# Lighting Strategy: Accelerating profitable growth

Building on strength in existing businesses
Shaping the future in new business areas

Theo van Deursen
CEO Philips Lighting

Lighting analysts' day
September 20, 2006

# Agenda

- Philips Lighting: accelerating profitable growth

- Building on Strength
  - Growth in emerging countries
  - Business to business
  - Energy saving solutions

- Shaping the Future

- Profitable growth via key business drivers

- Conclusions

# Philips Lighting

- Our Mission

  We understand people
  …and improve their lives with lighting

- Our Vision

  The Clear Leader;
  Setting the pace in the lighting industry

# Philips Lighting

| | 2005 | 2006 Q2YTD |
|---|---|---|
| Sales | EUR 4.8 billion | 2.6 billion |
| EBIT | EUR 556 million or 11.6% of sales | 353 million 13.3% |

Comp Growth:
Avg. ’96-’03 < 2%

’04-’06YTD 5%

Target 6%

# Philips Lighting

*Key Product Areas*

**Lamps**

**Lighting Electronics**

**Luminaires**

**Automotive & Special Lighting Applications**

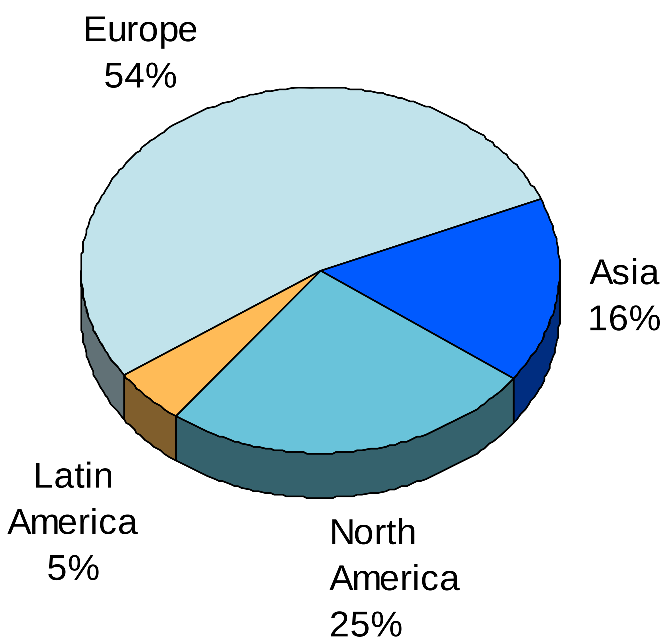
**Solid State Lighting Modules**

**Lumileds**

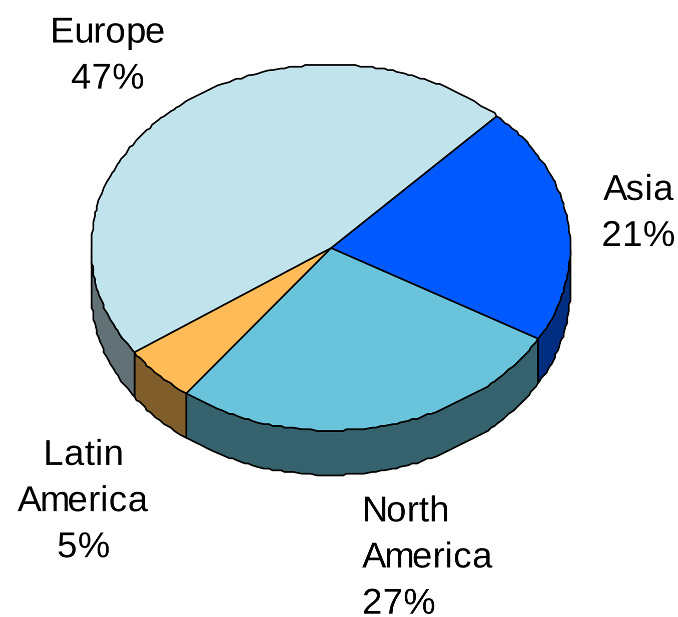
# Philips Lighting

*2000-2005 Sales distribution by region*

## 2000

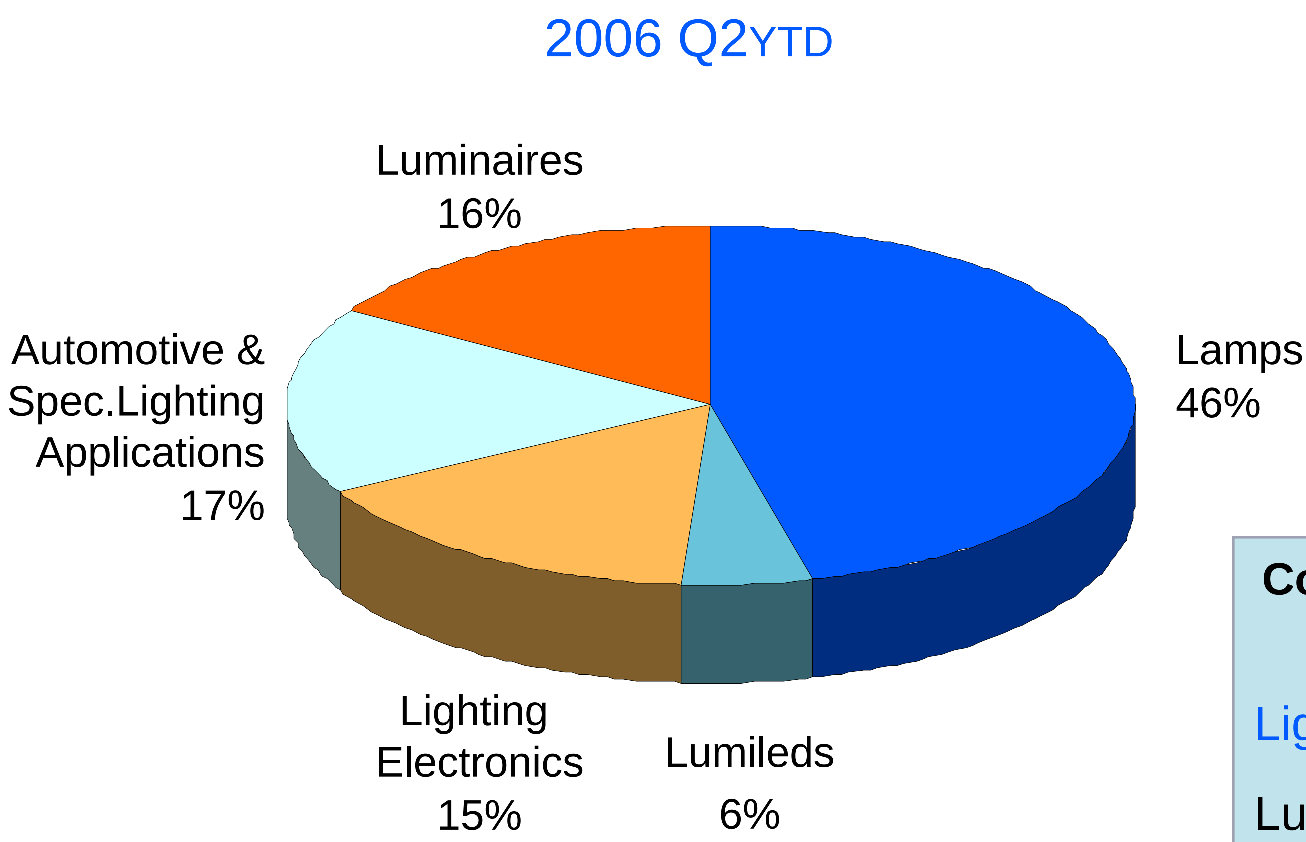



## 2006 Q2YTD



# Philips Lighting

*Lumileds: Increases Philips Lighting growth by 1%*




**Compar.An.Growth 2004-2006YTD**

| | |
|---|---|
| Lighting | 5% |
| Lumileds | 24% |
| Combined | 6% |

# Philips Lighting

*Organic growth with supporting acquisitions*

## Acquisition of Bodine:

- To complement our portfolio in Lighting Electronics, we acquired Bodine, USA (July 2006)
- Leading player in emergency lighting
- Opportunity for growth in integrated and controllable lighting solutions for use with building management systems
- Sales USD 30 mln, 200 employees

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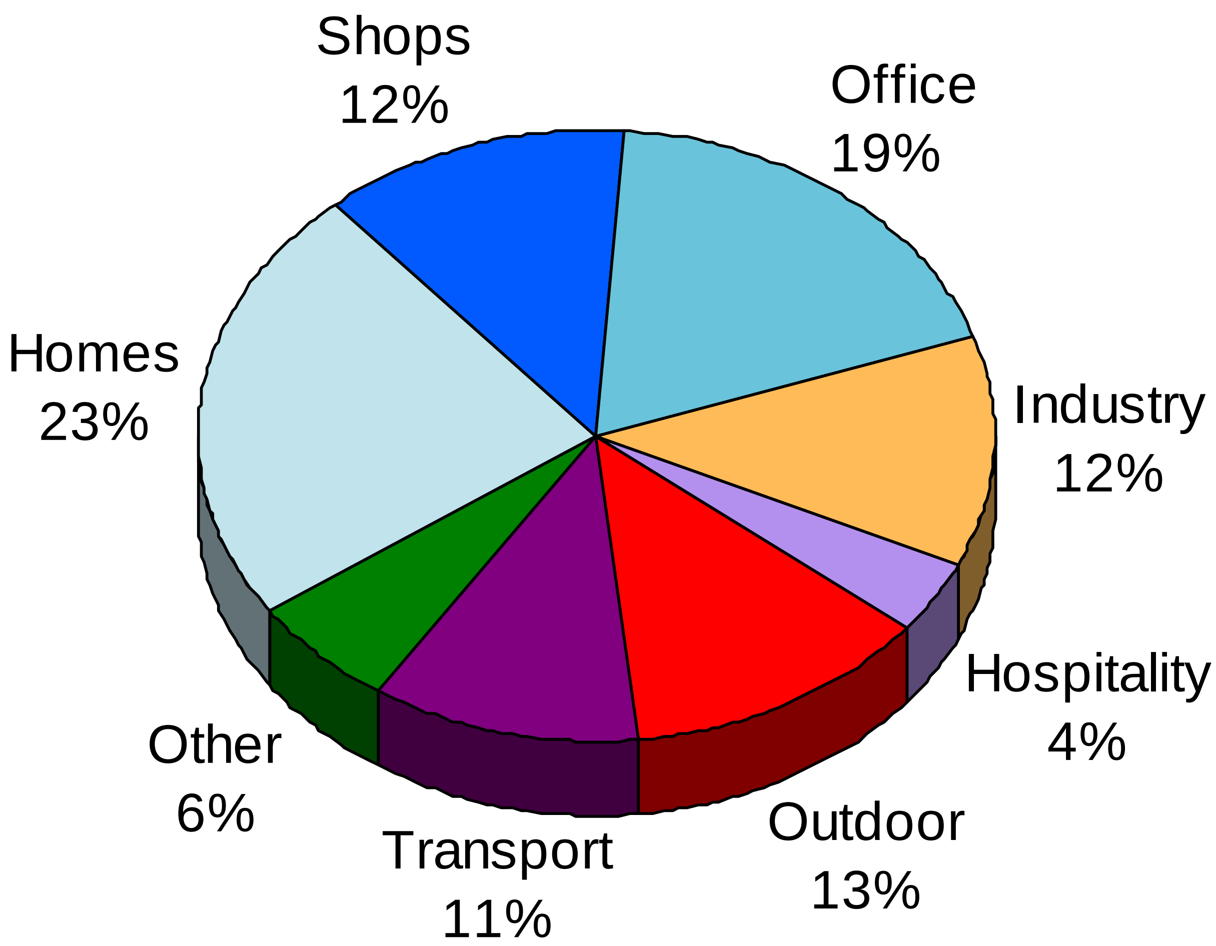
# Philips Lighting

