

PHILIPS

Sustaining profitable growth in Mobile

Mario Rivas

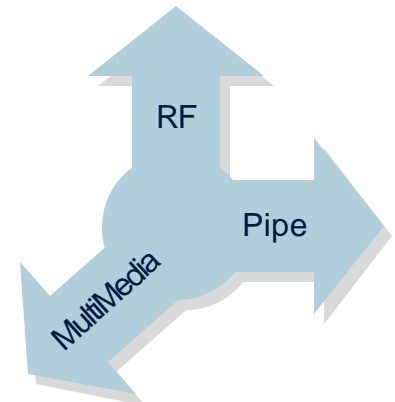
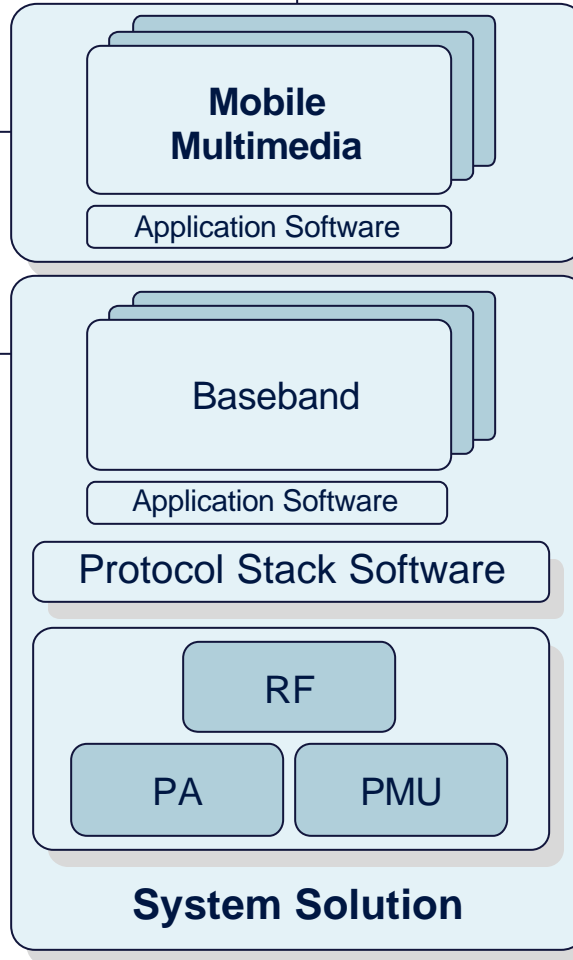
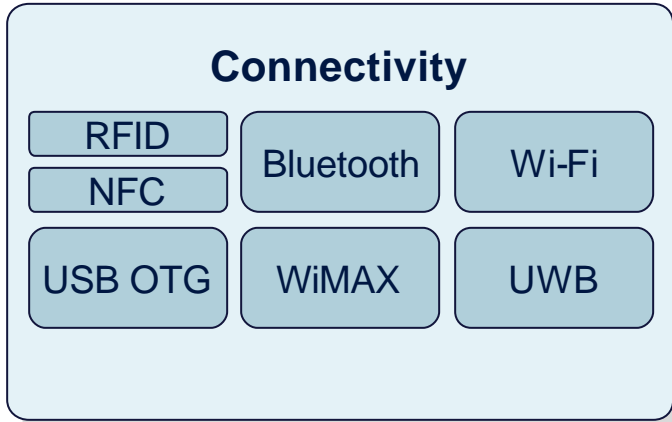
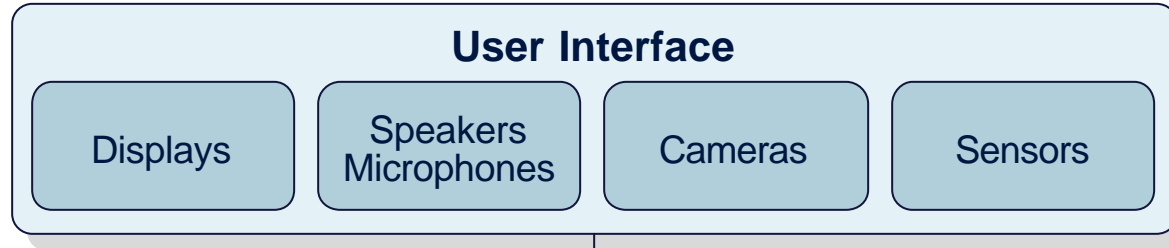
Executive Vice President Communications Businesses

Philips Semiconductors

Financial Analysts Day 2004

Agenda

- Update Communications businesses
- Nexperia Mobile
 - System solutions
 - Mobile multimedia
 - Broadcast
 - Connectivity & Security
 - Personal media player
 - User interface
- Summary



Sustaining market position in the mobile Connected Consumer markets

GSM System
Solutions
top tier

Digital Cordless
#1

Speaker systems
#1

RF identification
#1

FM Radio
#1

Display Modules
#2

Bluetooth
#3

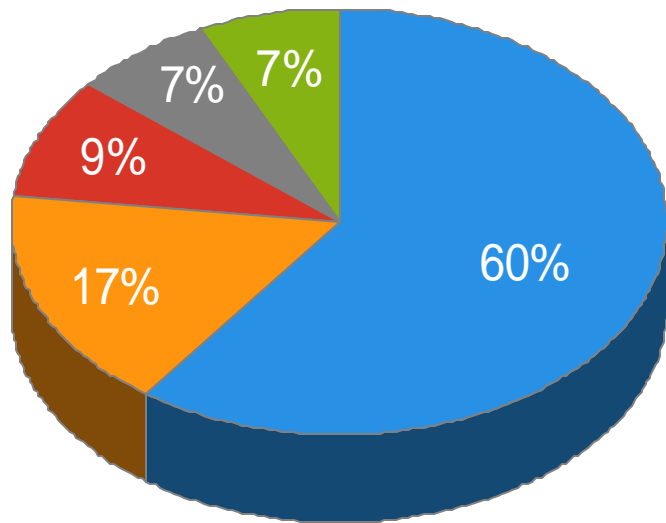
Wireless
Connectivity
#3



Balanced segment communication sales

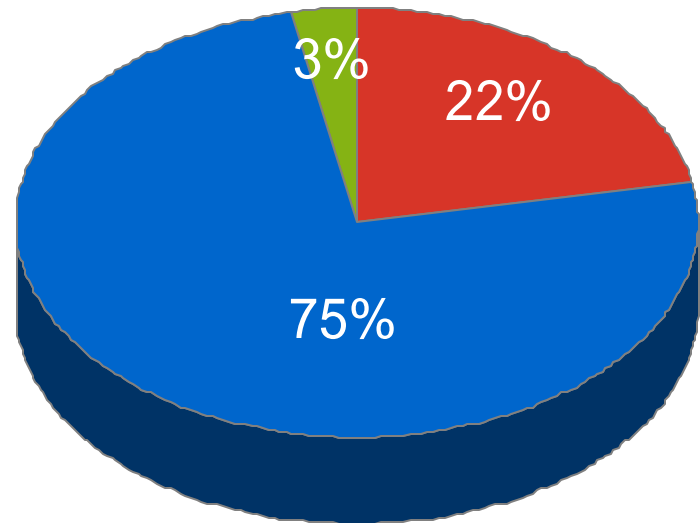
By application & region (excl. MDS)

