

# Philips Semiconductors ...

## Focus on mobile communications

*bringing consumers timely and desirable communications technologies for their mobile lifestyle*

**Thierry Laurent**  
**Executive Vice President**  
**Philips Semiconductors**

*Let's make things better.*



**PHILIPS**

# Contents

1 The mobile market

2 Market presence

3 Strategy moving forward

# Contents

**1** The mobile market

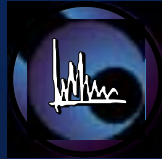
**2** Market presence

**3** Strategy moving forward

# Mobile Communications

**All** competencies required  
for complete System Solutions:  
**The way forward**

Digital signal  
processing



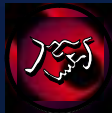
Radio frequency  
design



Low-power  
Low voltage



Optimized  
hardware/software



Battery  
management



Mixed analog  
and digital



Packaging  
and MCMs



LCD driver  
technology



Speech  
recognition



Digital  
consumer



*Let's make things better.*



**PHILIPS**

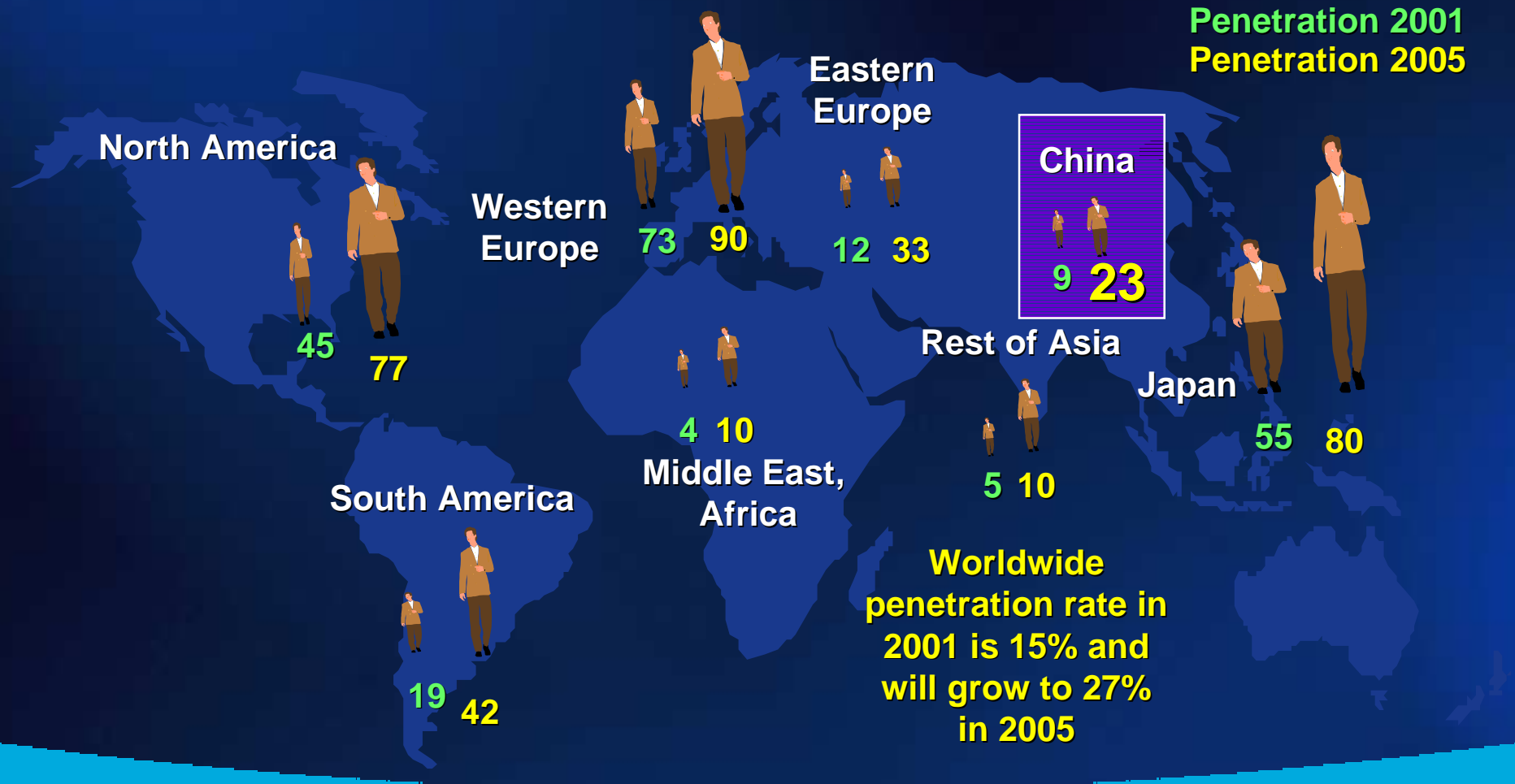
# Market Forces (1)

