

# PHILIPS

## Lighting: Building the future

Theo van Deursen  
CEO Philips Lighting  
Lighting and Innovation Analysts' Day  
September 28, 2007

# Philips Vision 2010



Three people centric sectors

## Healthcare



## Lighting



## Consumer Lifestyle



Philips Growth Vision 2010:  
EBITA margin >10%  
Sales: a minimum of 6% growth

# Agenda

- Philips Lighting
- The Growth challenge
- Growth drivers
  - Emerging markets
  - Acquisitions
  - Market driven organization
- Growth opportunities
  - Energy saving solutions
  - Automotive
  - Professional Luminaire systems
  - Home Lighting
  - Solid State Lighting

# Philips Lighting

	2006
Sales ( € B)	5.5
<i>Comp. growth</i>	8%
EBITA ( € M)	608
<i>as % of sales</i>	11.1%
Headcount	47,739
R&D %	4.9%
Net Capex ( € M)	319
Depreciation PPE ( € M)	205
NOC ( € B)	2.5

## Philips Lighting

### *Key Product Areas*

**Lamps**



**Lighting  
Electronics &  
Controls**



**Professional  
Luminaires &  
Systems**



**Automotive &  
Special Lighting  
Applications**



**Consumer  
Luminaires &  
Systems**



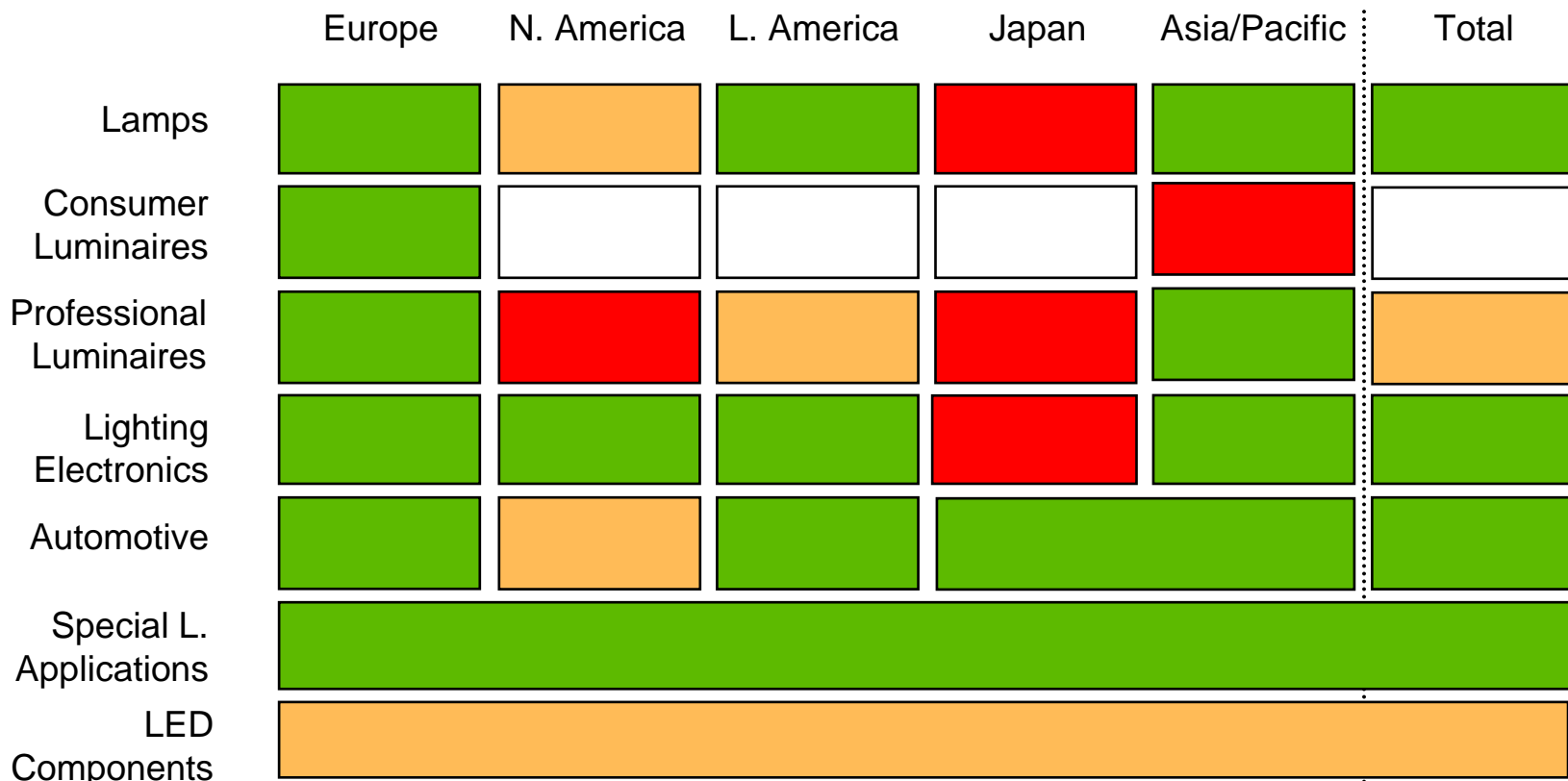
**Solid State  
Lighting  
Components &  
Modules**