Sales by application type



- Cellular Terminals
- Cordless
- Cellular Infrastr.
- Connectivity
- Other

Sales by region



- Europe
- Asia Pacific
- North America

Highlights of the past year

- Traction of Nexperia Mobile with leading handset manufacturers
- Nexperia Mobile for EDGE being deployed in leading handset manufacturers, like TCL & Alcatel Mobile Phones
- Demonstrated industry's best performing Bluetooth / WLAN co-existence solution



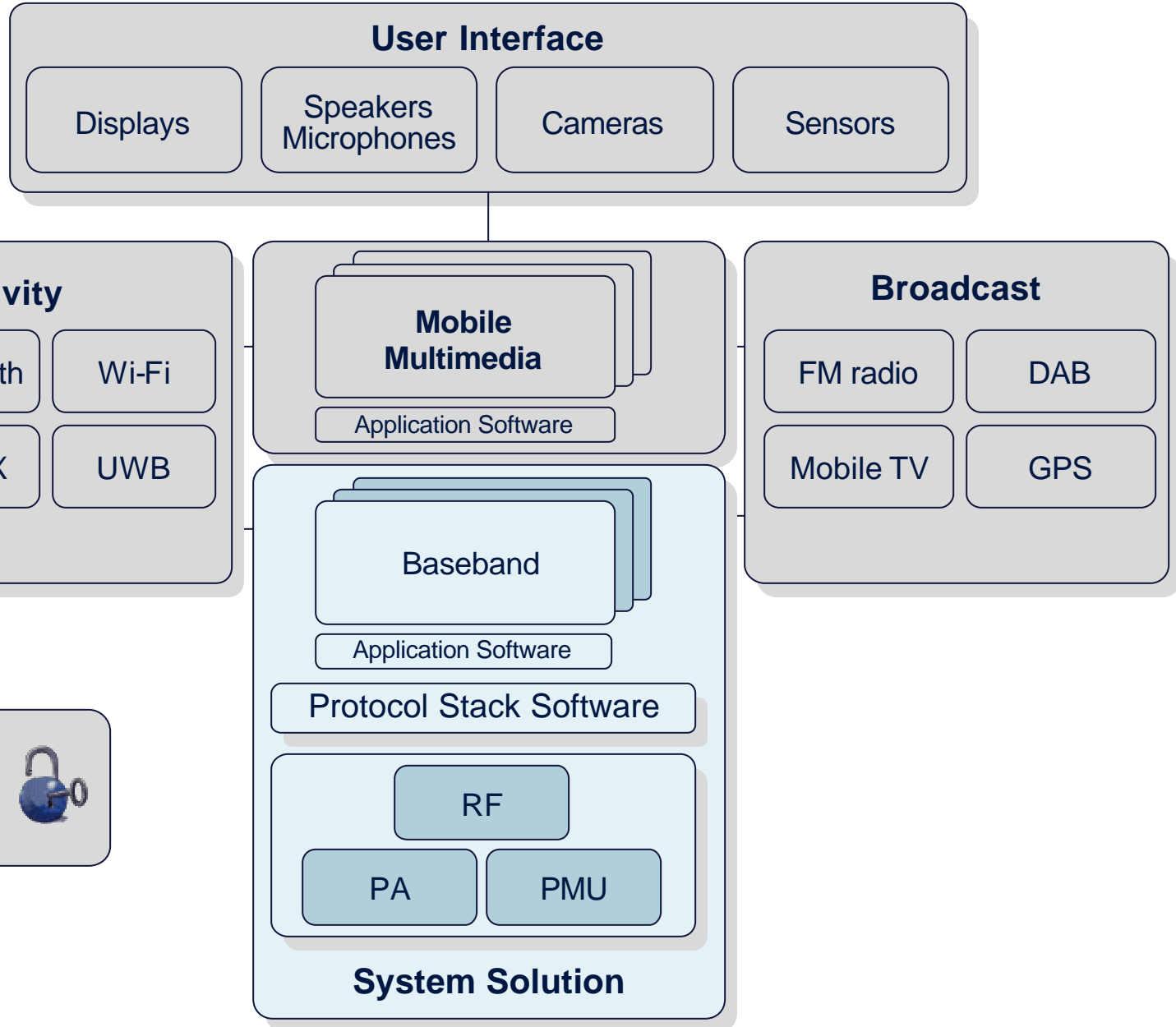
Highlights of the past year

- Cooperation on NFC with our key customers – Nokia, Samsung
- Joint cooperation on RFID solutions together with IBM and Checkpoint
- Great Wall of China adopts Philips' MIFARE technology for contactless ticketing
- Gemplus: high-end SIM cards for telecom operators



Agenda

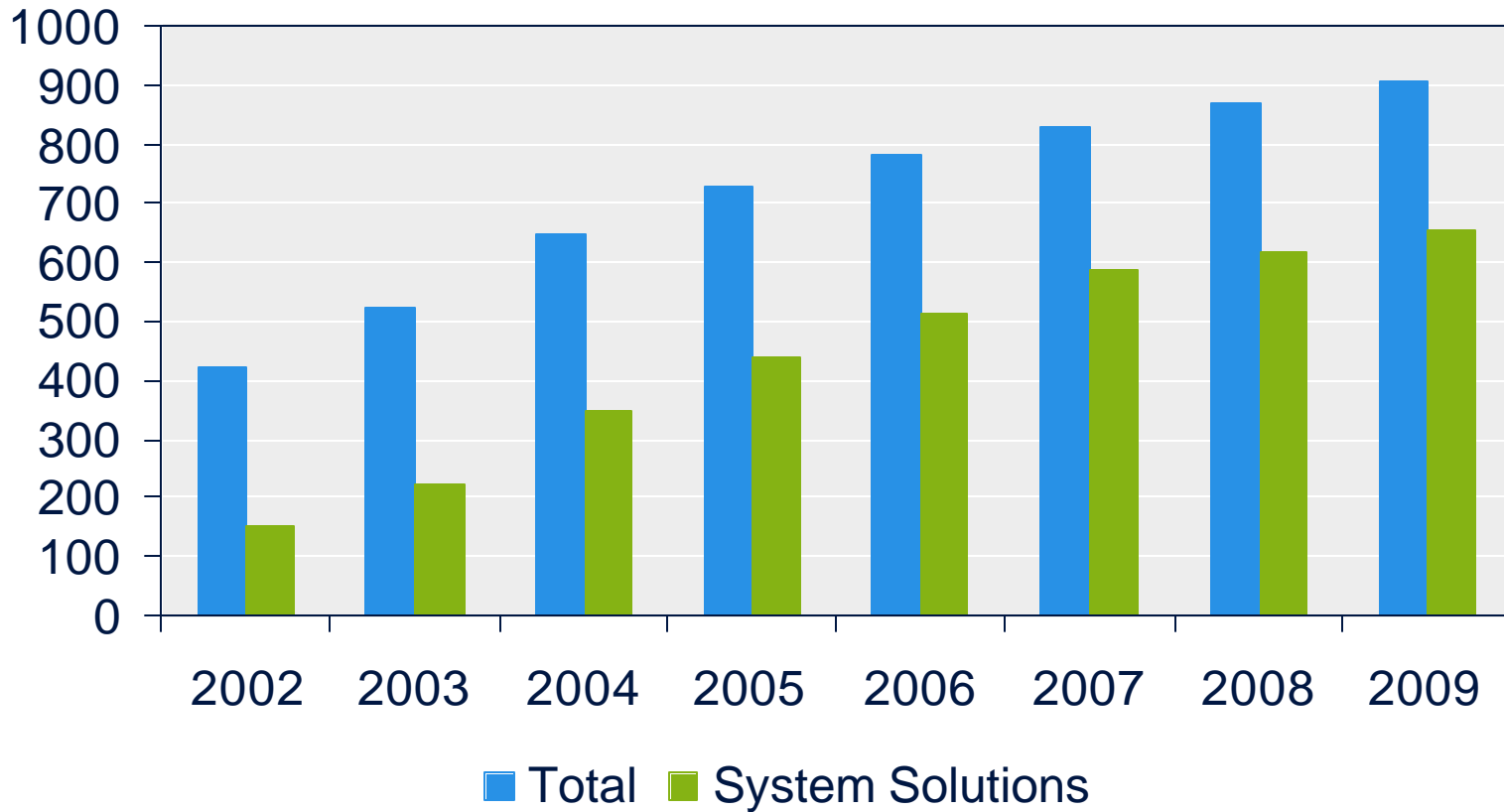
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Traction of our Nexperia Mobile system solutions