- Phone replacement has faltered as consumers await new GPRS models
- GPRS IOT not ready so revenues are delayed
- Most companies cannot afford the R&D needed to keep a position across the cellular phone market; emergence of ODMs in Asia
- An upturn in cellular can be predicted, but companies still face pressure

## Market Forces (2)

- Operators debts are very high due to 3G license fees
- The digital and US cordless sector remains a strong market
- New phones expected to launch in Q4
- China showing strong continuous growth

# Cellular handset penetration by region: 2005 compared to 2001

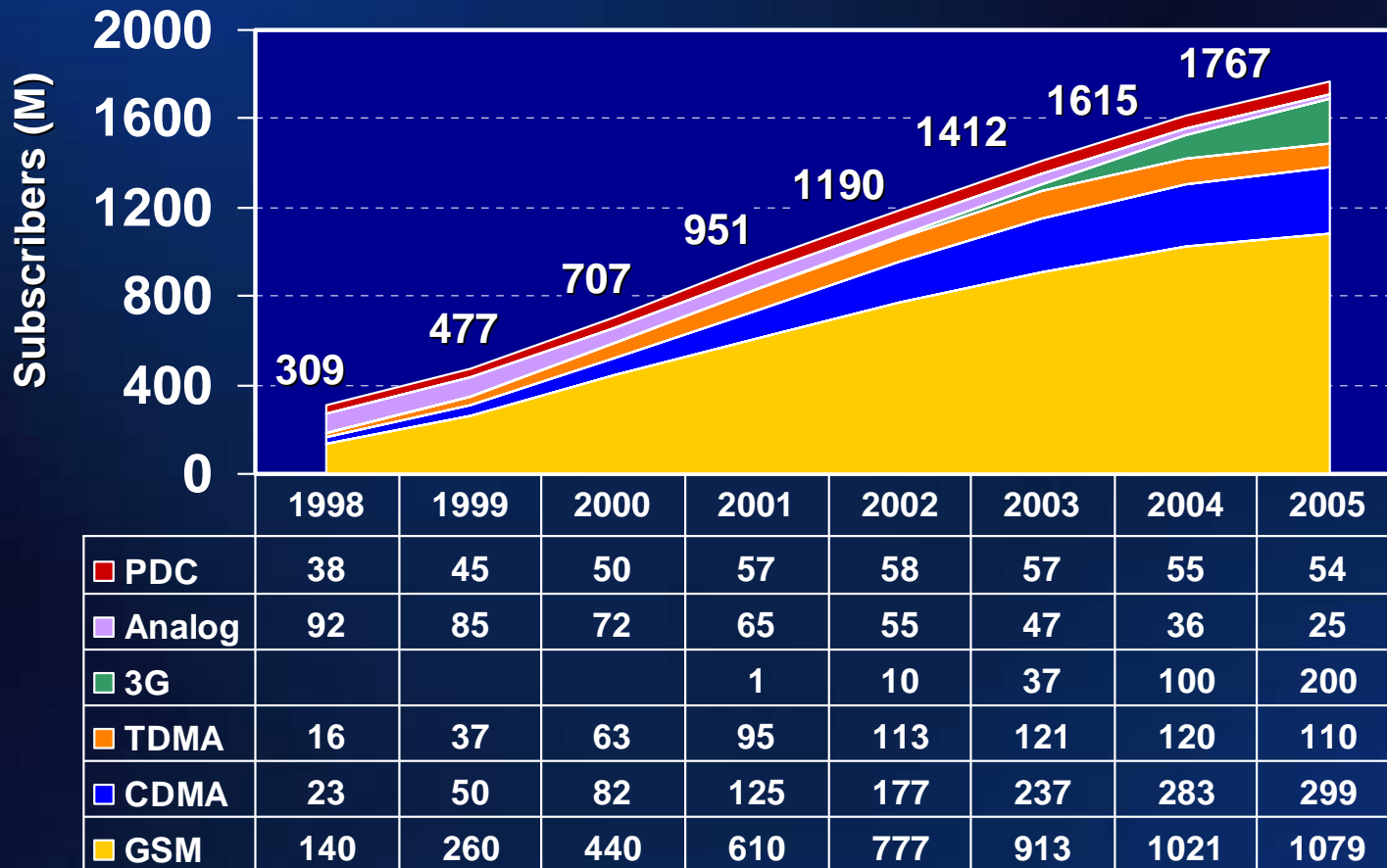


*Let's make things better.*



**PHILIPS**

# Cellular subscribers worldwide, by technology



◆ New subscribers still +20%

Source: Dataquest

*Let's make things better.*



**PHILIPS**



# Cellular handsets consumer demand, by technology



- ◆ GSM remains more than 50% of the market
- ◆ Worldwide CAGR 00-05 is 15%

Source: Dataquest

*Let's make things better.*



**PHILIPS**

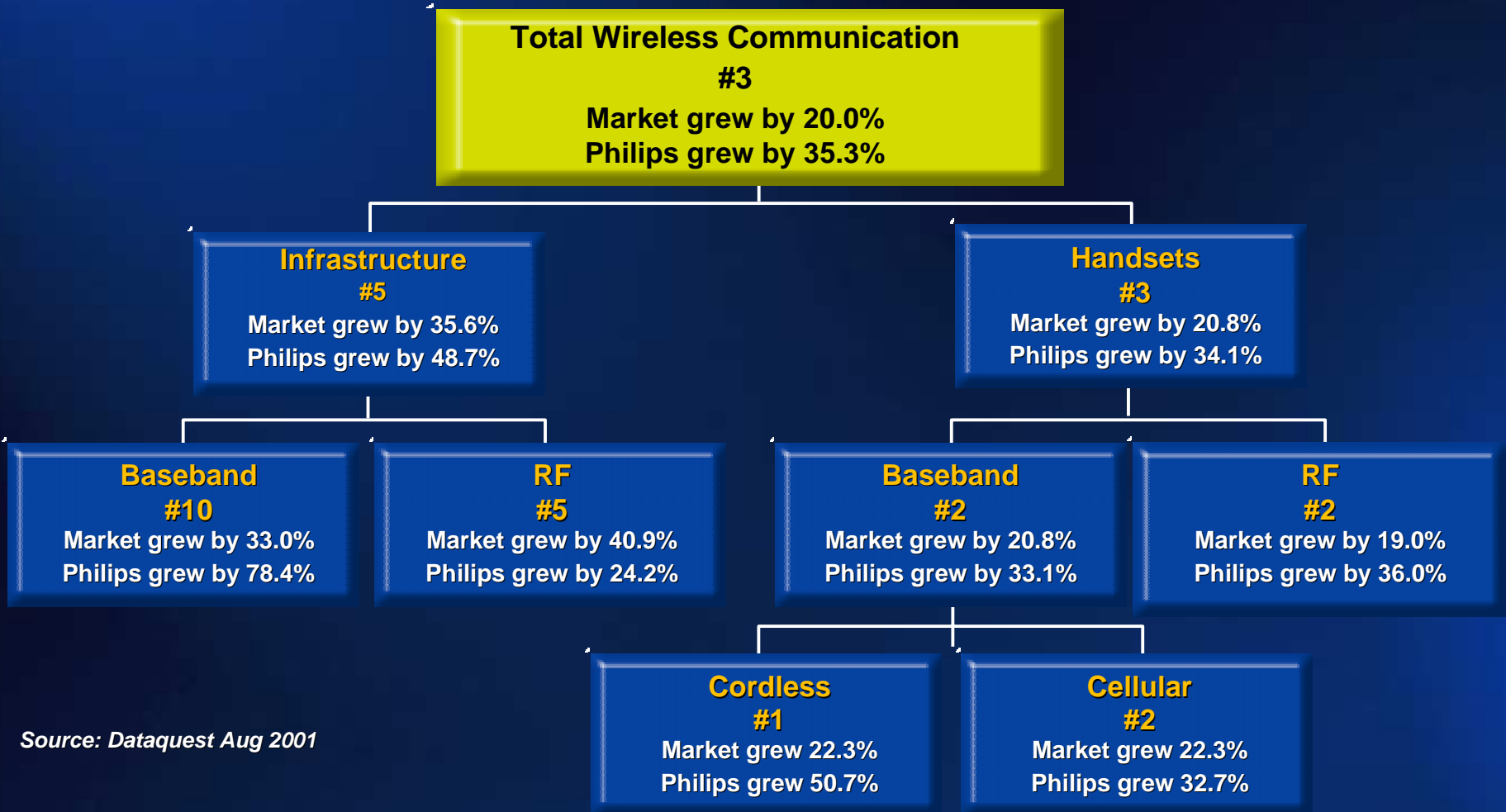
# Contents

**1** The mobile market

**2** Market presence

**3** Strategy moving forward

# We are growing market share



Source: Dataquest Aug 2001

*Let's make things better.*



**PHILIPS**

# A solid performance in 2000

2000 Rank	Vendor	Market Share	Increase revenue 2000/1999
1	Motorola	13.6%	28.5%
2	Texas Instruments	11.6%	22.0%
3	<b>Philips Semiconductors</b>	<b>10.2%</b>	<b>35.3%</b>
4	QUALCOMM	6.4%	-6.0%
5	STMicroelectronics	6.2%	21.2%