# Philips Lighting: leading around the world

*Value market shares per business per region 2006/2007*

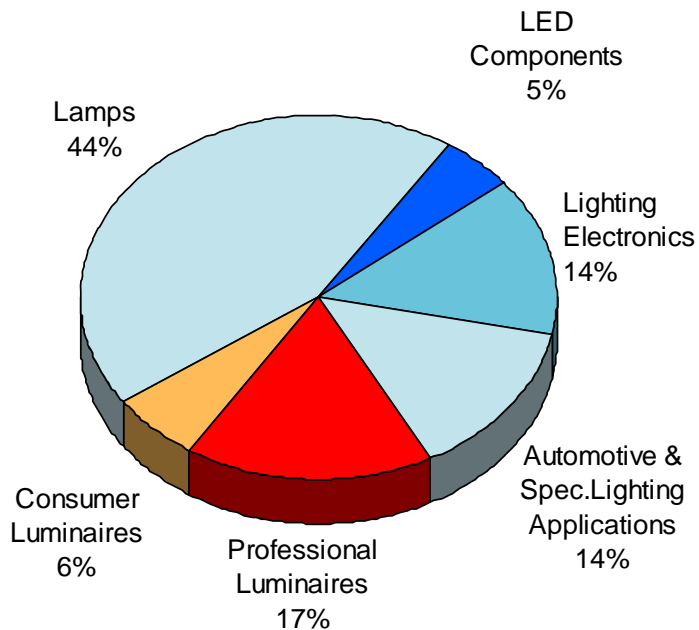
number 1
  number 2 or 3
  not in top 3



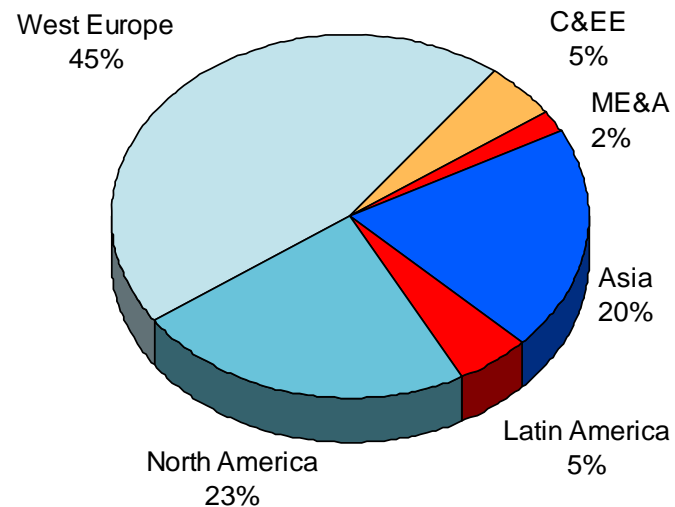
# Philips Lighting

*Sales distribution by business and region 2007 Q2 YTD*

### By Business

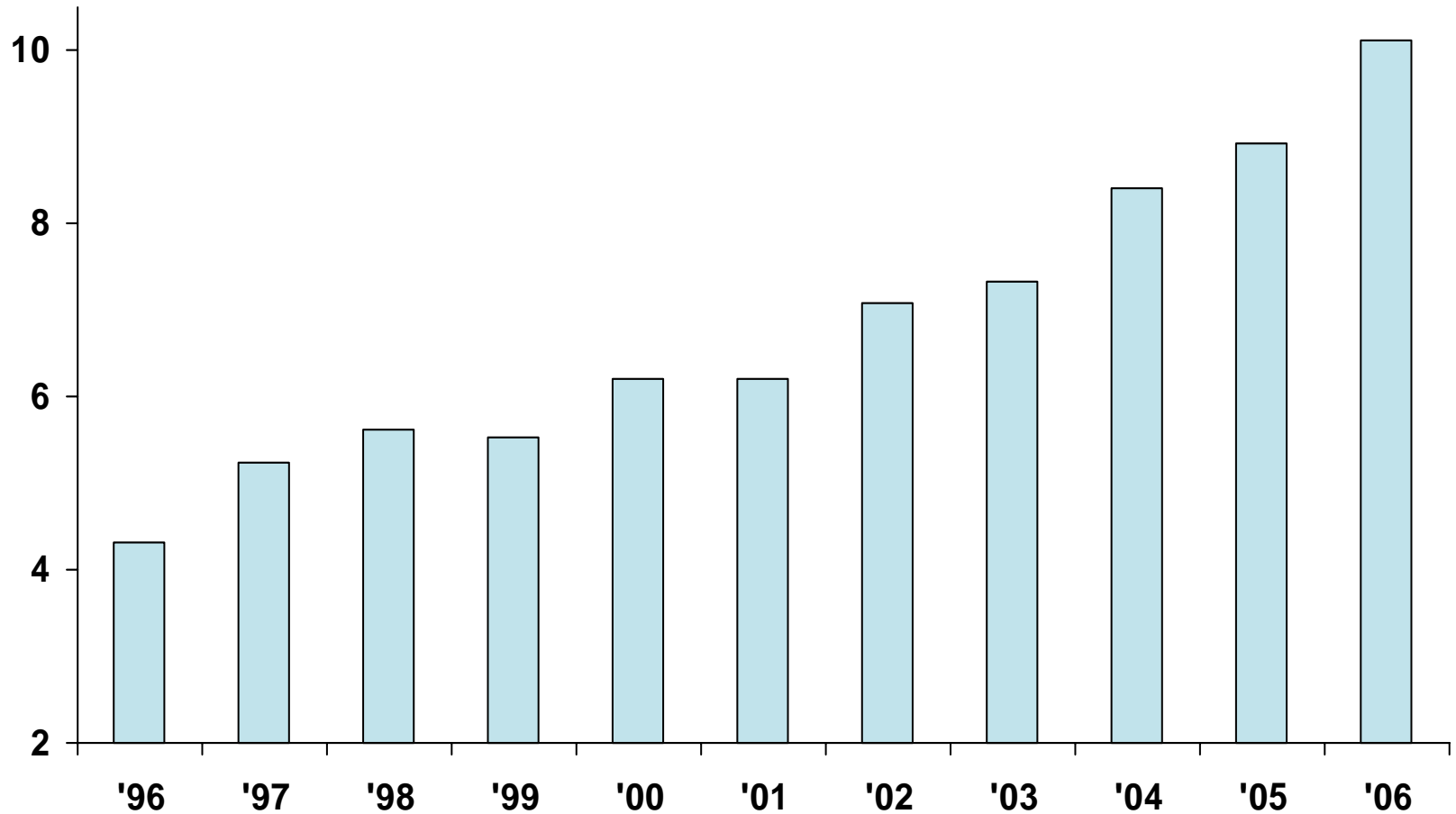


### By Region



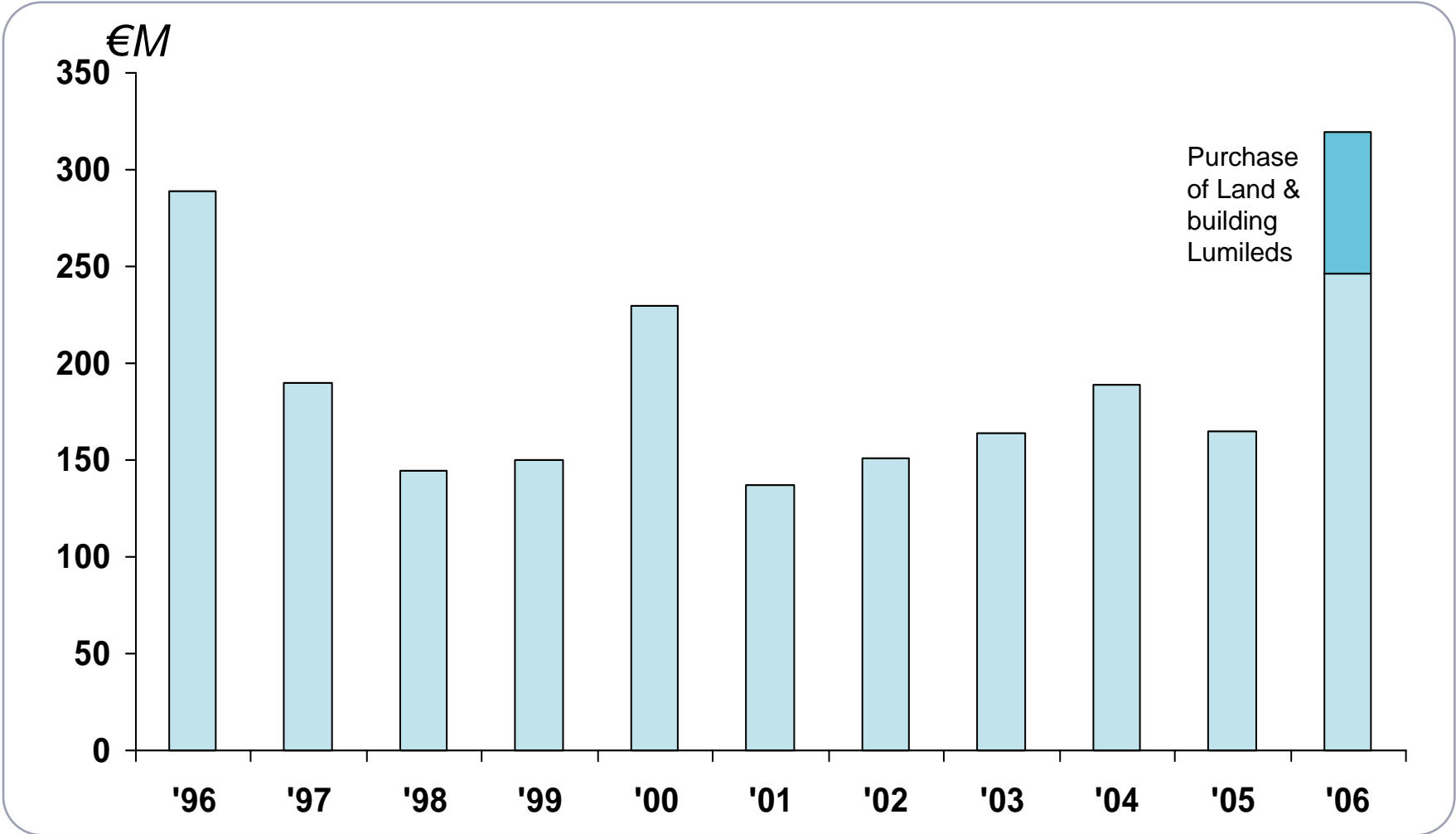
# Working Capital turns

Ratio Average Working Capital related to MAT Sales

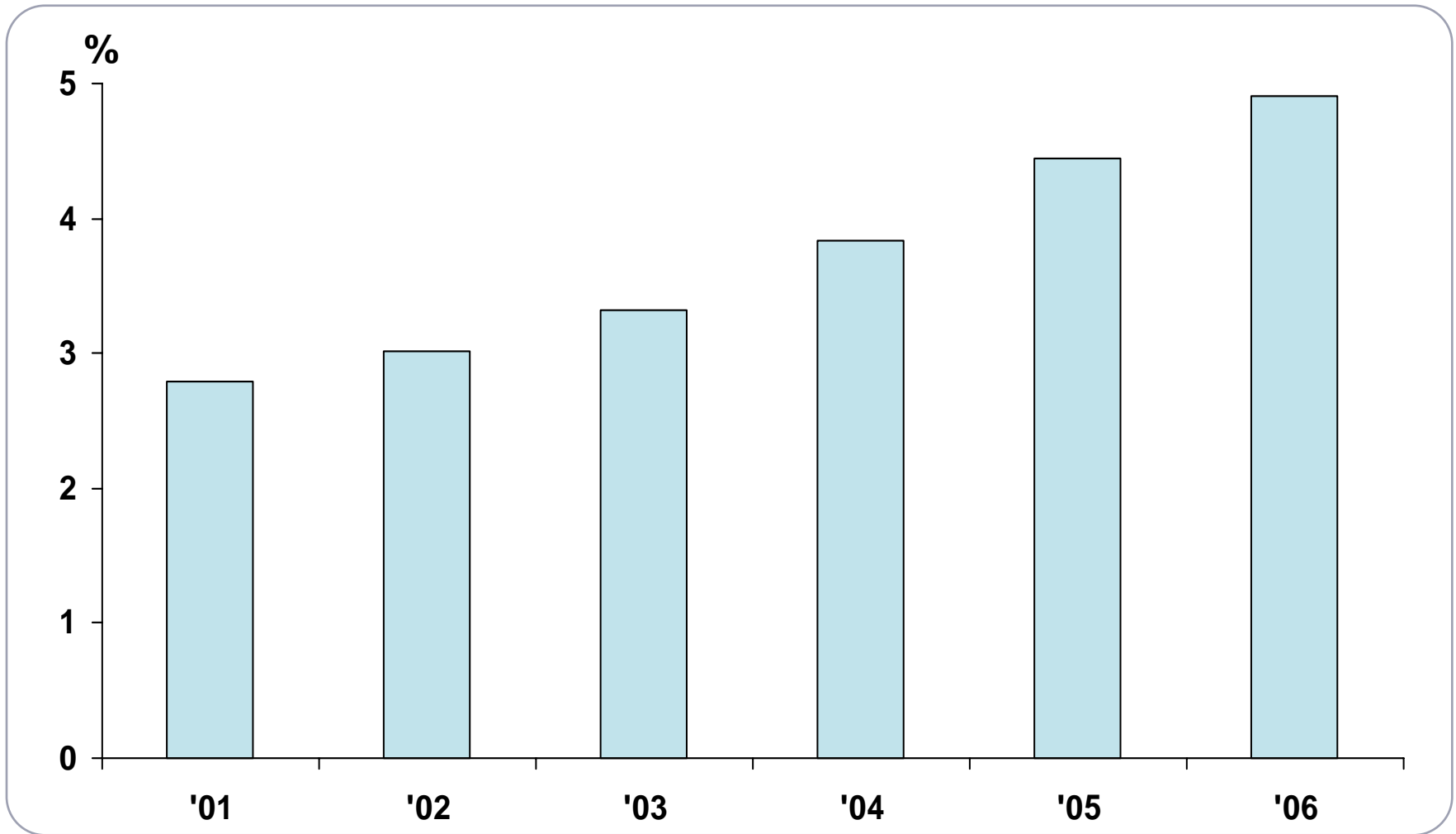




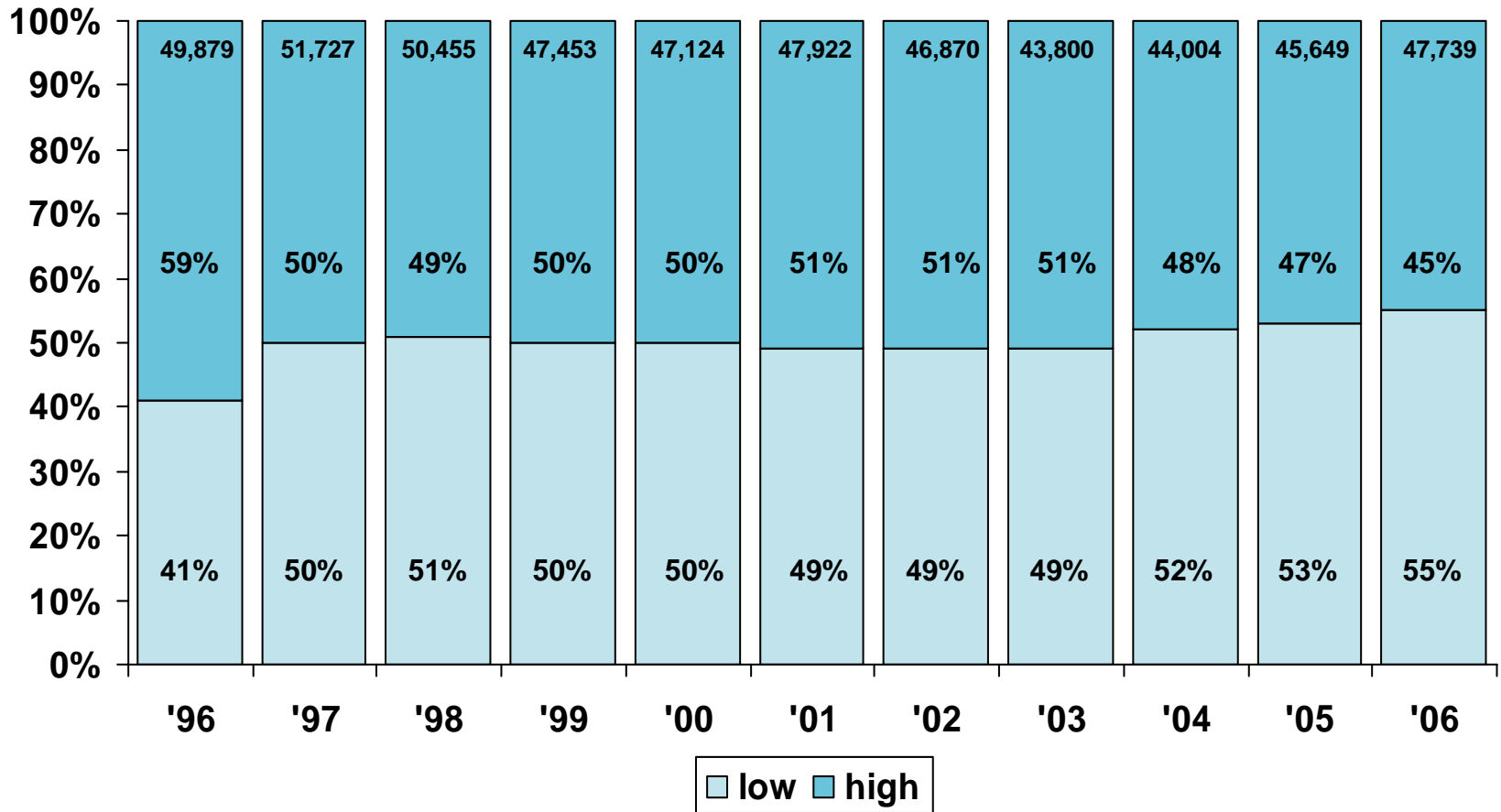
# Capital Expenditures



# R&D% of Sales



# Employees in low/high cost countries

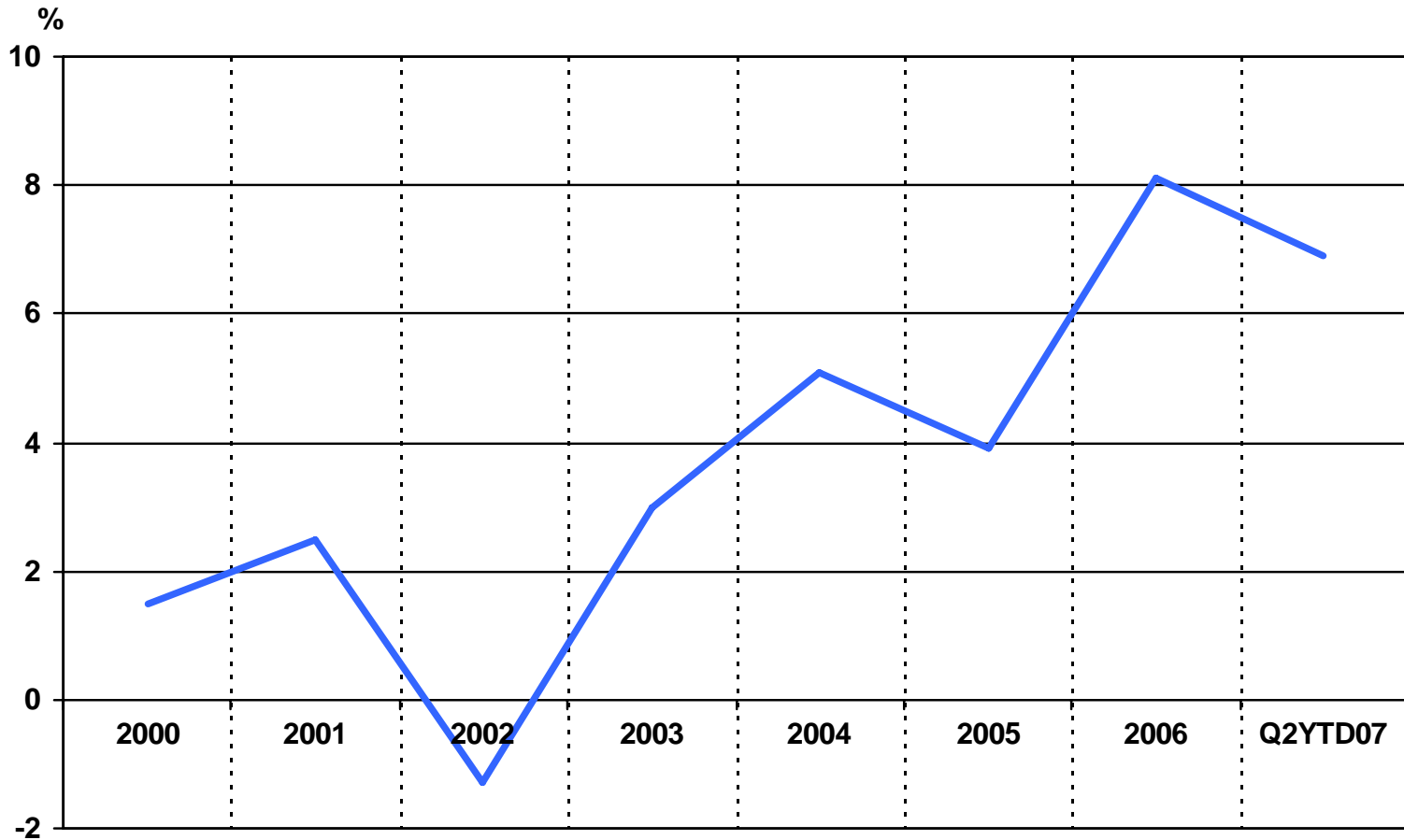


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  - Solid State Lighting

# Philips Lighting: Accelerated growth

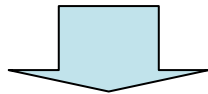
*Comparable Sales Growth 2000 – 2007*



# The lighting industry faces significant changes

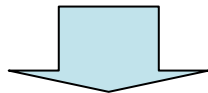
## From conventional light sources to solid state lighting

- No replacement of light sources
- Emphasis towards initial system
- Enabling new use of light



## From product to application focus

- New use of light requires (re)making of current and new applications
- Close contact to end users needed



## From products to controllable systems

- Enabling scene setting
- Increased importance of control equipment and services

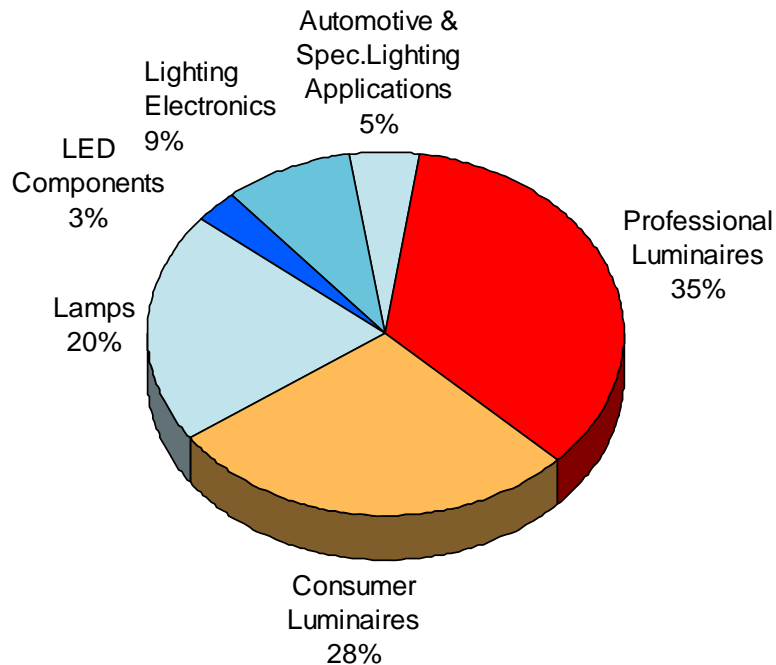