System solutions grow faster than total market



A Nexperia solution for every mobile phone

Smartphone

Nexperia Sy.Sol 9000

**Master Application Engine running Open OS
+ Slave Modems (Cellular, Bluetooth, WLAN)**

High-end Feature Phone

Mid-range Feature Phone

Nexperia Sy.Sol 7000 (UMTS)

Nexperia Sy.Sol 6000 (GPRS/EDGE)

Feature centric - TTM driven

Basic Entry Phone

Nexperia Sy.Sol 5000

Voice centric - Cost driven

Ultra Low-end Phone

GSM → GPRS

Nexperia Mobile (system solutions) Innovation & Integration

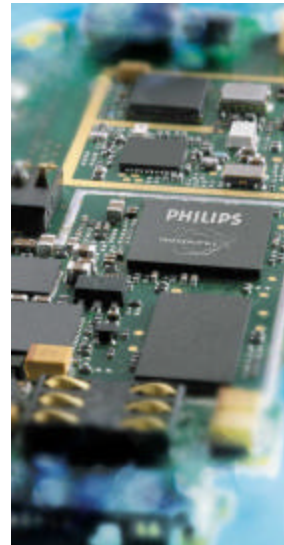
2002



1.5 year



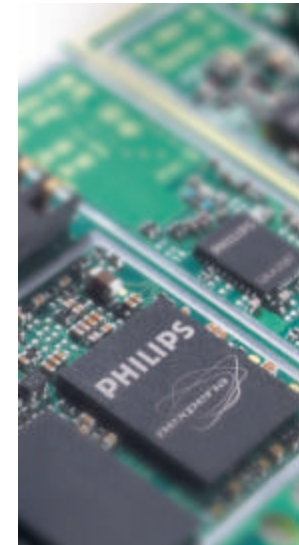
2003/4



1.5 years



2005



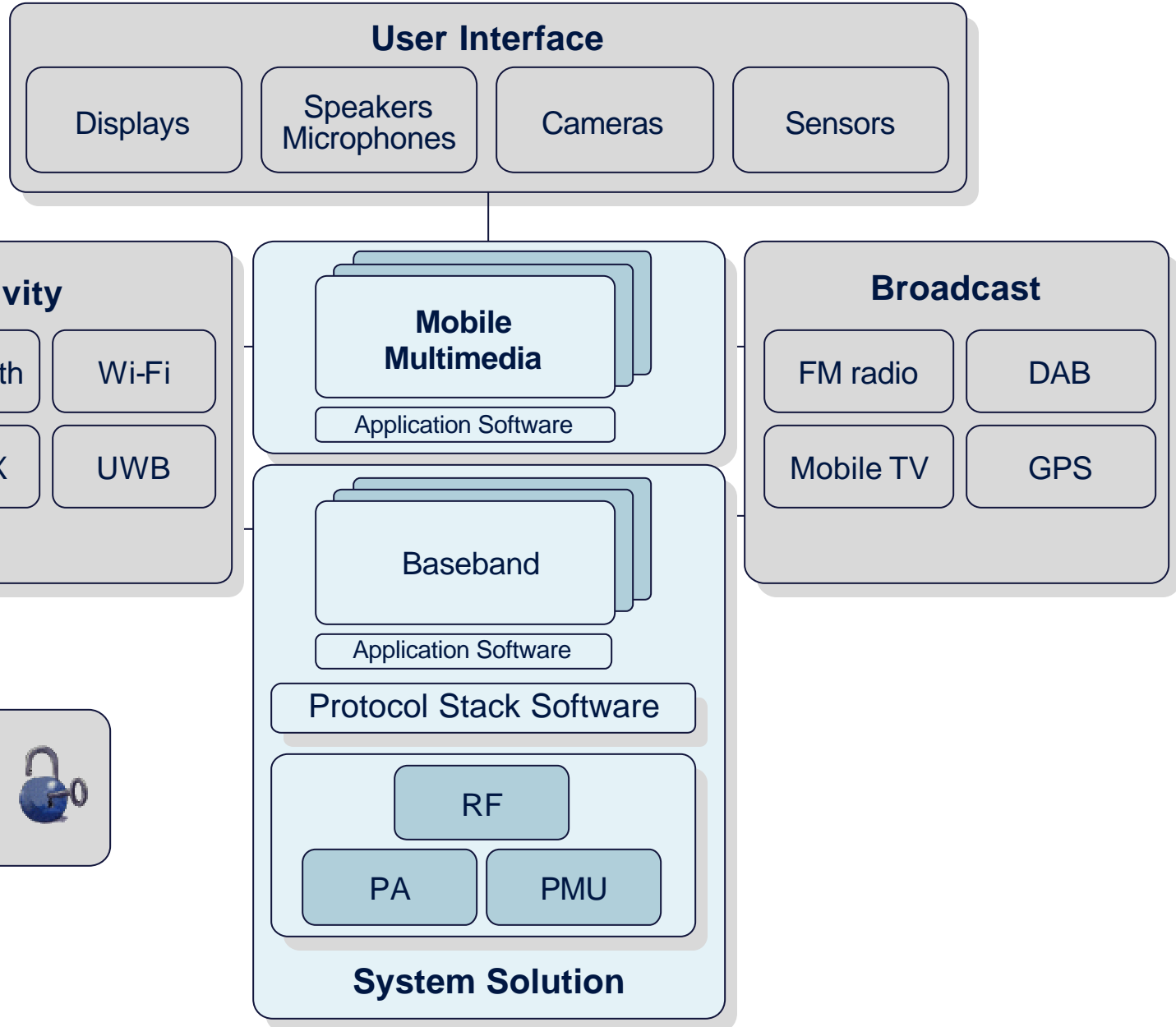
Nexperia Sy.Sol 3000
200 components
baseband: 6 MIPS