Source: Dataquest 2001

*Let's make things better.*



**PHILIPS**

# It is not just about mobile handsets

## Cellular

## Infrastructure

- Synergies with handsets through customer base
- Solid design-ins at market leader Ericsson for PA and BB-ASICs
- China TD-SCDMA standard: design-ins with leading players

## Cordless

- Became market leader in 2000 (up from #3)
- Low growth rates (3-5%)
- Moving to digital
- Extending share in DECT
- Growing customer base: Vtech, Siemens, ODM's
- Well positioned for IP terminal market

*Let's make things better.*



**PHILIPS**

# Contents

**1** The mobile market

**2** Market presence

**3** Strategy moving forward

# How are we different?

**Philips Semiconductors competes on:**

- **Complete Solutions in GSM/GPRS and UMTS handsets**
- **Early entry into system solutions:**
  - **GSM/GPRS today,**
  - **UMTS in development**
- **Understanding consumer needs**
- **Cellular and Consumer convergence know-how to take customers into the 3G world**

*Let's make things better.*



**PHILIPS**

# The Strategy

- **Mobile Communications is a key focus area for Philips Semiconductors**
- **Build the right IP for convergence applications**
- **Retain leadership in wireless communications through R&D investment.**
- **Stay close to the end user needs through communications with operators and lead customers**

*Let's make things better.*



**PHILIPS**



# Exploiting product life cycles

**Growth  
New  
Standards &  
Applications**

**Technology discontinuity**

**Maturing  
product  
categories**

**Leverage expertise for accelerated growth. New emerging Applications**

**UMTS and GPRS platform solutions**

**RF and power management for portable consumer solutions**

**Develop and cultivate strong markets through their life cycle - building reference designs not customer specific solutions**

*Let's make things better.*



**PHILIPS**

# Cellular business model: a three tier approach

## Complete system solutions

For low cost solutions and emerging ODMs (reference designs)