# Luminaire systems & Controls play crucial role in transformation towards SSL

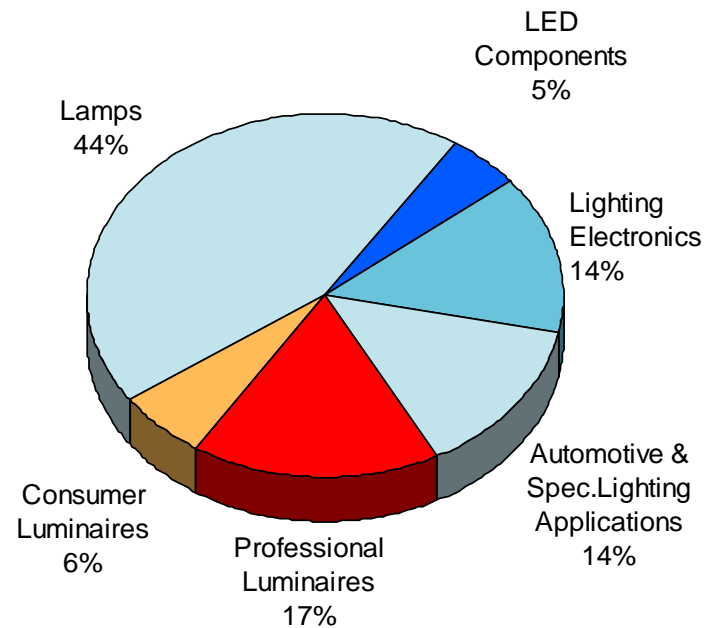
- New use of light starts with showing the light effect:  
Luminaires & controls create lighting solutions
- Market driven innovation is key when customer needs are changing:  
our Luminaire and Control activities are closest to the end user
- Luminaires & controls function as our spearhead in developing the SSL technology
- Gathering vital information about SSL market trends requires footholds for Luminaires & controls in all major markets (regional and application segments)

# Luminaires 63% of lighting market of c. €58B\*

**World market**



**Philips Lighting**



*Luminaires only 23% of Philips Lighting sales (2007)*

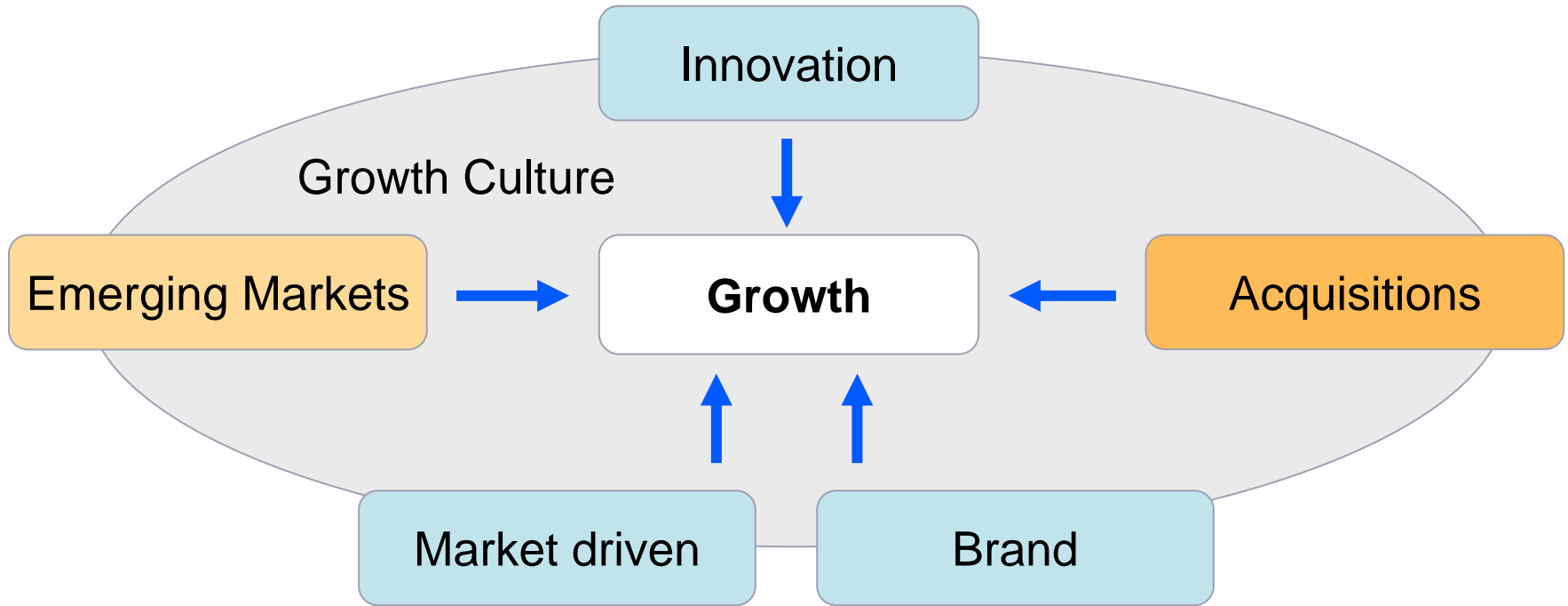
\*) 58 B market value measured at supplier level



## Agenda

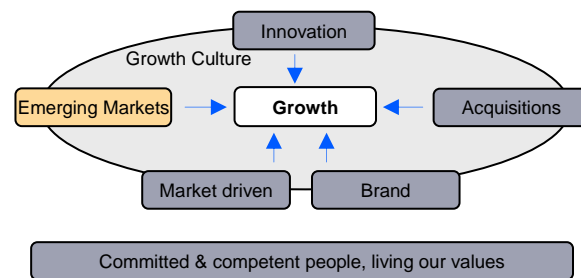
- Philips Lighting
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  - Home Lighting
  - Solid State Lighting

# We will pull all levers of growth



Committed & competent people, living our values

# We are well positioned in emerging - fast growth markets

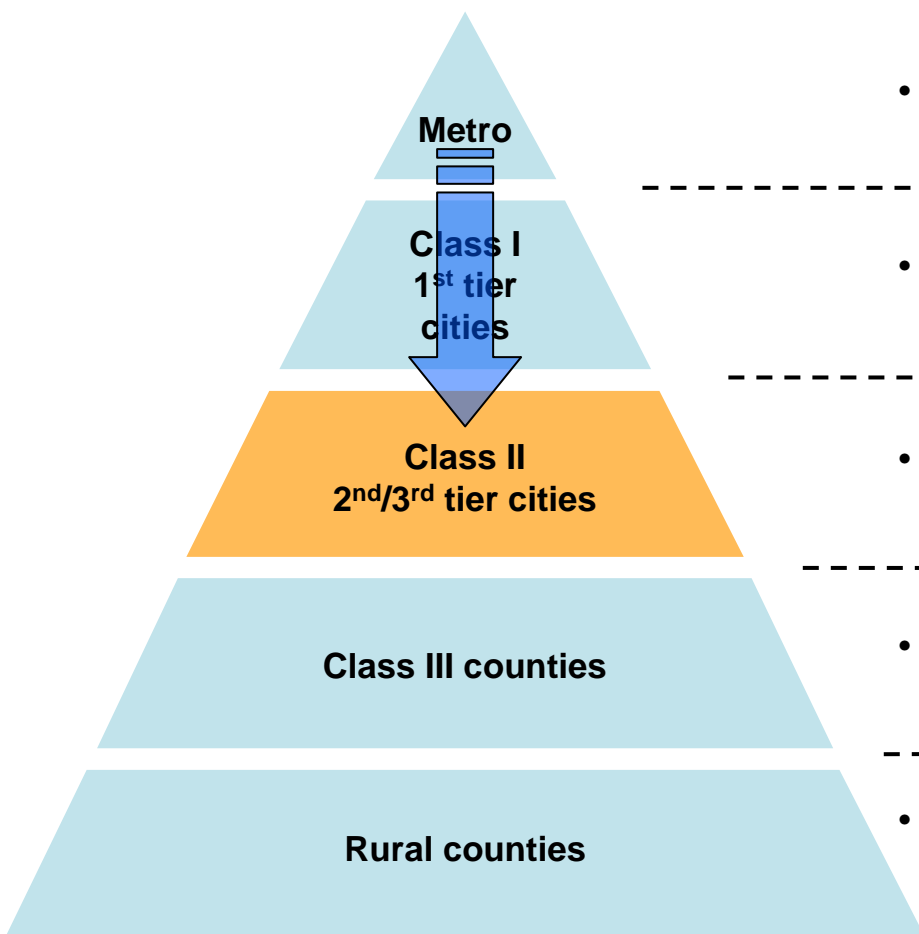


	2006 vs 2005	Q2YTD 2007
	comparable growth	
Latam	7%	11%
C&E Europe	18%	26%
China/HK	18%	19%
India	12%	14%
Asean	13%	12%

Lamps market share '06
31%
32%
14%
41%
39%

The sales in emerging/fast growth markets represent  
28% of Philips Lighting sales