*Sales distribution by application*



# Philips Lighting: leading around the world

*Value market shares per business per region 2005/2006*

# Philips Lighting

*Strategy*

- Driving profitable growth via
- Building on strength
  - In emerging countries
  - In Business to Business
  - With energy saving solutions
- Shaping the future
  - In display applications
  - With Solid State Lighting (LEDs, OLEDs, lasers and systems)

# Philips Lighting

*Strategy*

- Building on strength, Shaping the future via

- Key business drivers
  - End user driven innovation, building on technology leadership
  - Marketing excellence (Customer focus, Brand, Market introduction)
  - Supply excellence (Sourcing, Manufacturing, Delivery)
  - Control of costs and assets

  on basis of:

  - Committed and competent people, living our values
  - A learning organization (continuous improvement)

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# Building on strength

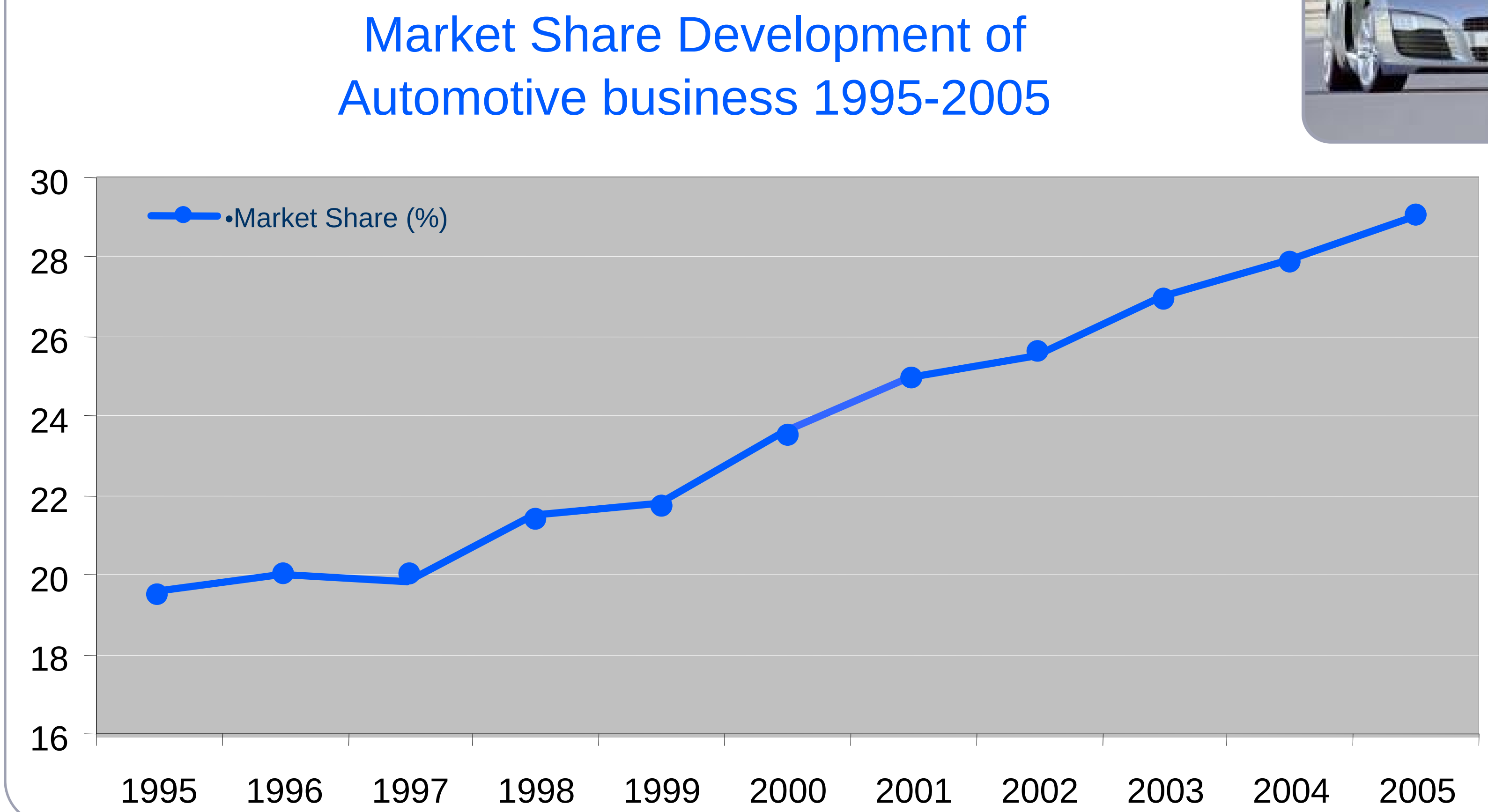
*Sales growth in emerging markets*

| | 2005 vs 2004 comparable growth |
|---|---|
| Latam | 4% |
| C&E Europe | 11% |
| China/HK | 11% |
| India | 14% |
| Asean | 16% |
| Other emerging countries | 22% |

| Lamps market share 2005 |
|---|
| 30% |
| 32% |
| 14% |
| 37% |
| 35% |
| |

The sales in emerging markets represent 31% of Philips Lighting sales

# Building on our Strength




# Building on strength

*Strength in B2B general lighting application segments*

Shops

Offices

Healthcare

Industry

City Beautification

Road

Sports & Open Areas

# Building on strength

*Shops - Enhancing the shopping experience*

Strengths: - Flexible ambience-creating systems

- Lighting design capabilities

- Dedicated international key account management

# Building on strength

*City Beautification - Improving the quality of urban life*



Strengths: - Dynamic and energy saving solutions

- Architectural lighting design capabilities

# Building on strength

*Offices - Enabling well-being and performance*




Strengths:
- People oriented dynamics (day light rhythm)
- Energy saving lighting solutions/controls
- Turnkey projects with tailor-made product solutions

# Building on strength

*Industry - Enabling well-being and productivity*

Strengths:

- Application knowledge
- Energy-efficient solutions
- Dedicated International key account management

# Building on strength

## *Roads - Creating safety and comfort*

Strengths:

- Energy-efficient solutions, (e.g. Cosmopolis)
- Reducing light pollution
- Leading global player in road lighting

# Building on strength

*Healthcare - Ambient Experience*

Strengths: - ‘One-Philips’ approach (e.g. Philips Medical Systems)

- Ambience-creating design capabilities

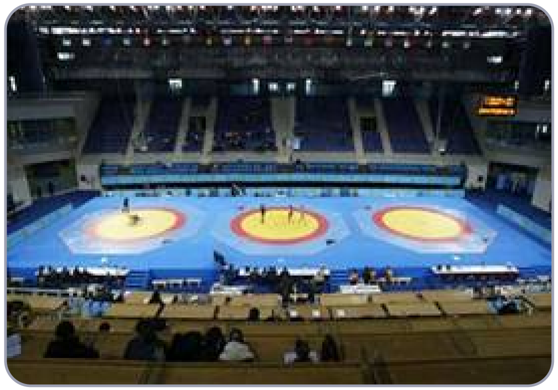
- Project management

# Building on strength

*Sport: optimal experience also in front of your TV*

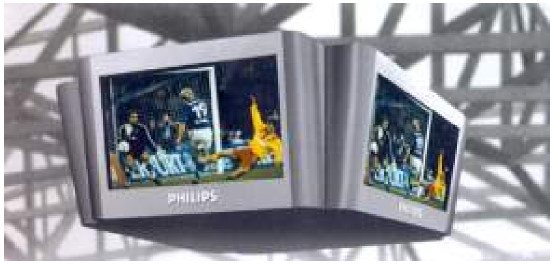
Olympic games 2004 Athens

28 out of 33 venues (85%) with Philips Lighting



Fifa Worldcup 2006 Germany

8 out of 12 venues with Philips




Olympic games Beijing 2008

Philips Lighting taking the lead

# Building on strength

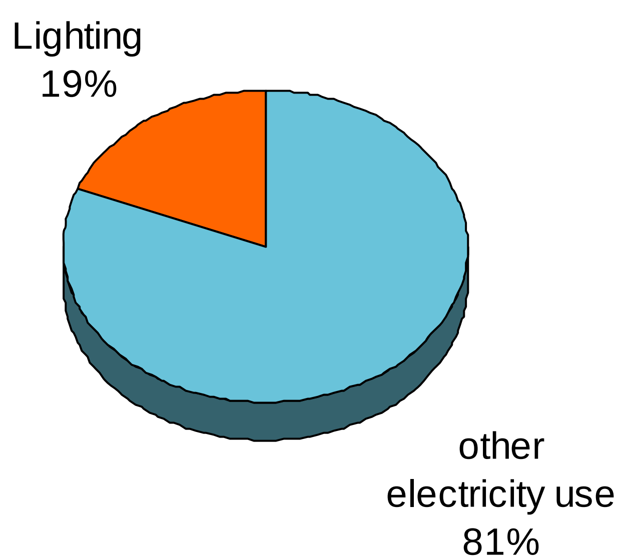
*Demand for energy saving solutions*

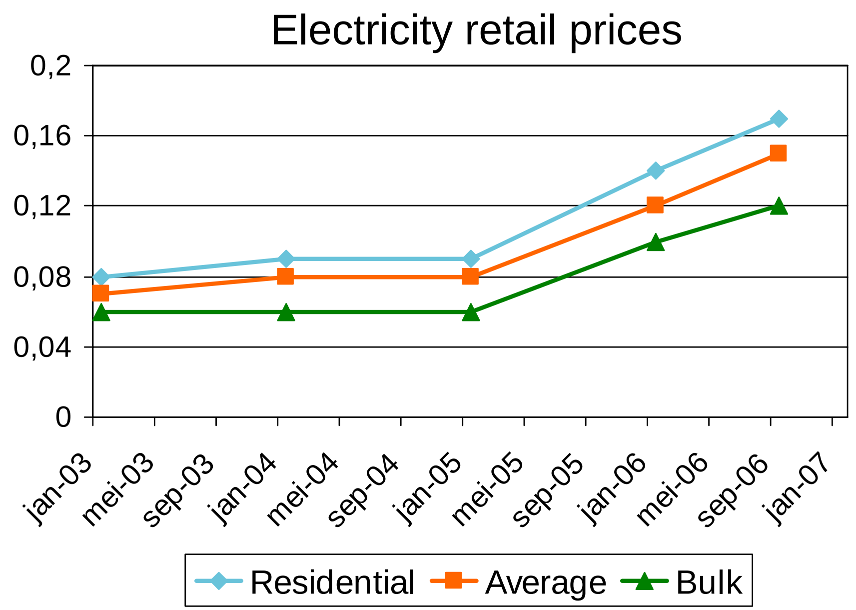
- Different regional accents on need for energy saving:
  - Scarcity (Americas)
  - Booming demand (Asia Pacific)
  - Climate change/Kyoto (Europe; global)
  - Oil prices (global)

# Building on strength

*Lighting is important part of energy consumption*

- Lighting 19% of world-wide electricity consumption
- Electricity prices are rising fast
- Electricity consumption is rising fast



