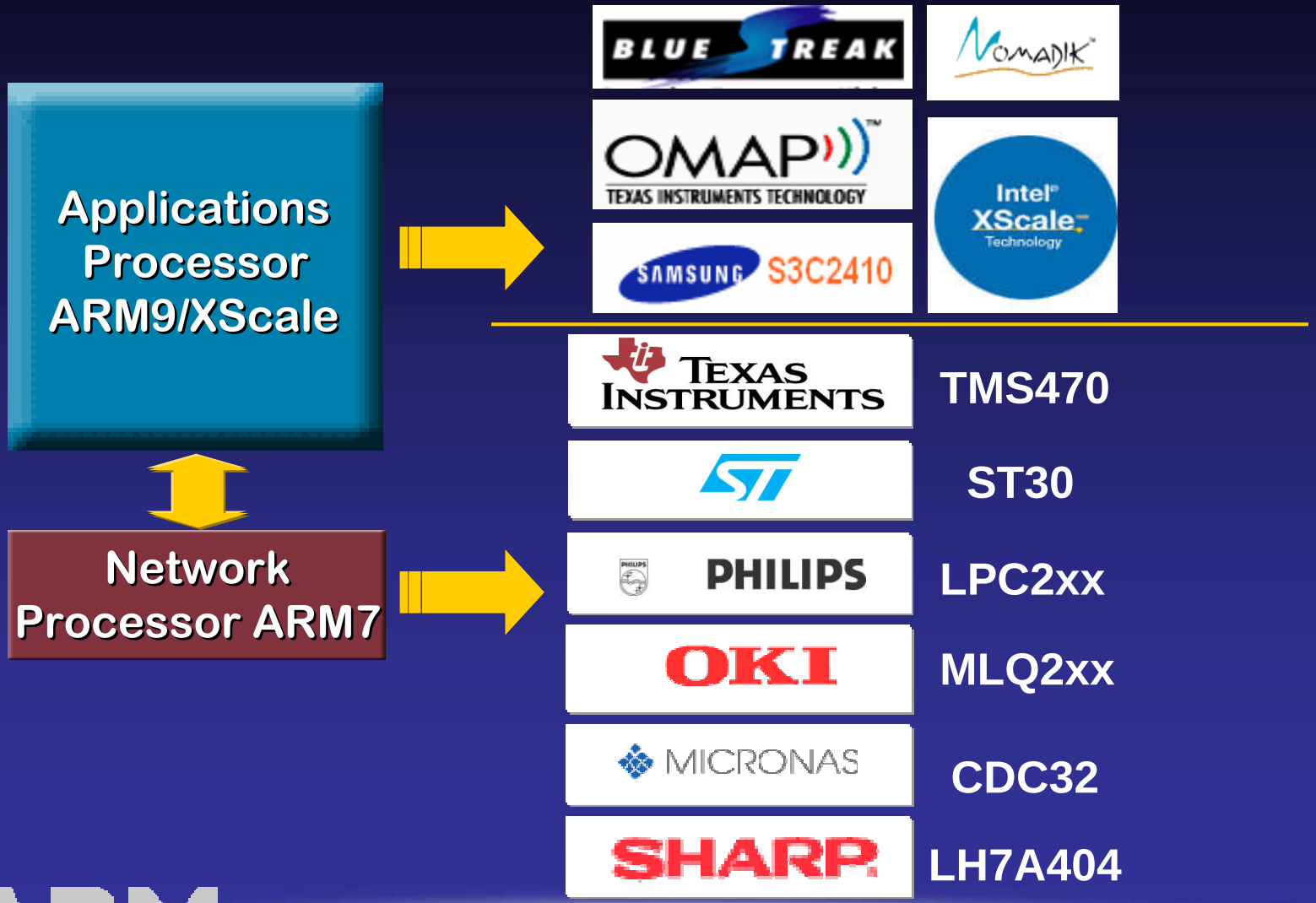
- Universal Bluetooth Car Kit integrating voice recognition and text-to-speech

Telematics Block Diagram



Telematics Software Platform

Telematics : Opportunity for ARM



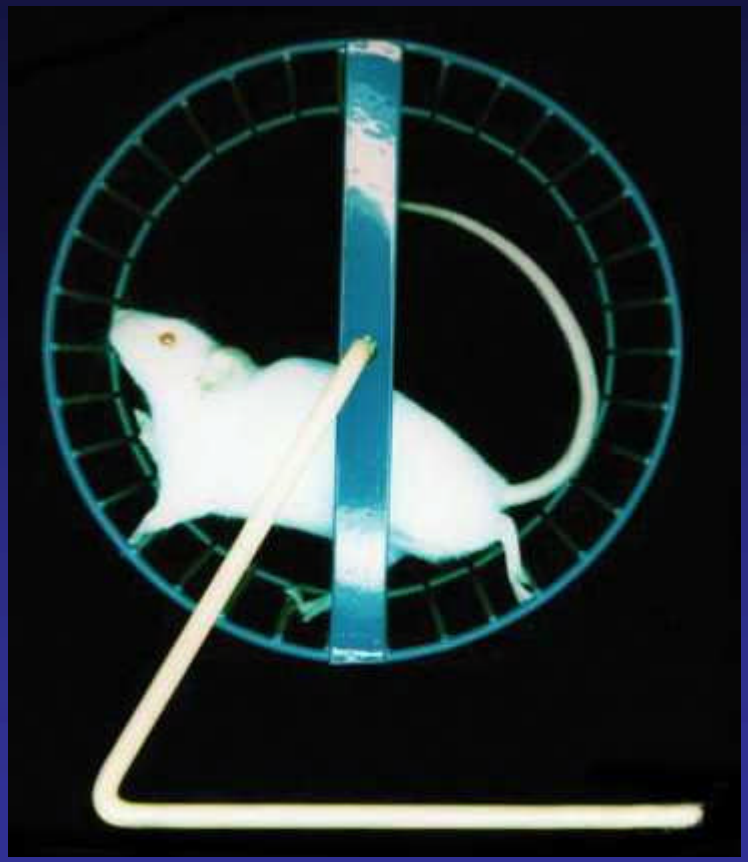
The ARM Advantage in Automotive

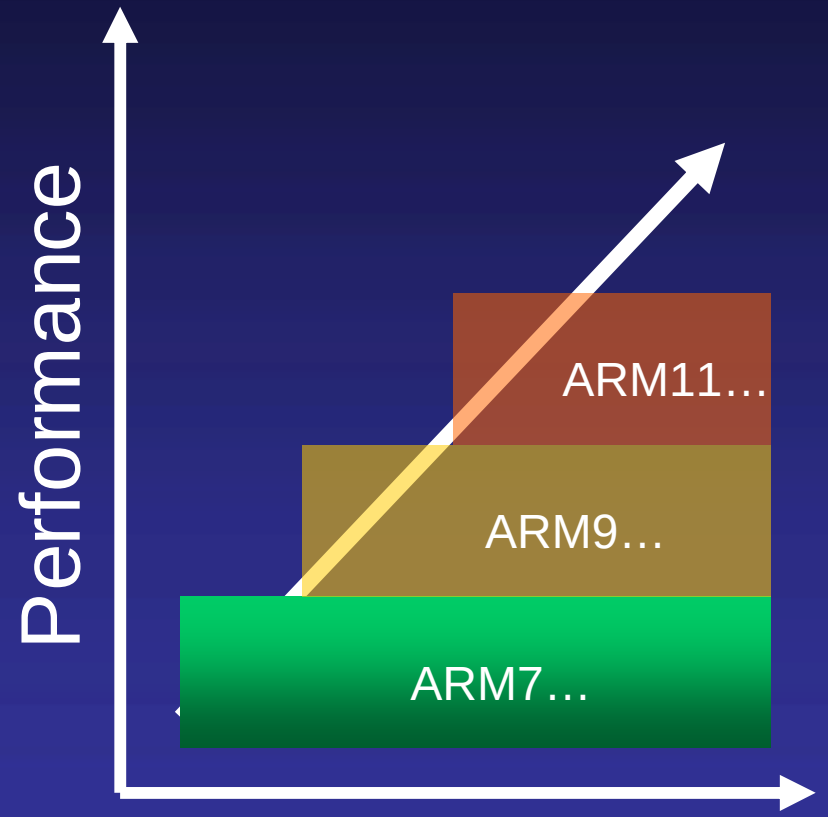
- Key Factors that are driving performance to 32-bit
  - Reliability
    - The increasing use of formal development methods
  - Cost Optimisation
    - Integrating discrete body control functions
- The ARM Advantage
  - A portfolio of high quality, well tested IP
  - Regional IP support through offices in Tokyo, Munich and Detroit
  - Addressing Automotive Supply Chain management by enabling
    - Hardware standardisation
    - Software commonality

ARM Roadmap

Simon Segars
EVP, Worldwide Sales
13 May 2004

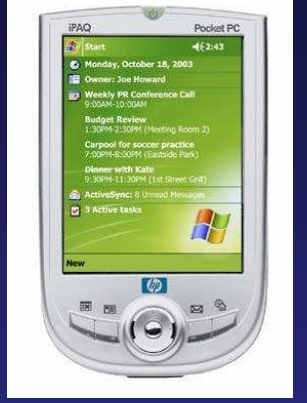
Roadmap or Treadmill?





Product Split

- CPU Roadmap divided into ‘Embedded’ and ‘Open’ application spaces
- Open Applications
  - Open to third-party applications
  - Software compatibility key
  - Operating system support vital
- Embedded
  - Invisible processor
  - Driven by cost, cost, and cost
    - Power and efficiency also vital

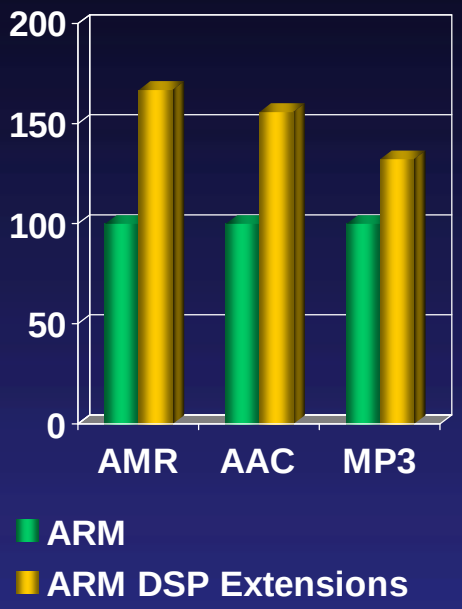


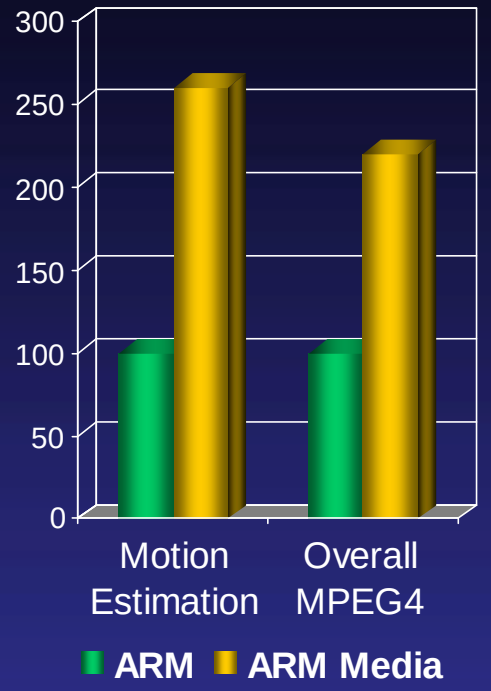
Open Application Processors

Technology Drivers

- Pervasive high-bandwidth communications
  - Broadband in the home
  - 3G for mobile
- Enables high-quality media delivery
  - Streaming video and audio
- Gaming is just starting on handhelds
- Pushes processing requirements up
  - Power efficiency requirements going up too
- Drives ARM high-end roadmap to power efficient, media-efficient processing

Evolution in Media Performance





- ARM DSP ‘E’ extensions
  - Introduced in 1999
  - Accelerate audio codes and general DSP tasks
- ARMv6 SIMD extensions
  - Introduced in 2001
  - Over 2x performance for MPEG4 encode-decode

Handset Evolution

?

1983 → 2003 → 2023

Kg Weight
Lead-acid battery

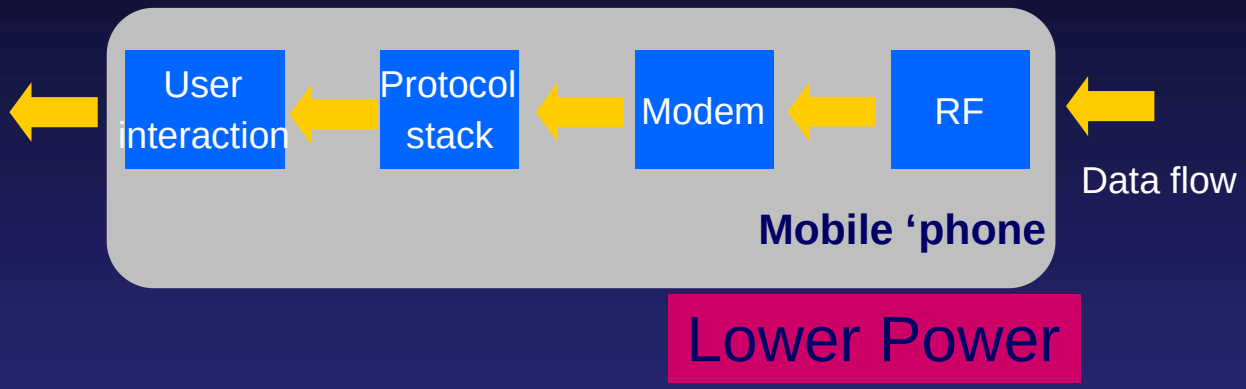
Smart phone OS
Downloadable apps

Consumer Evolution

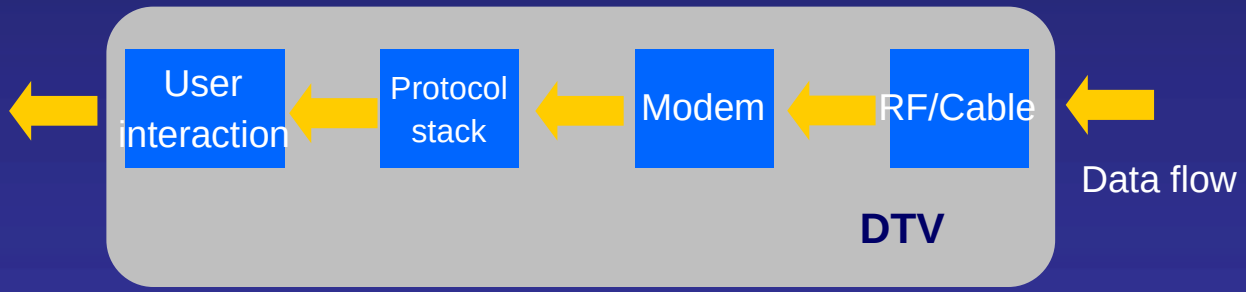
?