Nexperia Sy.Sol 5100/6100
150 components
baseband: 60 MIPS

Nexperia Sy.Sol 6200
100 components
baseband: 200 MIPS

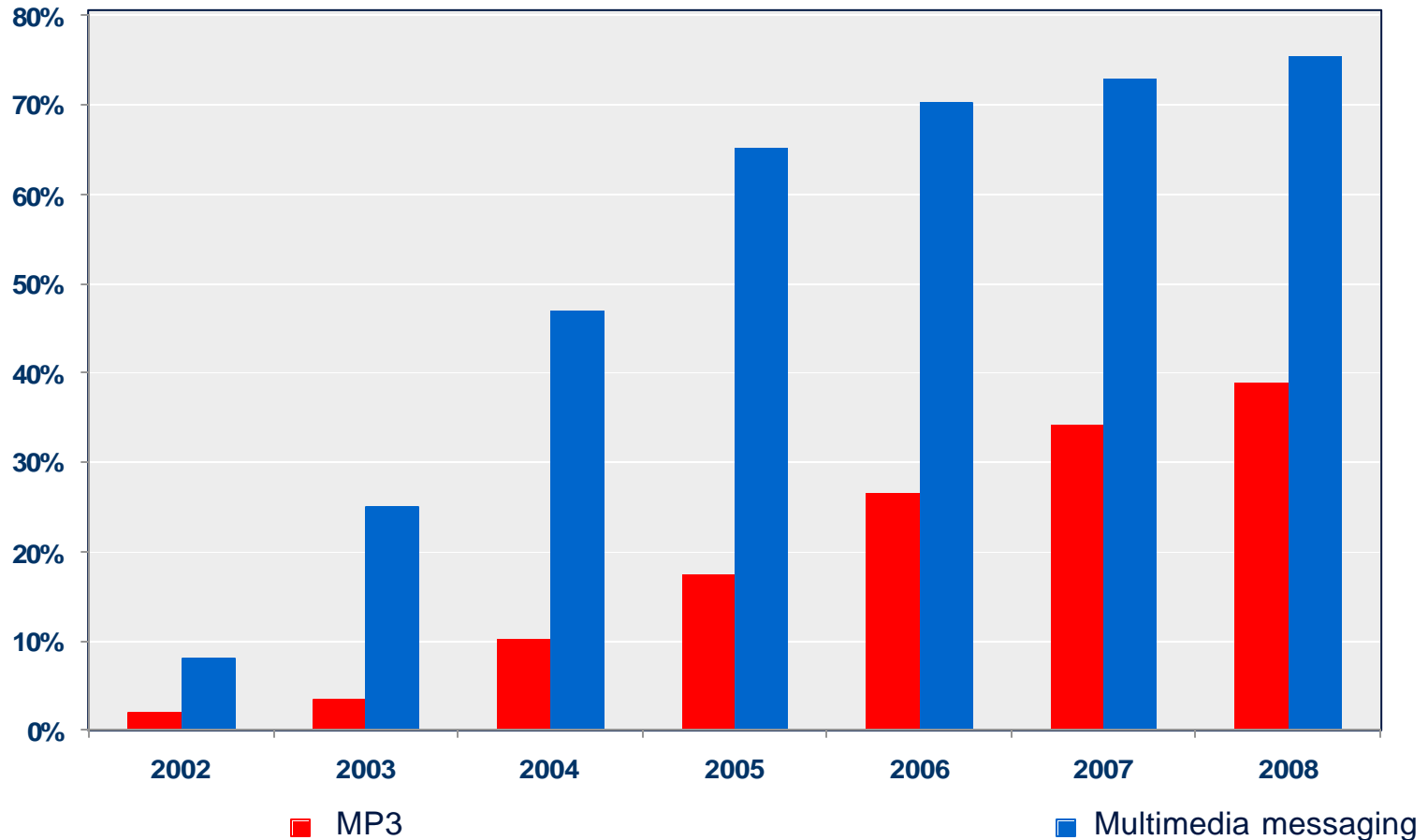
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Multimedia

Penetration of multimedia features in handsets



Nexperia Mobile

Innovation and integration

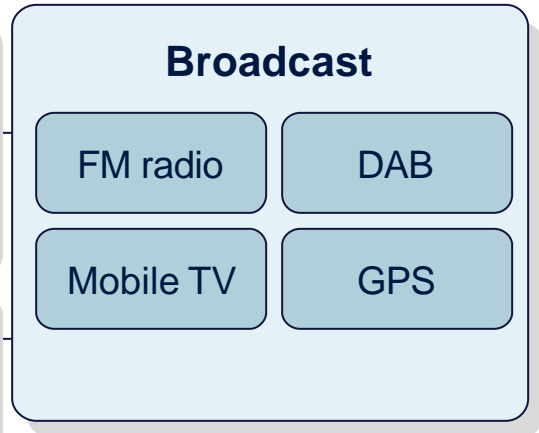
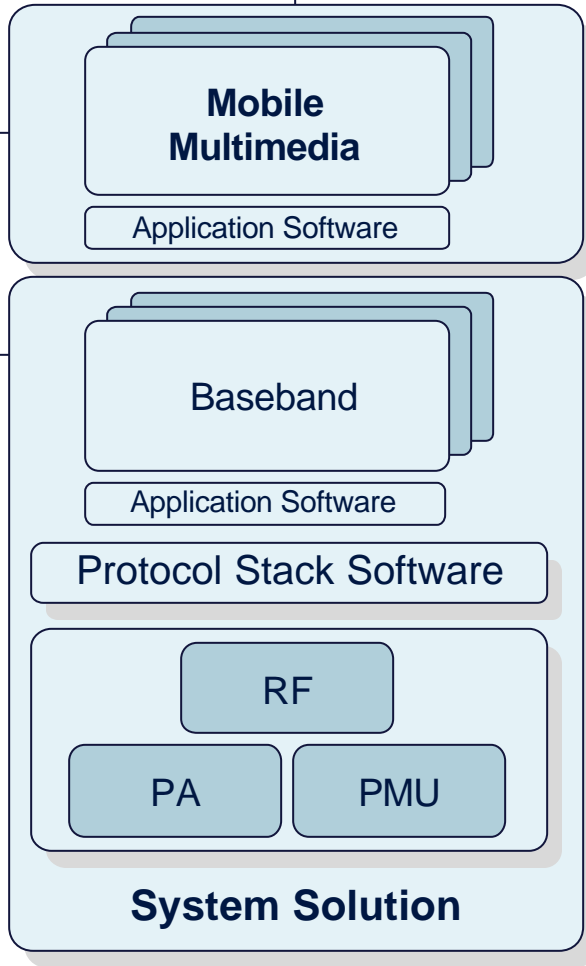
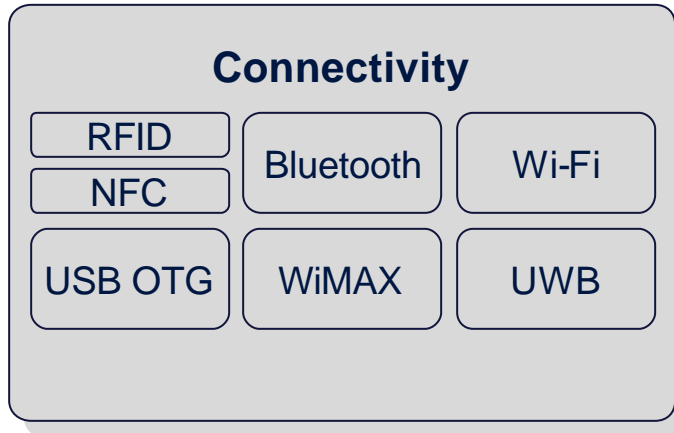
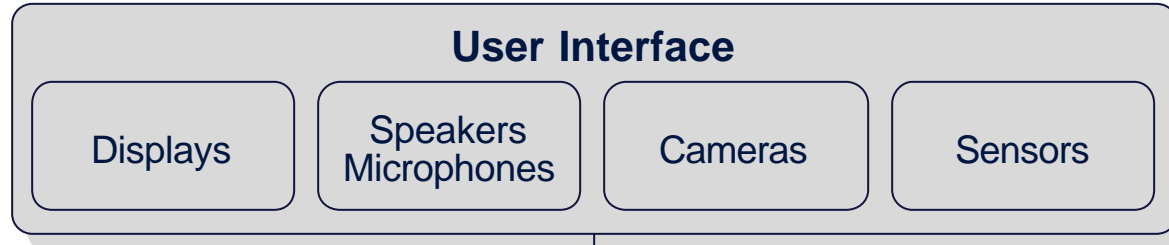
Sony Ericsson P900