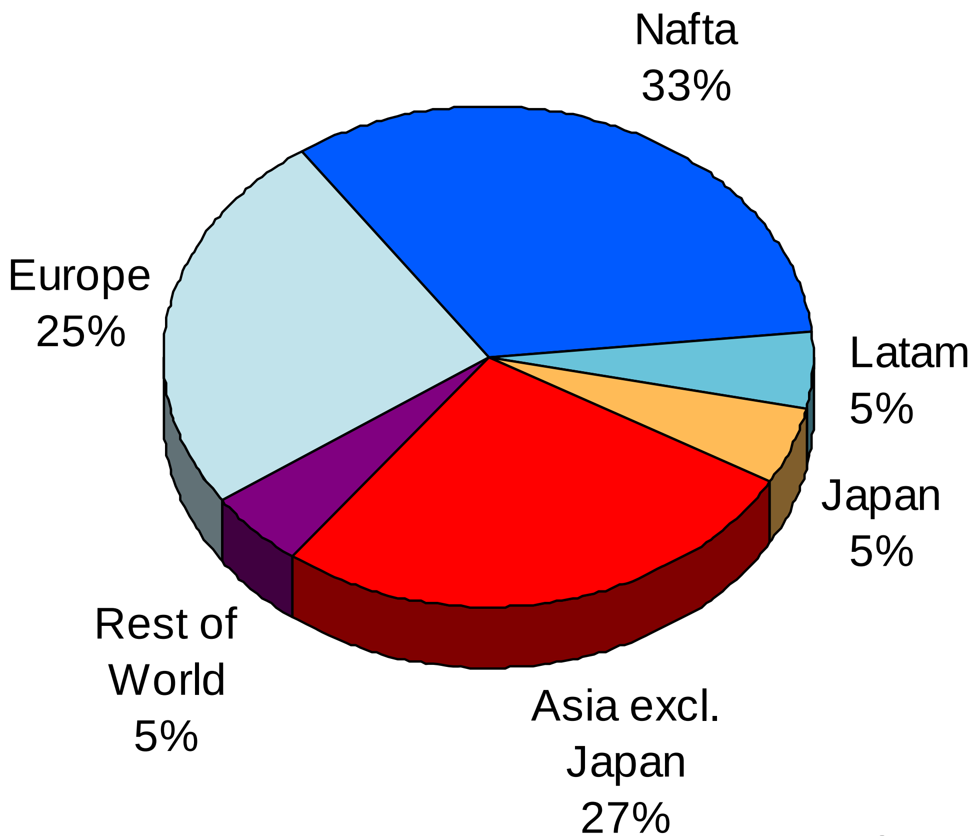




Source: Elektrabel

# Building on strength

*Lighting Electricity Consumption*

Total world consumption 2005: 2550 TWh




Source: International Energy Agency (IEA)

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# Building on strength

*Total Europe: untapped potential of existing lighting technology*

## Today's potential savings

- 13.4 billion Euros in Electricity costs/year
  (20% savings @ EUR 10 cts/KWh)
- 59 million tons of $CO_2$ emissions/year
  - Equivalent of more than 2.9 billion trees
- More than 284 million barrels of oil/year
- Output of more than 67 power plants (@ 2TWh/yr)

Sources: International Energy Agency (IEA)
World Resource Institute (WRI)

# Building on strength

*Worldwide: untapped potential of existing lighting technology*

## Today's potential savings

- 51 billion Euros in electricity costs/year
  (20% savings @ EUR 10 cts/KWh)
- 273 million tons of $CO_2$ emissions/year
  - Equivalent of more than 13.6 billion trees
- More than 1080 million barrels of oil/year
- Output of more than 255 power plants
  (@ 2TWh/yr)

Sources: International Energy Agency (IEA)
World Resource Institute (WRI)

# Building on strength

*For each customer segment an energy efficient lighting solution exist already today*

| Area of lighting | Energy saving | CO2 savings per lamp per year |
|---|---|---|
| Road lighting | HPL  57%  CosmoPolis | 109 kg $CO_2$ |
| Shop Lighting | Halo  80%  CDM | 115 kg $CO_2$ |
| Office & Industrial Lighting | TL8  61%  TL5 | 77 kg $CO_2$ |
| Home Lighting | GLS  85%  CFLi | 34 kg $CO_2$ |
| LEDs | GLS  82%  LED | 34 kg $CO_2$ |

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- Philips Lighting: accelerating profitable growth
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- Shaping the Future
  - Display: LCD backlighting & projection
  - Solid state lighting
- Profitable growth via key business drivers
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# Shaping the future – Display applications

*Growth in LCD backlighting*

Philips Aptura for LCD backlighting systems,
New fluorescent solution for LCD
Creating a new viewing experience

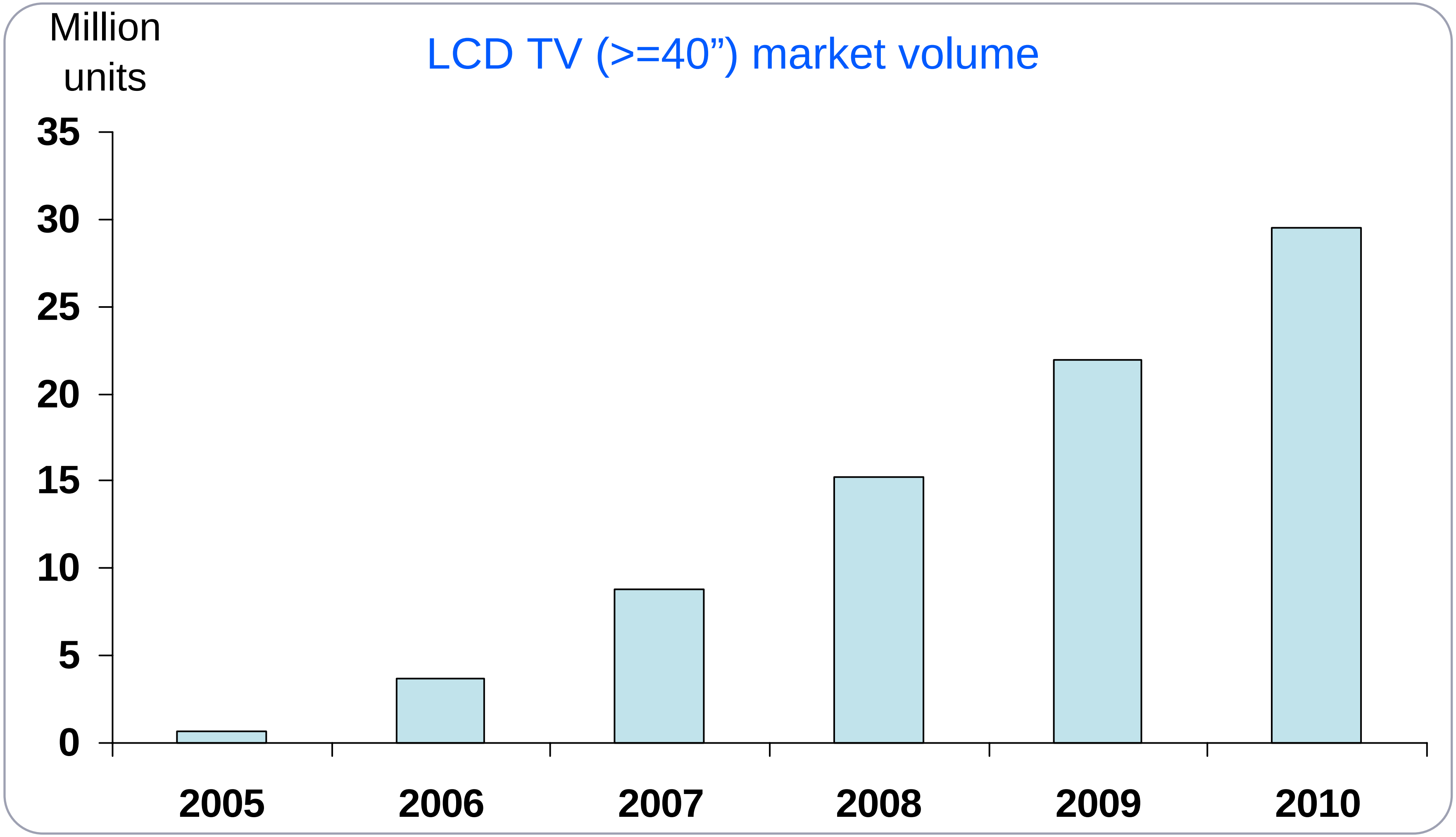
- Wider viewing angle
- Better contrast
- Less motion blur

- Launched Q1 2006

- Philips ClearLCD TV Video Innovation of the year '05-'06 (EISA)

# Shaping the future – Display applications

*The LCD TV market is growing fast*

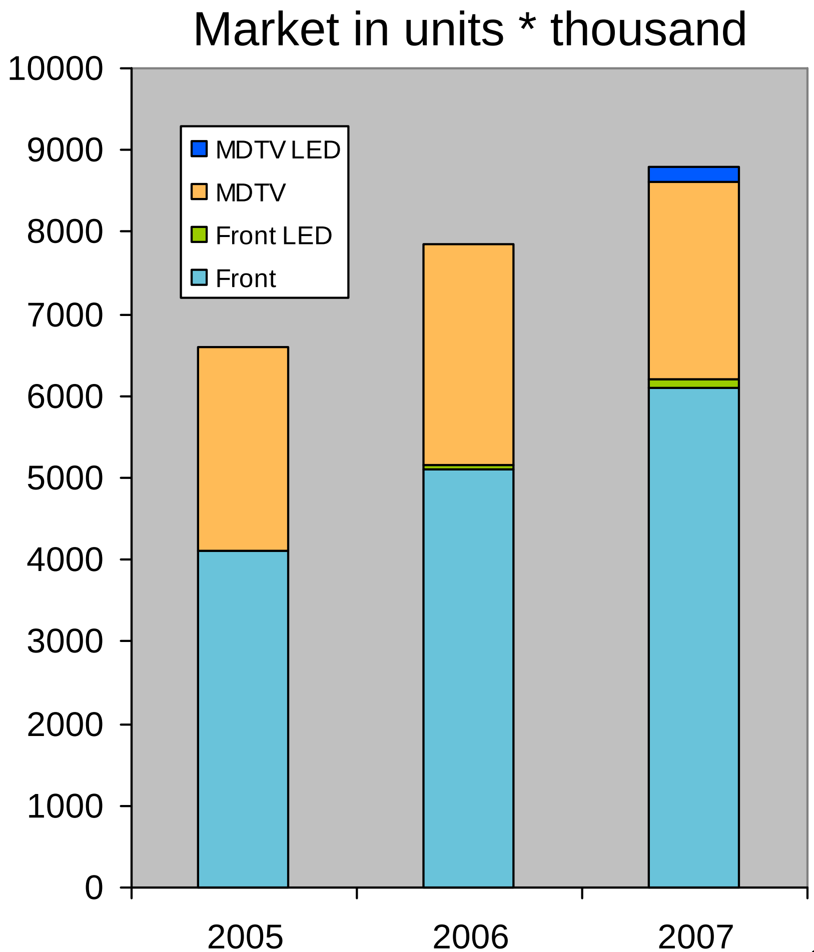


# Shaping the future – Display applications

*Digital projection*

Digital Rear Projection TV

Digital Front Projection



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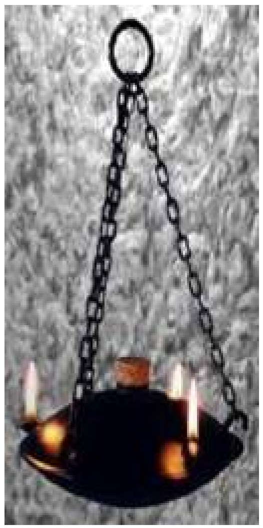
# Shaping the future – Solid State Lighting