Black and white → Digital, interactive → Information portal

But it's all the same problem..

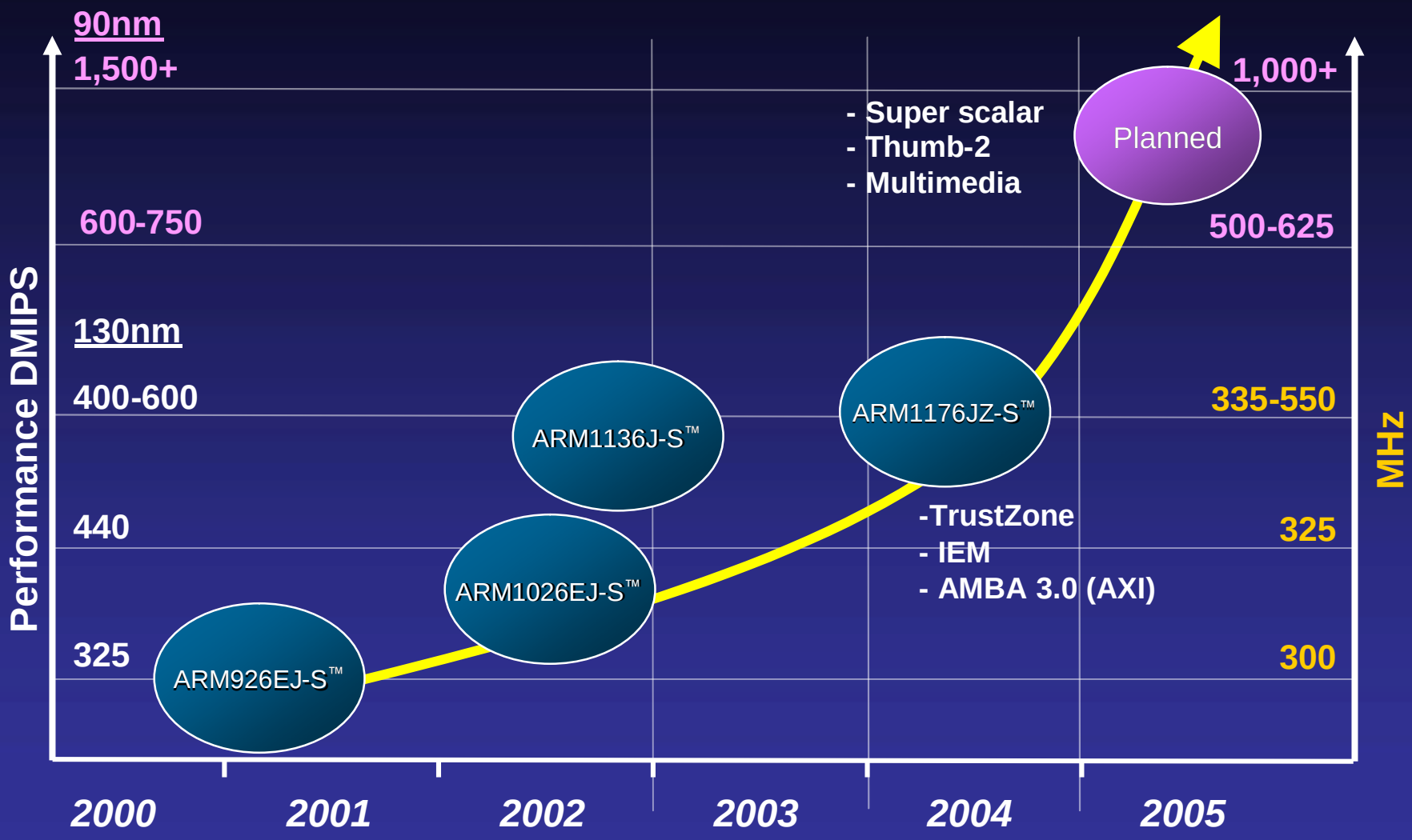


Lower Power



Higher Bandwidth

Application Processor Roadmap



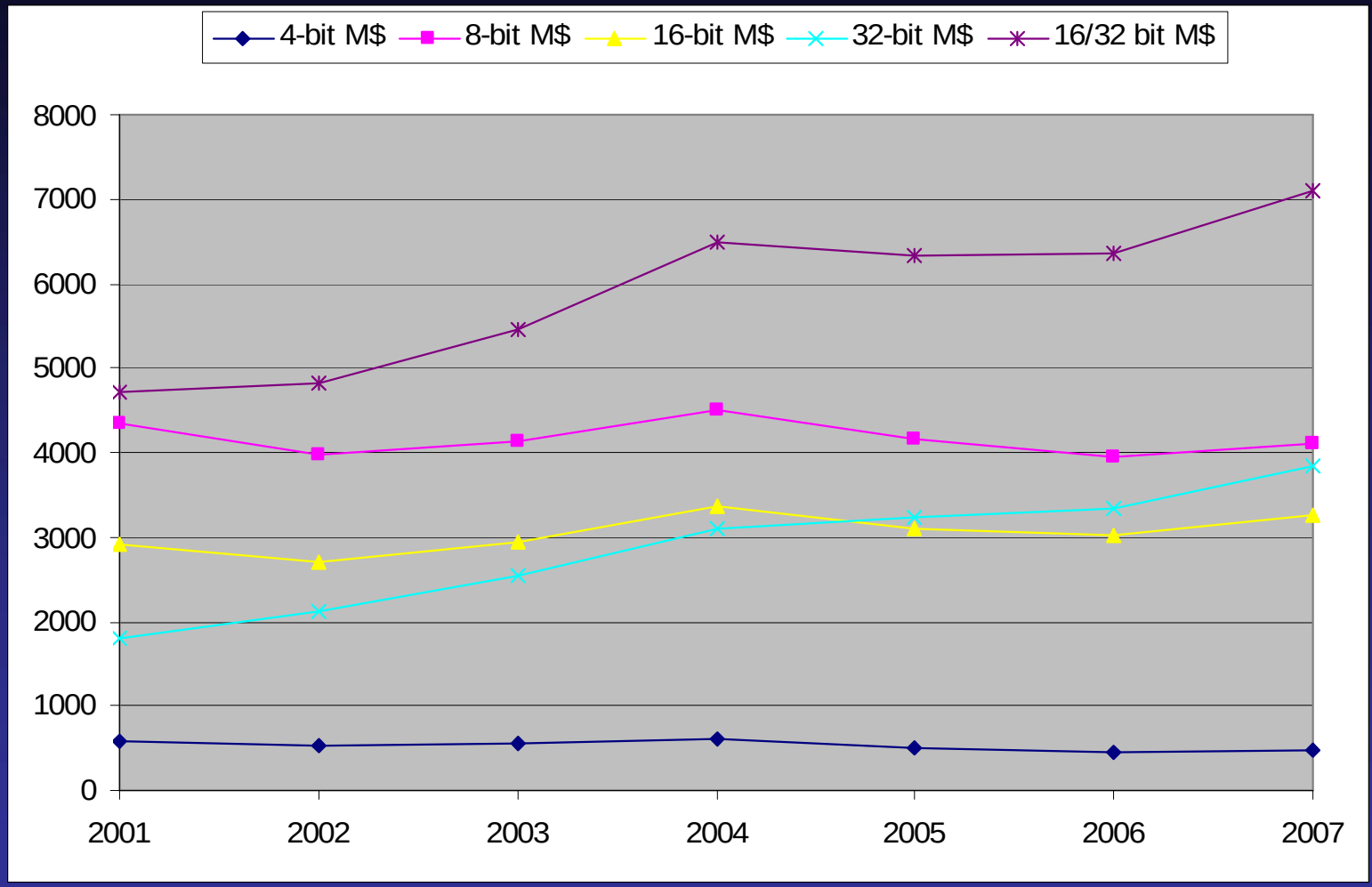
Worst case conditions

Embedded Processors

Embedded Technology Drivers

- Embedded applications becoming similarly complex
  - Washing machines
  - Sewing machines
  - Toilet seats
- So, MCU complexity is going up
  - MCUs will move to 32-bit
  - Moore's Law helps us fit more functionality into a chip for a given cost
  - But efficiency and power are key

16/32-bit is Where the Money is



ARM in Microcontrollers

- Cost is key driver in microcontrollers
- Low power
- Low pin count
- High code density
- Broad tools support

Leading mW/MHz

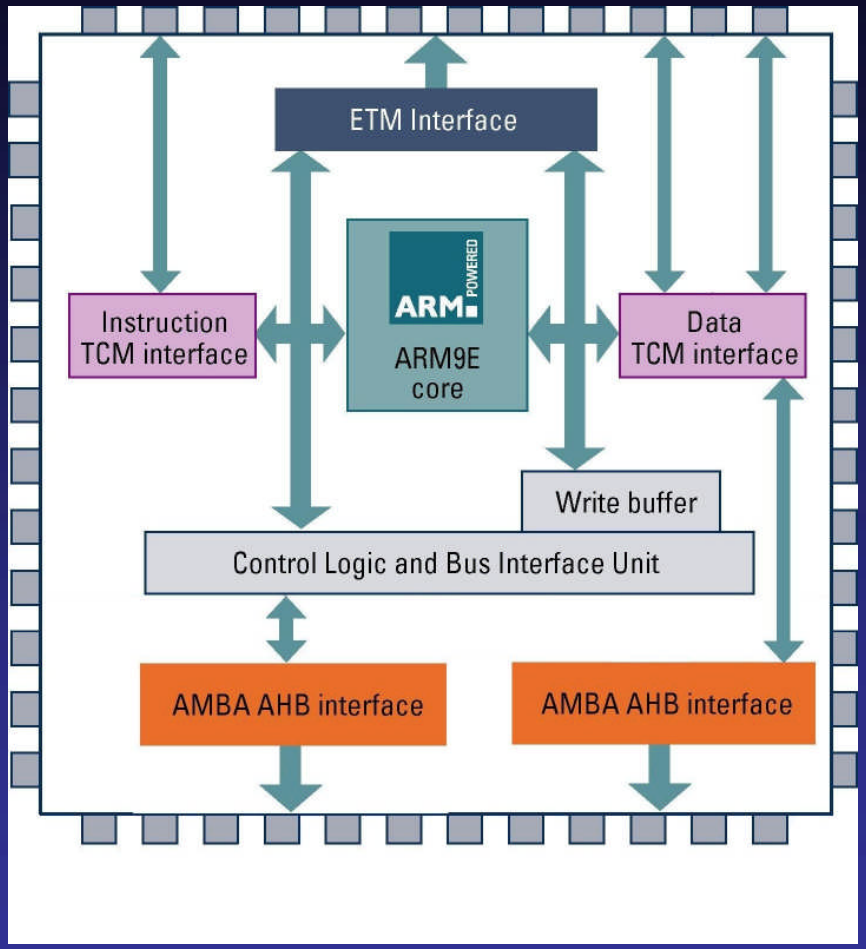
Leading debug

Thumb-2

RealView Tools

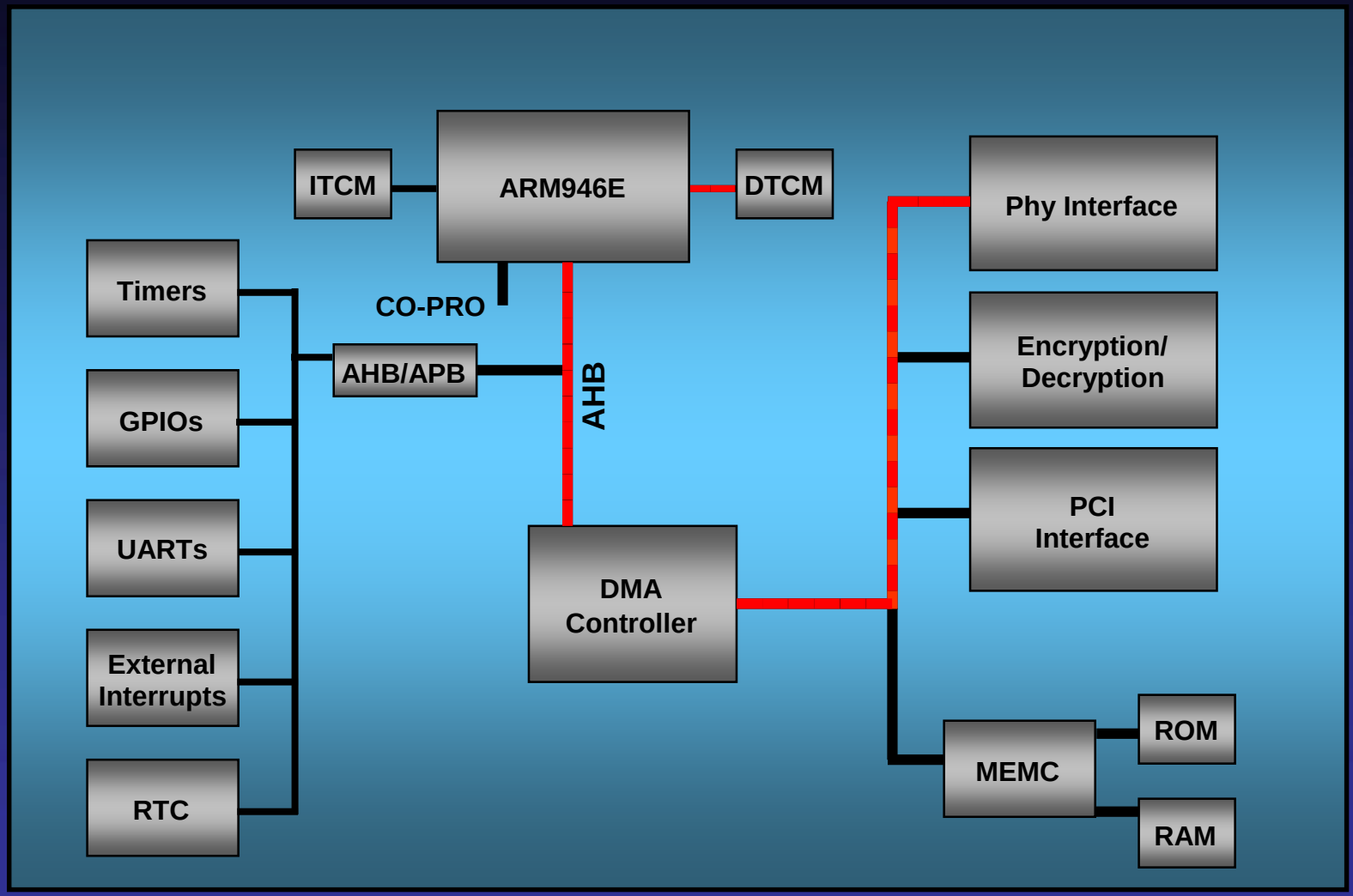
- New CPU product launch targeted for late 2004

