Accelerated Innovation

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Key takeaways

• Innovation is at the core of our strategy and the primary driver of long-term value creation

• We will drive increasing value from our insights, competencies and world-class innovation capabilities

• We are accelerating our ability to deliver ideas to market and a return on investment

• We have a robust pipeline of meaningful innovations that will deliver growth and increase value
Our Mission
Improving people’s lives through meaningful innovation

Our Vision
At Philips, we strive to make the world healthier and more sustainable through innovation. Our goal is to improve the lives of 3 billion people a year by 2025.

We will be the best place to work for people who share our passion.
Together we will deliver superior value for our customers and shareholders.
Philips has an unrivaled ability to innovate – now focused on capturing more value

Long track record of innovation...
- Core value of our people
- Very strong capabilities and competencies
- Creates new businesses

...and taking action to drive superior return from EUR 1.7 billion R&D spend
- Clearer business and innovation strategies
- Aligned resourcing and pipelines
- Better execution
We have a unique collection of innovation capabilities

**Innovation capabilities**

- **Unique insights** into individuals, societies, workflows and user interaction. Excellence in creating innovative, **people-focused designs** (~350 people)
- Global research organization with world-class **multidisciplinary technological expertise** and an extensive network of **partnerships** (~1800 people)
- World class **intellectual property** organization that supports our growth, competitiveness and profitability (~400 people)
- Enabling organization with broad **technical engineering**, equipment development and **prototyping** skills, and state-of-the-art facilities (~1000 people)
- Domain-specific **product development** capabilities coupled with **application and market** knowledge (10,000+ people)
- Cross-sector product development in Bangalore with strategic focus on **mobile, connected devices, big data, and local markets** (~1100 people)

**Supporting evidence**

- **121 years** of meaningful innovations for global and local markets
- **54,000 patent rights**, 39,000 **trademarks**, 70,000 **design rights** and 4,400 **domain names**
- **EUR 435 million license revenues** in 2011
- **99 International awards** for design excellence (2011)
- Highly valued partner in mechatronics, software, materials and measurement for Philips businesses and **100+ external high-tech** companies
- Steady stream of new products that create strong businesses: ~**50% of our sales** in global leadership positions
- Rapid product development cycles for **value segment products** (e.g. ClearVue Ultrasound, India Clinical Informatics, AirStudio, EnvisionTouch)
These capabilities, when we execute well, drive globally-leading business positions

<table>
<thead>
<tr>
<th>Business</th>
<th>Innovation enablers</th>
<th>Market position</th>
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</table>
| Male Grooming     | • Deep understanding of interaction between hair and skin and the shaver  
• Extremely precise metal forming in mass production to produce shaving heads  
• Deep competencies in design, materials, and finishing                                                                                                           | • Global leader with close to 50% market share of the electric segment              |
| Automotive Lighting | • Industry-leading quality of our halogen, xenon and LED technologies  
• Application know-how and design-in: optics and thermal/mechanical management at module/device level  
• Technical feature innovations (bulbs) and new technological platforms (modules/solutions) for aftermarket                                                                 | • Global leader with 31% market share                                             |
| Patient Monitoring | • Integration of powerful clinical decision support capabilities  
• Enterprise-wide interoperability  
• Extending monitoring onto non-monitored patients  
• Mobile access to rich clinical data                                                                                                                       | • Global leader with 46% market share  
• Gaining share in Middle East, India, Brazil, North America                             |

The same applies to our other leadership positions such as sleep therapy systems, ultrasound, rechargeable toothbrushes, garment care, professional luminaires and high power LEDs.
We innovate in areas far beyond product technologies

**Product**

Solar-powered LED road lighting for rural areas that are off-grid. Most reliable, efficient and cost effective per km of road. Installed in Morocco, Philippines, China.

**Customer experience**

Philips Retail Solutions immersive, multisensory shopping experiences using light, sound, video, touch, smell and interactivity; to bring joy for consumers and success for retailers.

**Process**

Male grooming in China increasing local relevance with local development team. Speeding up time to market by 30-50%. New innovation process builds on existing platforms.

**Business model**

Ambient experience pay-per-use for private clinic in Austria. Complete technology and service solution, reduced risks around upfront capital investment, and differentiation from competitors.