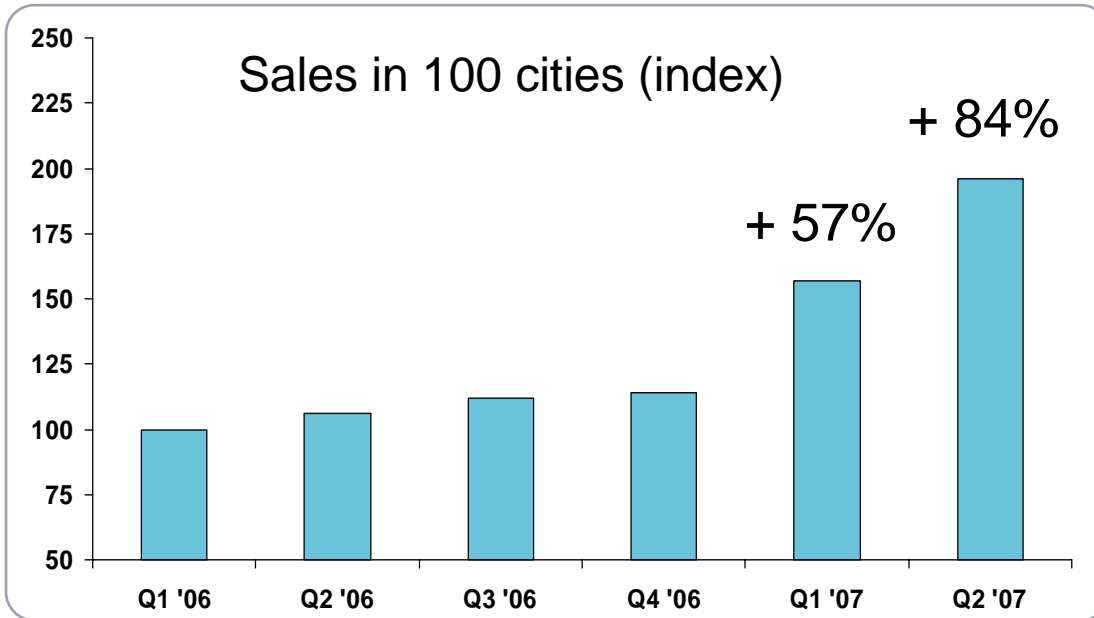
# China: 56% of lighting market in 2<sup>nd</sup>/3<sup>rd</sup> tier cities but only 25% of Philips sales (2006)



<u>Criteria</u>	<u># of cities</u> <u>(% mkt size)</u>	<u>% Philips</u> <u>sales 2006</u>	<u>Examples</u>
• Population > 10M	4 (8%)	27%	• Shanghai • Beijing
• Population 2-8M	30 (24%)	48%	• Hangzhou • Chengdu • Qingdao
• Population 0.5-2M	660 (56%)	25%	• Yangzhou • Yichang • Kunshang
• Population 0.2-0.5M	2560		
• Population <0.2M	> 500k?		

# China: Increasing Distribution in 2<sup>nd</sup>/3<sup>rd</sup> tier cities

- 4600 outlets added in 100 cities till Q2 2007
- Target to add another 3400 still in 2007
- Target for 2008: another 7000 outlets in next 180 cities

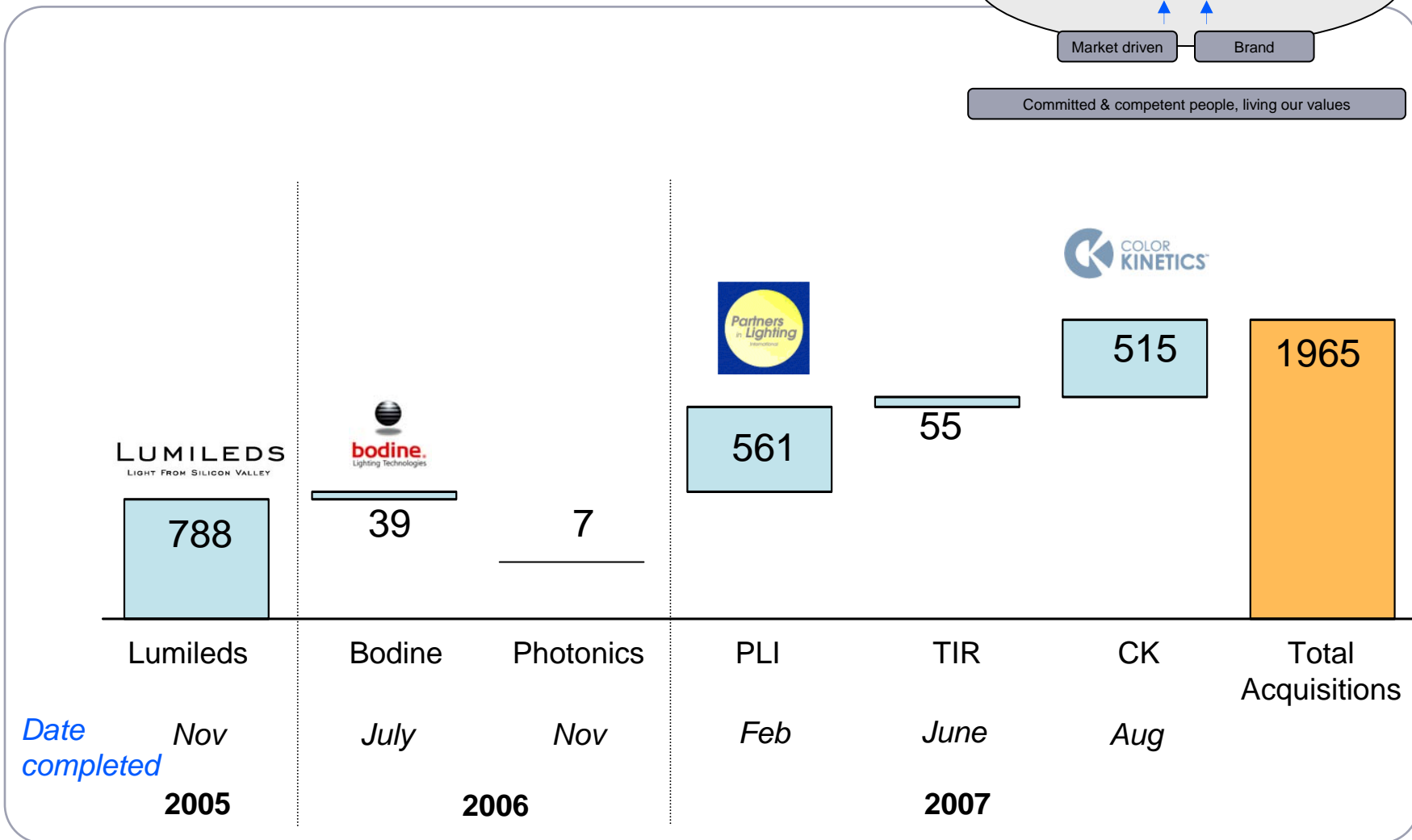
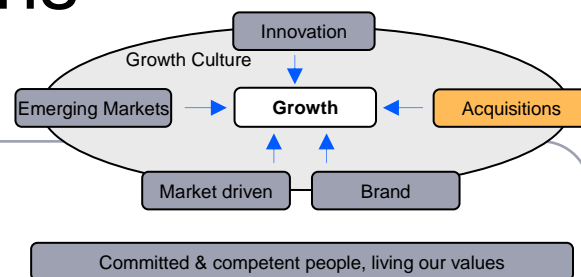


## Philips Automotive leading in China

- Automotive Lighting clear market leader in China
- More than 50% of cars in China use Philips lamps
- More than 50% of lamps locally manufactured (Songzi, Hubei Province)



# Strategic Value adding acquisitions in Lighting (€ M)



## Acquisition of TIR and Color Kinetics SSL modules, systems and controls

### TIR

- Strong in **SSL module - technology** for OEM:
  - **High quality light**  
(predictable, consistent over time)
  - **Tuneable**  
(colours and shade of white)

### Color Kinetics

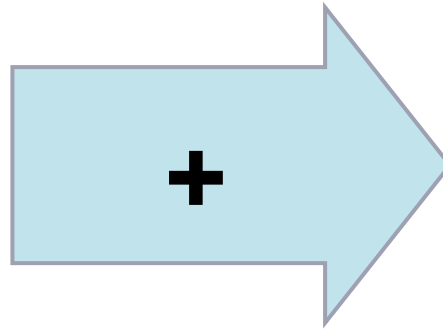
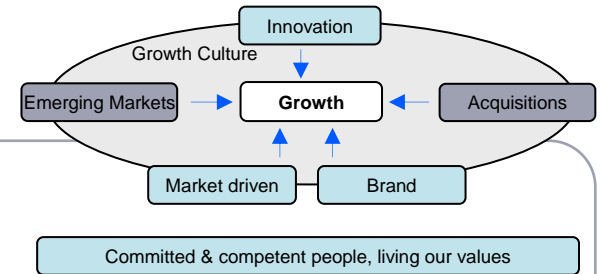
- Innovator and strong player in **solid state luminaire** business
- Strong presence in **USA**
- Strong **technology and IP** portfolio  
(control and intelligent technology)
- **Growth** rate of 31%