Example: ARM968 Processor

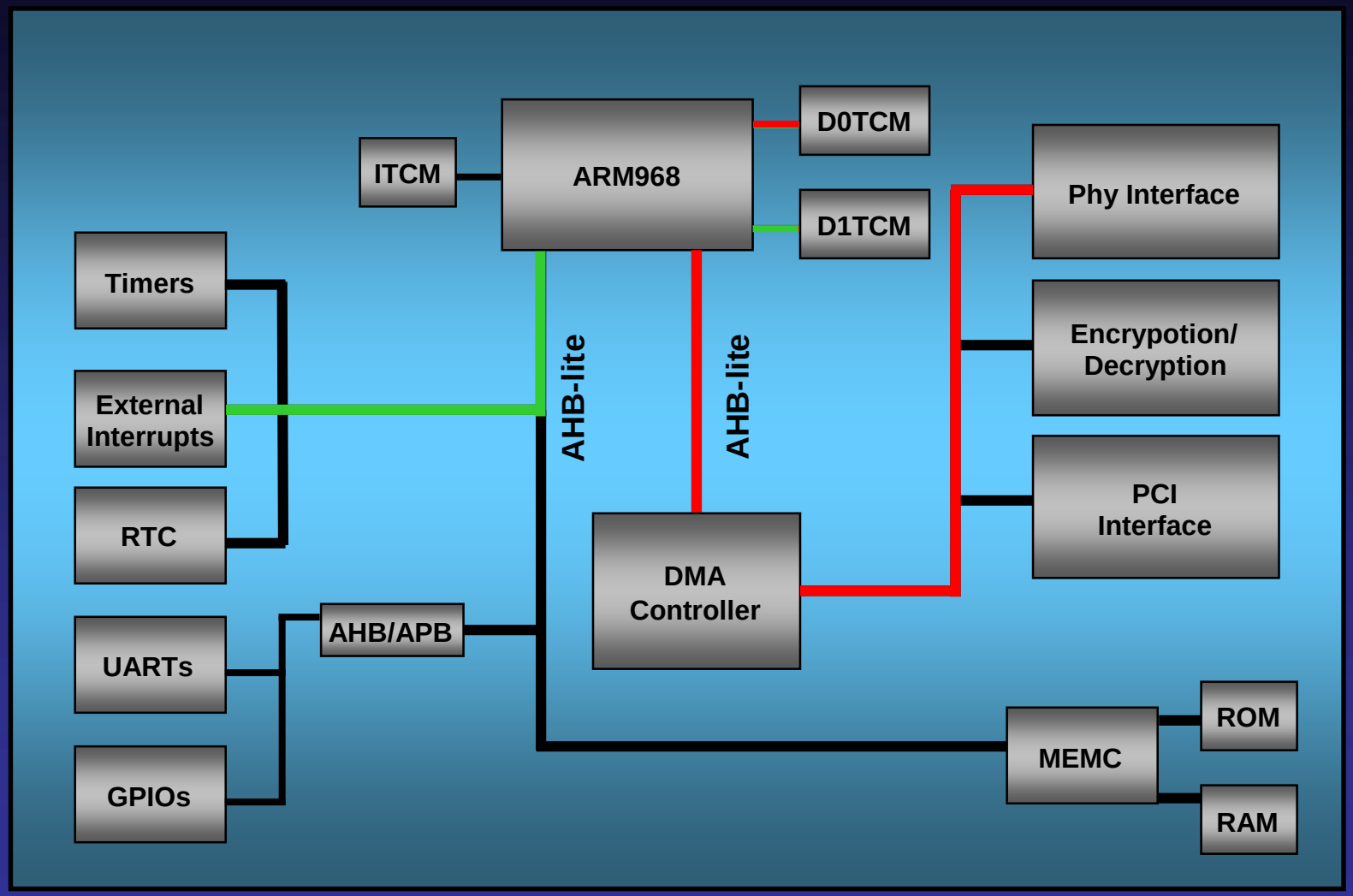


- ARMv5TE core
- ARM9 micro-architecture
- Low latency
  - Two cycle AMBA AHB-lite
  - Efficient core interrupt handling
  - AHB VIC compatible
- Interleaved Memory Access™
  - Single instruction TCM
  - Dual bank data TCM
  - TCM DMA port
- Small footprint core
- Optional debug and test
- Advanced tool support

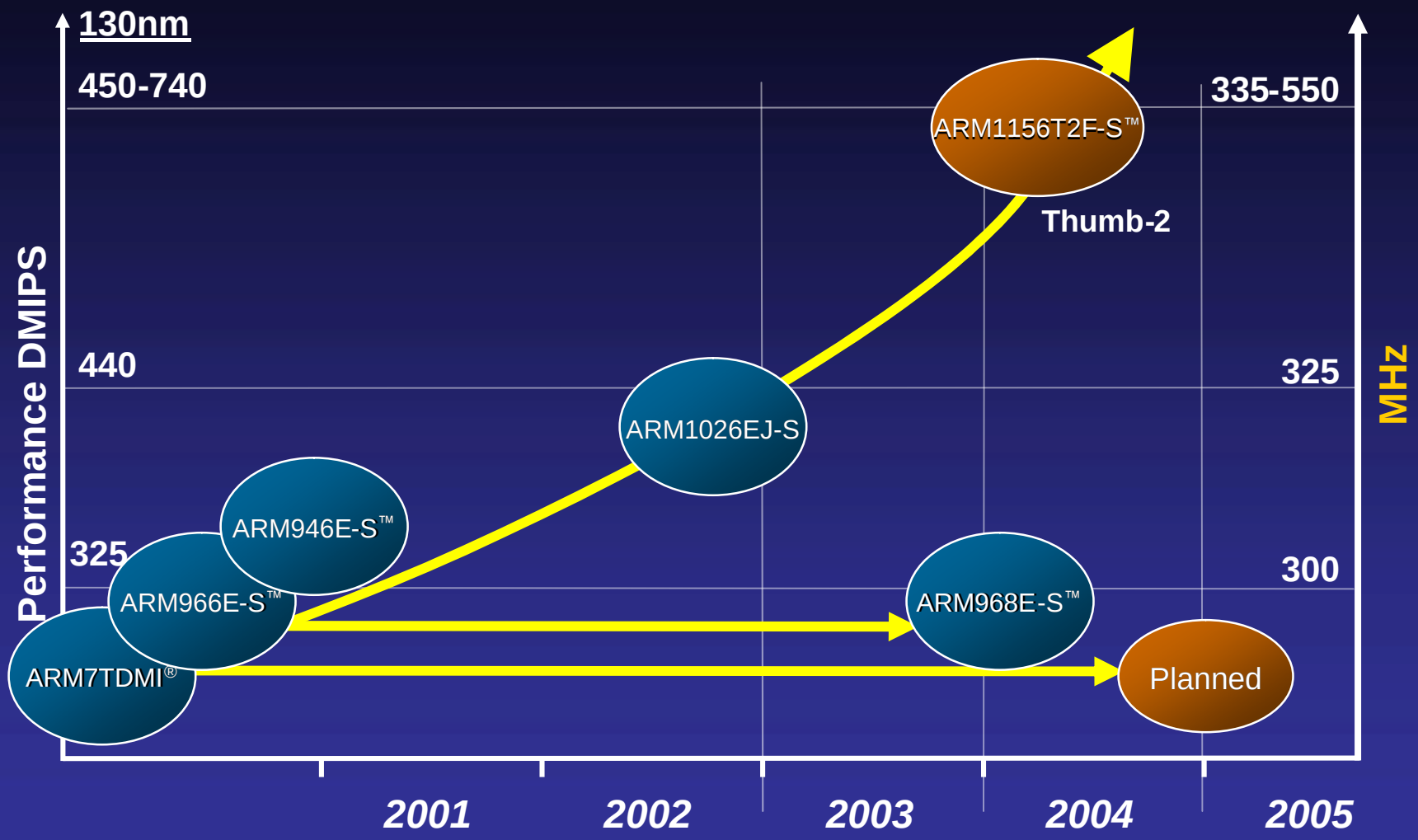
ARM946E-S “Data Constipation”



ARM968 “Data Relief”



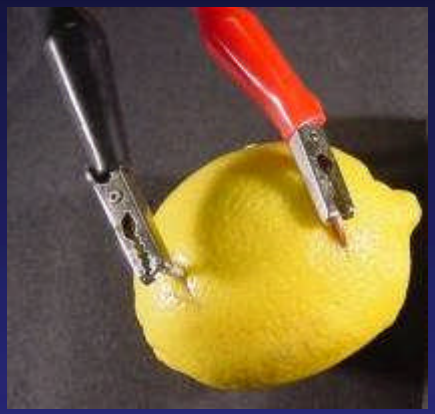
Embedded Control Roadmap



Worst case conditions

Conclusion

- The world's processing requirements have not been solved
- Media, graphics, power efficiency drive the high end of the roadmap
- Low cost and system efficiency drive the low end
  - A move to 32-bit microcontrollers will benefit ARM
- ARM continues to innovate, delivering market leading technology for the digital world



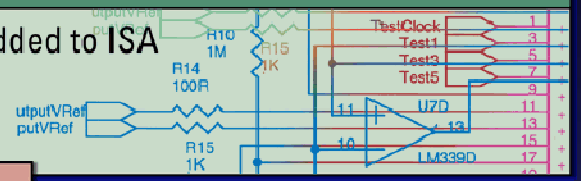
Additional Value From Systems

Mike Inglis
Executive Vice President, Marketing
13 May 2004

System Design Requires Full Solutions

New Instructions Definition

Upfront definition of instructions to be added to ISA
Research
High-level engineering



CPU Implementation

CPU design, implementation, verification and validation
Software tools, compilers, debuggers, boards

Platform Implementation

Platform infrastructure
Bussing
Peripheral development
Implementation, verification and validation
OS porting

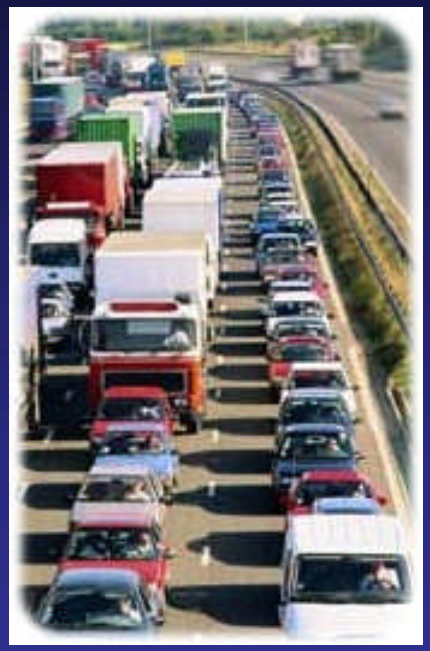
Ongoing Support (Sustaining)

Support and training
Partner feedback

IP Solution Implications and Issues

- Power - Energy consumption
  - Maximum battery life, but also safe power down and restore
- Performance – efficient portable media
  - Architecture - extensions for media and Java
  - ARM1136 core with Jazelle® and media extensions
- Area - System performance to make best use of gates, area cost
  - Standard microprocessor cores for software leverage
  - Configurable signal processing technology for optimised performance
- Security
  - Transfer of sensitive information across open networks TrustZone technology

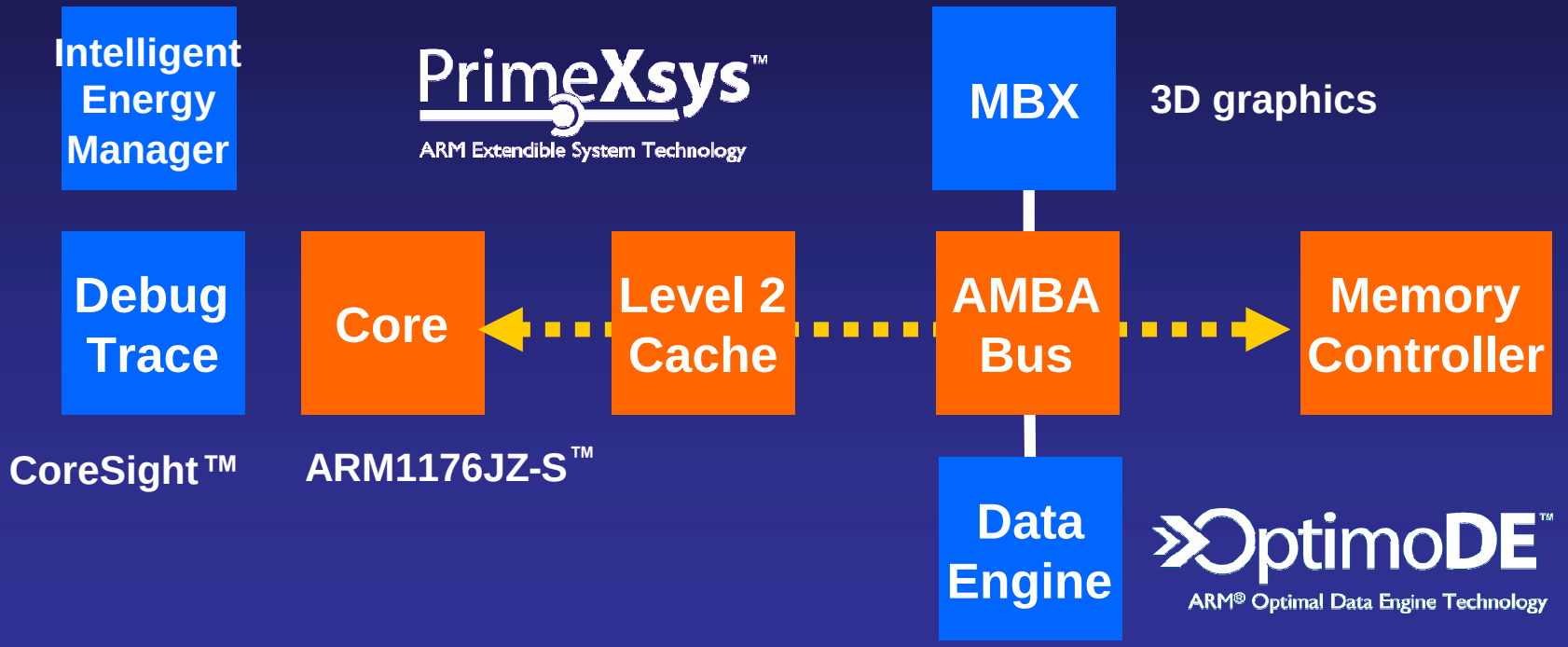
System Need for ‘Open Roads’



A fast processor with slow memory is like driving a sports car in heavy traffic….