*A brief history of (white) light sources*

Open wood fire



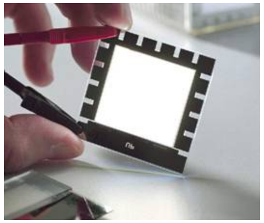
Oil

Filament

Gas discharge



In-organic LED



Organic LED

Solid State Laser

# The in-organic Solid State Lighting value chain

## LED Components

## LED Modules & Systems

Die

Single Package
or
Chip-on-submount

Source, optics,
driver and
controls

Luminaires
Systems
Projects

End-
user

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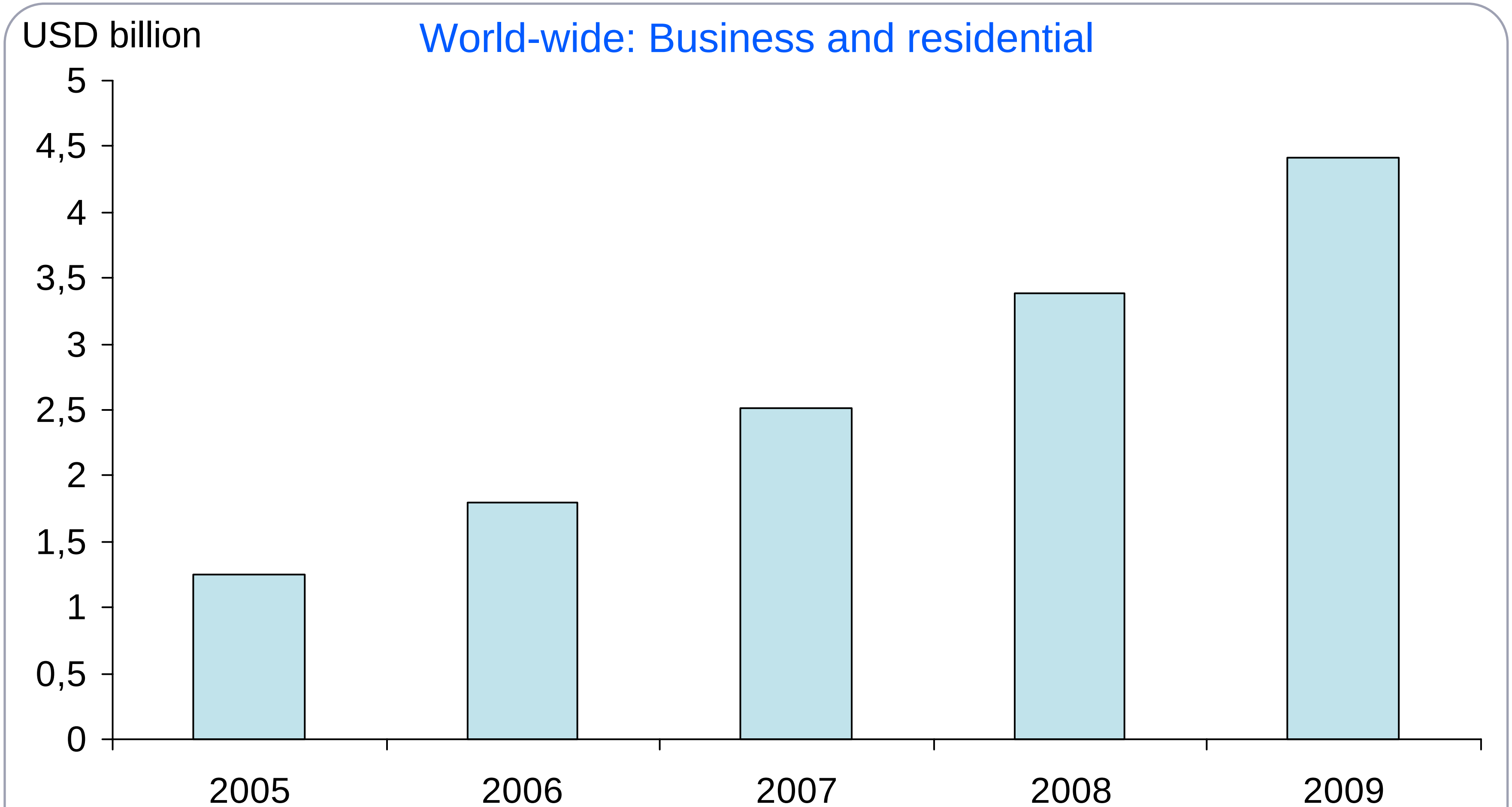
# Shaping the future – Solid State Lighting

*Lumileds' leadership in high power in-organic LEDs*

- JV established in 1999 (initial Philips investment approx. USD 90 mln)
- Philips increased ownership to 96.5% in November 2005 (additional investment approx. USD 950 mln)
- Industry leader in high power LEDs (LUXEON platform) in all colors and white

# Shaping the future – Solid State Lighting

*The In-organic LED system illumination market*



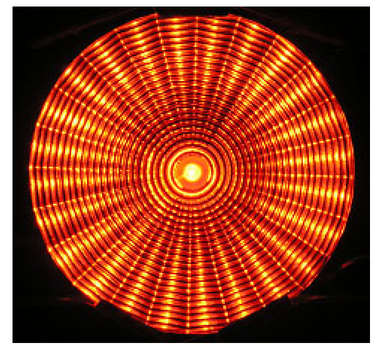

Estimated by Philips at 6 times the LED component market as stated by Strategies Unlimited; PennWell

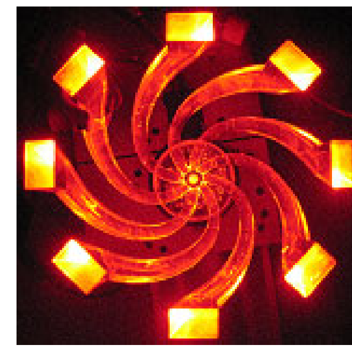
# Shaping the future – Solid State Lighting

*Modules: To create breakthroughs for LED adoption in cars*

Drive down integral cost

Create opportunities for differentiation





Example:

# Shaping the future – Solid State Lighting

*Modules: Retrofit solution for Freezer Lighting*

## Currently being developed:

- Up to 60% lower energy use
- Longer life, Over 6 years @ 24/7
- No mercury, lead

Leds:

TL:

Freezer Lighting Solution

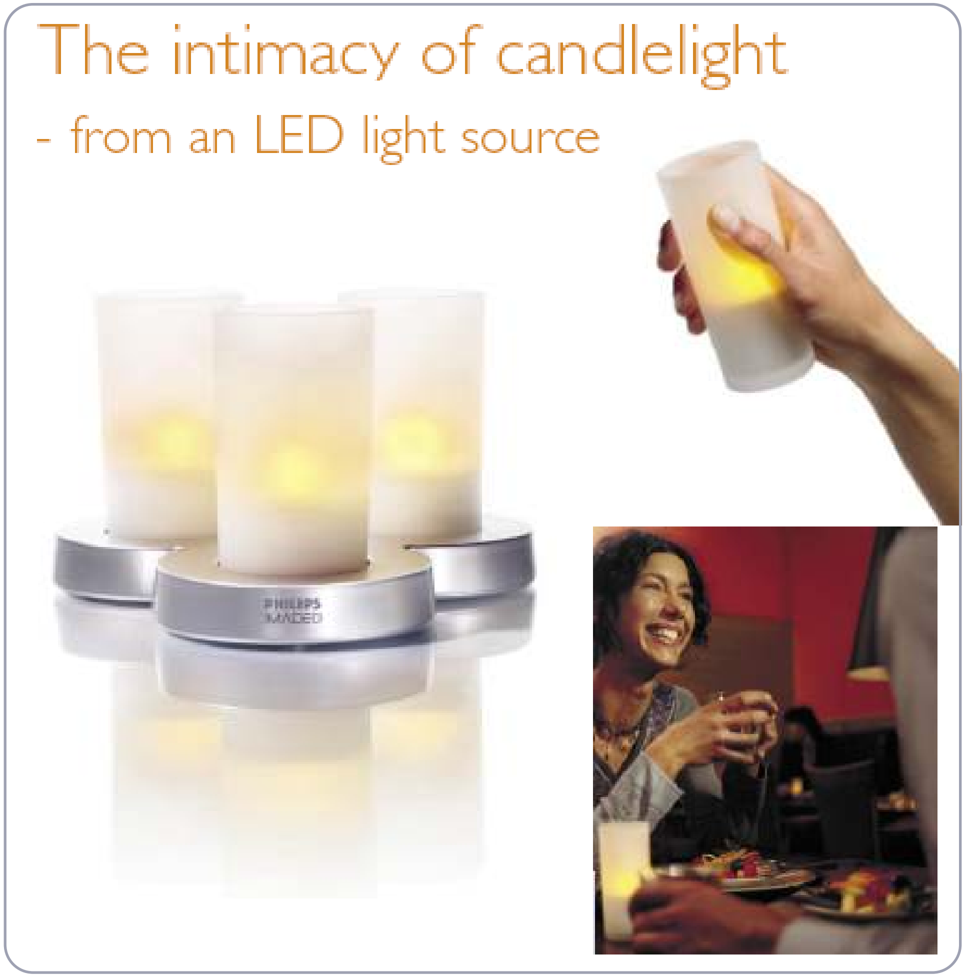
# Shaping the future – Solid State Lighting

*Modules: Retrofit Applications*

# Shaping the future – Solid State Lighting

*To create atmosphere at home: IMAGEO*

- Candle-like ambience without flames
- Last more than 24 hours, before recharging
- Rechargeable without taking the LED out of the glass
- Switch on/off by tilting the glass



# Shaping the future – Solid State Lighting

*Systems: to create Lighting solutions especially in decorative outdoor and shop lighting…*


# Shaping the future – Solid State Lighting

*Systems are crucial in understanding the market*

- Gathering vital information about SSL market trends requires footholds in all major markets (regional and application segments)
- Our Luminaire activity creates lighting solutions
- They function as our spearhead in developing the SSL technology
- Enabling us to create optimal products for our customers

# Shaping the future – Solid State Lighting

*Systems: Market trends*

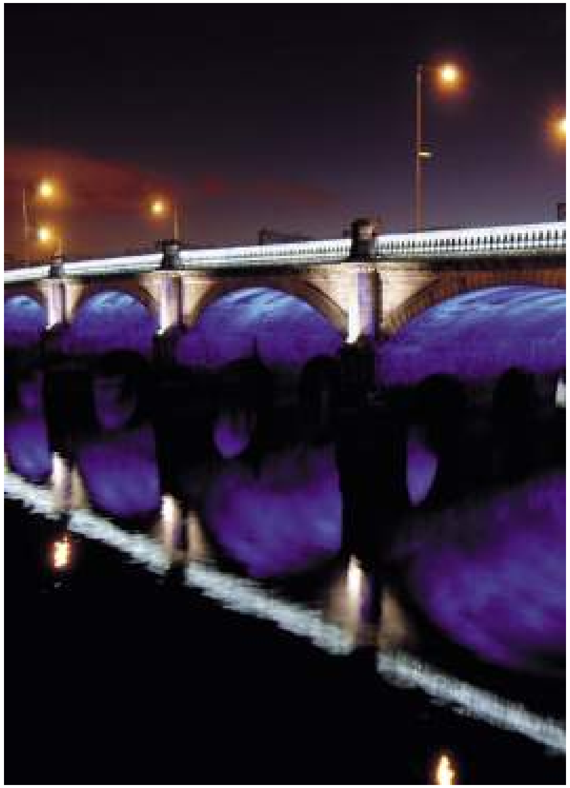
- Turn Key Customized SSL projects,
- Color dynamics via Lighting Controls & Programming
- Enabling architectural effects never possible before