- To further grow we had to **innovate** the market...
- ...and **integrate** multimedia and display capability into Nexperia Mobile

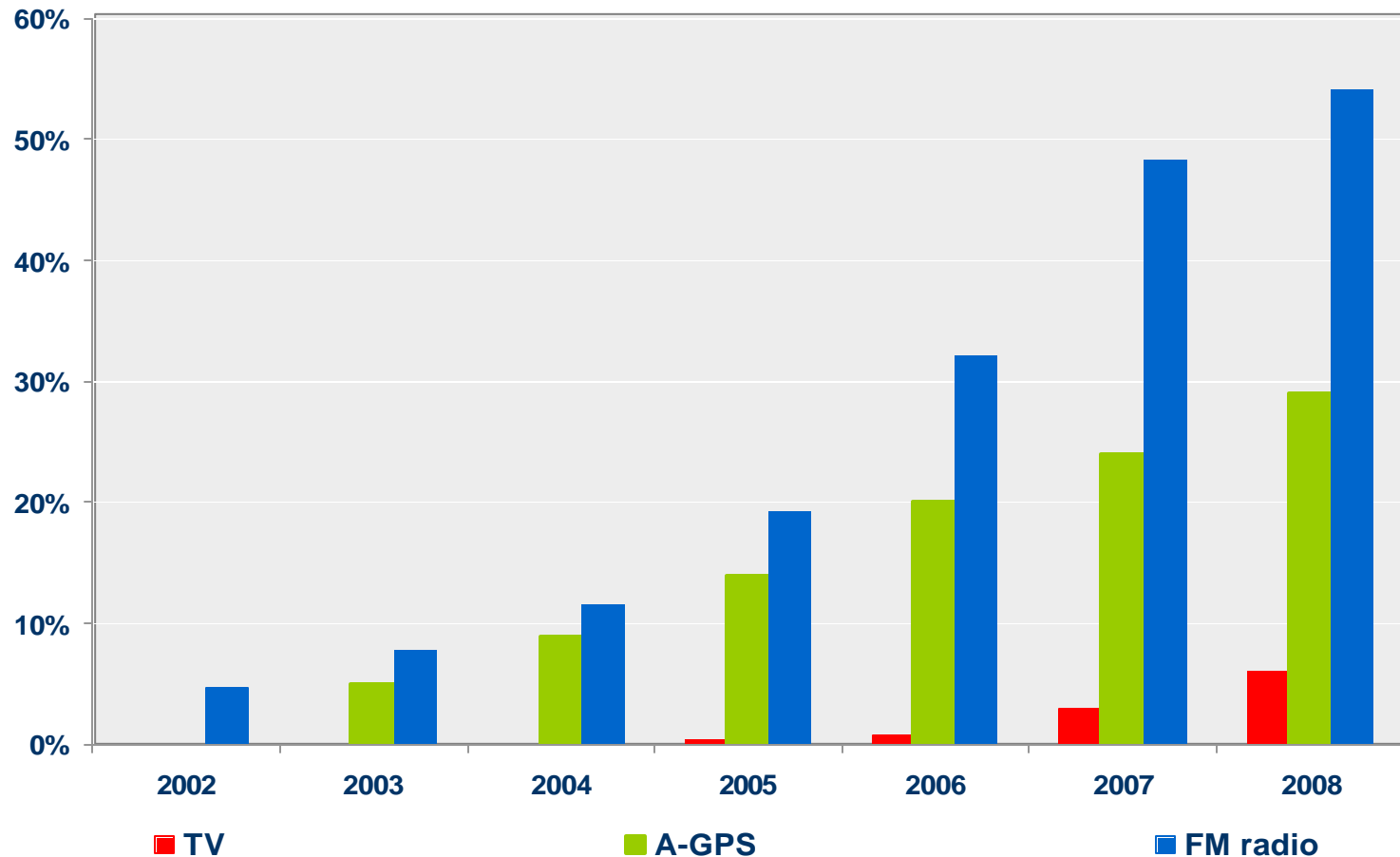
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Broadcast

Penetration of broadcast features in handsets



Broadcast

FM radio

- World's smallest FM radio & complete family range of IC's: FM only, AM/FM and FM+RDS
- New growth trend: interactive radio