A ‘Real’ System Architecture

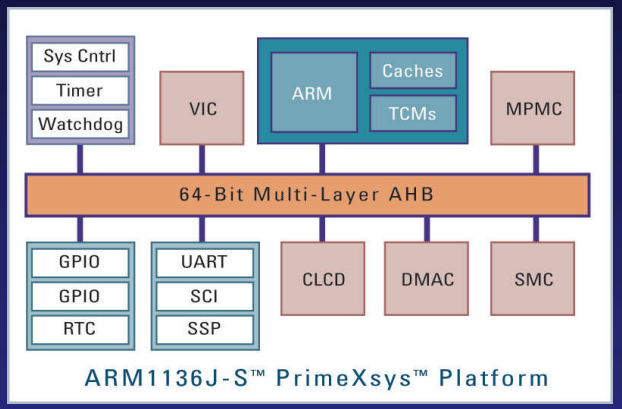
- Optimised data path to memory for performance and power efficiency



PrimeXsys™ Platform – 'Kit Car'

- 'Kick Start development' - Basic peripherals to boot OS for verification and benchmarking

Mamba Motorsport C23

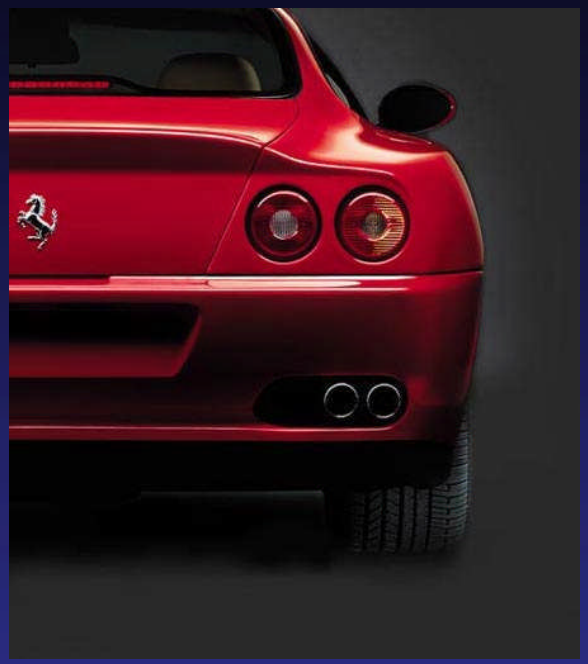


ARM1136 core 'Kit Car'

- >14 licenses – From China start-up Shanghai Jade to large companies like ST
- PrimeXsys Platform customers - ST's Nomadik winner of Microprocessor Forum Applications Processor for 2003. NeoMagic runner-up

But Usually We Want More…..

Improve design
Servicing
Usability
Image
Performance



Application-specific acceleration using OptimoDE technology

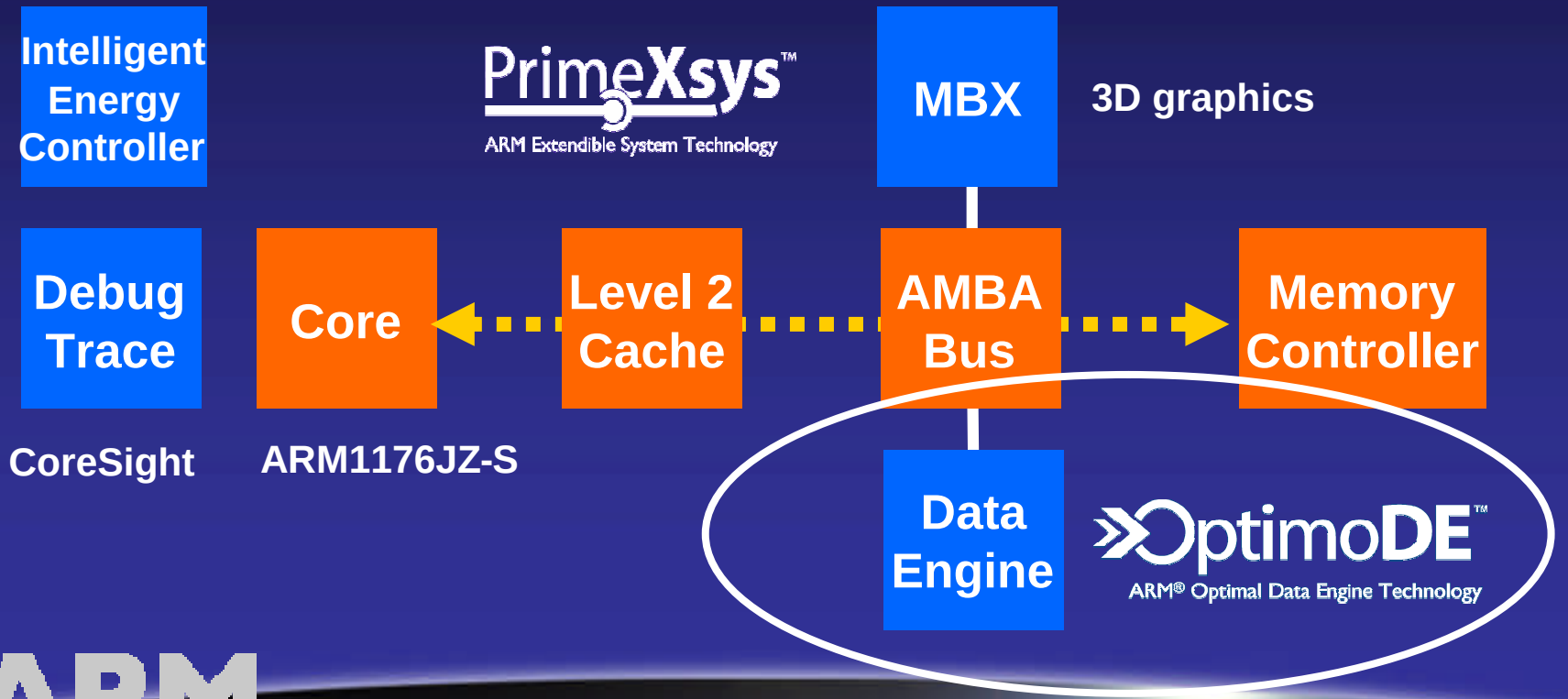
MBX 3D hardware IP, Swerve 3D software

IEM support, CoreSight Debug/Trace, clock & reset generation

RealView® tools for design and debug

OptimoDE™ Data Engine

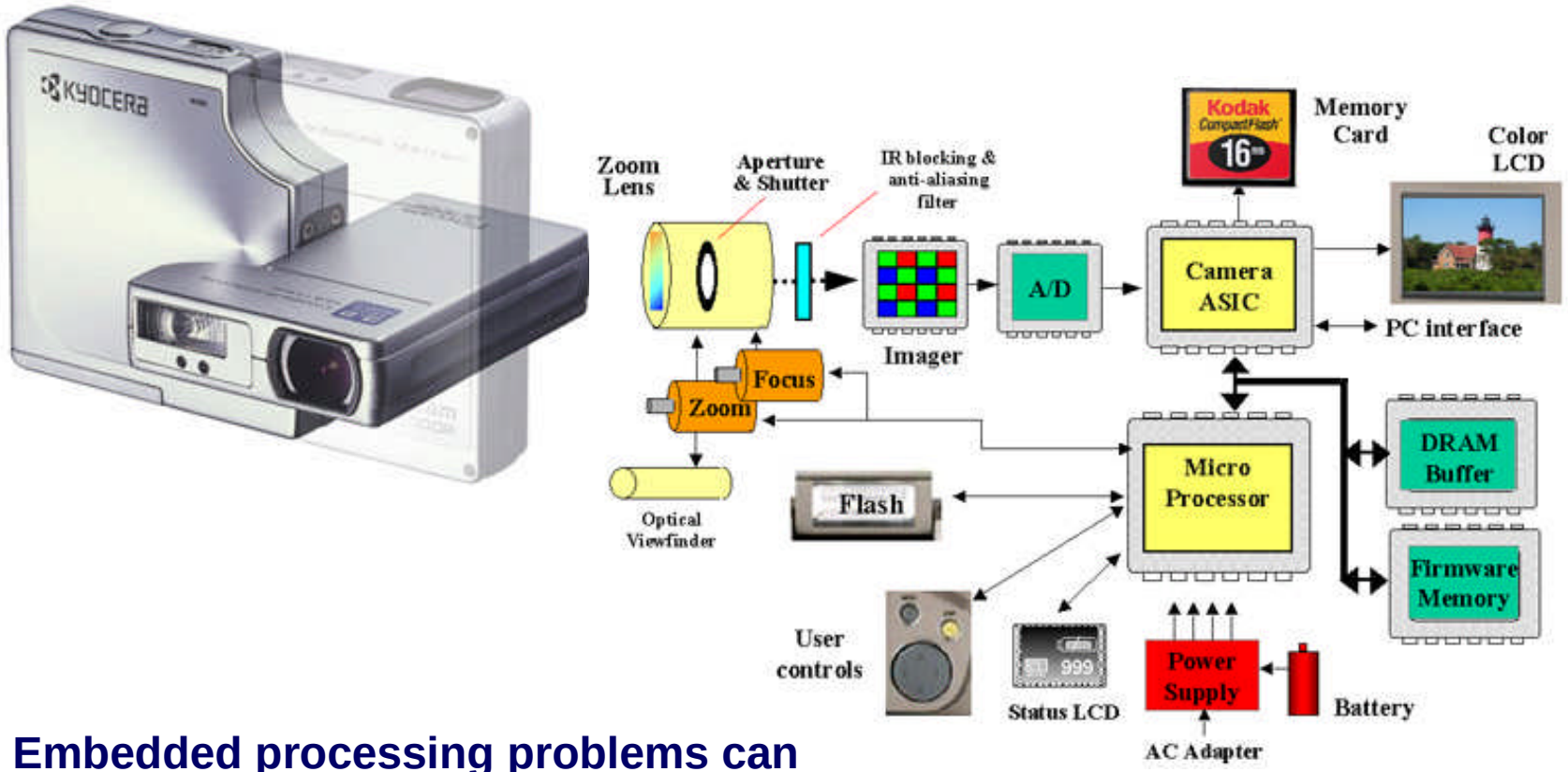
- OptimoDE is a configurable architecture and tools for implementing embedded signal and data processing solutions
- OptimoDE technology enables the design and development of flexible, low-cost devices at a performance levels unobtainable by conventional design approaches



The Embedded DSP Opportunity

Tom Cronk
General Manager, ARM Belgium
13 May 2004

The Design Space



Source Kodak research

Embedded processing problems can be categorized as either Control Intensive or Data Intensive

Control Planes & Data Planes

- Control intensive programs
  - Large code sets
  - Dynamic execution sequences
  - Dynamic interaction of programs and tasks
  - Diverse source of programs in a given task
  - Often include a sophisticated operating system
  - **A standardised** architecture is a key requirement for software compatibility and support for complex program hierarchies
- Data intensive programs
  - Complex but relatively small and very well defined
  - Highly repetitive code sequences
  - Algorithms lend themselves to a high degree of parallelism
  - High proportion of time is consumed on small code sections
  - **Customisation** is technically and commercially beneficial

Data Plane Implementation

Next-Generation Products

Increasing system complexity
Increasing algorithm performance
Increasing development cost
Greater portability of applications
Faster turn around times

Software Orientated

Increasing
- Product flexibility
- Design reuse
- Time-to-market

Increasing
- Power efficiency
- Performance
- Silicon efficiency

Hardware Orientated

Data Plane Designer's Dilemma

Designers must either:

- Deploy a general-purpose DSP architecture
  - Flexible but often non-optimal and underperforms
  - **Will this result in a competitive solution?**

Or:

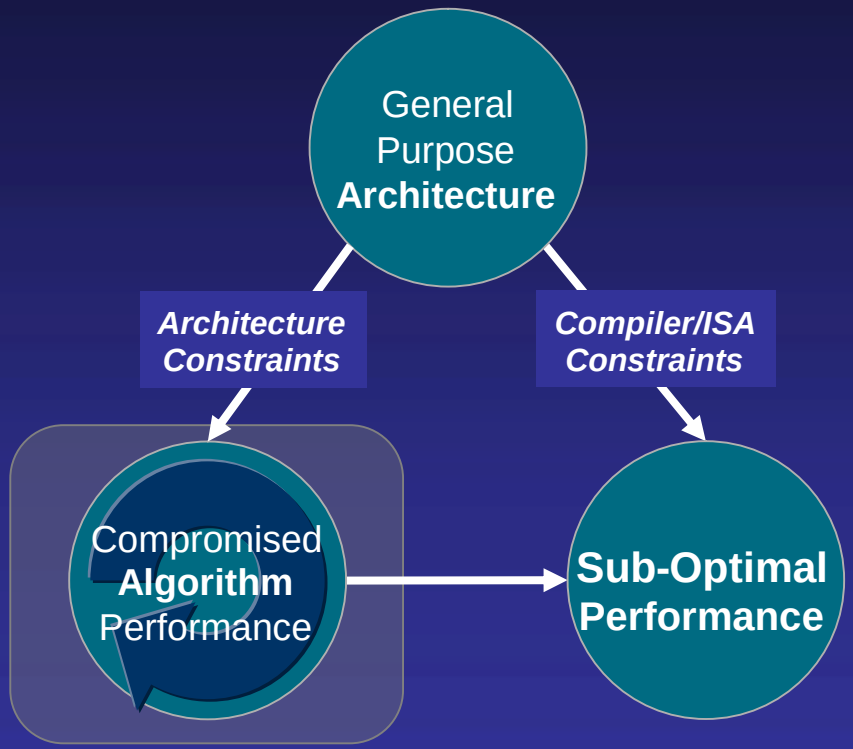
- Develop a highly optimised point solution (gates)
  - High risk (no flexibility)
  - High cost (long development cycle)
  - **Frequently the more expensive option!**

Strategy to Address the Gap

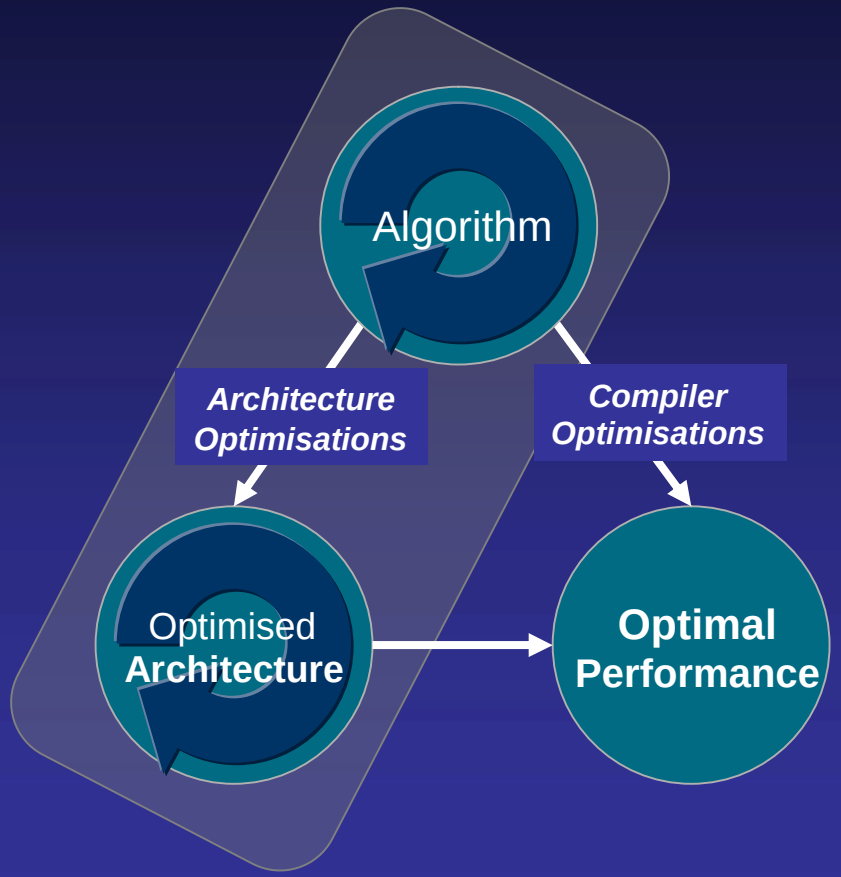
Performance towards fixed function logic design
but with flexibility through High Level Language (HLL) reprogrammability

Why Are Data Engines Different?