## Market driven organization

*Our History*



We understand Physics....  
...and make light with it

physics research

We understand Lighting...  
...and improve your  
business with it

Total Cost of  
Ownership

## Philips Lighting today

- Our Mission

We understand people  
...and improve their lives with lighting

- Our Vision

The Clear Leader;  
Setting the pace in the lighting industry

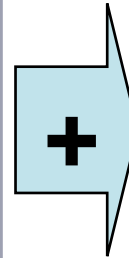


## The difference:

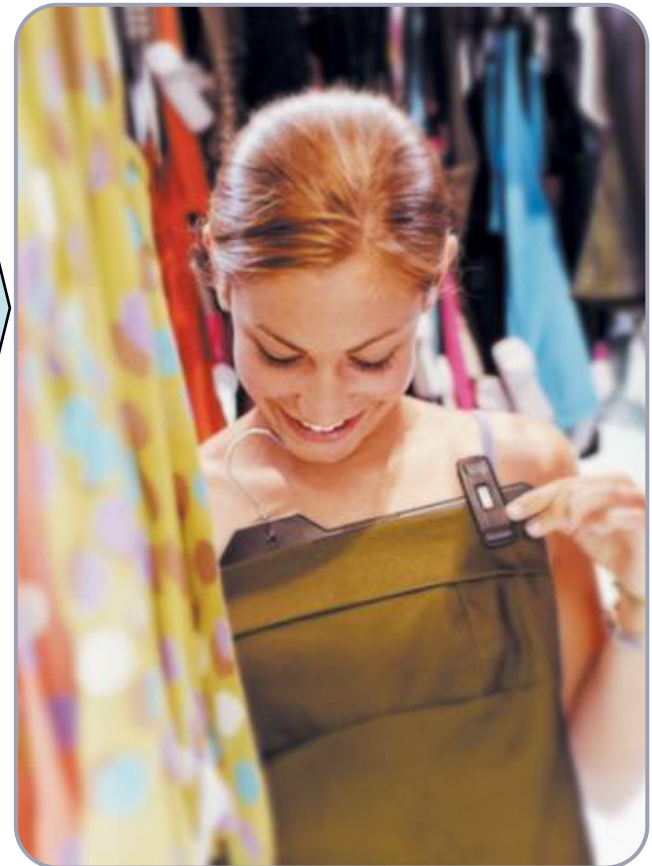
**We understand lighting**



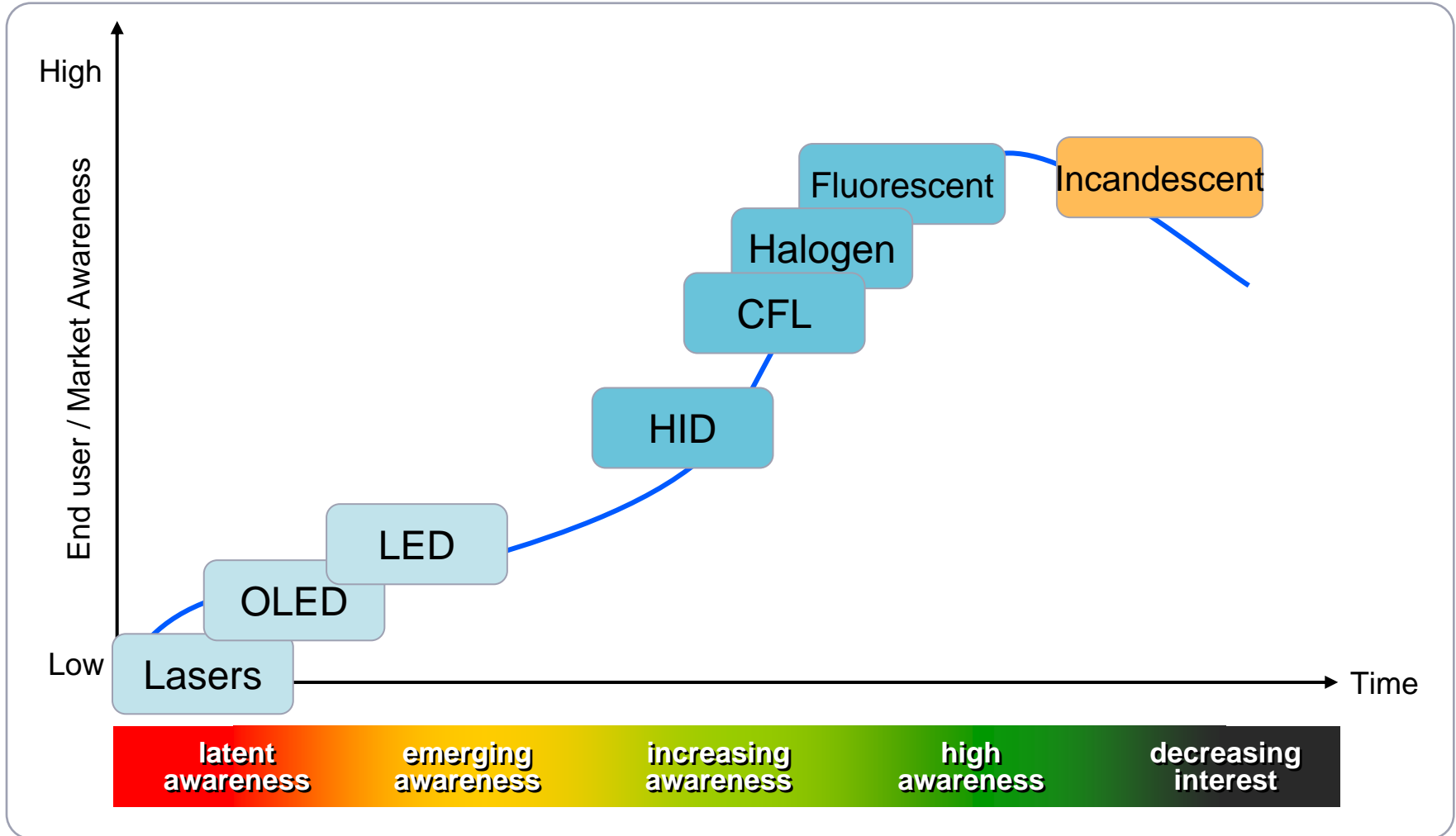
From “more of the same”  
to “New added value”



**We understand people**

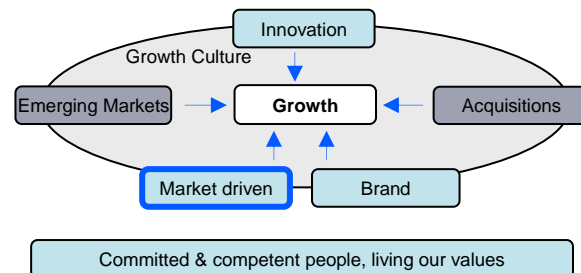


# Product-technology innovation will continue to drive growth in Lighting

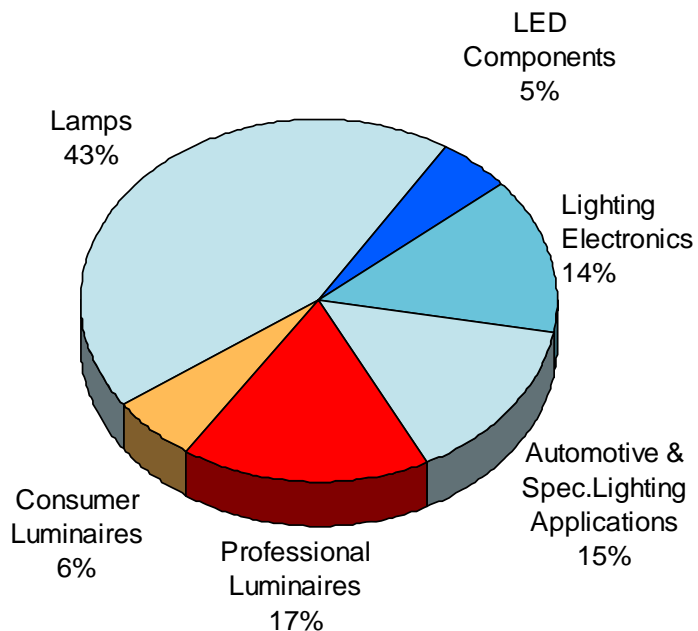


# From Product focus to Segment marketing

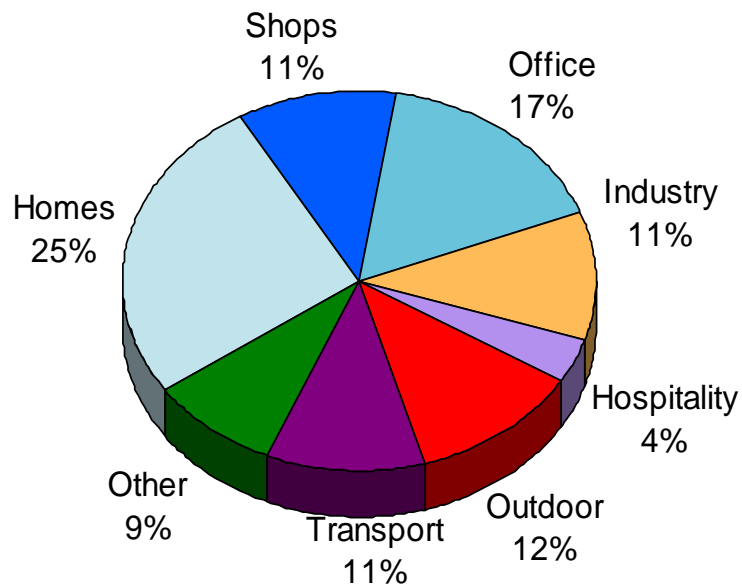
*Philips Lighting Sales by product and segment*



**By product**

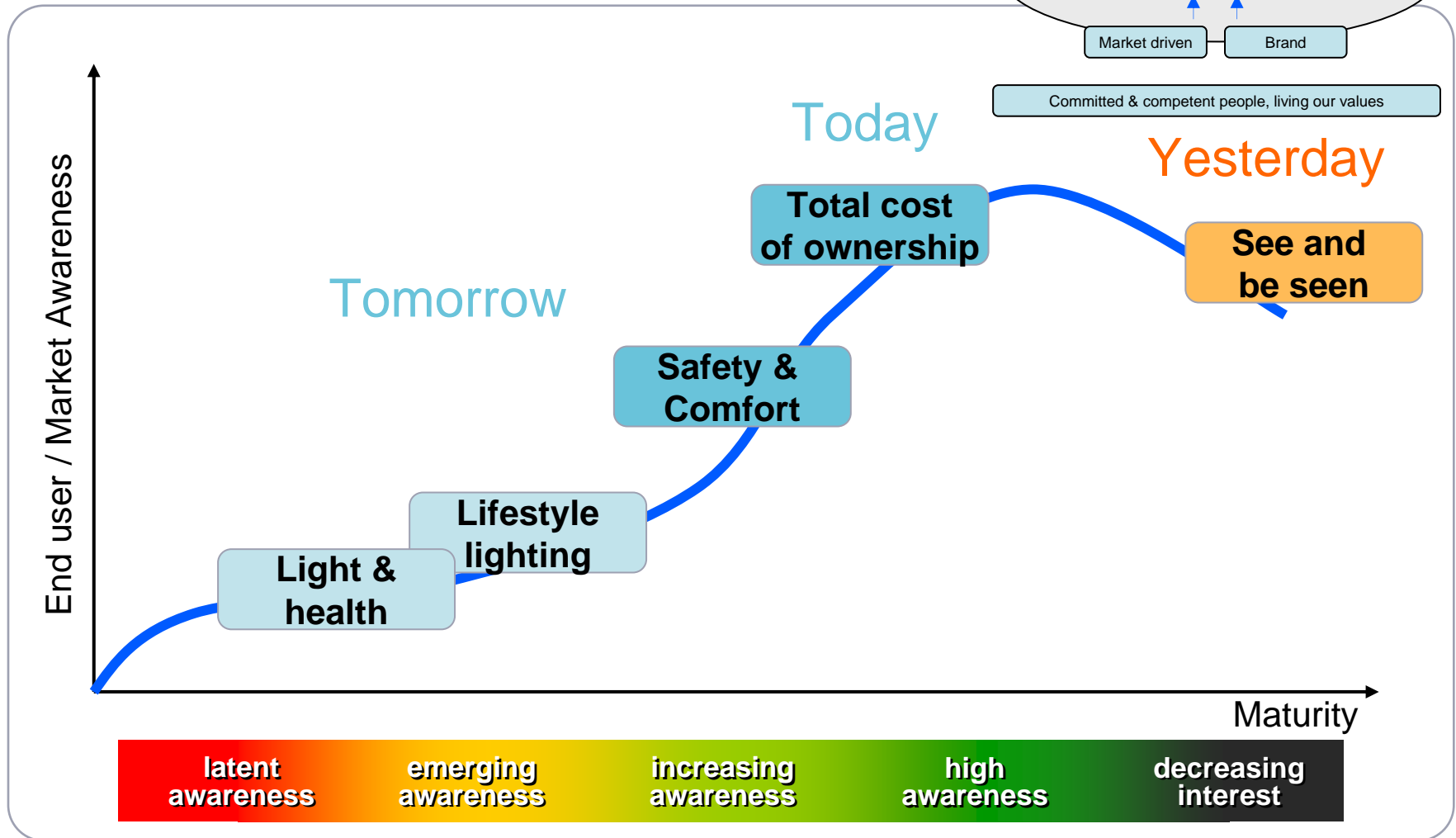


**By segment**



# End-user driven innovation

*New market themes drive additional growth*



# Example:

*End user insight about waiting rooms....*

“I wish the waiting area was a more inviting place  
where in I would feel less exposed”