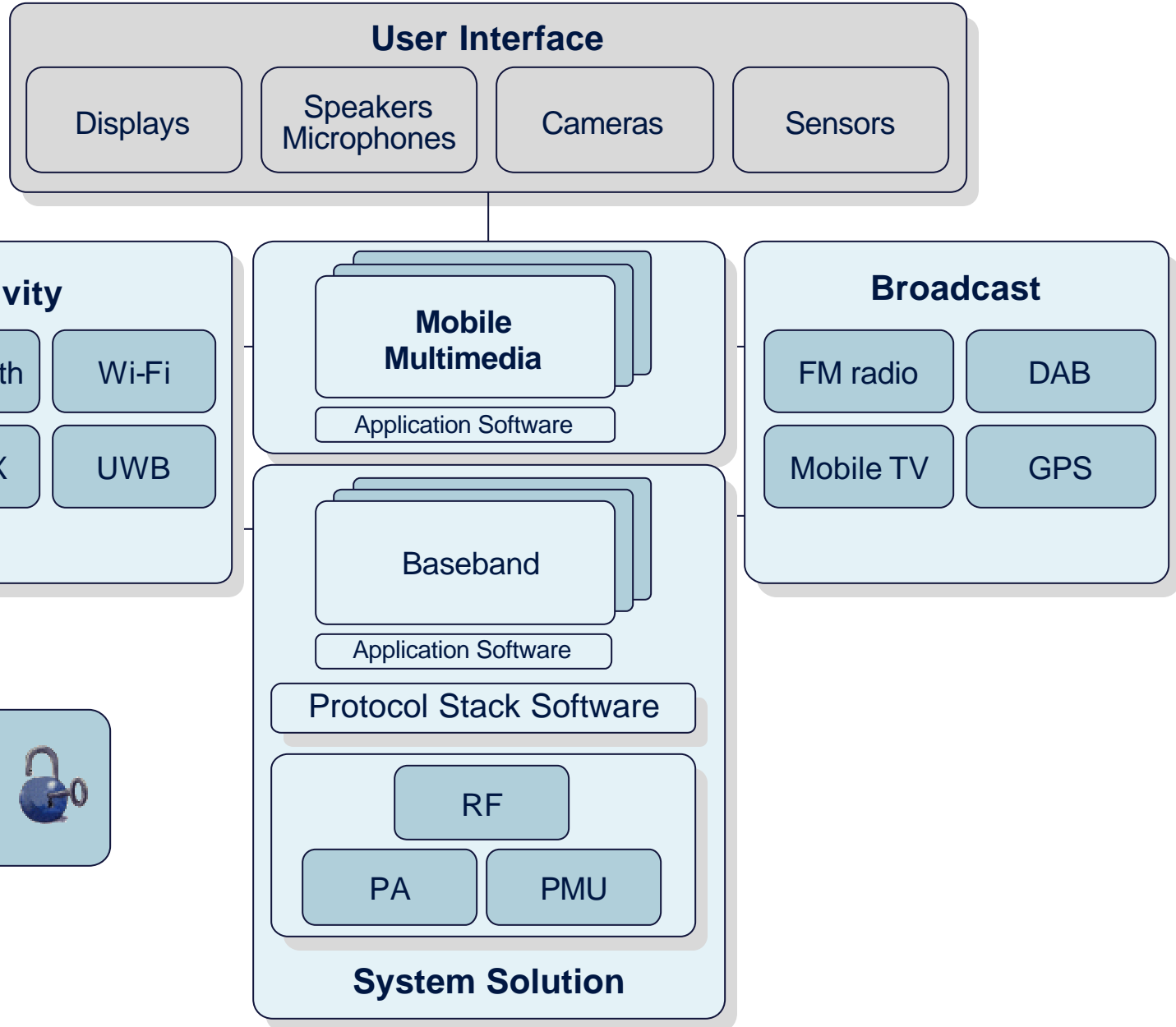
Mobile TV

- Broadcast and Mobile Convergence project, co-operation in Berlin between Nokia, Philips, Universal Studio's and Vodafone
- Driving a new standard for Digital TV on mobile phone
- Philips is developing a thumbnail size TV receiver chip-set



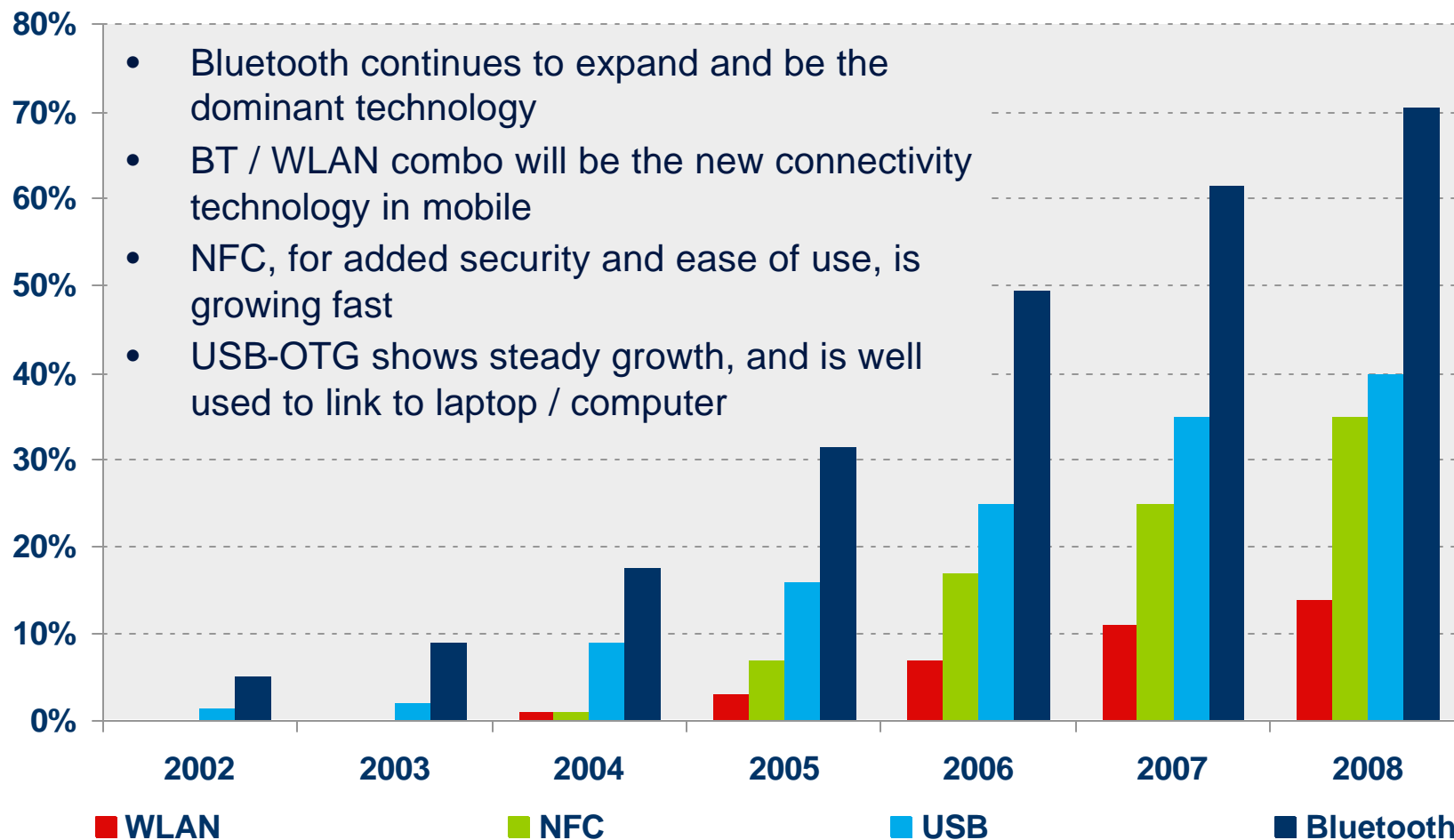
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Connectivity

Penetration of connectivity features in handsets



Wireless evolution

Industry smallest & lowest power
coexistence solution

- Shrink silicon
 - CMOS 90
 - Physical I/O limitation
- System in a Package (SiP)
 - Integrates RF and baseband in single package
 - Eliminates RF engineering
 - Breakthrough size; footprint of standard HVQFN IC package
 - Eliminates up to 30 components