Classic ISA Approach
"Fit algorithm to the architecture"



Data Engine Approach
"Tune architecture to algorithm class"



Data Engine Characteristics

- Higher performance
  - High levels of performance in area and power budget comparable
    to fixed function hardware design
- Efficient execution
  - Data engines need to exploit full parallelism available within target algorithm
- Optimal for application
  - Customisable to produce optimal data engine solution based on requirements of algorithmic domain
- C and C++
  - Data engines developed in HLL to ensure development efficiency
- Software reprogrammability
  - Data engines must incorporate sufficient flexibility to be reprogrammed once committed to silicon

Enabling Compelling Products

- Empower engineering creativity
- Increase market share and penetrate new markets
- Flexibility to differentiate
- Leading power, performance and area
- Maximised margins
- Maximise battery life

Broad Segment Support

Printing

Portable
Video & Audio

Wi-Fi

OptimoDE™
ARM® Optimal Data Engine Technology

HDTV

Video Camera

DSC

Summary

- Industry seeing growing design challenges in embedded DSP
- Data Engine approach provides a solution to these issues
- Data Engines can address processing requirements in many application domains
  - Wireless, networking, printing
  - Imaging, storage, consumer entertainment
- ARM has established a new business to address the opportunity
  - Adelante Technologies Belgium (July 2003)
  - Leveraging ARM synergies to make a solution well-suited to use with ARM processors, tools and SoC design infrastructure
- Strategy execution is running to plan
- OptimoDE product details will be announced at EPF next week

OptimoDE™

ARM® Optimal Data Engine Technology

Evolving the Business Model

Tudor Brown
COO
13 May 2004

Vision

1990

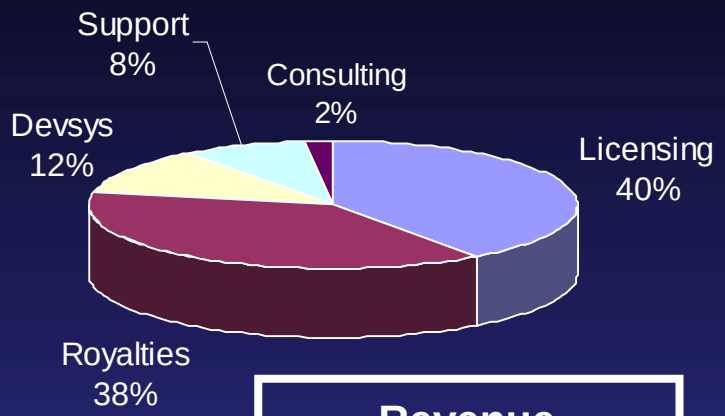
"To be the #1 provider of embedded 32-bit RISC microprocessor cores"

2004

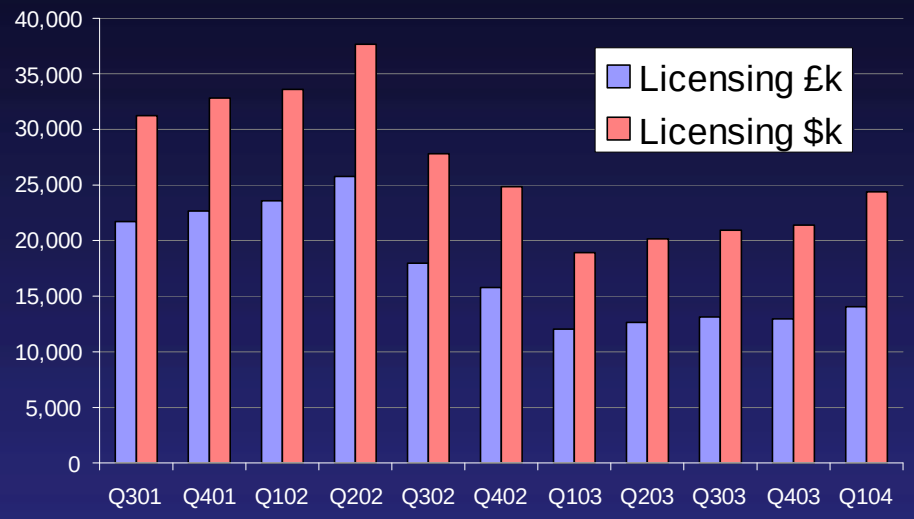
"ARM IP foundation of every digital device on the planet"

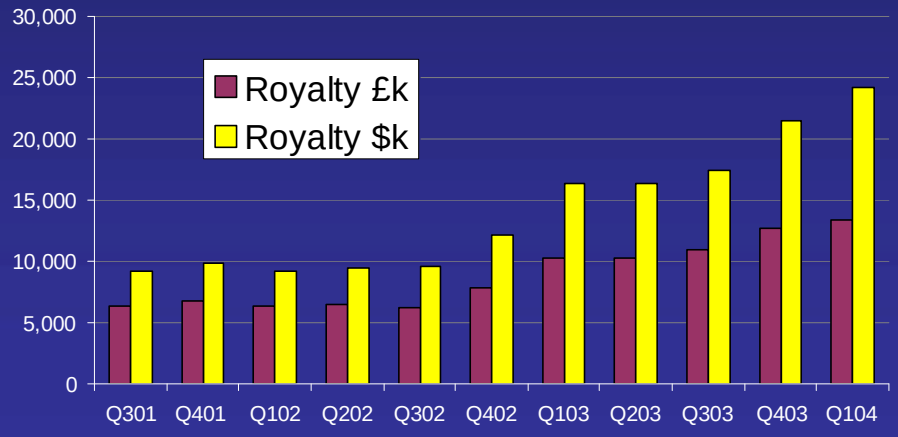
- Requires synergistic growth of
  - CPU IP licensing & design wins
  - Regional market penetration
  - Complementary systems and software IP
  - Development systems tools

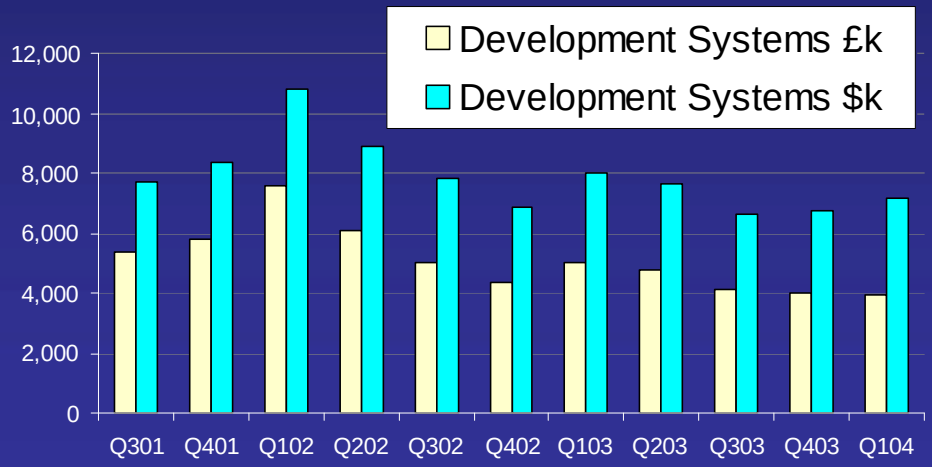
The Business Today



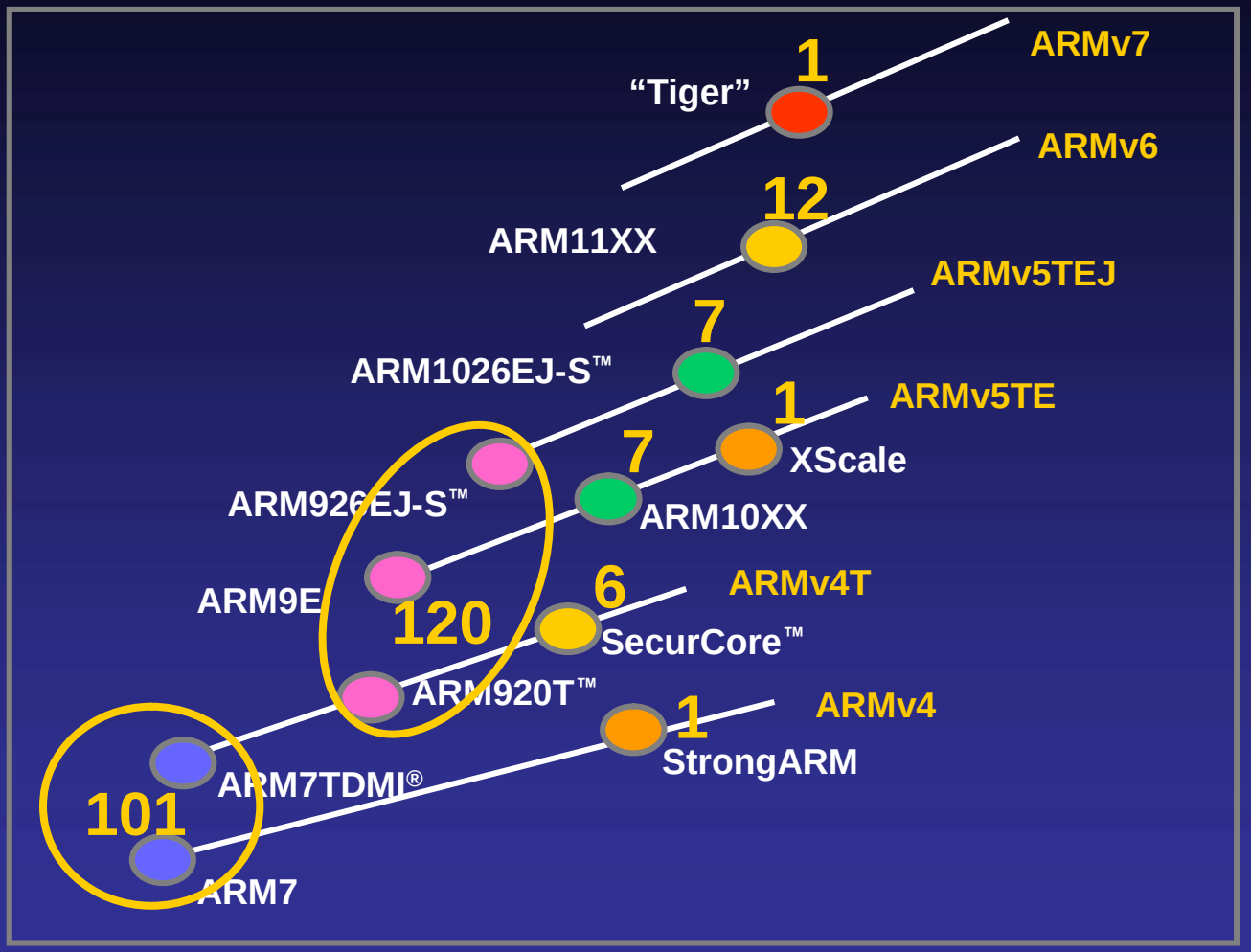
Revenue breakdown Q1'04







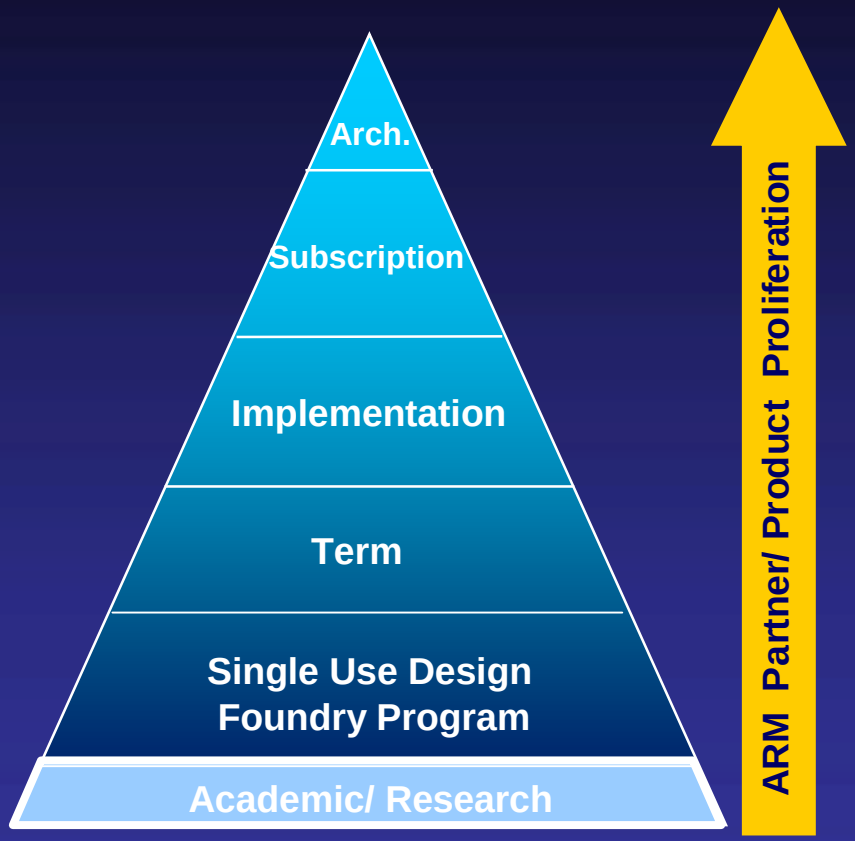
CPU Licenses



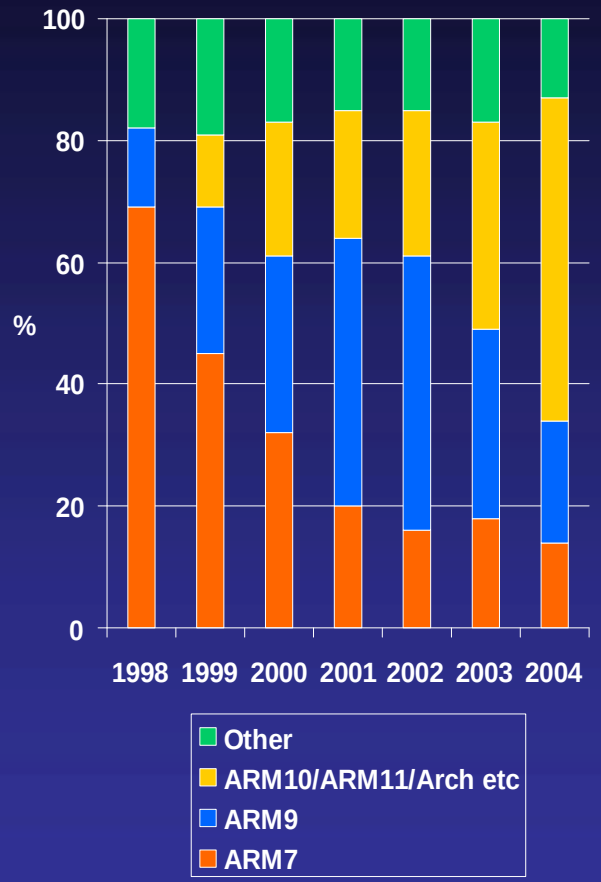
Excludes 18 licenses taken by 8 foundries