**Service**

eICU provides continuous monitoring and intervention technology to enable remote care teams to provide focused clinical oversight to ICU patients day and night.
Accelerating “Idea-to-Market” to substantially increase innovation returns

**Strategy**
- Utilizing new and demanding process to create robust business strategies
- Making clear strategic choices - with explicit link to value creation
- Ensuring business strategy drives innovation strategy

**Portfolio management**
- Rigorously managing portfolio based on risk/reward and strategy
- Clearly stage-gating investments, and killing the “walking dead”
- Investing in acceleration of most attractive opportunities

**Capabilities**
- Integrated all front-end capabilities: effectiveness, efficiency, leverage
- Building global competence networks and centers of excellence
- Actively leveraging broader networks of external innovation sources

**Execution**
- Established explicit targets for speed, taking out the bottlenecks
- Installing DfX company-wide
- Measuring and relentlessly improving our innovation productivity
- “Leaning out” both overheads and E2E value chains
Our innovation pipeline follows our vision and strategy

Grand societal challenges – Some examples

- Access to health
- Global warming
- Ageing society
- Healthy food

Business Strategies
- Starting Positions

Capabilities
- Assets

Create new businesses
- Adjacencies
- Emerging Business Areas

Strengthen the core
- Sustaining Innovation
- Game Changers
Some of our recent innovation successes

**Sustaining**

*Phosphors in CFLi lamps*

- Highest quality, lowest costs
- Sustainability: substantial phosphor reduction

**Game changer**

*IntelliVue cableless monitoring*

- Monitoring everywhere
- 24/7 vital body signs

**Adjacency**

*BlueTouch*

- Natural back pain relief
- Wearable device for increased mobility

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**USP**

- Value engineering
- Process redesign with partners

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**Core of innovation**

- Biochemical reactions triggered by blue light
- LED in textile technology
Challenge: Rapid rise of Cardio Vascular Diseases

Today, 30% of all global deaths are caused by CVD\(^1\)

By 2030, about 24 million people will die from CVD

Estimated annual cost of CVD 310 EUR billion (US), 169 EUR billion (EU), 31 EUR billion (China)

**Electrical signal disorders**

Atrial fibrillation
Sudden cardiac arrest

**Valve problems**

Inefficient blood circulation

**Blockage of coronaries**

Damage of myocardium
Insufficient power for contraction

**Damaged myocardium**

Insufficient contraction
Insufficient output

Source: World Health Organization

\(^1\)Cardio Vascular Diseases
Philips innovations: towards first time right minimally invasive cardiac procedures

**Sustaining**

We are leader in Interventional Imaging for the cath lab. Key innovations:

- Ultra low dose 3D X-Ray imaging
- Sharp images through noise reduction algorithms
- 3D real time Ultrasound Imaging

**Game changer**

Workflow integration through unique software applications with real-time visualization and guidance for catheters

- Heart navigator for valve replacement
- EP navigator ablation of atrial fibrillation
- EchoNavigator for mitral valve repair

**Adjacency**

Making catheters smart adding in-body sensing and imaging functionality

- Cardiac ablation depth monitoring for EP via ultrasound transducers integrated on catheter tip
- Real time 3D shape sensing with optical fibers
We are uniquely positioned to capitalize on this challenge
First time right image guided minimally-invasive cardiac procedures

Leveraging our unique capabilities

• Trusted innovation partner with strong clinical network

• World leading in low dose interventional X-Ray imaging, 3D US transducers, physiological modeling, image processing, smart algorithms

• Unique platform in miniaturized sensor and in-body imaging technology with strong IP

• Pipeline of unique technologies (e.g. fiber optical shape sensing, photonic needles)

Creating a strong business

• Building on our global leadership position in Interventional X-Ray and premium ultrasound

• Dedicated New Business Creation Team for in-body imaging and sensing

• Partnering with catheter and interventional robotic companies, e.g. Boston Scientific, St Jude Medical, Biosense (J&J), Hansen Medical, Corindus, Medtronic

• Continuing our track record in bringing minimally invasive cardiac interventions to market (e.g. EP cockpit, Heart Navigator)
Challenge: Make mega cities sustainably safe and comfortable

Today, 50% of all people live in cities
By 2050, another 3 billion people will have moved to urban areas

Urbanization
High density population
City planning

People's city
Unsafe places
Better experience

Costs of infrastructure
Installation & maintenance
Energy efficiency

City ecosystem
Remote management
ICT Connected light
## Philips innovations: Intelligent city lighting solutions