NFC-enabled mobile phone applications

Payment everywhere:
Mobile phone = POS



Take info from poster:
Mobile phone = information vehicle



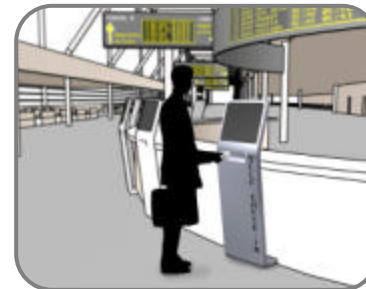
Building access:
Mobile phone = key



Access to public transport:
Mobile phone = transport card



Micro-payments:
Mobile phone = debit card



Exchange business cards
Mobile phone = electronic business card



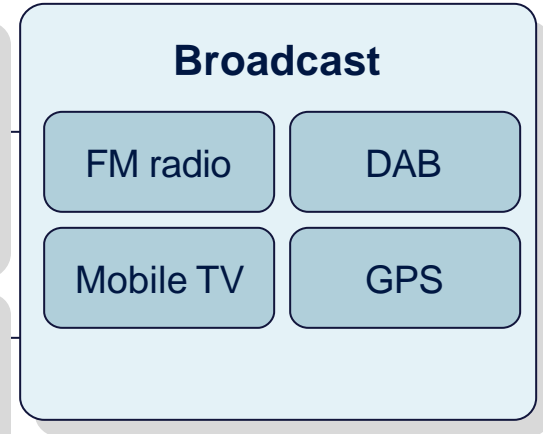
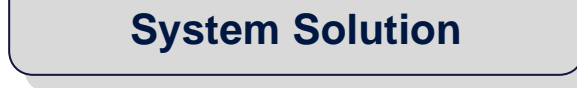
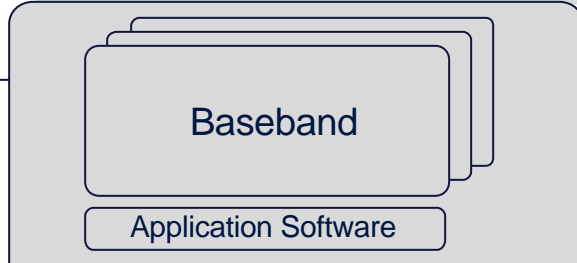
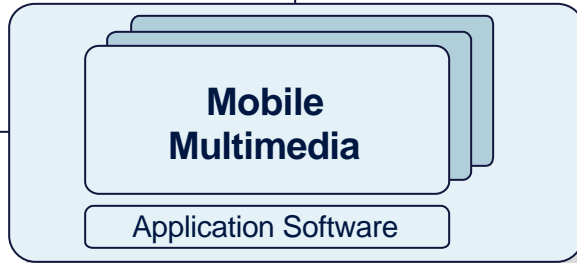
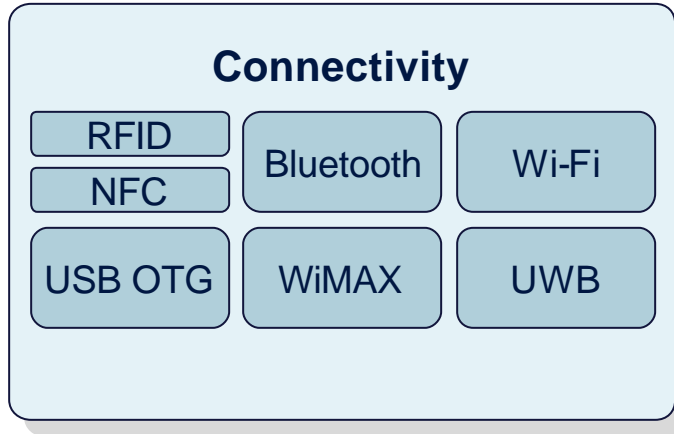
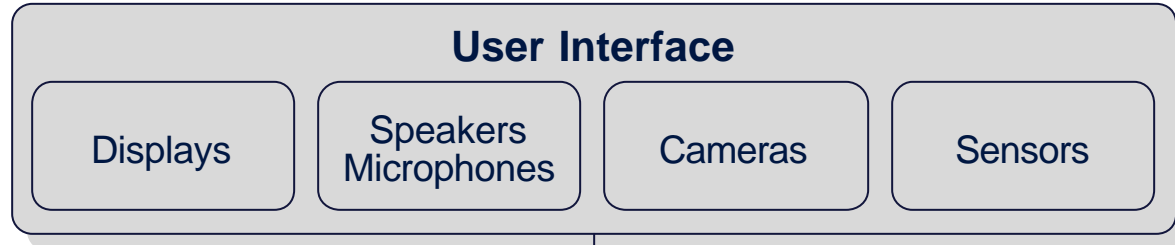
NFC is here today

- Being deployed in the handsets of all major manufacturers
- ISO standard available
- NFC chips available
- NFC-enabled devices later in 2004
- NFC Forum moving forward – Philips, Sony and Nokia
- Backwards compatible to contactless chip technology as used in smart cards
- Applications ... the sky is the limit



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Personal media player



Portable Audio players

Nexperia Personal family of audio player ICs - single chip solution for portable flash memory and hard disk MP3 players

Nexperia Personal Multimedia players

Nexperia Personal family of audio and multimedia player ICs - a natural fit for audio / image storage applications

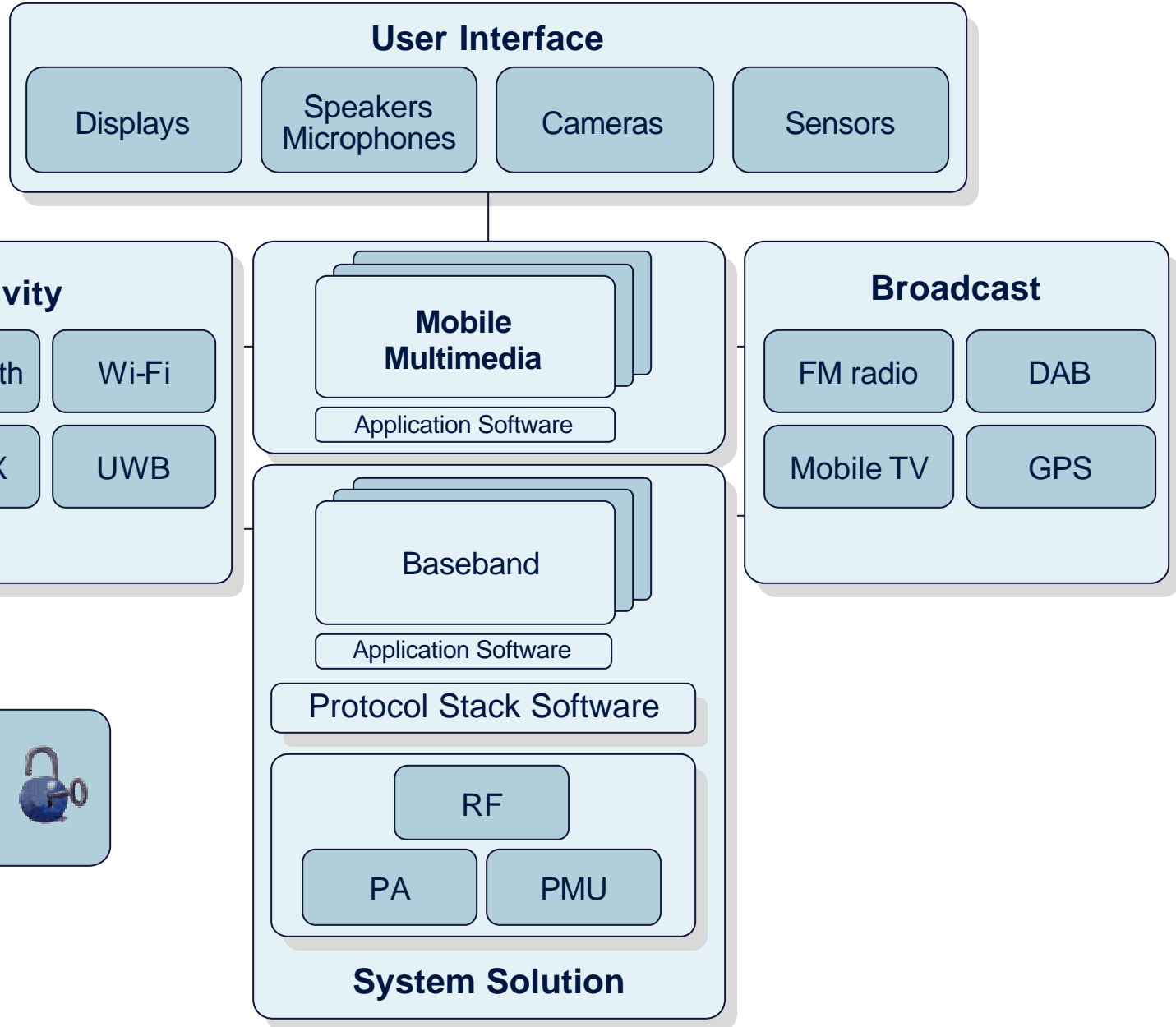
Nexperia Personal Media player reference design