Licensing Analysis

Licensing Pyramid

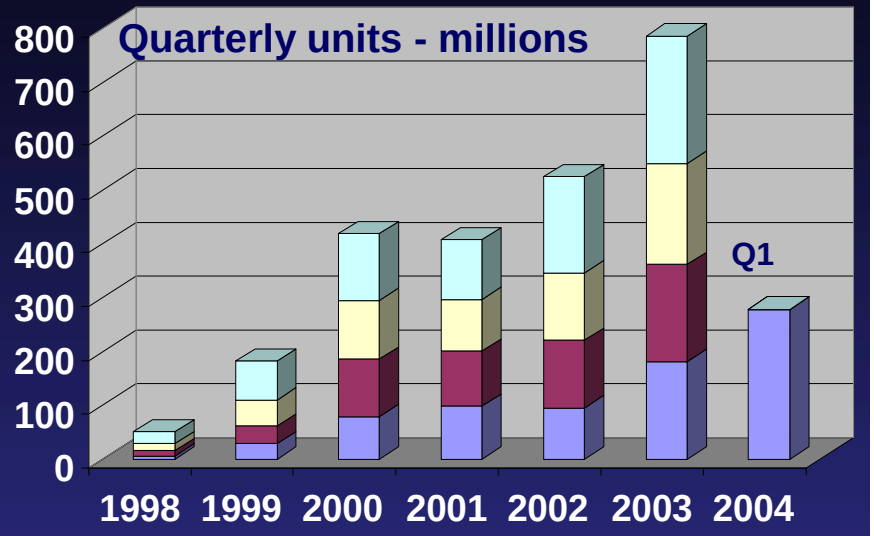


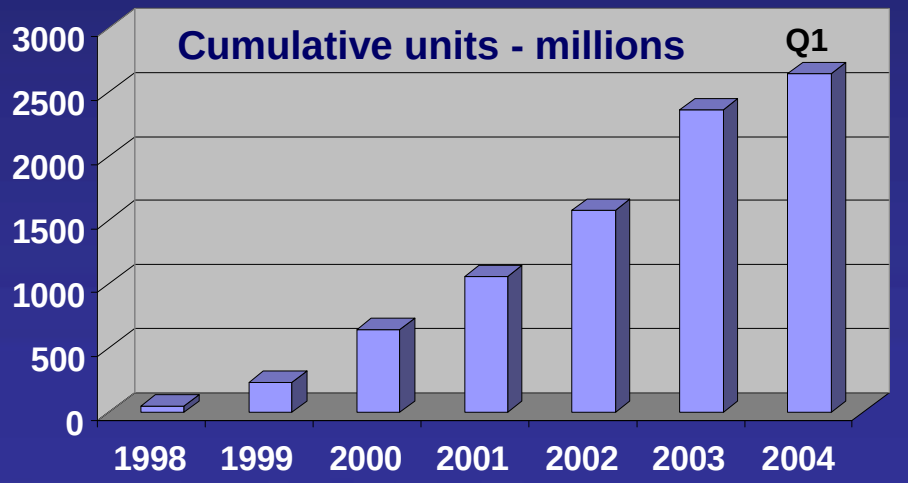
Core and Non-CPU Licensing



Royalties & Partnership Success

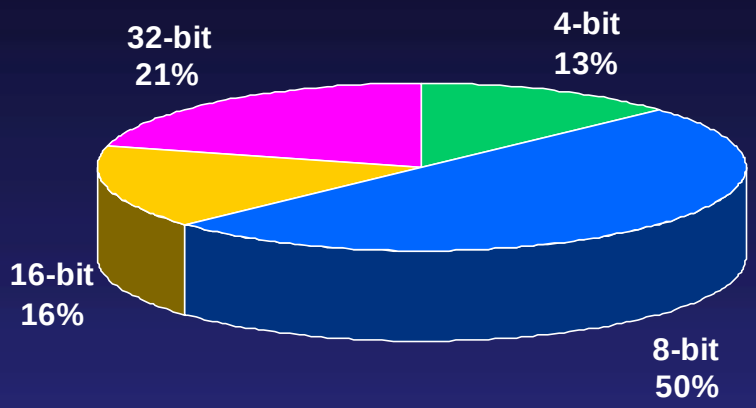
- **ARM Partnership continues to grow**
  - 133 Semiconductor Partners
  - 50 Development Tools Partners
  - 30 Operating Systems Partners
  - 40 Technology Partners
- **Record volume production**
  - >2.5bn devices produced
- **ARM Connected Community**
  - 230+ members



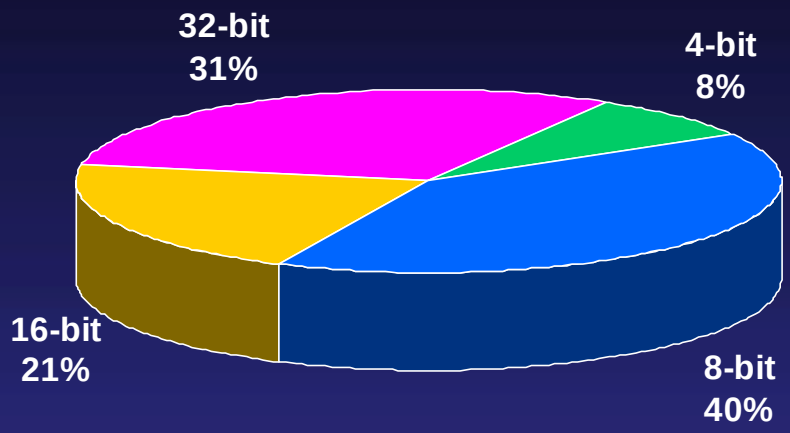


Evolving Market – CPU Licensing

2003 Microprocessor Shipments*



2005 Microprocessor Shipments*



* Source: Semico Jan 2003

CPU Licensing growth drivers

- 8- and 16-bit migration to 32-bit
- Growth of fabless model
- Emergence of China
- Replacement of in-house architectures
- Migration of foundry Partners to full

Balancing factors

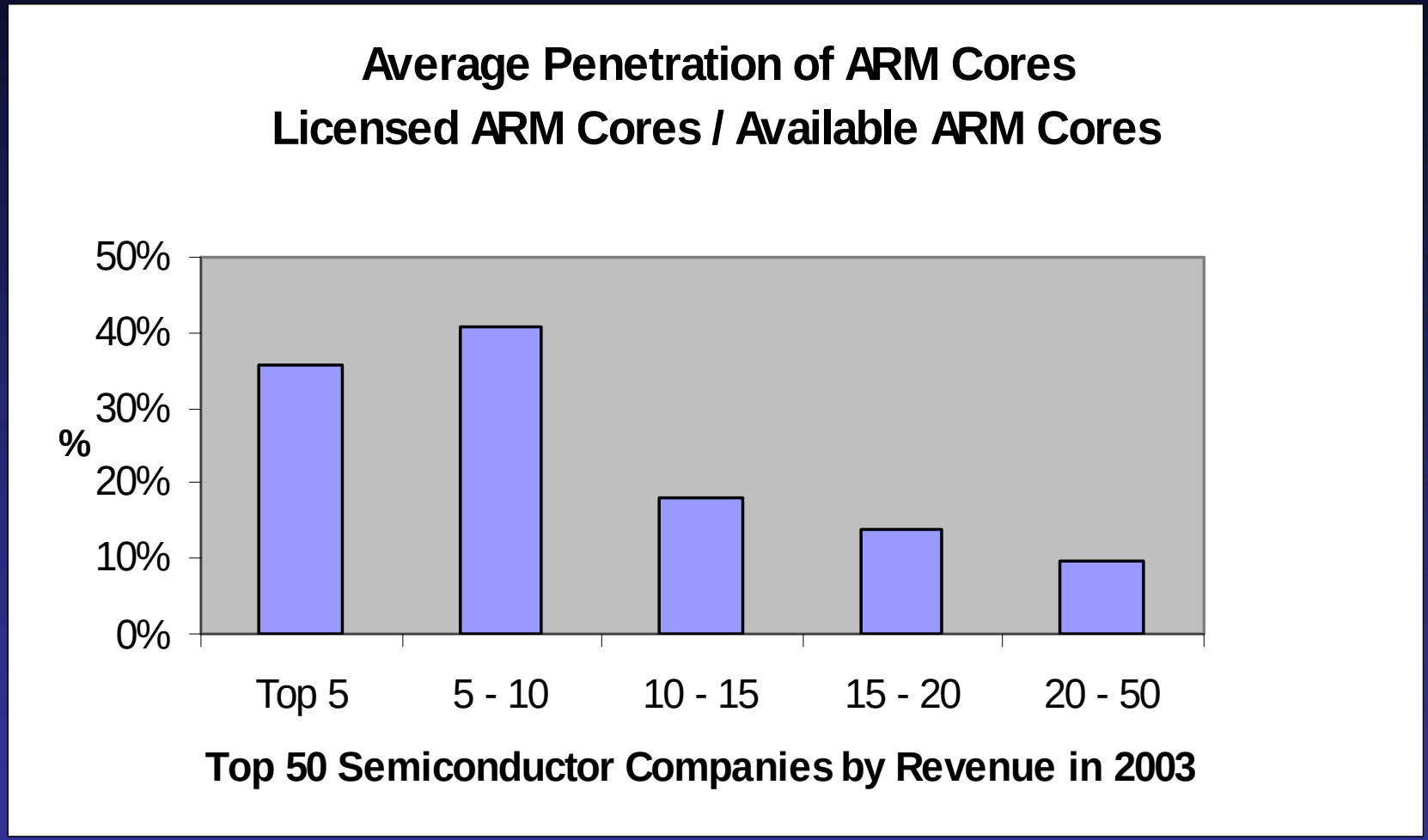
- Consolidation in semiconductor industry
- Fewer ASIC design starts

Growth Drivers - CPU Performance

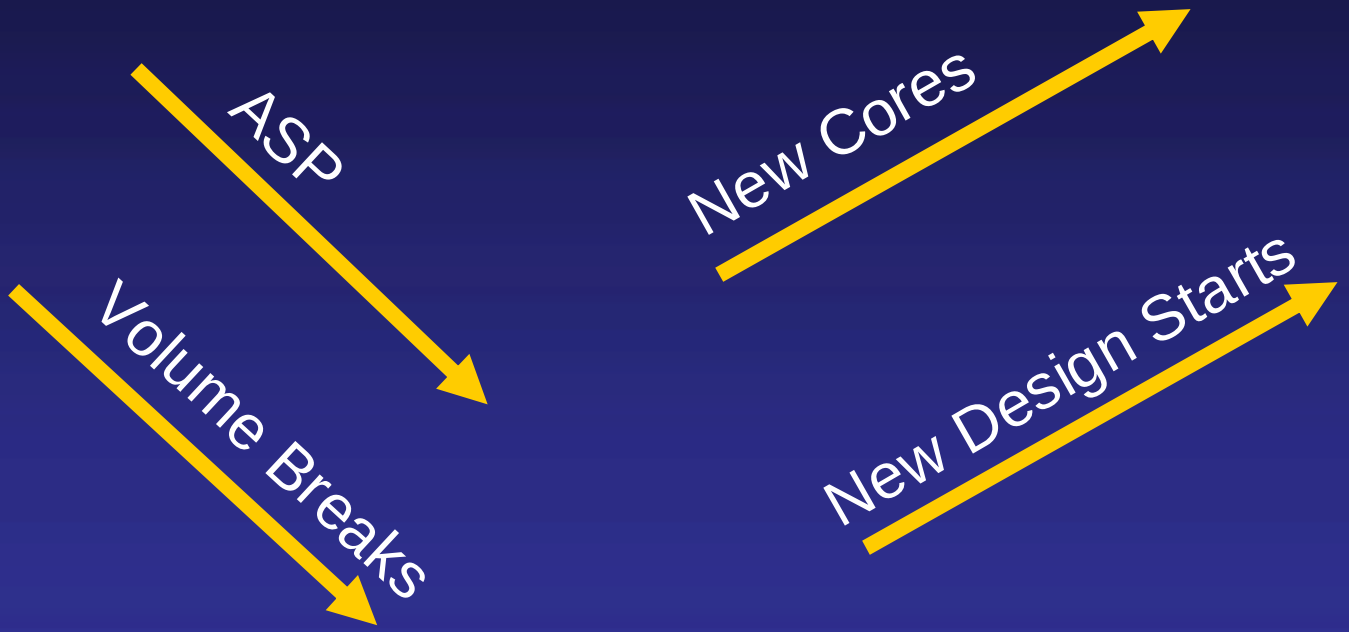
- ARM11 family demand driven by apps processor evolution
  - As 3G evolves, performance requirement understood
    - Strong requirement for more performance
      - While maintaining or improving power requirements
  - 3D graphics requirement slowly growing
    - Insatiable demand for more CPU performance
    - “Tiger”, SMP
      - Offering both solutions for market
- Applications Processors are Technology Drivers
  - Products and technology applicable to many markets
    - Similar to DRAM driving process technology