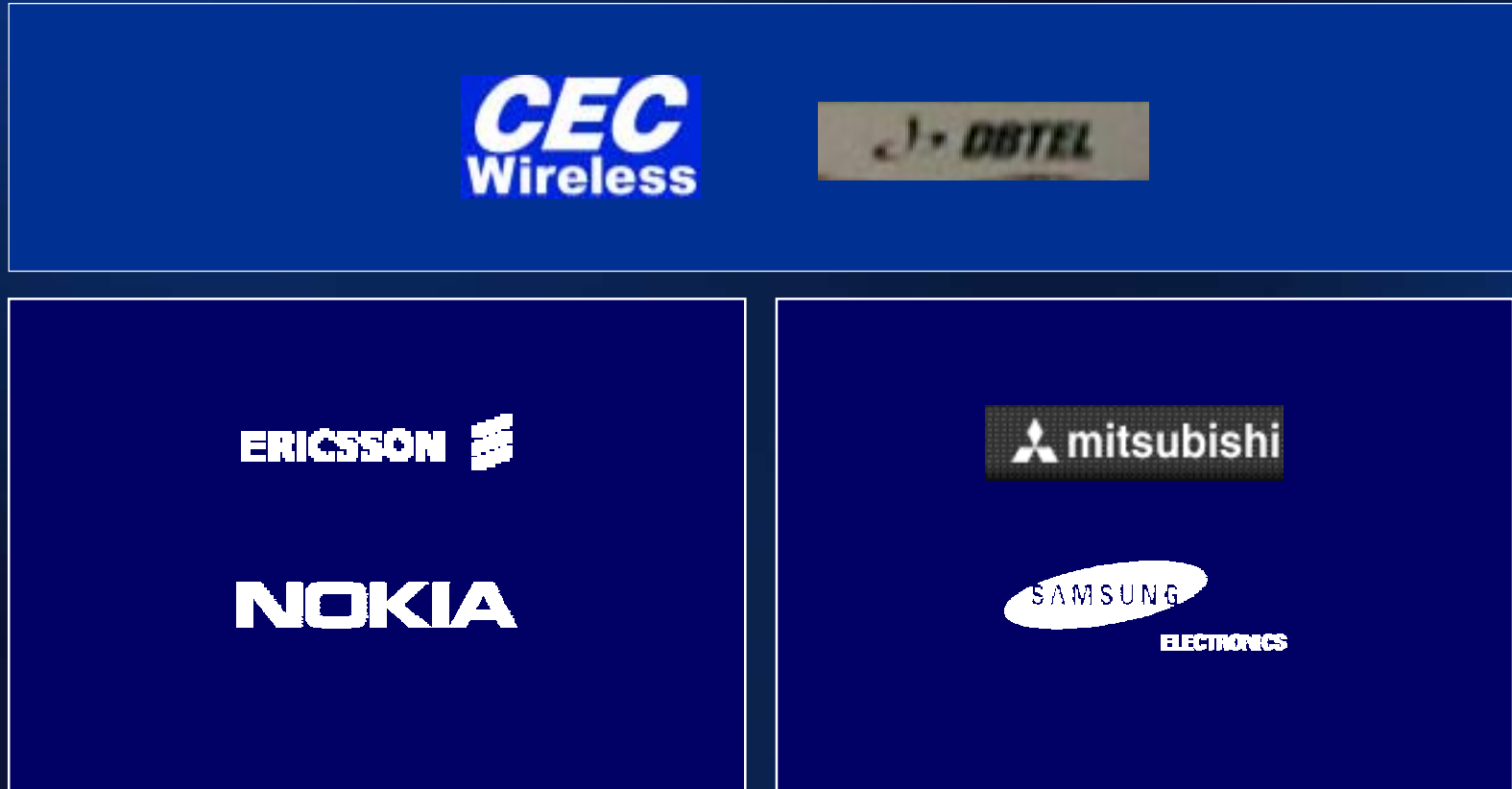
## Custom solutions

ASICs for market leaders  
and differentiated products

## Standard devices

for specific  
applications customers  
(baseband, RF, PAs, PMUs  
and display drivers)

# Cellular business model: a three tier approach



*Let's make things better.*



**PHILIPS**

# System solutions take off 1<sup>st</sup> phone now in production



*Let's make things better.*