**Palacio del Arzobispado, Spain**

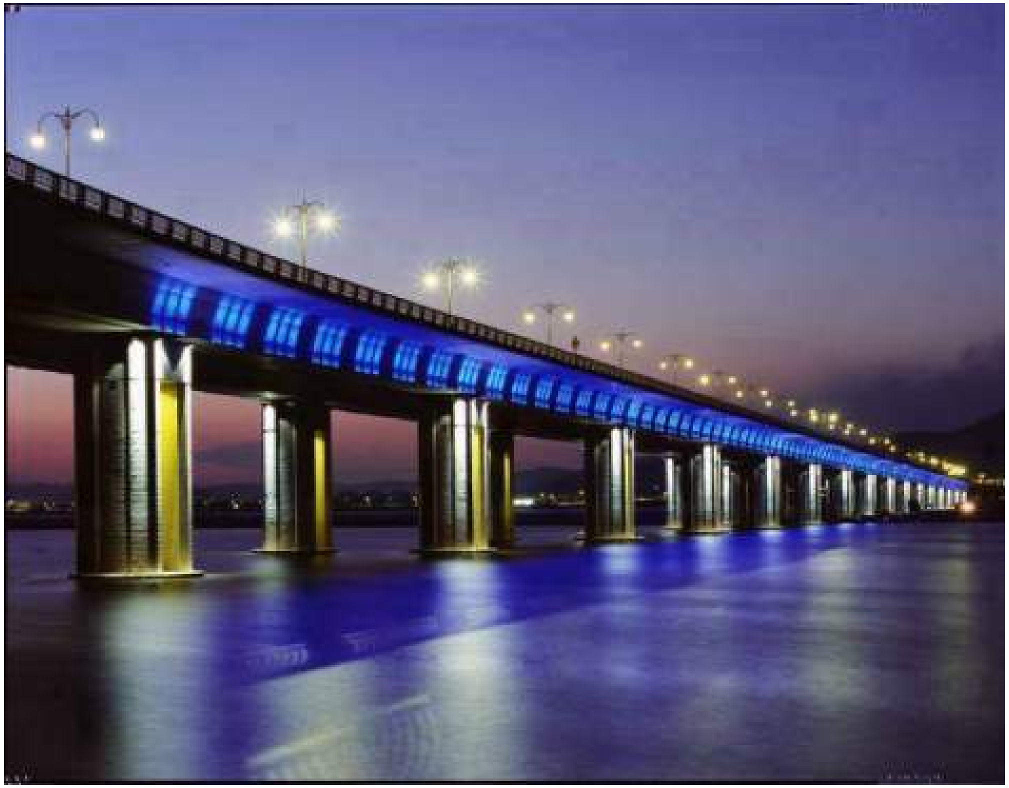
Townhall of Rotterdam, The Netherlands

# Shaping the future – Solid State Lighting

*Systems: Solid State Lighting Projects*



Glasgow Main Bridge, Scotland



Gupo Grand Bridge, Korea

# Shaping the future – Solid State Lighting

*Systems: Solid State Lighting Projects*

Actura, Hot Water System, Östersund, Sweden

# Shaping the future – Solid State Lighting

*Systems: Solid State Lighting Projects*

Symphony of Light HK Coliseum, SAR Hong Kong

# Shaping the future – Solid State Lighting

*Systems: creating atmospheres in shops*

Winter

Spring

Summer

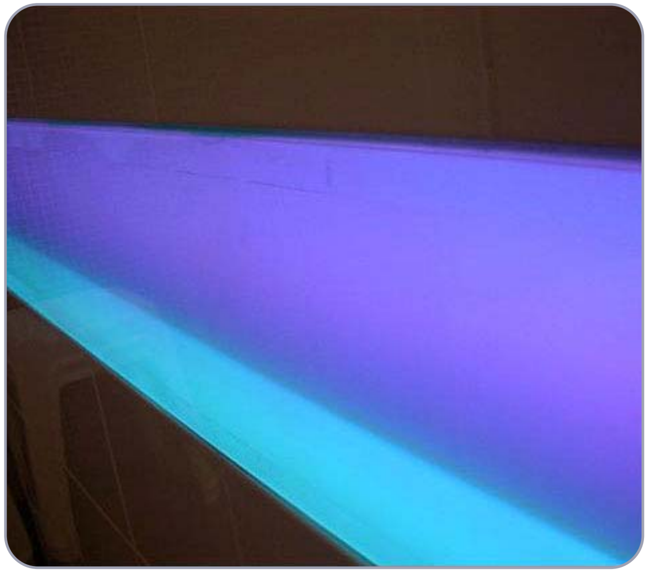
Autumn

Demo Philips Lighting application centre Eindhoven

# Shaping the future – Solid State Lighting

*Systems: Creating a Bathroom experience…*

Tiles



Bath

Shower

Demo in Philips Lighting Application Centre Eindhoven

# Shaping the future – Solid State Lighting

*We explore new applications*

*… light in textiles, controlled by SMS messages*

IFA, Sept 2005


IFA, Sept 2006

Activity of Incubator

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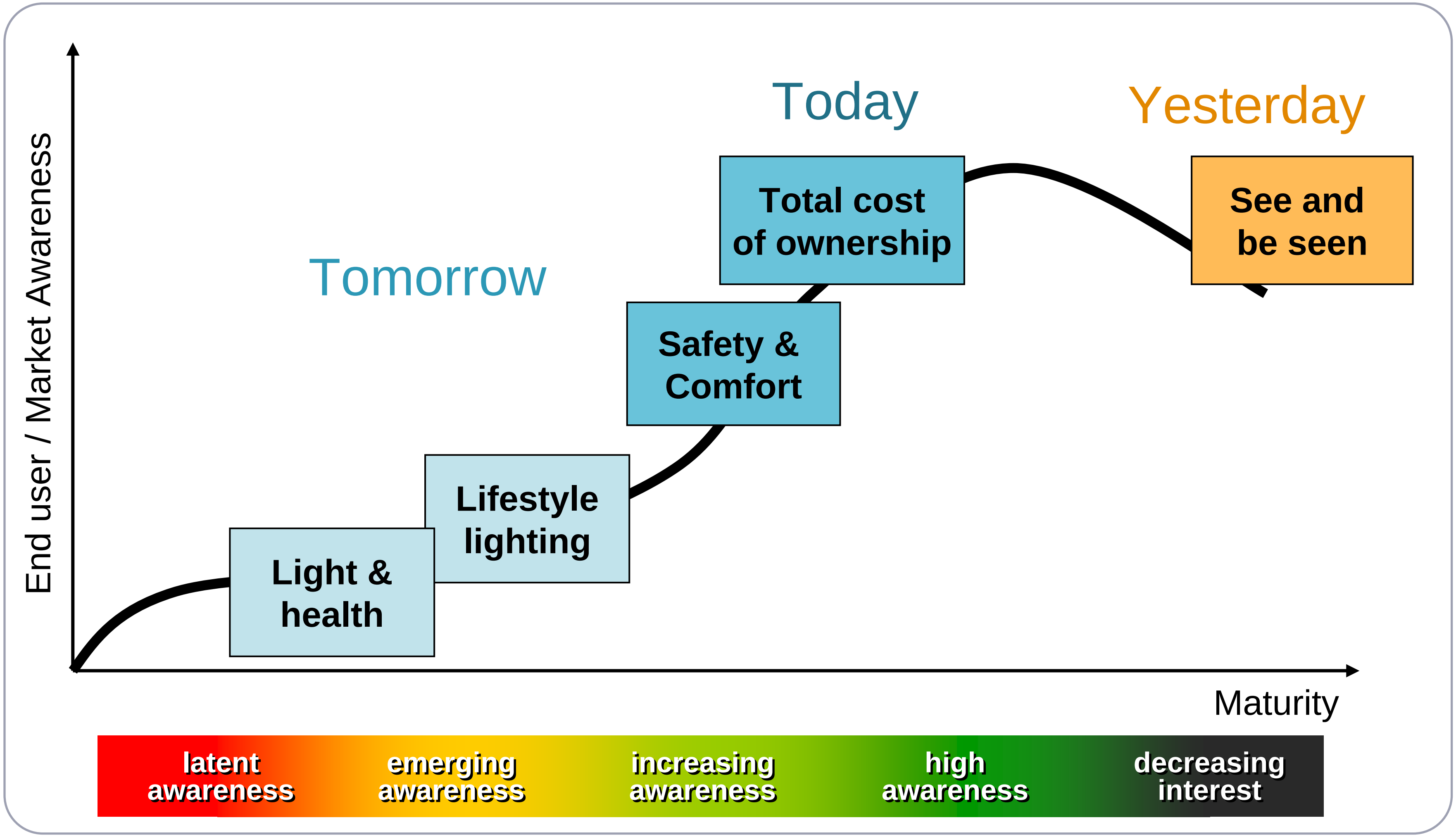
# End-user driven innovation, technology leadership

*New market themes drive additional growth*



# End-user driven innovation, technology leadership

*Market theme concept: Safety & Comfort*

- The same street before and after

- The street with new solution
  - Uses less energy
  - Provides higher quality light
  - Provides greater safety

Redbridge, UK, before

Redbridge, UK, after installation of CosmoWhite (Philips)

# End-user driven innovation, technology leadership

*Market theme concept: Safety & Comfort*

Safety at night

Comfort:
Car becomes extension of the 'home and office'

# End-user driven innovation, technology leadership
*Market theme concept: Lifestyle lighting*

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# End-user driven innovation, technology leadership