- ARM will service demands of full range of embedded CPUs

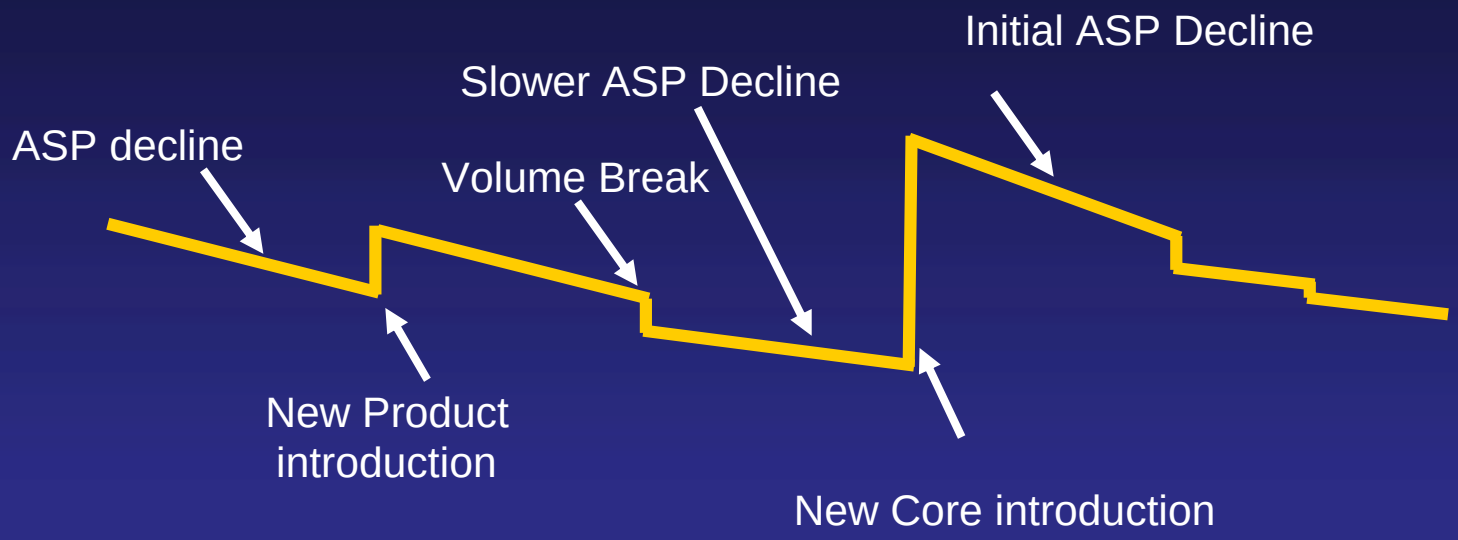
Average Penetration of ARM Cores



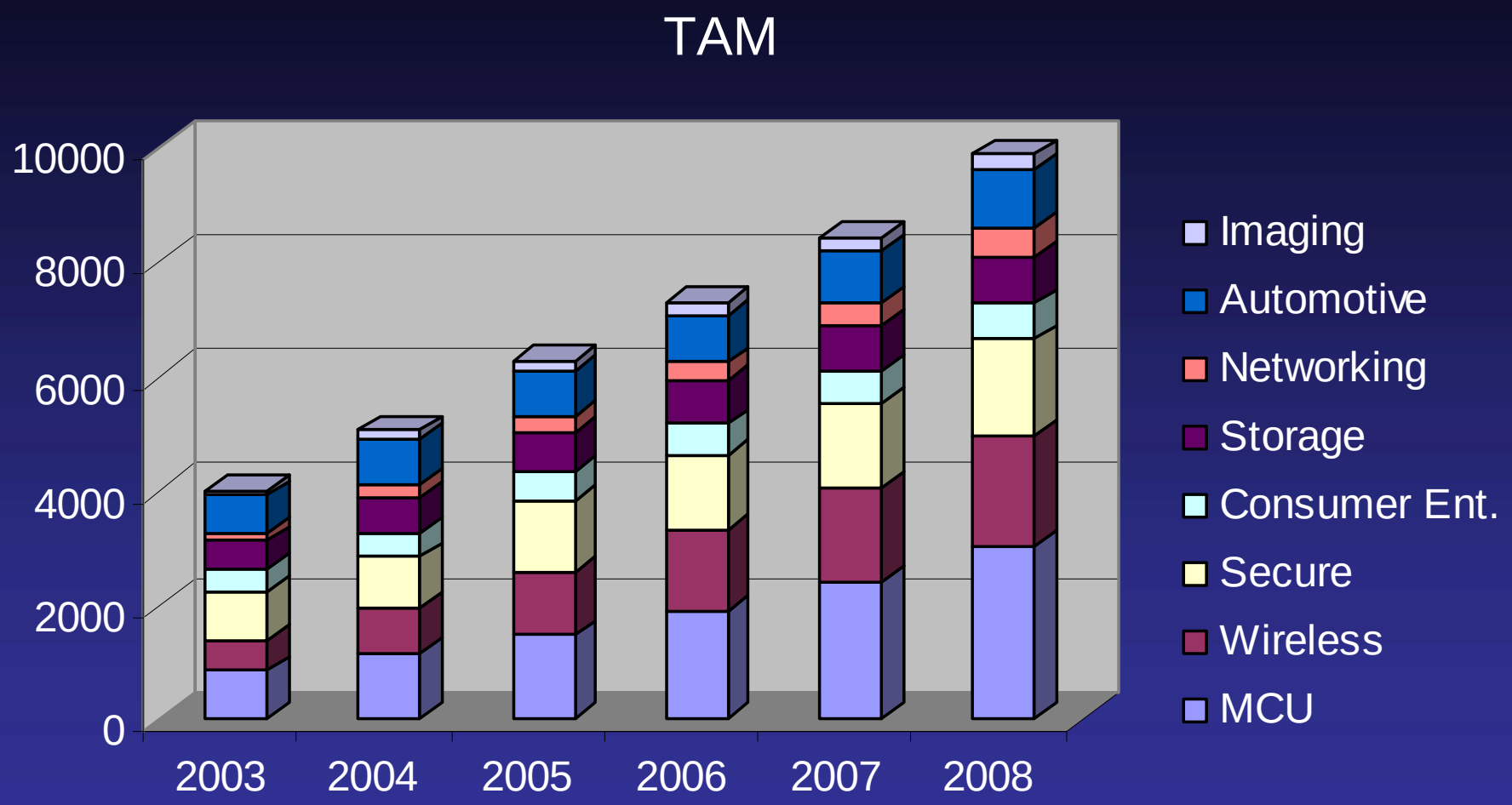
Evolving Market - Royalty Trends



Evolving Market - Royalty Trends



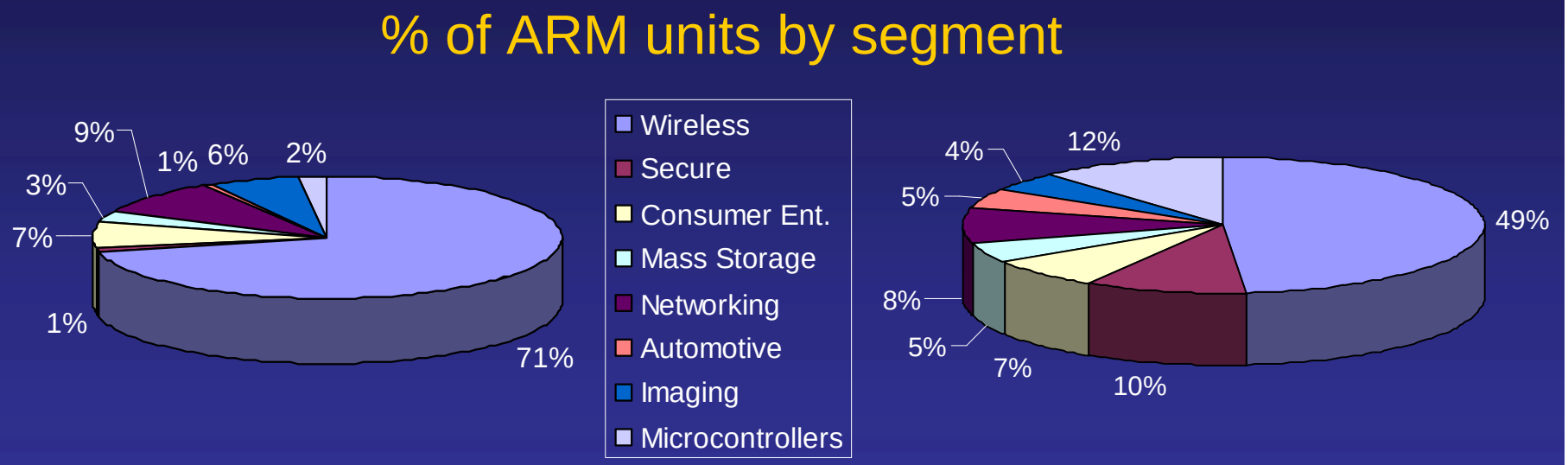
Evolving Market - Royalty Opportunity



Sources – Semico, Gartner, IDC, InStat and ARM

Growth Driver – Design Wins

- Segment penetration strategies drive growth in ARM unit shipments – wireless < 50% of units by 2008



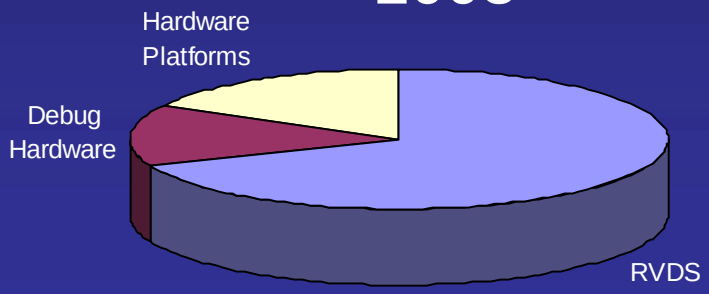
Growth Driver - Development Systems

- Software is product differentiator and investment driver of future
- Today ARM has small share of embedded tools market
  - Market forecast to grow 38% by 2007
  - Opportunity for ARM to grow share

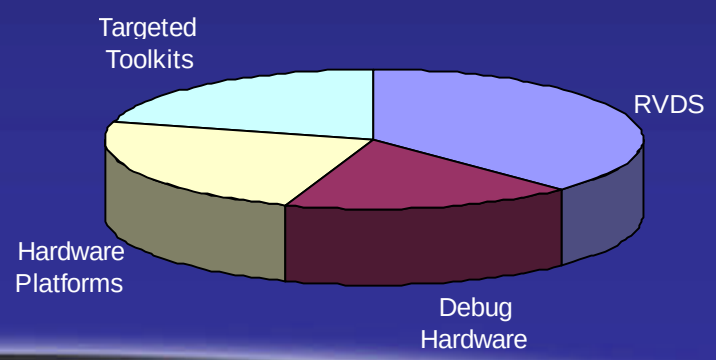
Objective for 2008

- Provide an integrated tools solution from product concept to shipment

2003



2008



Broadening the Technology Footprint

Software

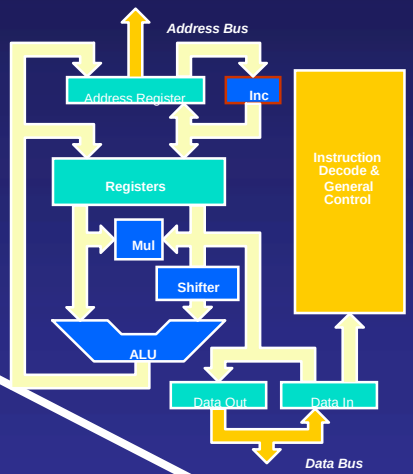
Additional Value

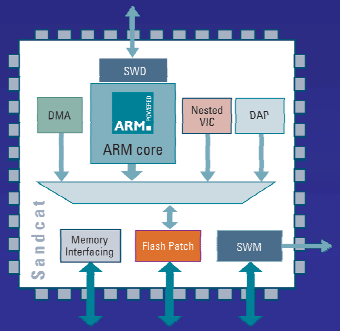
Tools

Building barriers

Platform

Engines

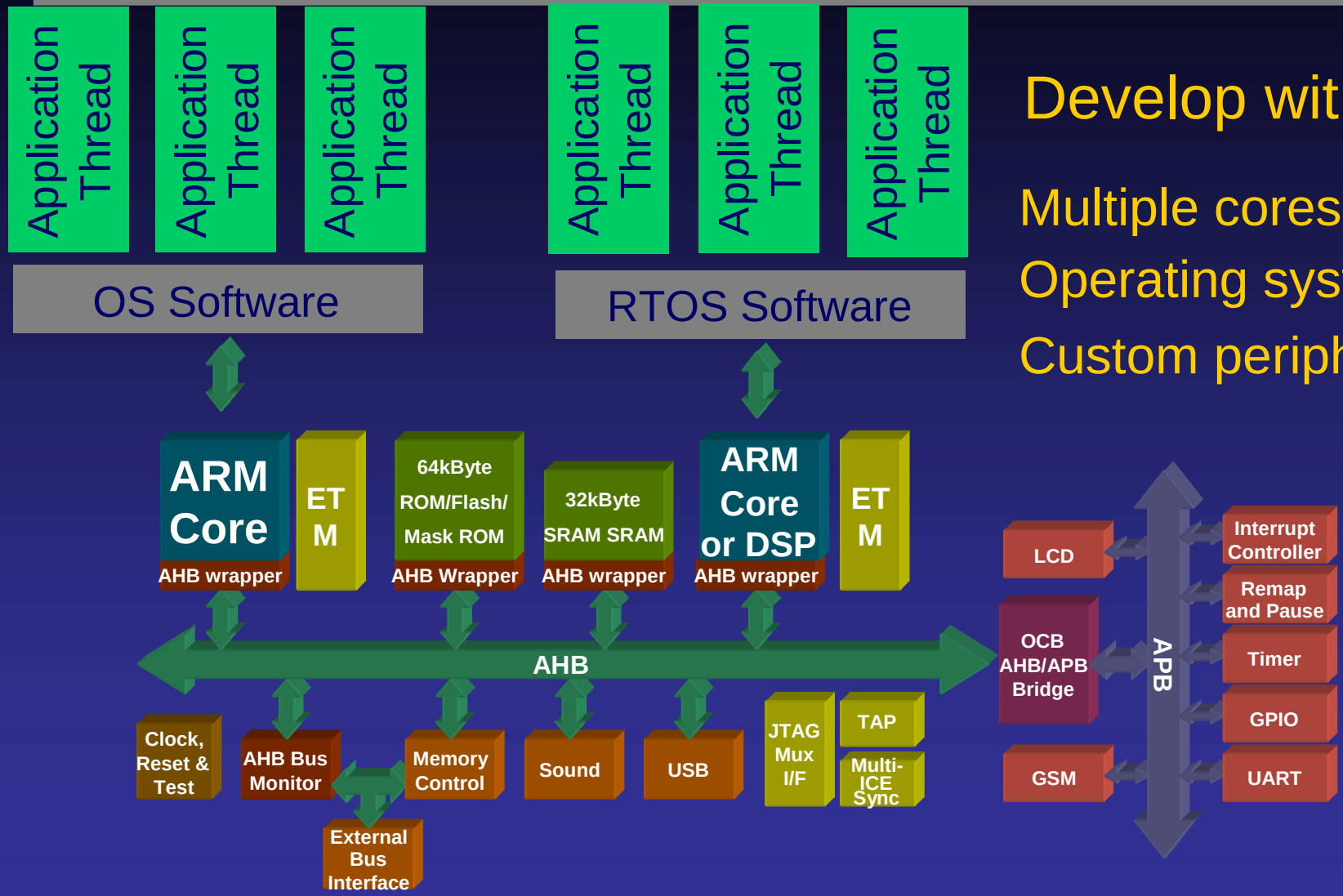




Additional Value

Systems IP

Systems IP - Complex SoC Challenge



Develop with:

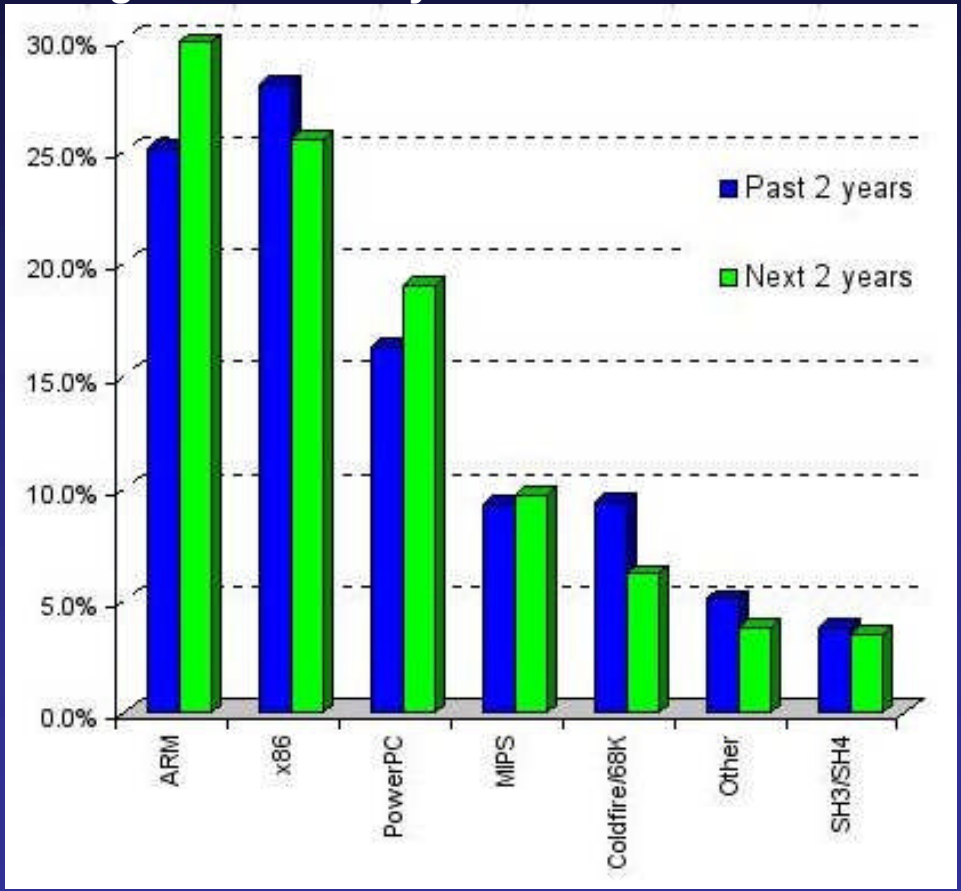
- Multiple cores
- Operating systems
- Custom peripherals

Software - Unlocking the Hardware

- Architectural innovations in Hardware
  - Jazelle - Java acceleration
  - TrustZone - Secure computing
  - IEM - Energy efficiency
- Each requires software to create complete solution
- ARM can provide optimised software
  - Most efficient
  - Time to market
  - Potential extra revenue

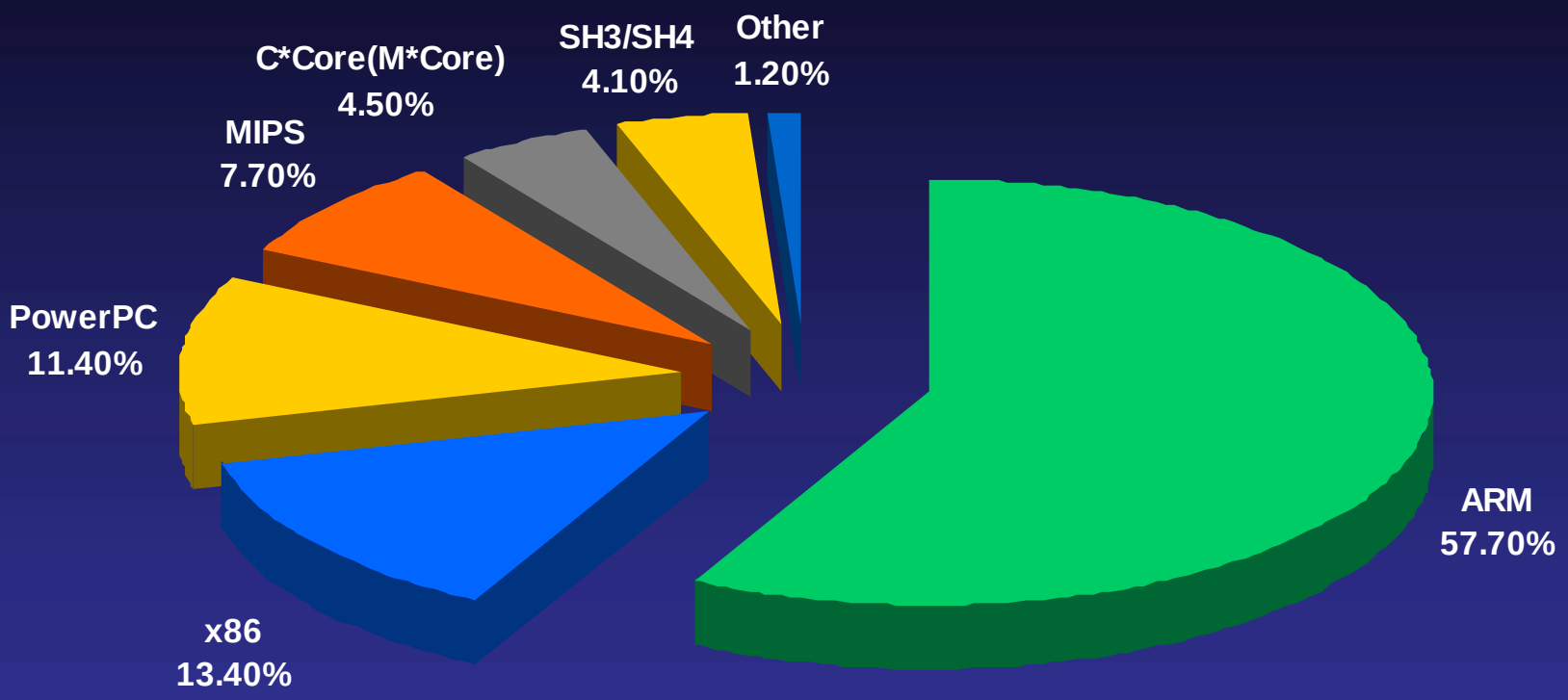
ARM and Linux

What CPU(s) have been in your (company's) embedded systems
During the past two years?
During the next two years?



Source: LinuxDevices.com*'s fourth annual *Embedded Linux Market Survey

Growth Drivers - China

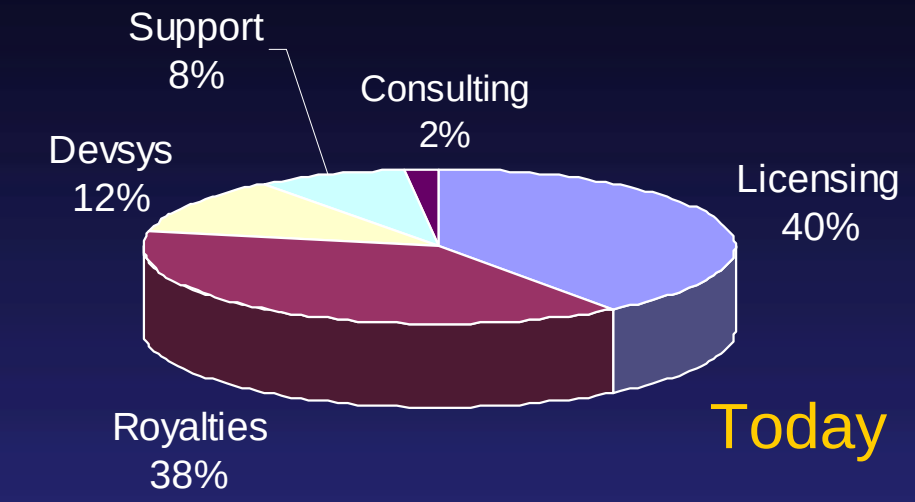


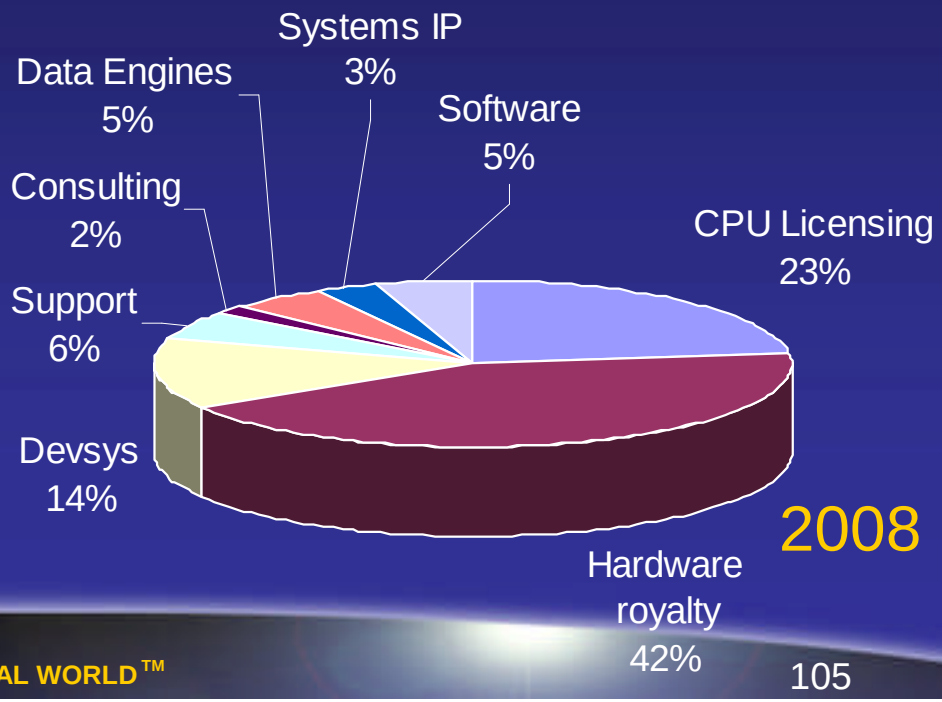
ARM Recognised as No.1 Choice
for Embedded Applications in China

Sources: 2003 EDN China online survey

2008 Scenario – Revenue Profile

- Good licensing growth but royalties grow faster
- Increasing proportion of licensing from non-CPU
- Royalty revenue enables margin growth while funding R+D and long term sustainability
- Support grows proportional to licensing
- Development systems grows as % of business
- Headcount grows roughly in proportion to licensing growth

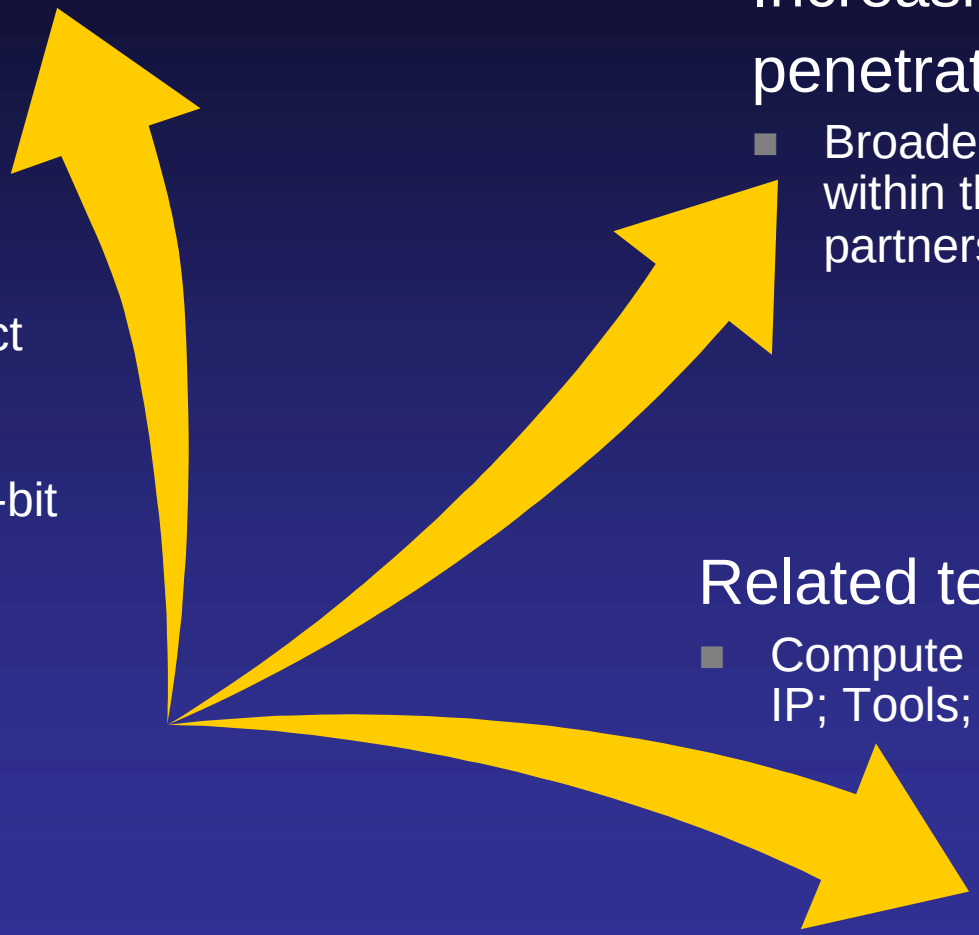




Summary

Warren East
CEO
Analyst Day
13 May 2004

Summary



Broadening application reach

- Multiple ARM cores /product
- Killer applications moving to 32-bit

Increasing penetration

- Broadening within the SC partnership

Related technologies

- Compute Engines; System IP; Tools; Software