**PHILIPS**

# Real life examples

## YTR01-A

### Features

- FM Radio
- Cwen Chinese Editor
- World Clock



*Let's make things better.*



**PHILIPS**

# Real life examples YTR01-B

**CEC**  
Wireless

**CEC**  
中国电子  
CHINA ELECTRONICS

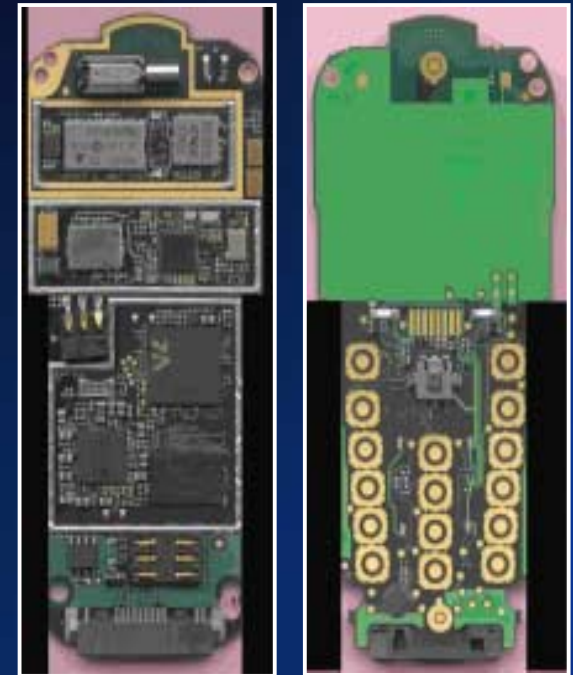
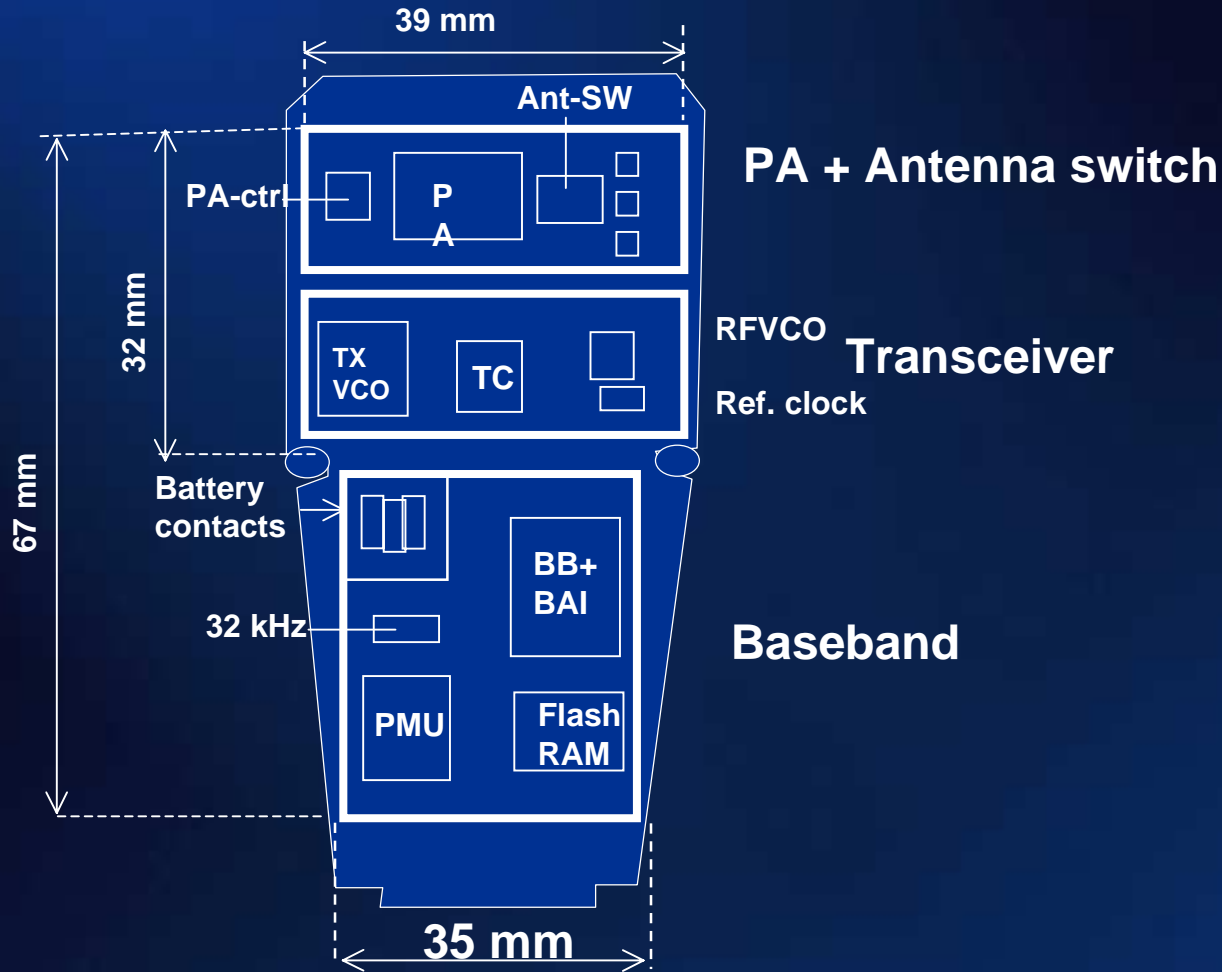