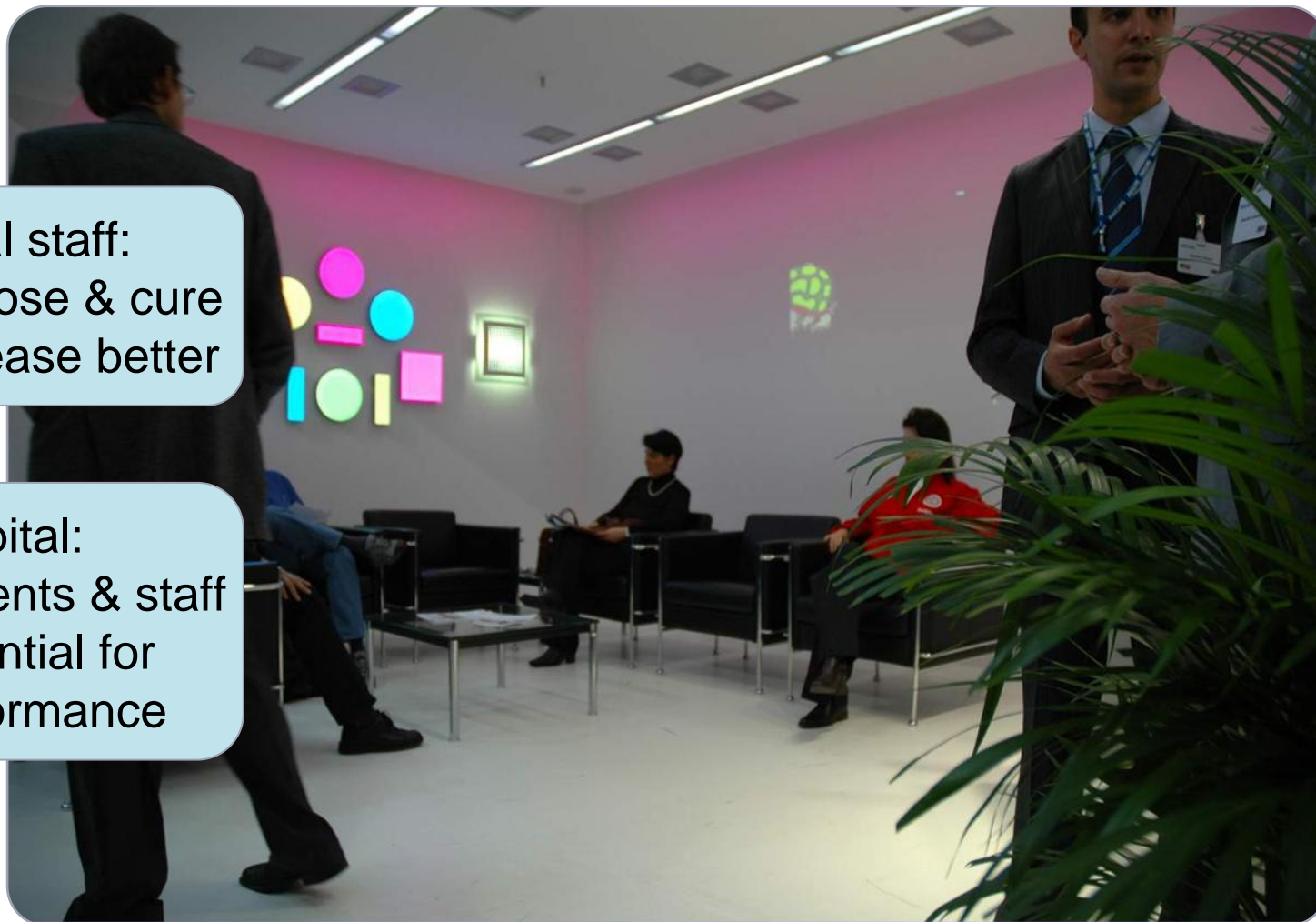


# Creating a less intimidating waiting area

*Value for clients, medical staff and hospital*

Medical staff:  
I can diagnose & cure  
people-at-ease better

Hospital:  
Satisfied clients & staff  
are essential for  
our performance



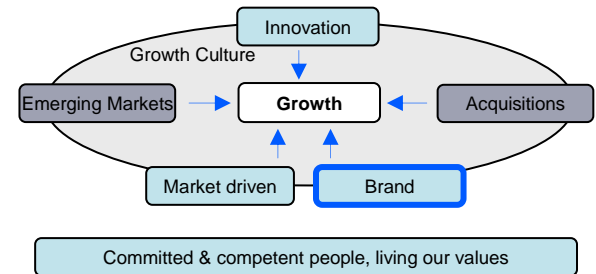


# Living our brand promise

We empower people to benefit from innovation by delivering on our *brand promise* of

## sense and simplicity

it encapsulates our commitment to deliver solutions that are advanced, easy to experience and designed around the needs of our users



brand value USD 7.7 B

2007: 42<sup>nd</sup> place

2006: 48<sup>th</sup> place

2005: 53<sup>rd</sup> place

2004: 65<sup>th</sup> place

**BusinessWeek**

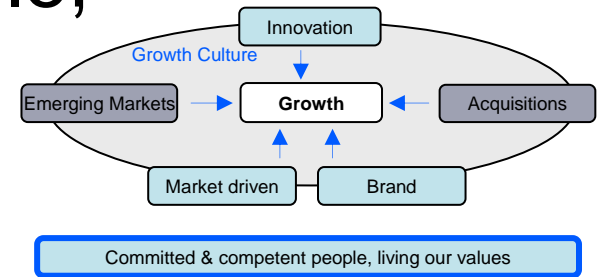
Interbrand

Advanced

Easy  
to experience

Designed  
around you

# Committed and Competent People, living our values



## Building competence

- Driving quality of leadership
- More than 50% of marketing people trained in last 2 years
- 20 Executive potentials per year hired in last 4 years

## Building a strong culture of excellence

- Establishing a Growth culture
- Employee engagement towards high performance benchmark
- Over 40% of employees in Quality Improvement Competition

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# Worldwide: untapped potential of existing lighting technology

Lighting accounts for 19% of electricity use

Potential savings up to 40%

106 billion Euros in electricity costs/year  
(40% savings @ EUR 10 cts/KWh)

555 million tons of CO<sub>2</sub> emissions/year

More than 1.5 billion barrels of oil/year

Output of more than 530 power plants  
(@ 2TWh/yr)

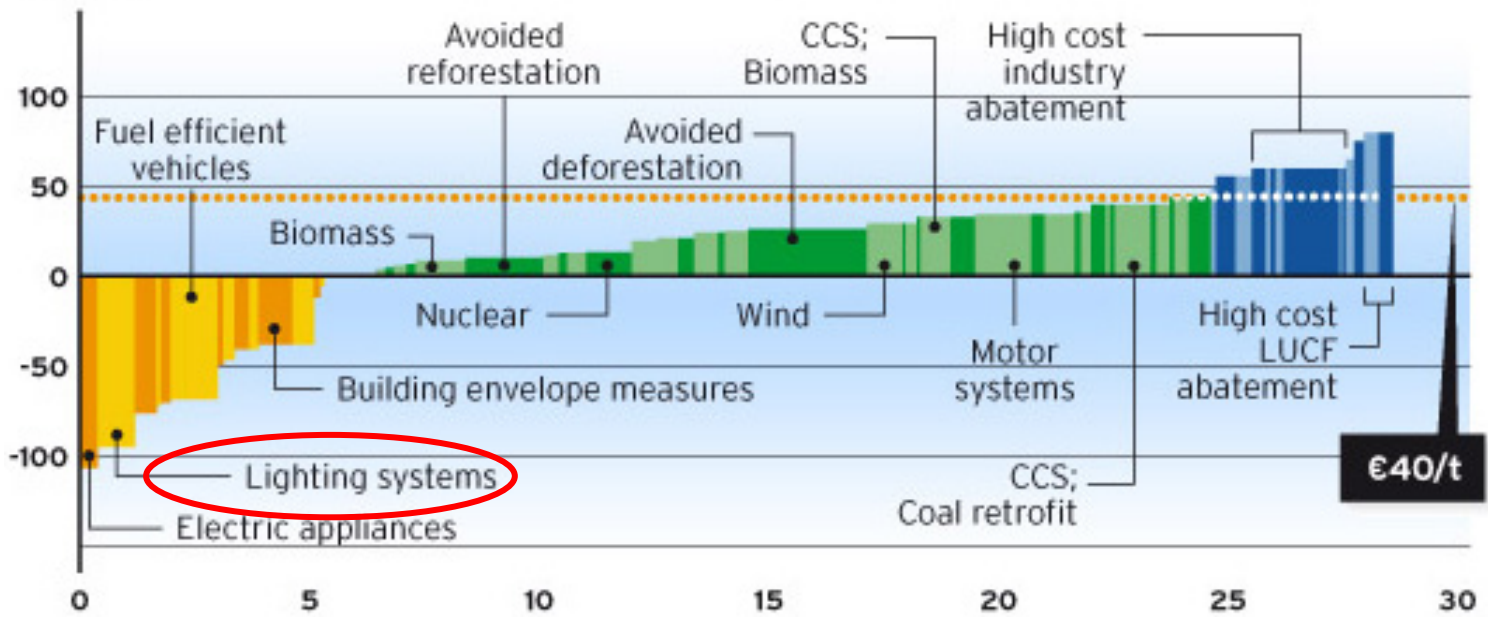
All possible with available technology



# Lighting among most efficient ways to cut CO<sub>2</sub>

Global cost curve

Marginal cost of abatement  
€/t CO<sub>2</sub>



Source: Vattenfall, Swedish power utility  
Taken from: The Economist May 31, 2007

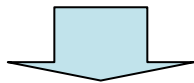
Abatement potential  
Gt CO<sub>2</sub>/year in 2030

# Energy saving opportunity

- Up to **75%** of all lighting currently installed is old, less energy efficient
- New energy efficient **solutions exist** for all market segments  
**Lamps, gear, luminaires and controls**, tomorrow even LEDs, OLEDs

## **But:**

- The current market **renovation rates are too slow!**  
(e.g. Street lighting 3% per year, Office Lighting 7% per year)



1. Awareness Campaigns (public / private)
2. Legislation
3. Partnerships (public / private / NGO`s / utilities)

# Automotive: Market driven innovation

- Xenon lighting can save lives
- The TÜV in Germany has presented evidence\*, based on analyses of actual road accidents data, that implies:
  - Up to 18% less fatal accidents on German roads as a result of the increased use of Xenon car lighting
- Xenon light reduces CO<sub>2</sub> emissions\*\*



Precisely Right.