*Market theme concept: Light & Health*

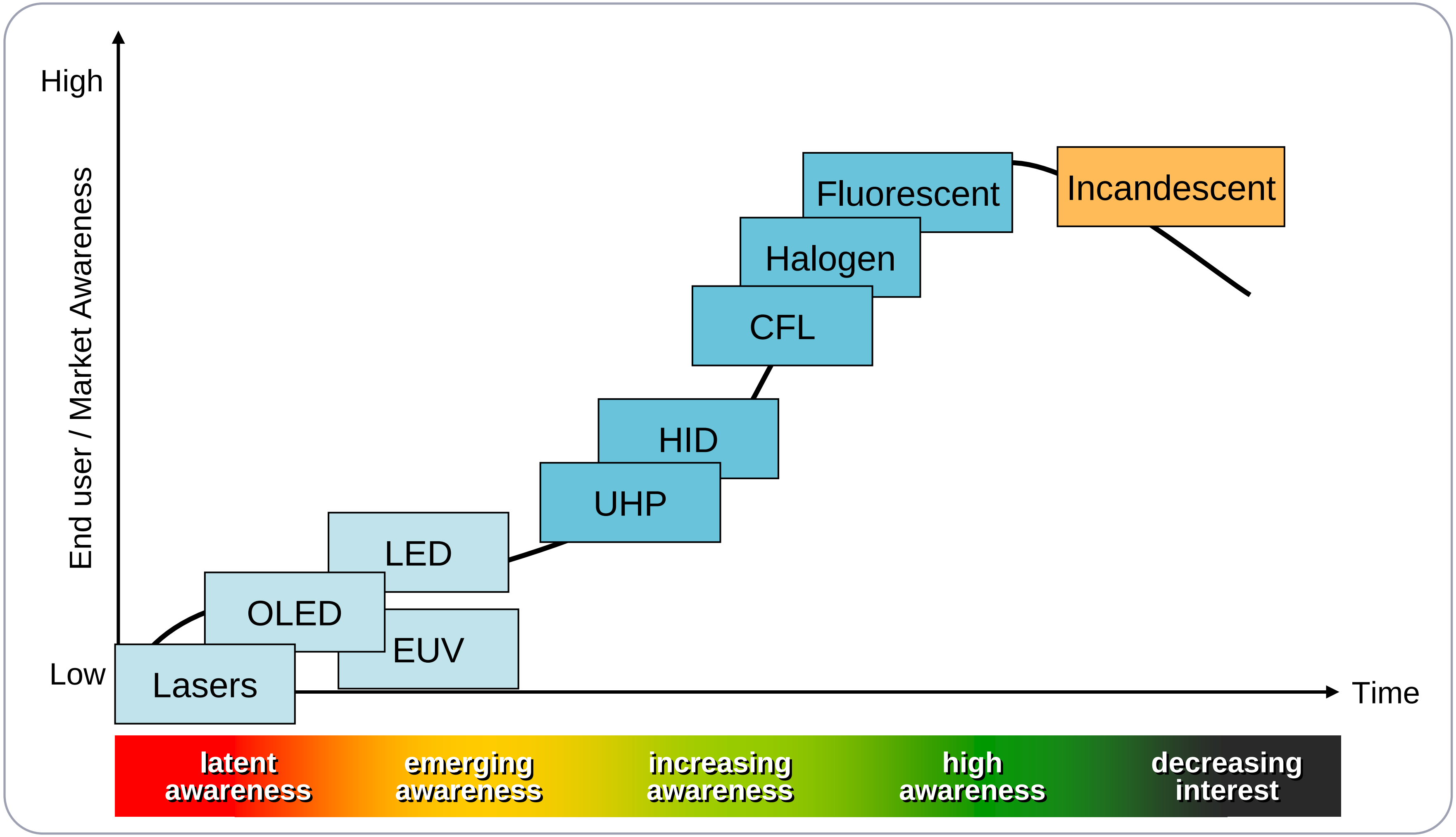
Water purification

Infra red sauna

UV skincare

# End-user driven innovation, technology leadership

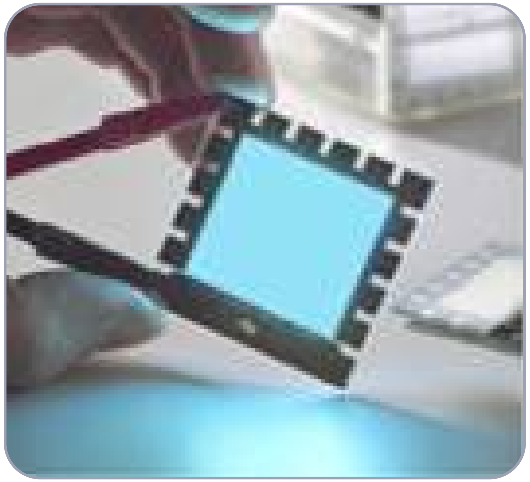
*Product-technology innovation will continue to drive growth in Lighting*



# End-user driven innovation, technology leadership

## Organic LEDs

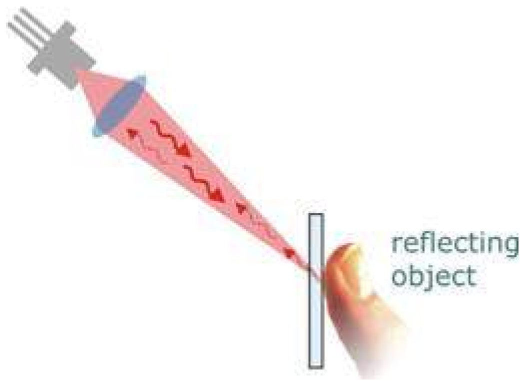
- Potential for large area light sources
- Consortium formed with a.o. BASF (materials) aimed to give Europe leading position
- Still in research phase
- Pre-pilot production under construction

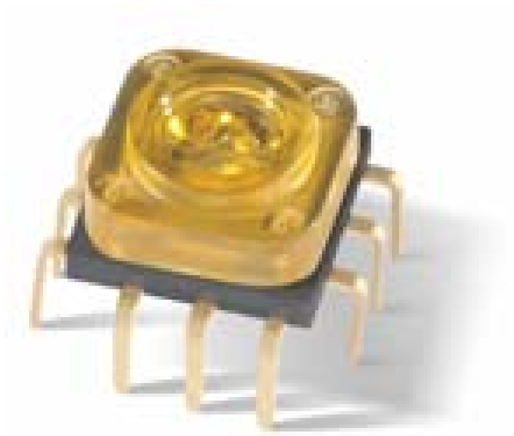


# End-user driven innovation, technology leadership

## Lasers

- Develop basic laser technology
  - We acquired initial stake and obtained management control in Cedova, a start-up venture for laser manufacturing
- First volume laser application: movement-sensor
  - Result of Philips Incubator activity
  - Mouse launched with Logitech
- New applications are under development



# End-user driven innovation, technology leadership

*Philips Extreme Ultra Violet for Next generation Wafersteppers*

First two EUV sources delivered to ASML

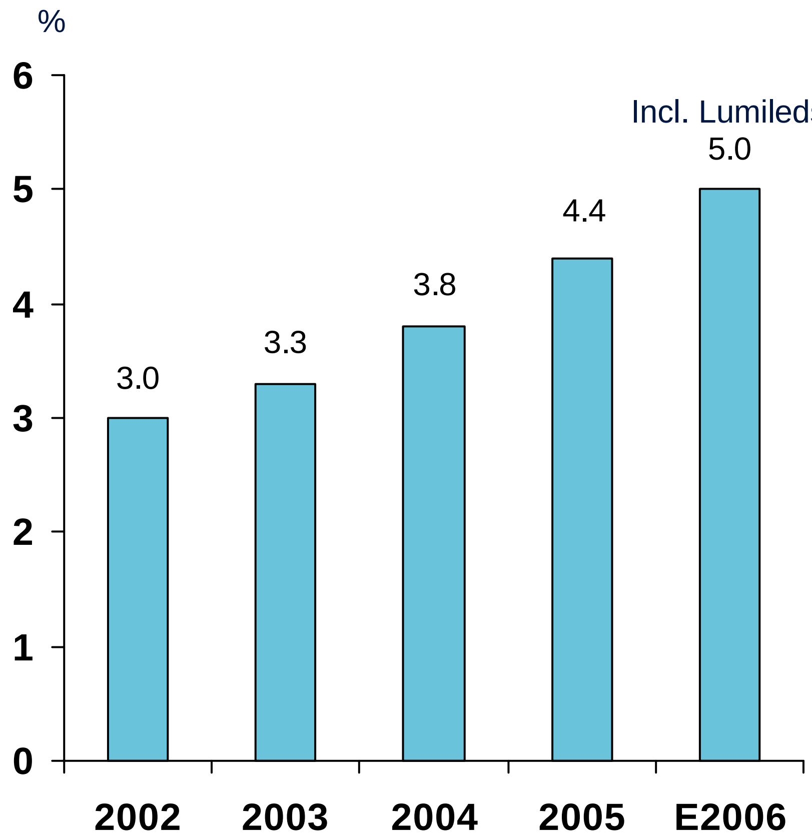
***Co-operation ASML***

End-user driven innovation, technology leadership

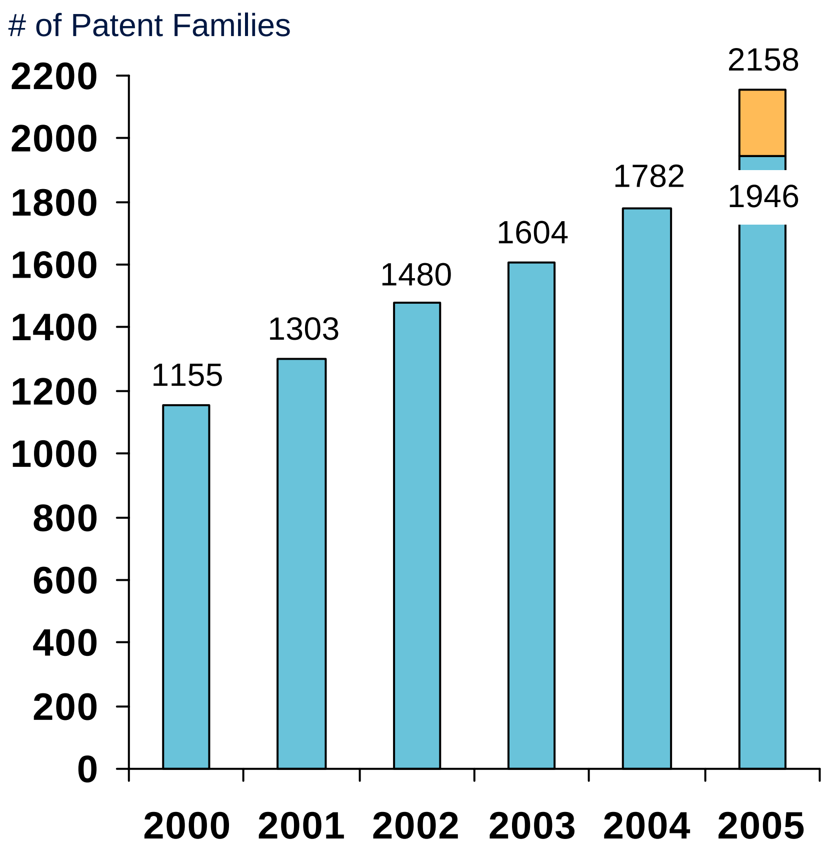
# Building on technology leadership:

*Development R&D% and size patent portfolio*

Increasing R&D effort



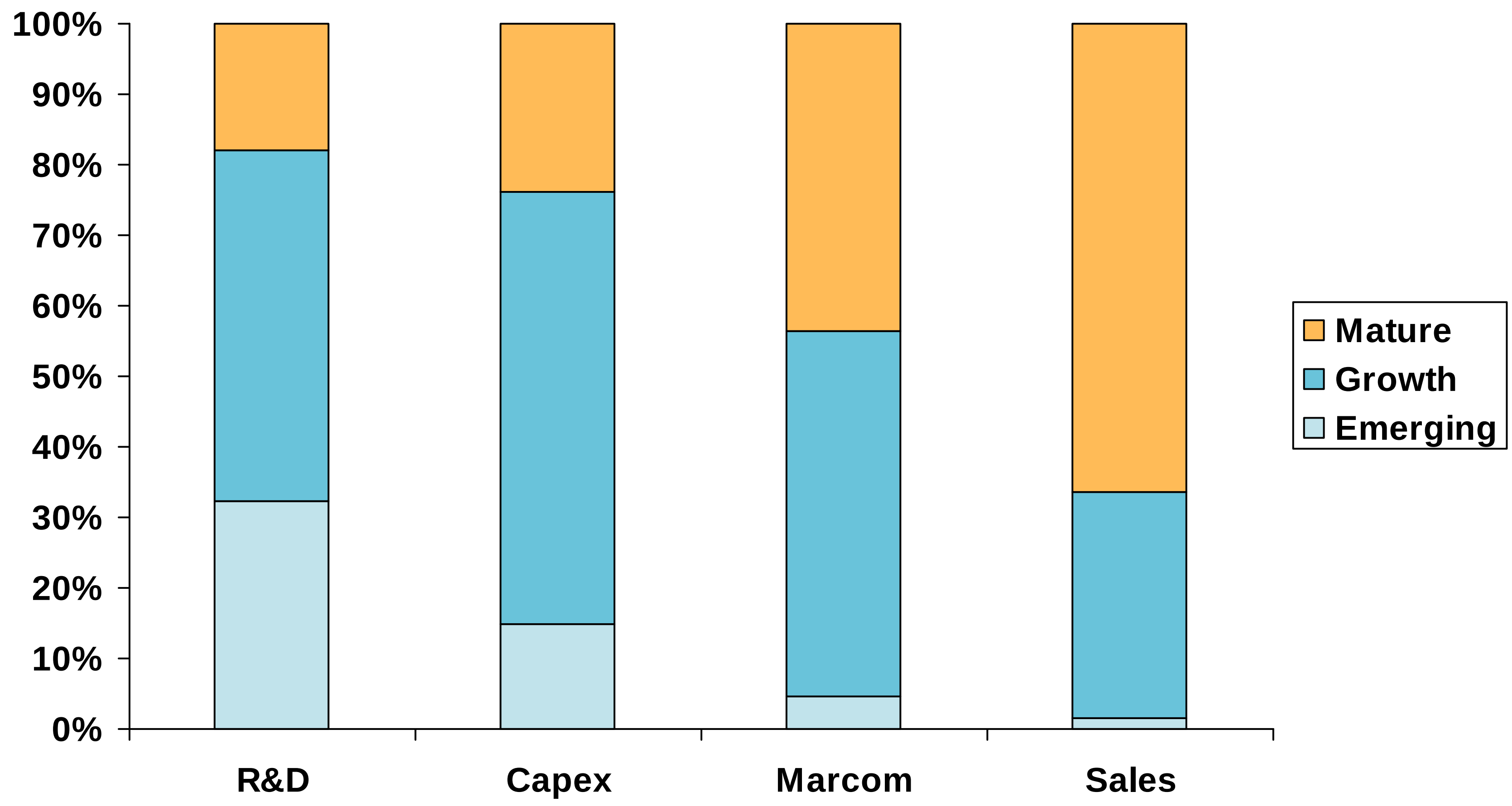

Patent portfolio increase
2000 – 2005: 68% *)