*Let's make things better.*



**PHILIPS**

# Insight into GPRS Reference Designs



# Salient Features

- **GPRS Class4/10:**
  - inter-operability test (IOT) passed in Q3 '01
  - excellent operator feedback on stability and maturity
- **Component count of 190 for core GSM functionality**
- **Low Bill-of-Materials**
- **Design-ins already started**

*Let's make things better.*



**PHILIPS**



# 3G waves of progress

<b>DATA</b>	<ul style="list-style-type: none"> <li>• WAP</li> <li>• Windows CE</li> <li>• EPOC</li> <li>• 3<sup>rd</sup> party sw</li> </ul>	<ul style="list-style-type: none"> <li>• WAP, EXCE, HTML</li> <li>• E-commerce</li> <li>• Interactive games</li> <li>• JAVA</li> </ul>	<ul style="list-style-type: none"> <li>• PC type applications</li> </ul>
<b>VIDEO</b>	<ul style="list-style-type: none"> <li>• Pictures</li> <li>• Basic video</li> </ul>	<ul style="list-style-type: none"> <li>• MPEG4 - H323</li> <li>• Video conferencing</li> </ul>	<ul style="list-style-type: none"> <li>• Full MPEG4</li> </ul>
<b>AUDIO</b>	<ul style="list-style-type: none"> <li>• MP3</li> <li>• FM radio</li> </ul>	<ul style="list-style-type: none"> <li>• Digital audio</li> </ul>	<ul style="list-style-type: none"> <li>• Speech to text</li> </ul>
<b>OTHER</b>	<ul style="list-style-type: none"> <li>• Bluetooth</li> <li>• Triangulation</li> </ul>	<ul style="list-style-type: none"> <li>• Bluetooth multipoint</li> <li>• Security and identification</li> </ul>	<ul style="list-style-type: none"> <li>• GPS</li> <li>• WLAN</li> </ul>