*With Xenon light*

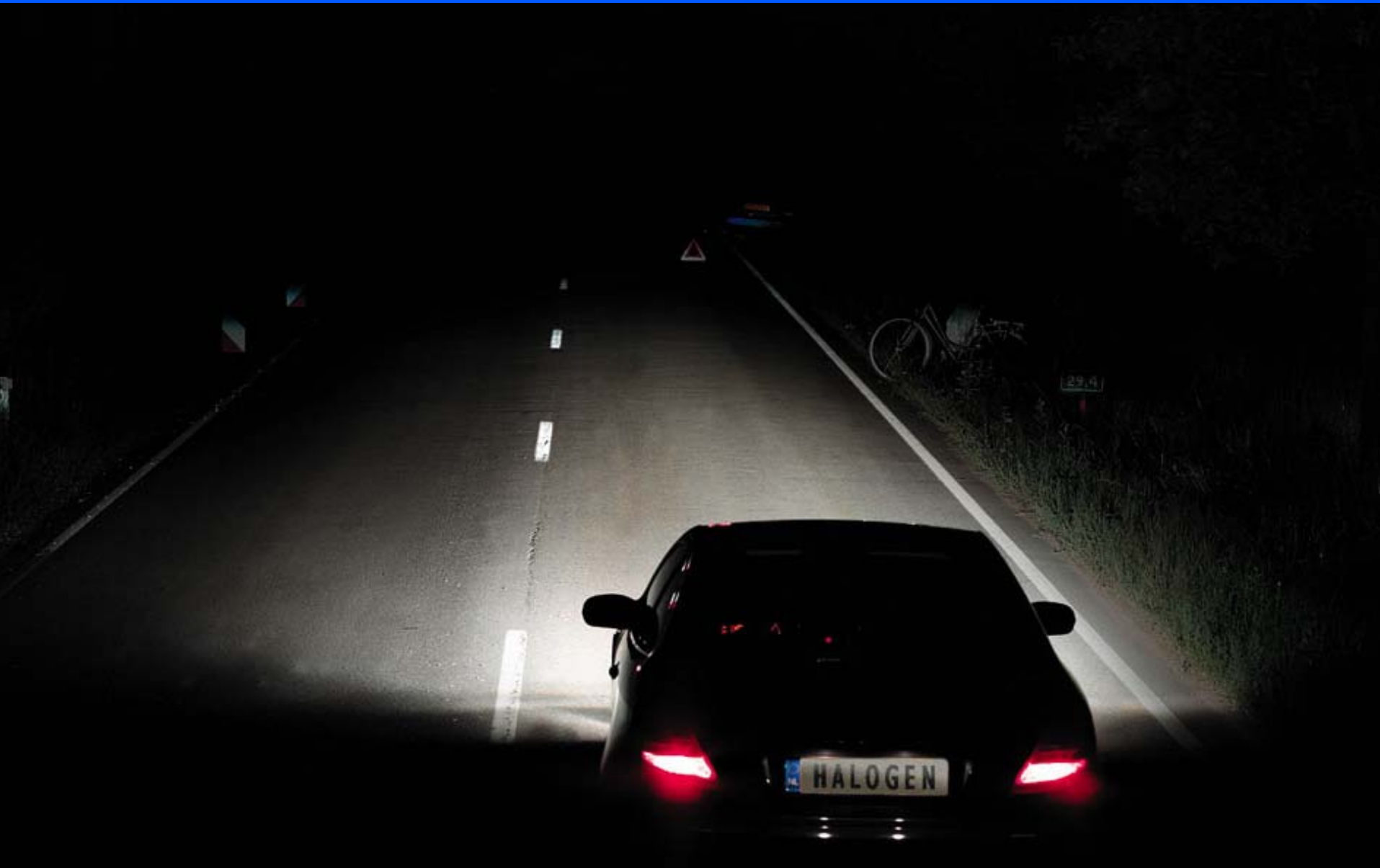


*With standard Halogen*

\* Source: TÜV Rheinland study, September 2007, Germany

\*\* Compared to standard Halogen

**PHILIPS**



*With standard Halogen*



PHILIPS



*With Xenon light*

# Growth in Professional Lighting systems

*Strength in B2B general lighting application segments*



Shops



Offices



Healthcare



Industry



City Beautification

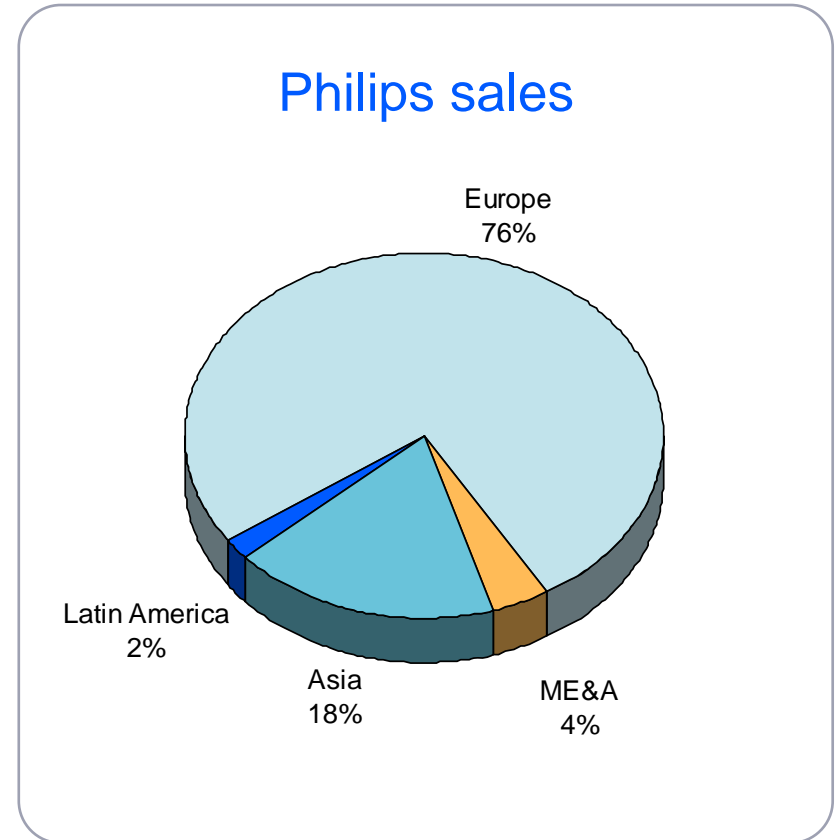
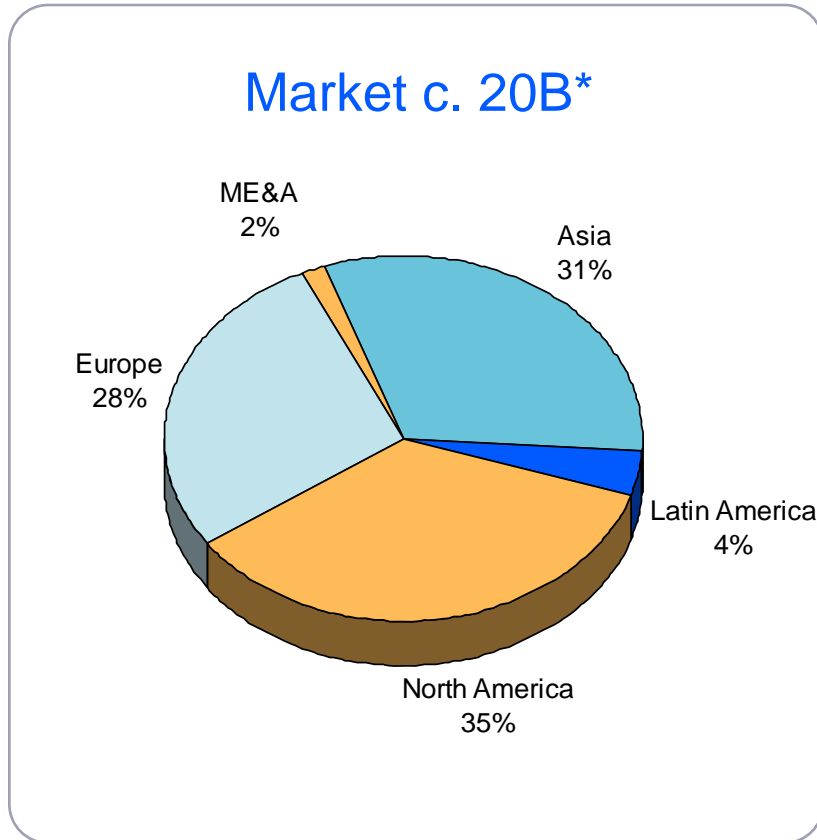


Road



Sports & Open Areas

## 72% of professional luminaire market outside Europe



*Growth opportunity for Philips based on strength in Europe*

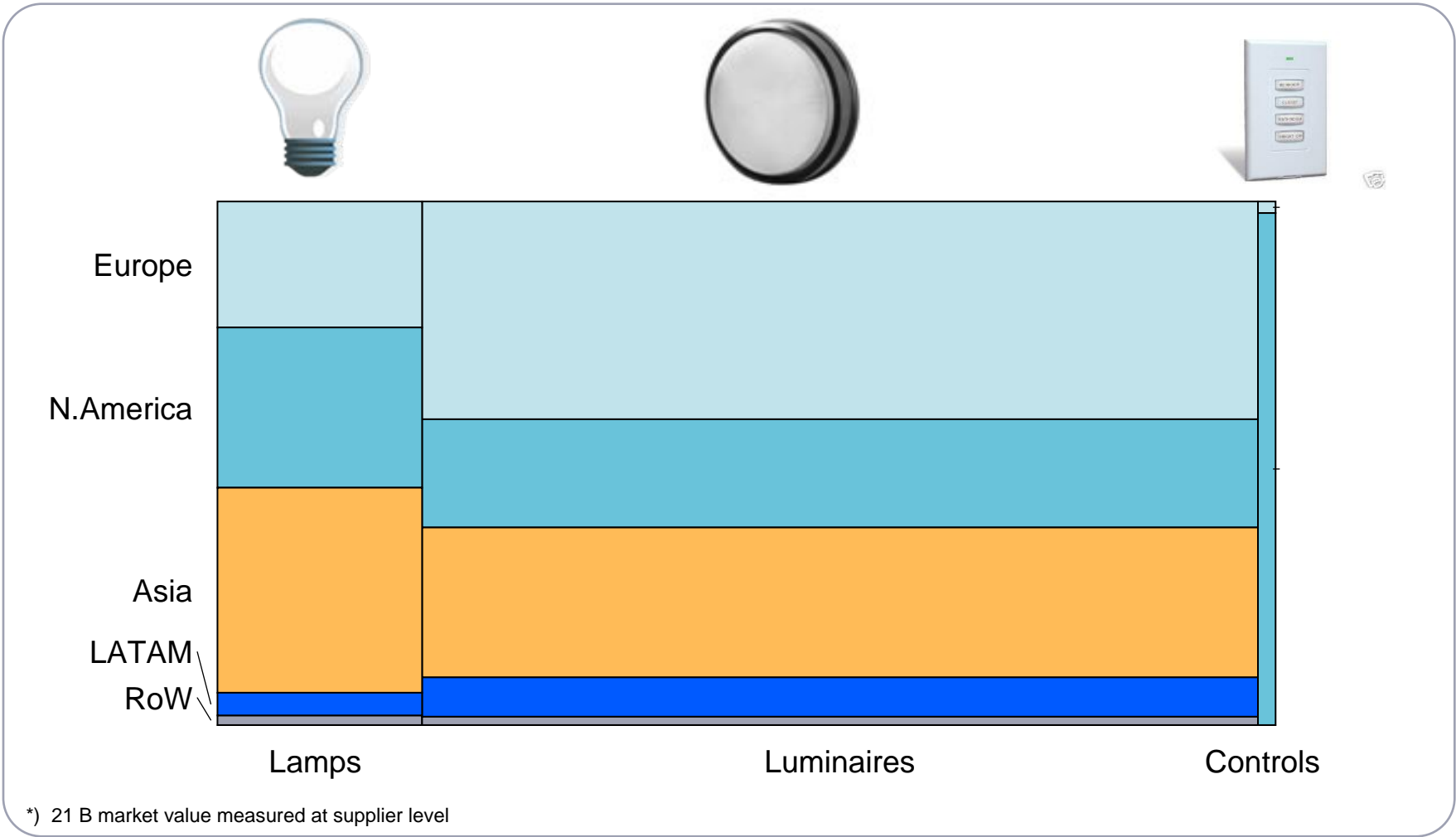
\*) 20 B market value measured at supplier level

# Growth in Professional Luminaires

- Regional Expansion from strong European base in a world wide fragmented market
- Market driven innovation (especially with solid state lighting)
- Growth opportunities in
  - Energy saving solutions for outdoor and indoor
  - Ambience creation



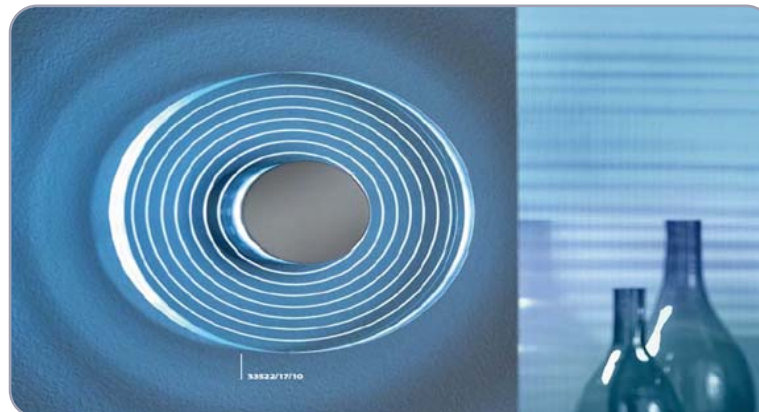
The global home lighting market is c. €21B\* with luminaires representing around 80%



## PLI:

# Leading European Consumer Luminaire player

- Enter new market segment for Philips Lighting:  
Consumer Luminaires
  - Leveraging of each others sales channels in Europe
  - Regional expansion by leveraging Philips' global reach
- To become the global industry shaper in the Home LED application market
  - Combining Philips Leadership in LED with PLI's competence to quickly address market and consumer lifestyle trends



# Emerging Scene setting in the home.....



**PHILIPS**

*LivingColors*

Colour your world with light

Endless colors at your fingertips.

Let your light follow your feelings.

# Living Colour advertisement



**Start video clip**





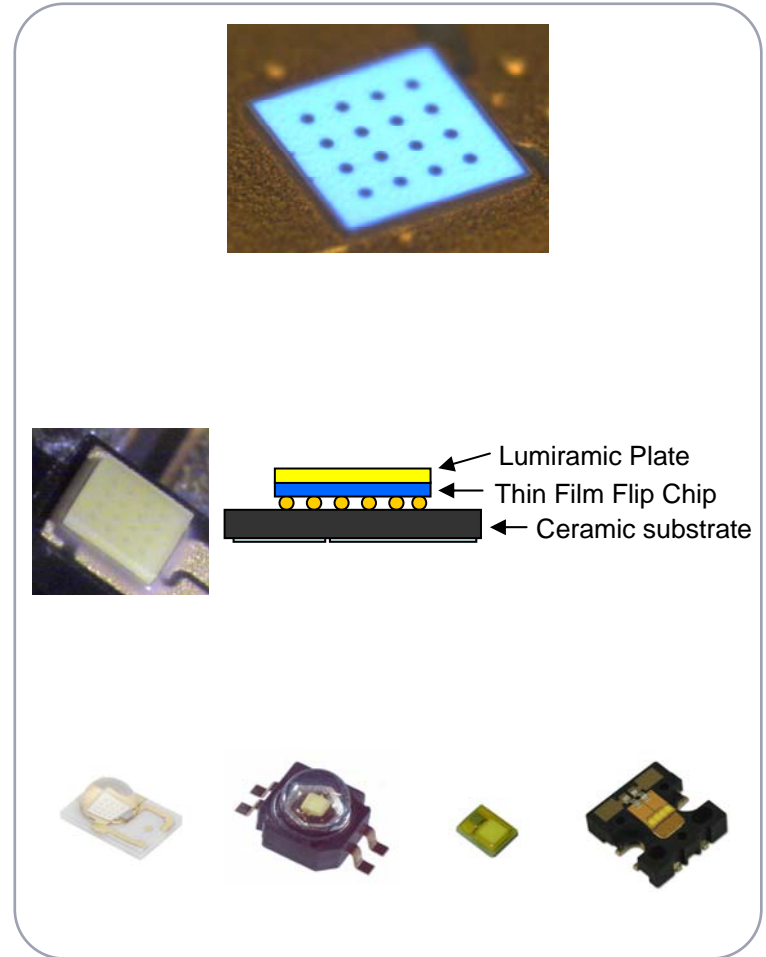
# How we create value in Solid State Lighting

- Philips only player covering the whole value chain
- End user needs will have impact on LED components



# LED components: sustained technology leadership

- Epitaxy
  - Thin Film Flip Chip – industry leading light output and efficacy
  - No Droop efficacy at high current (>1Amp)
  
- Phosphor
  - Lumiramic – consistent, uniform white light at any selected color temperature
  
- Packaging
  - LUXEON Rebel >100 lumens/Watt
  - LUXEON K2 - Widest operating range



## Enables never before possible lighting applications that are environmentally friendly

- More than 100 Million LUXEON Flash, enabling quality images in low light environments.
- Automotive LEDs: new design and styling for headlamps and daytime running lights.
- Philips Lumiramic: colour predictability, simpler and more efficient LED lighting (enabling illumination – general lighting)