*) Excluding Lumileds

# End-user driven innovation, technology leadership

*Innovation drives investment for growth (2005)*



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# Marketing excellence

*Building the Brand*

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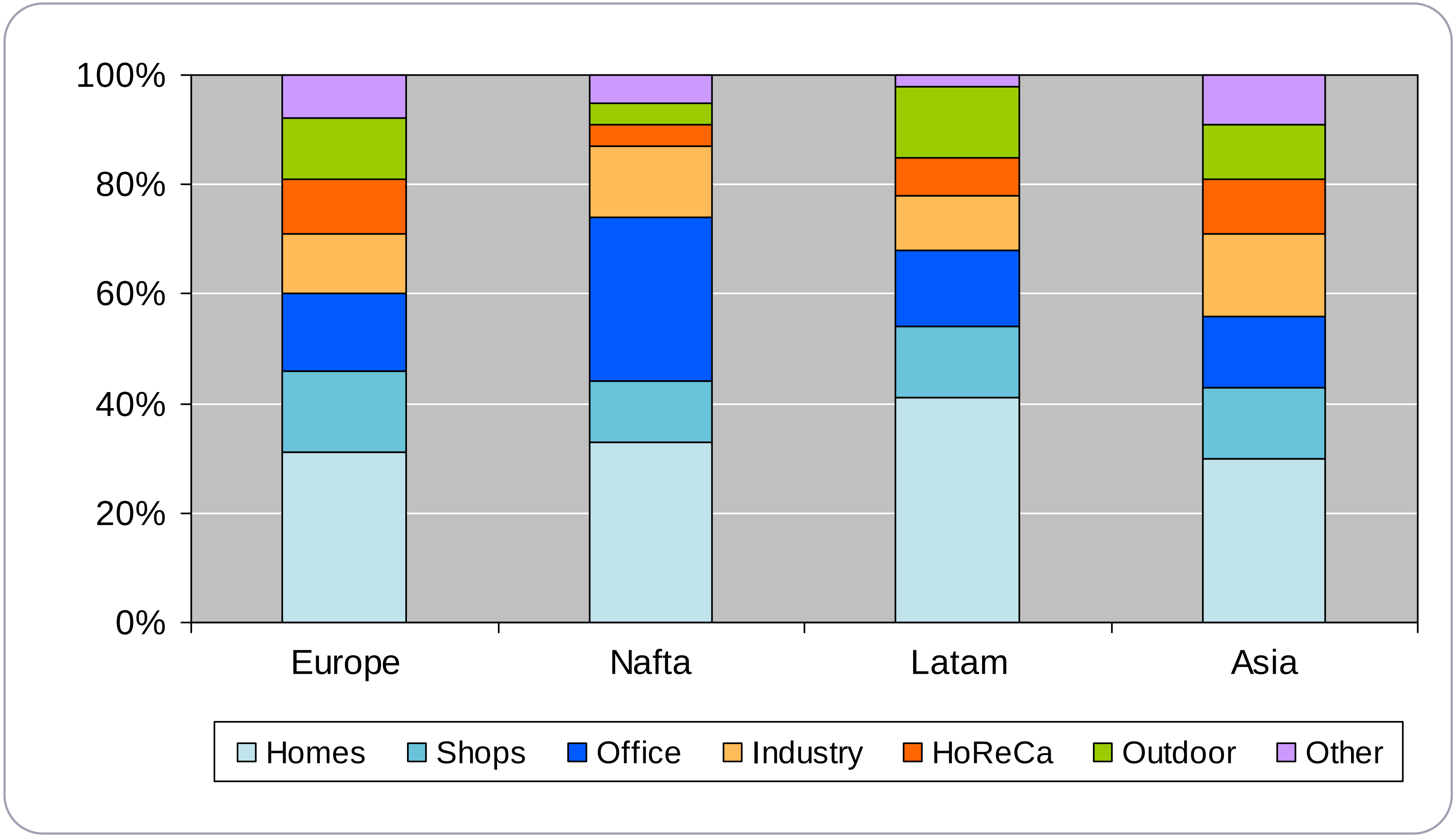
sense and simplicity

# Marketing excellence

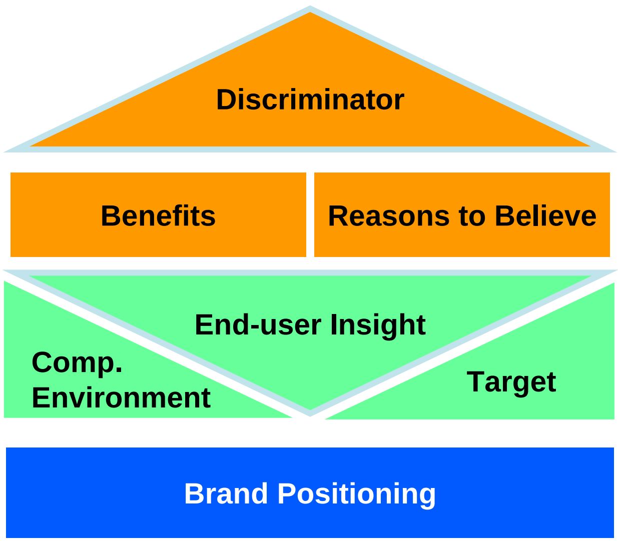
*Market value by application segment*



# Marketing excellence

*Focus on people acting in their surrounding*

- Lighting needs are a function of human activity in a space; detailed insights are key
- We catch essentials of the solution in a Value Proposition House




- Many opportunities lie within general lighting
- We can address large, unmet end-user needs potentially earning higher margins

# Marketing excellence

*Flexible lighting in Shops*

Shopper:

## Insights:

I'd like to shop in an place that catches me,
surprises me, inspires me, reflects me … and my friends

Retailer:

Our stores needs to inspire and seduce.
All elements should be optimized to facilitate the sale

Installer:

The system should be easy to install, easy to create
the light settings and hassle free.

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# Supply excellence

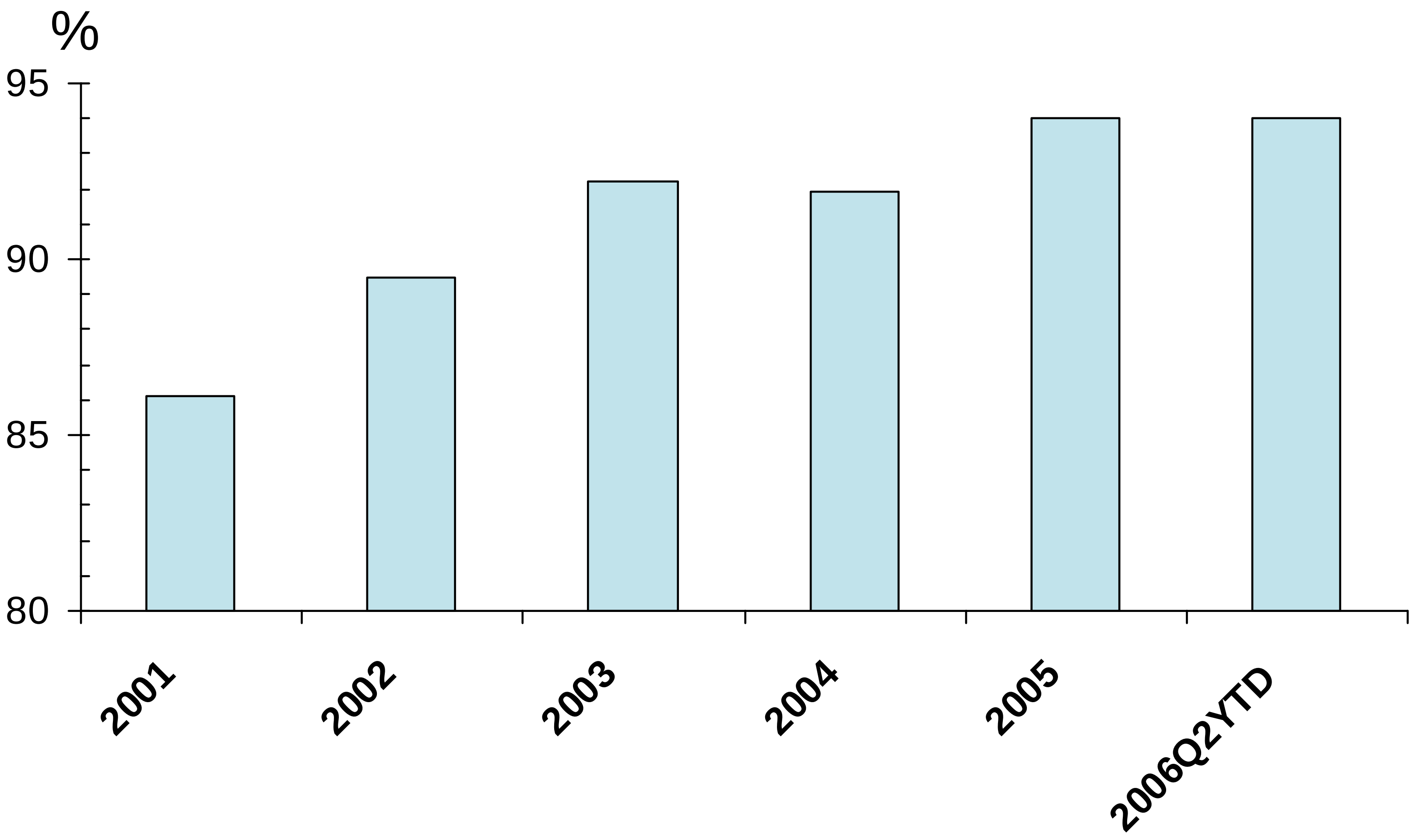
*Towards 0-defect quality in Automotive*

- Total car lamps supplied in 2005:
- 425 million pieces
- 1.4 parts per million rejected at carmaker