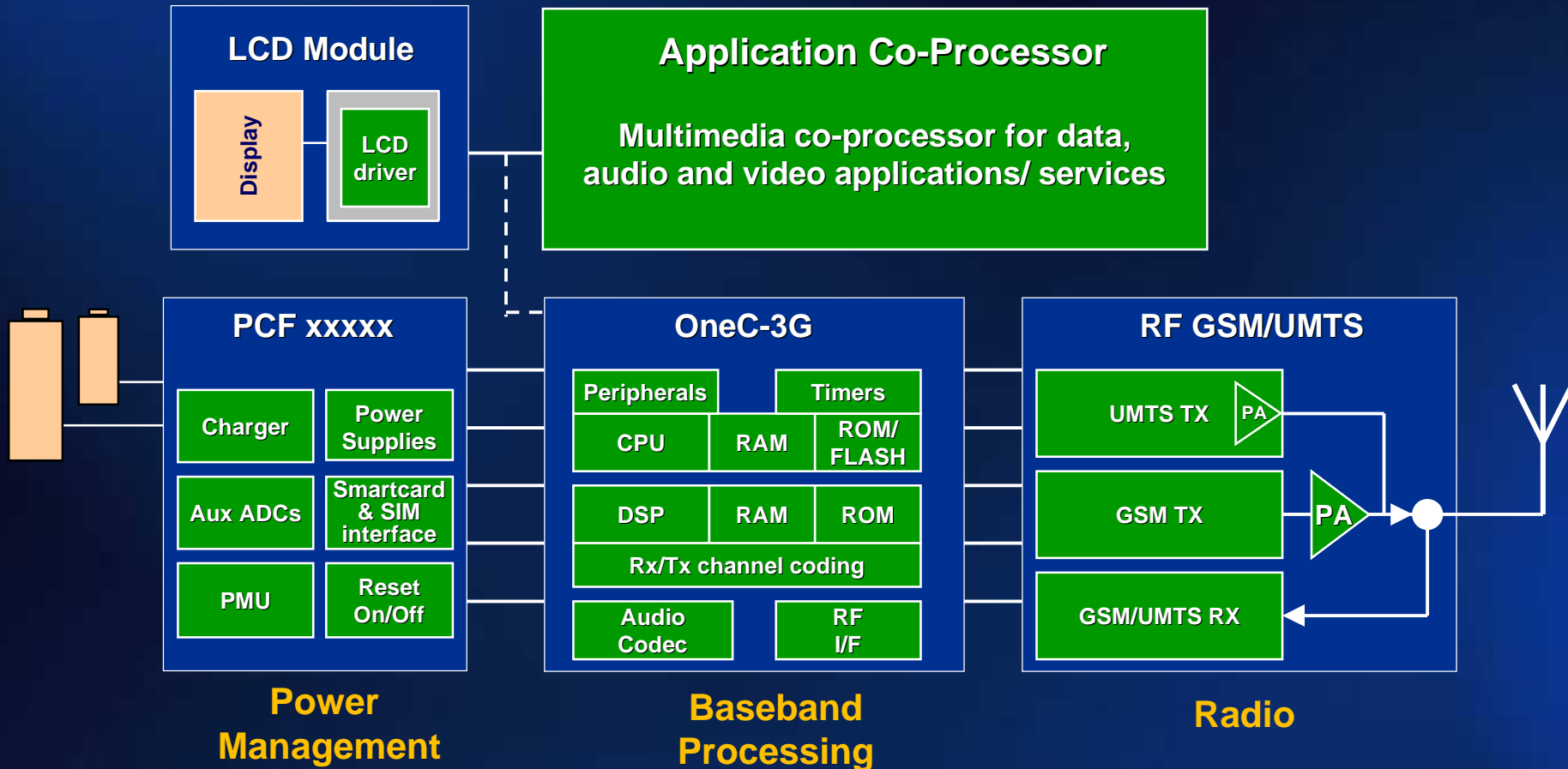
Applications will differentiate

*Let's make things better.*



**PHILIPS**

# 3G System Solution Example (based on Nexperia concept)

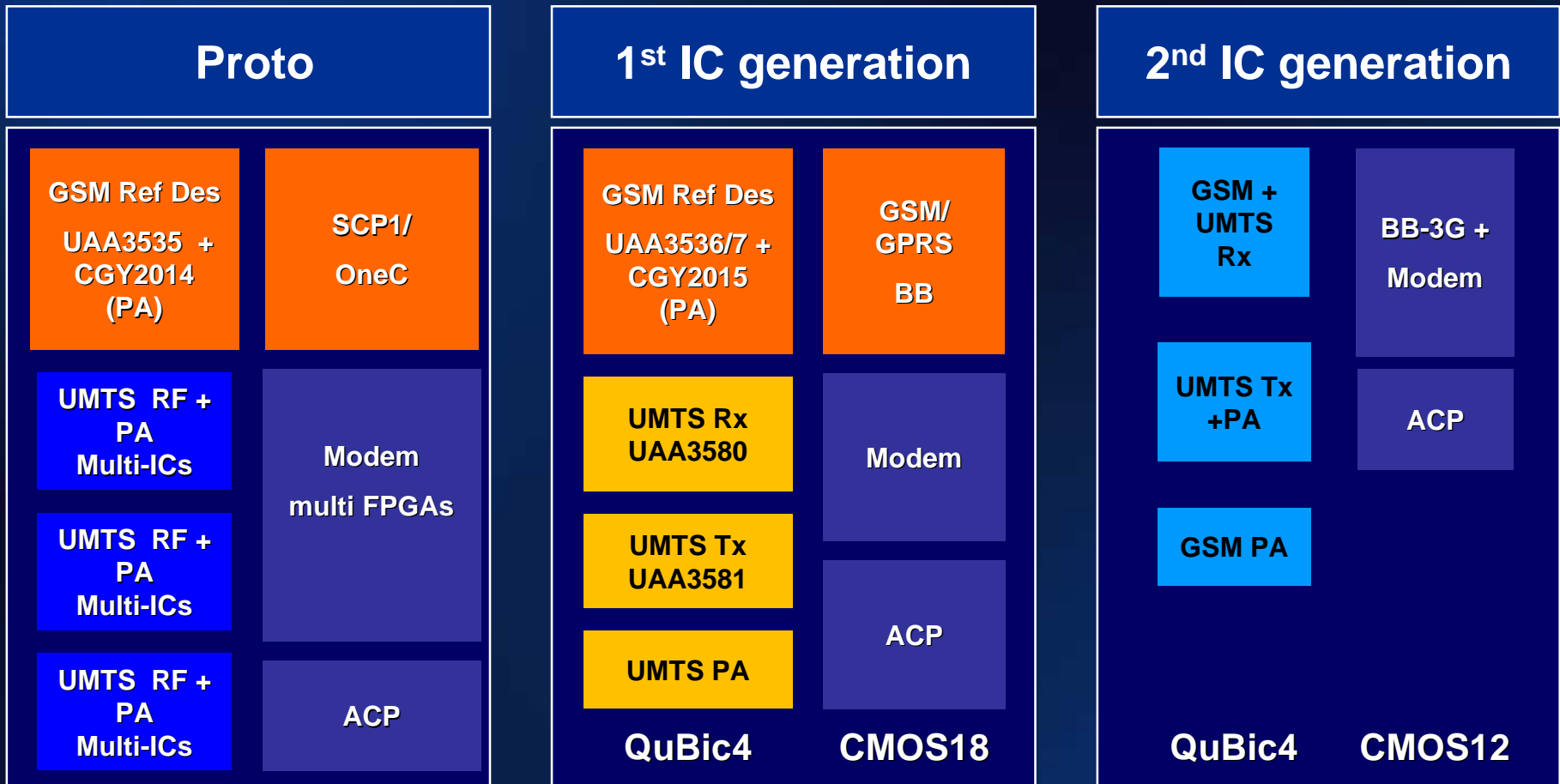


*Let's make things better.*



**PHILIPS**

# Roadmap for differing integration paths



*Let's make things better.*



**PHILIPS**

# The Customers

- Solutions are designed, agreed and specified with customers: a true partnership framework
- Close relationships with Samsung, DBTEL, CECW and Mitsubishi-working together to anticipate market needs
- Increase local support in China and Asia
- We supply market leaders
- We have low cost solutions through our system know how and high volume manufacturing



*Let's make things better.*



**PHILIPS**

# The Partners

**Working with partners to reach the end user**

- **Engaged with market leaders**
- **Regular dialog with infrastructure manufacturers**
- **Consolidating contact with operators**
- **Increasing local China investments**

*Let's make things better.*



**PHILIPS**

# Today in Beijing we have just signed ...

## JV between CATT, CECW and Philips Semiconductors

- Goal – develop a complete 3G system solution for TD-SCDMA using Philips Semiconductors' platform
  - TD-SCDMA is a CATT standard approved by ITU & 3GPP
- JV will be based in Beijing
- Already worked with CATT on handset demonstrator
  - Uses our GSM platform and CATT modem
- Have 10 year history of working with CATT