<table>
<thead>
<tr>
<th>Sustaining</th>
<th>Game changer</th>
<th>Adjacency</th>
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</table>
| Making cities pleasant and safe by using appropriate lighting in public spaces:  
  – Energy consumption reduction up to 80% by state of the art LED technology and controls  
  – Optimum light distribution  
  – City beautification | Interactive lighting control to detect need of light, and provide safety:  
  – LumiMotion: ambient intelligent LED street lighting  
  – Dynamic highway lighting control  
  – Urban interactive lighting (night-time playtime) | Connected lighting enables central management and control of city lighting, with cost savings on maintenance and energy.  
  A connected public lighting infrastructure enables value added services like sensing air quality, security, and intelligent parking management |
We are uniquely positioned to capitalize on this challenge
Transforming cities through intelligent outdoor lighting

**Leveraging our unique capabilities**
- Leading trusted brand in lighting
- Deep lighting application knowledge
- Global reach to customers
- Strong IP and technologies
- World class in illumination, the effect of light on people, LED modules, embedded intelligence
- Pioneer in ambient intelligence
- Driving interoperability standards

**Creating a strong business**
- Building on our global leadership in automotive lighting and outdoor lighting, including creative architecture lighting and city-beautification
- Creating a full pipeline of new business projects on combining lighting with safety, sensing and traffic
- Installing innovative lighting solutions in UK, Czech Republic, Netherlands
- Participating in innovative eco-city programs, e.g. Tianjin
Challenge: healthy teeth, gums and a beautiful smile

Worldwide, 60–90% of school children and nearly 100% of adults have dental cavities. The most common cause of tooth loss after age 35 is gum (periodontal) disease. 80% of population have gingivitis (bleeding gums). 30% of people experience bad breath.

Gum (periodontal) disease
Tooth loss
Gingivitis

Dental caries
Tooth decay

Halitosis
Impactful inhibitor in social context

Dental aesthetics
Teeth whitening
Social pressure
### Philips innovations: Solutions that contribute to oral health, hygiene and beauty, fitting into people’s daily rituals

<table>
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<tr>
<th>Sustaining</th>
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<tbody>
<tr>
<td>- Deep consumer insights combined with strong IP and technological competence</td>
<td>- Superior performance professional whitening</td>
<td>- Expansion into interdental cleaning and better biofilm management</td>
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<tr>
<td>- Superior cleaning of teeth</td>
<td>- Accelerate: develop innovative superior solutions for mass home teeth whitening</td>
<td>- AirFloss based on innovative ‘micro burst droplet’ technology is market success</td>
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<tr>
<td>- Smart easy to use interactions, stimulating adherence/compliance</td>
<td></td>
<td>- Recommended by dental professionals</td>
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- Synergizing existing Sonicare brand franchise
We are uniquely positioned to capitalize on this challenge
Creating solutions for a life with better oral healthcare

Leveraging our unique capabilities

• Leading consumer brand in oral health care
• Strong endorsement by dental professionals
• Partnerships in place with dental experts and institutes
• Deep understanding of consumer needs
• Strong portfolio of IP
• World class competencies in device miniaturization, physics, life sciences, device-tissue interaction, signal processing, system integration
• Premier competencies in Design
• Worldclass competences in Power Oral Care ⇔ superior performance

Creating a strong business

• Building on our #1 position in ultrasonic tooth brushes
• Leveraging Discuss acquisition to move to mass at home consumer teeth whitening
• Dedicated innovation team developing strong innovation pipeline
• Expanding our market presence across geographies
• Capturing economies of scale and using strong distribution network
• Successfully launching and marketing breakthrough innovations like Airfloss
We leverage our competences across innovations
Protected by strong IP portfolio

<table>
<thead>
<tr>
<th>Feature</th>
<th>Smart catheters for cardiac procedures</th>
<th>AirFloss</th>
<th>Ambient intelligent LED lighting</th>
<th>Blue-Touch pain relief</th>
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<tbody>
<tr>
<td>User interaction and workflow</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Physiology and biophysics</td>
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<td>HW/SW architecture</td>
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<td>Intelligent control algorithms</td>
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<td>Signal/Image processing</td>
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<td>Microsystems and packaging</td>
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<td>Optics and photonics</td>
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<td>Sensors and actuators</td>
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Our challenge – answering “what’s different this time?”

- Holding ourselves **accountable** for execution and delivering results
- Ensuring **tight alignment** of innovation and business strategies
- **Accelerate!** – reducing time-to-market by 40%
- Leveraging our **local capabilities**, driving more locally-relevant innovations, while leveraging global scale
- Rigorously measuring innovation results and returns, and reallocating spending
- Taking an **End2End view** to ensure ideas generate payback, and the next wave of growth
Key takeaways

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