# Supply excellence

*No growth without Supply excellence*

*e.g. secure impeccable delivery reliability Total Philips Lighting*



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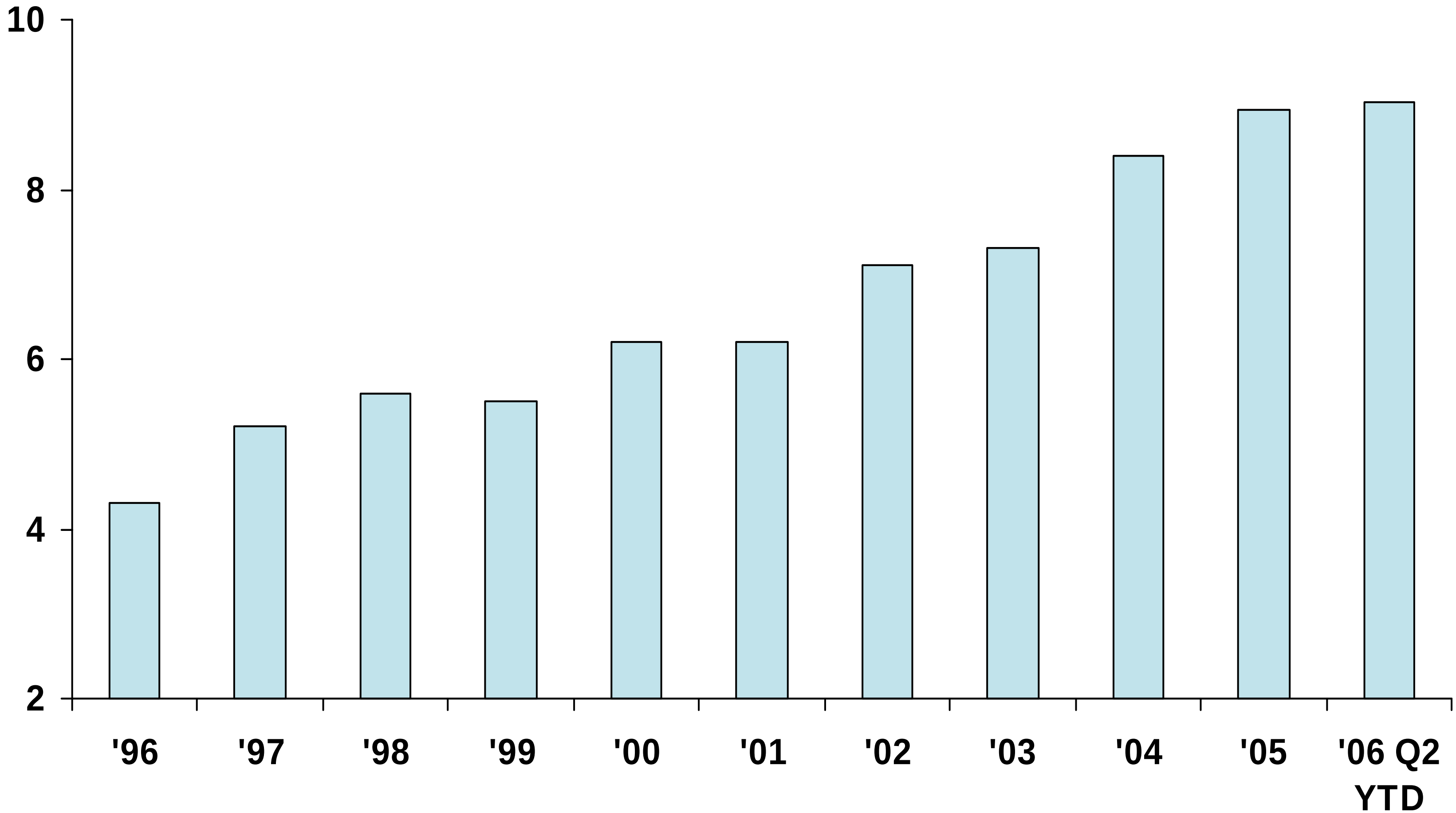
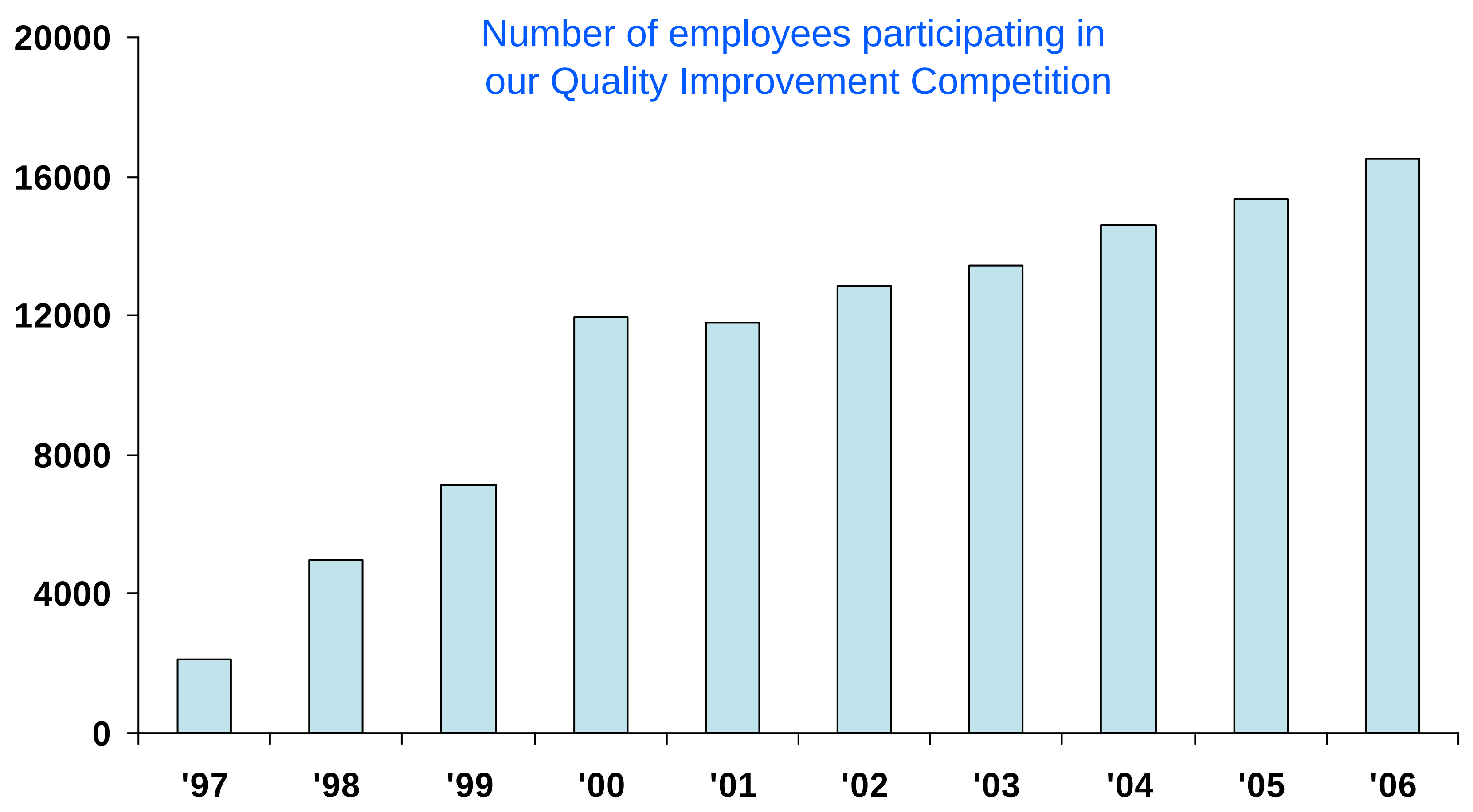
# Continuous improvement

*Working Capital turns*



# Continuous improvement

*Employees are driving quality improvement*



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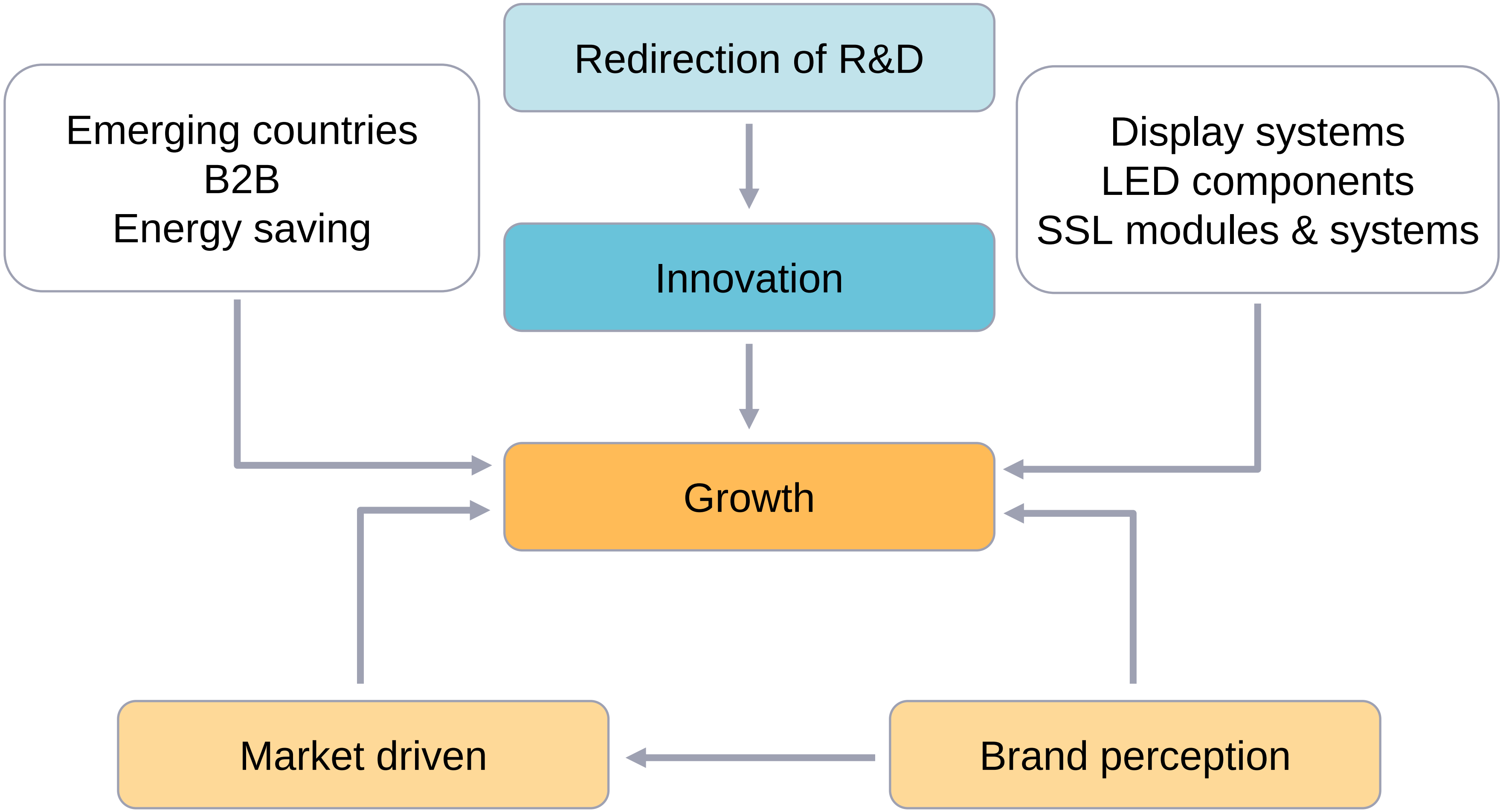
# Conclusion: Creating growth opportunities



PHILIPS

sense and simplicity

# 1890- : Electric Light shifted the Lighting Paradigm

This Room Is Equipped With

**Edison Electric Light.**

Do not attempt to light with match. Simply turn key on wall by the door.

**The Next wave: Solid State Lighting (LEDs) will shift it again**