Addressing the growing market opportunity for portable media players recorders for the high end market, includes audio / imaging / video player



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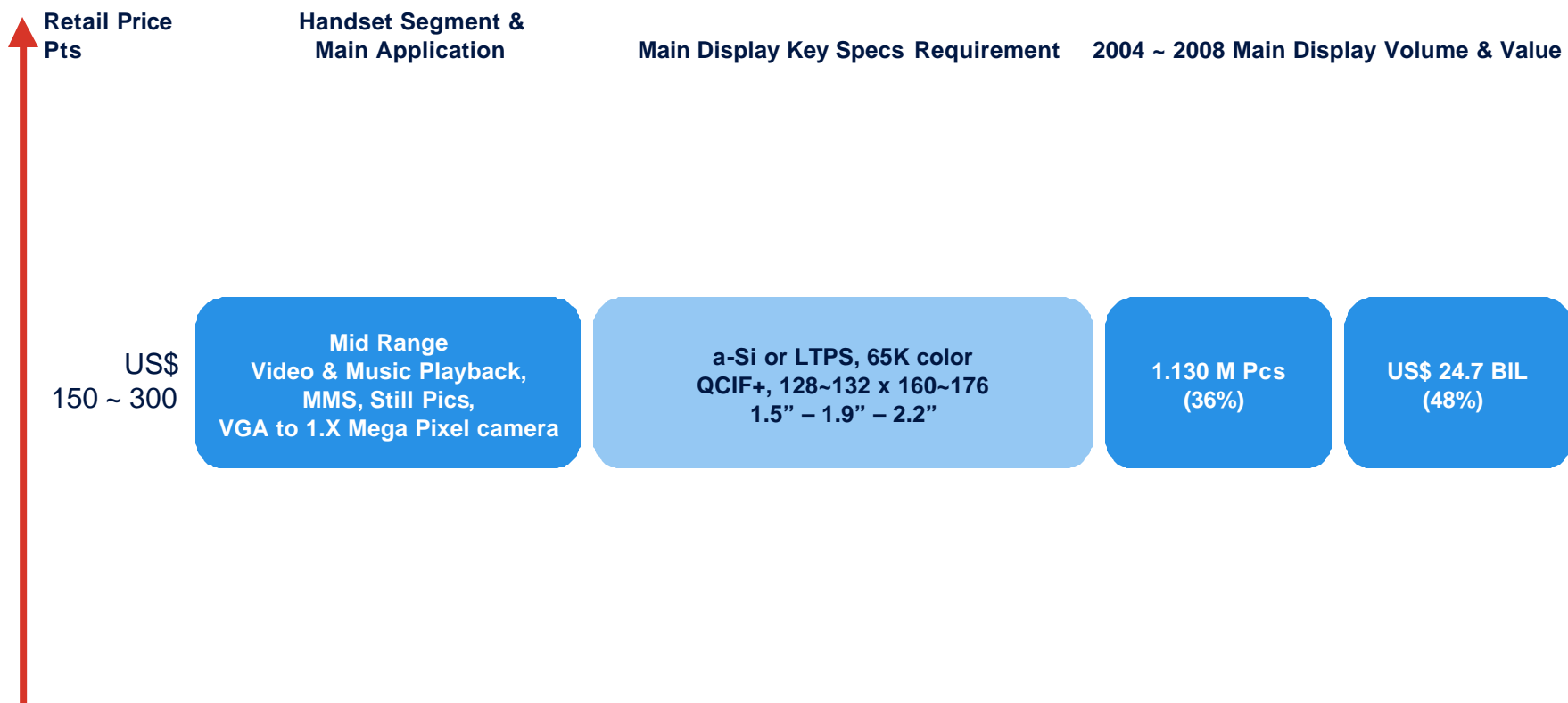
The future outlook of handset evolution and the value of mobile display

50% of mobile display value will come from Mid-range segment in Handset market

Retail Price Pts	Handset Segment & Main Application	Main Display Key Specs Requirement	2004 ~ 2008 Main Display Volume & Value	
> US\$ 350	Smart – phones Personal Info Mgt	a-Si 65K QCIF+, LTPS 262 K QVGA, 2.2” – 2.4” or above	110 M Pcs (3%)	US\$ 2.57 BIL (5%)
> US\$ 300	High – end Video Editing, Music, MMS Still Pics, > 3Mega Pixel camera	LTPS, 65K / 262K color, QVGA & VGA, 2.2” – 2.4” or above	389 M Pcs (12%)	US\$ 9.5 BIL (19%)
US\$ 150 ~ 300	Mid Range Video & Music Playback, MMS, Still Pics, VGA to 1.X Mega Pixel camera	a-Si or LTPS, 65K color QCIF+, 128~132 x 160~176 1.5” – 1.9” – 2.2”	1.130 M Pcs (36%)	US\$ 24.7 BIL (48%)
US\$ 70 ~ 150	Basic MMS, RT, Still Pics, CIF camera	CSTN, 4K to 65K color, 128 x 128, 128 x 160, 1.1” – 1.5” – 1.9”	1.184 M Pcs (37%)	US\$ 13.4 BIL (26%)
US\$ 50 ~ 70	Ultra Low End Voice, SMS	MSTN , 96 x 32 , 96 x 64, 1.1” – 1.5”	378 M Pcs (12%)	US\$ 0.97 BIL (2%)

The future outlook of handset evolution and the value of mobile display

50% of mobile display value will come from Mid-range segment in Handset market





LifePix™

Series of algorithms that improve picture quality of mobile displays

Most complete color enhancing solution on the market for optimal brightness and color



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Summary

Nexperia Mobile has gained market acceptance

- Enabling the right applications by offering the right features
- Evolving, innovating and integrating - in the areas of broadcast, connectivity, display modules and other user interface solutions

Embedding the right software

- Choosing the right partners
- Gaining access to the right IP
- Embedding it in the system - at the right time - for the market

Convergence provides new opportunities...

- Mobile meets Home – portable consumer merging with mobile applications
- Philips' unique positioned