- Already partnering with CECW in GSM

*Let's make things better.*



**PHILIPS**

# The Partners

**Working with partners to reach the end user**

- **Engaged with market leaders**
- **Regular dialog with infrastructure manufacturers**
- **Consolidating contact with operators**
- **Increasing local China investments**
- **Leveraging internal Philips competencies**

*Let's make things better.*



**PHILIPS**

# Visions and Ambitions

- Strong partnerships across the industry
- Units growth at 15 per cent in the next 3 – 5 years
- Exploit all company-wide assets and lead market in next 3 – 5 years
- Increase hold on wireless communications market as demand for portability rises
- Conquer mobile data communications market by building smart applications

*Let's make things better.*



**PHILIPS**



# On Course For Success

- Already top 3 player in wireless communications
- Tightly focused on new fast growing segments
- Industry partnerships will pull in further design wins
- First in GPRS system solutions
- A leader in systems solutions – a fast growing segment
- Convergence market- the Philips Group offers one of the world's largest IP library

*Let's make things better.*



**PHILIPS**

# Philips Semiconductors ...

## Focus on mobile communications

*bringing consumers timely and desirable communications technologies for their mobile lifestyle*

**Thierry Laurent**  
**Executive Vice President**  
**Philips Semiconductors**

*Let's make things better.*



**PHILIPS**