## Automotive: Market driven innovation

Introduction of **world's first full LED headlights** in Audi R8

- Enabled by Philips LED technology
- for highest brightness and superior color control
- Thin Film Flip Chip structure
- Lumiramic phosphor coating

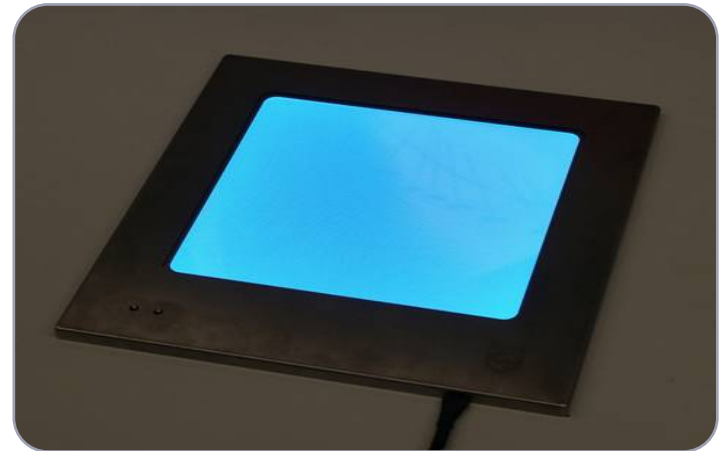


# SSL components: Organic LEDs

- Potential for **large area** energy efficient light sources
- **Pre-pilot line** installed and running
- Good **technical progress**:

2006	2007
25 cm <sup>2</sup>	200 cm <sup>2</sup>
25 lm/W	39 lm/W
monochrome	2 color variable

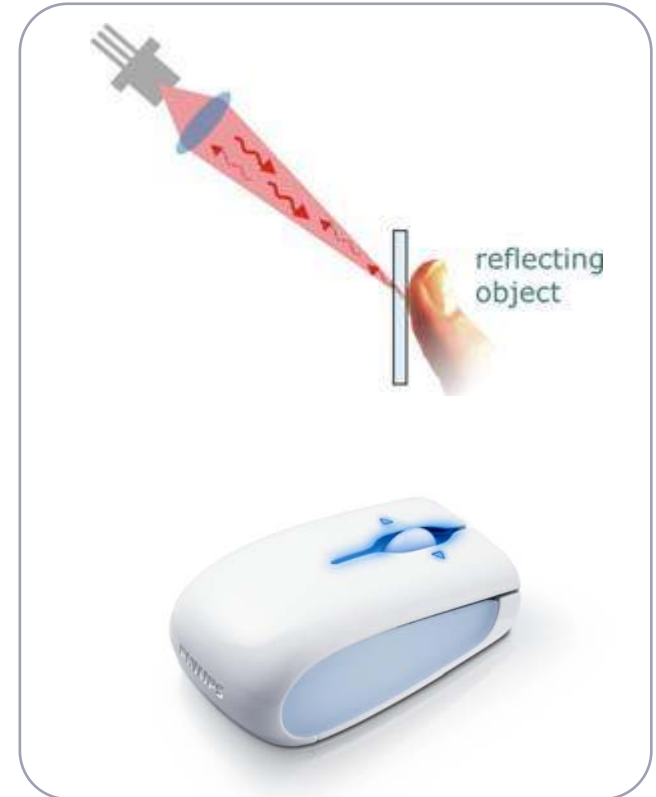
- **Mass production** to enter general lighting ready in 2012
- **Meanwhile** product development for **niche applications**



# SSL Components: lasers

## Lasers

- Develop basic laser technology
  - We acquired Photonics a laser manufacturer based in Ulm, Germany
- First volume laser application:
  - Movement-sensor
    - PC mouse
    - Tracker-ball
    - Game controller
    - Notebooks
    - Mobile phones
  - Spin-out of Philips Technology Incubator



## SSL Added value

### *Solid state Freezer lighting*

#### Benefits

- Up to 70% lower energy use
- Better visibility of the frozen food
- Sustainability: no mercury, no lead

#### Trusted partner for new technology

- Introduction several accounts Europe and North America

#### Growth opportunity

- Market size 2010: 250 M€
- Entry point for LEDs in supermarkets



## SSL Signage:

*Philips Affinium Ledstring up to 75% savings in energy consumption over neon*



Additional value in:

- PC tool for sign-maker to calculate optimal placing of LEDs within signs



PHILIPS



克莉絲汀



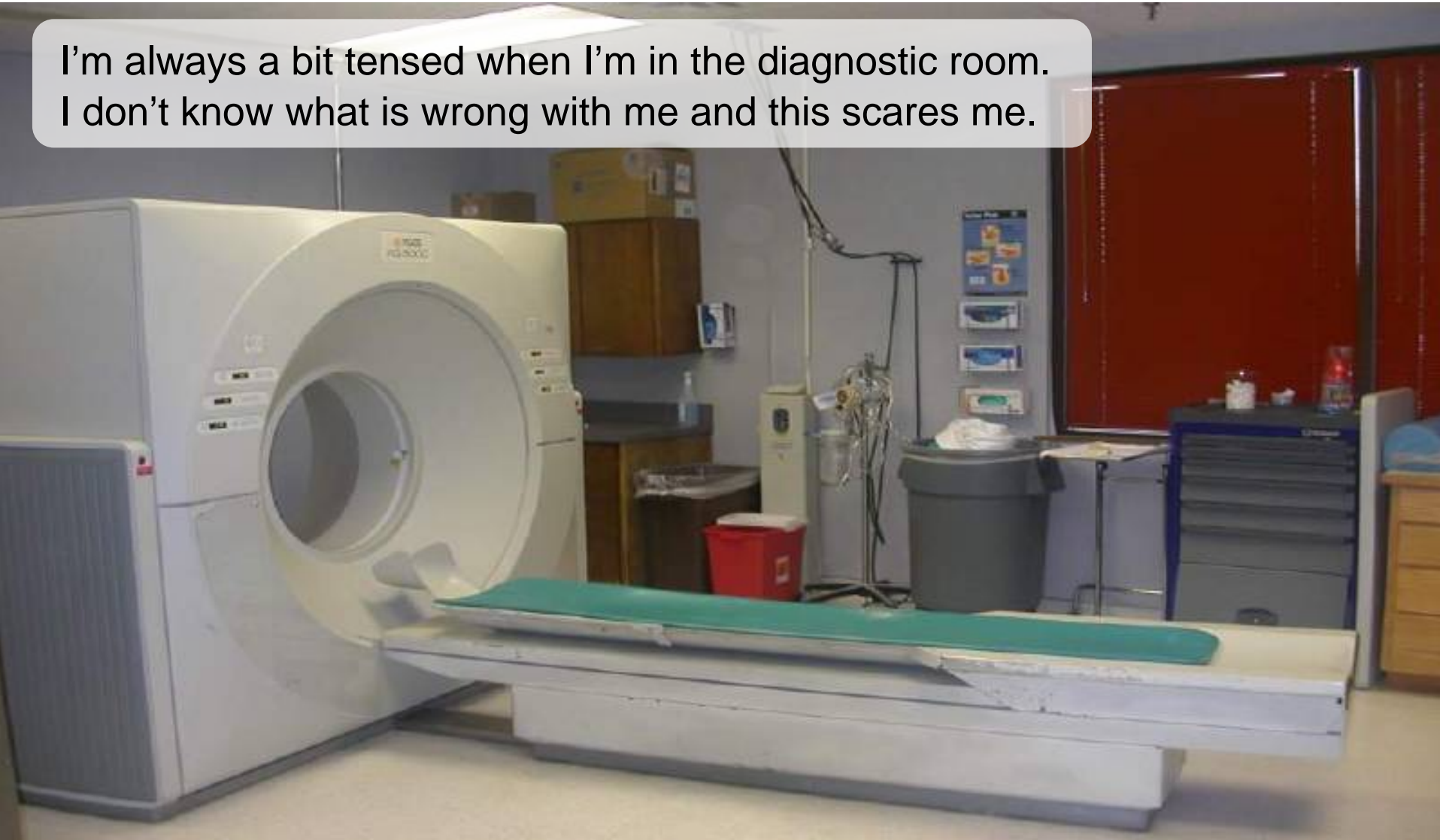
# City beautification: Buckingham Palace

*Energy consumption 45 Eurocents per hour*



# Ambience creation: putting patients at ease

I'm always a bit tensed when I'm in the diagnostic room. I don't know what is wrong with me and this scares me.



# Ambience creation: putting patients at ease



# Ambience creation: putting patients at ease



# Ambience in Shops

*More embedded light points to be controlled*



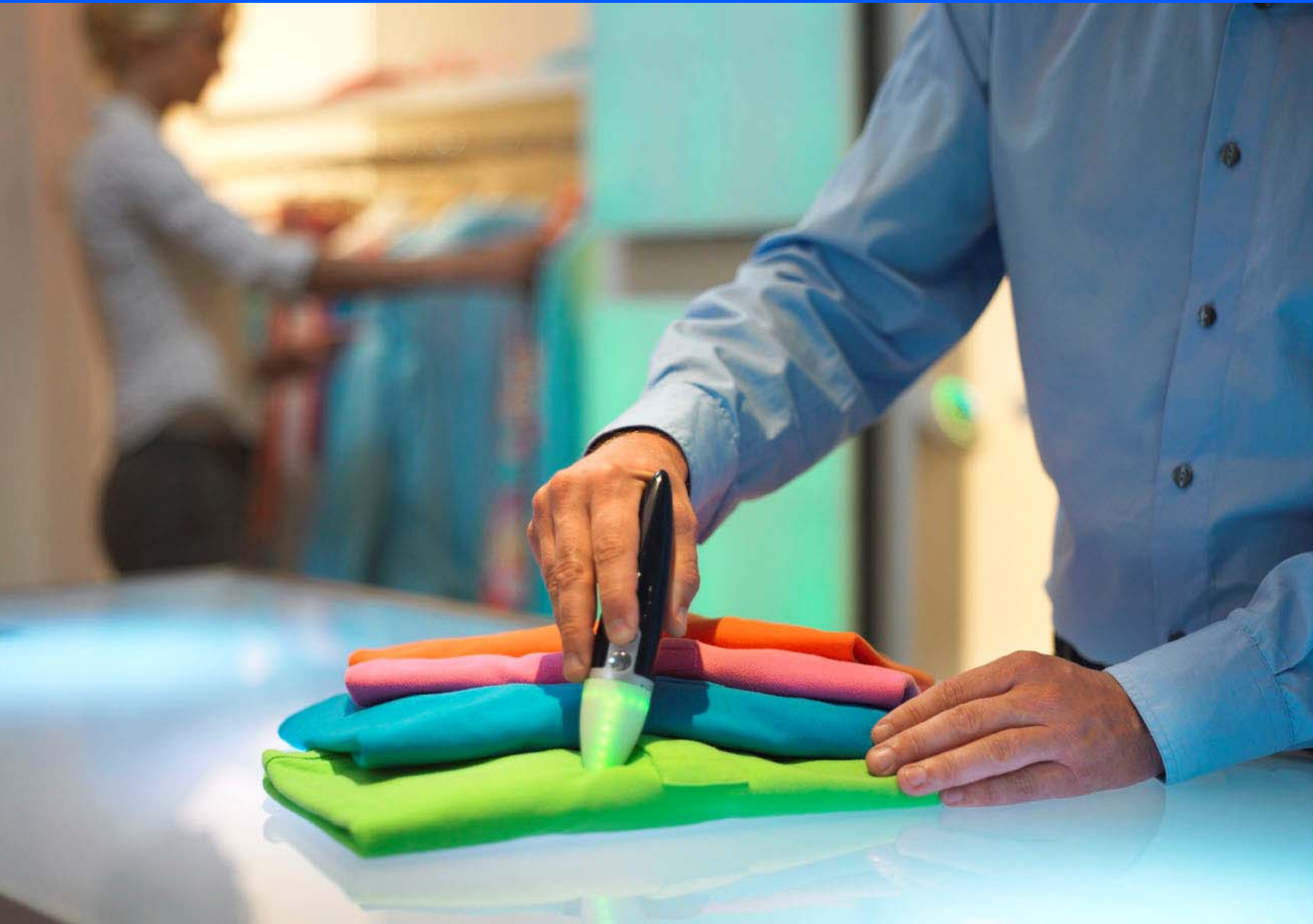
Porsche showroom, Oirschot, Netherlands

Huzur, Altunzade, Turkey

# Added intelligence: The color-mouse

*Cut & paste color in reality*







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## Summary

- Strong Market driven Growth opportunities
- Crucial to Engage our Customers and People
- We measure with two simple indicators (% “absolutely” on the question)
  - Do you advise a good friend to buy from us
  - Do you advise a good friend to work for us

Do you advise a good friend to invest in us?

# Q&A

# PHILIPS

sense and simplicity