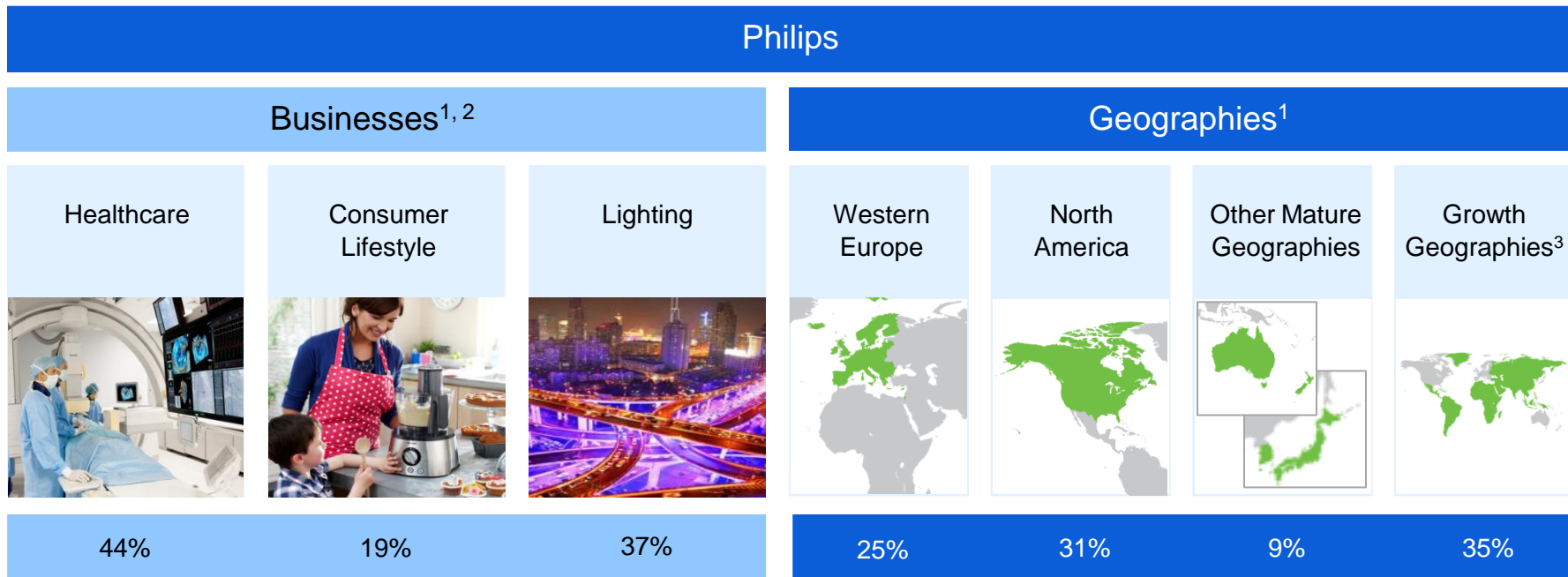


PHILIPS

*Ecodesign:
Energy & Resource Efficiency*

Leendert Jan de Olde, Senior Manager Sustainability
Philips - Consumer Lifestyle
August 29, 2013

Philips: A strong diversified industrial group leading in health and well-being



Since 1891

Headquarters in Amsterdam, the Netherlands

€23.5 Billion

Sales in 2012. Portfolio consists of ~70% B2B businesses

~116,000

People employed worldwide in over 100 countries

\$9.1 Billion

Brand value in 2012

8% of sales invested

in R&D in 2012
59,000 patent rights,
35,000 trademark rights,
81,000 design rights

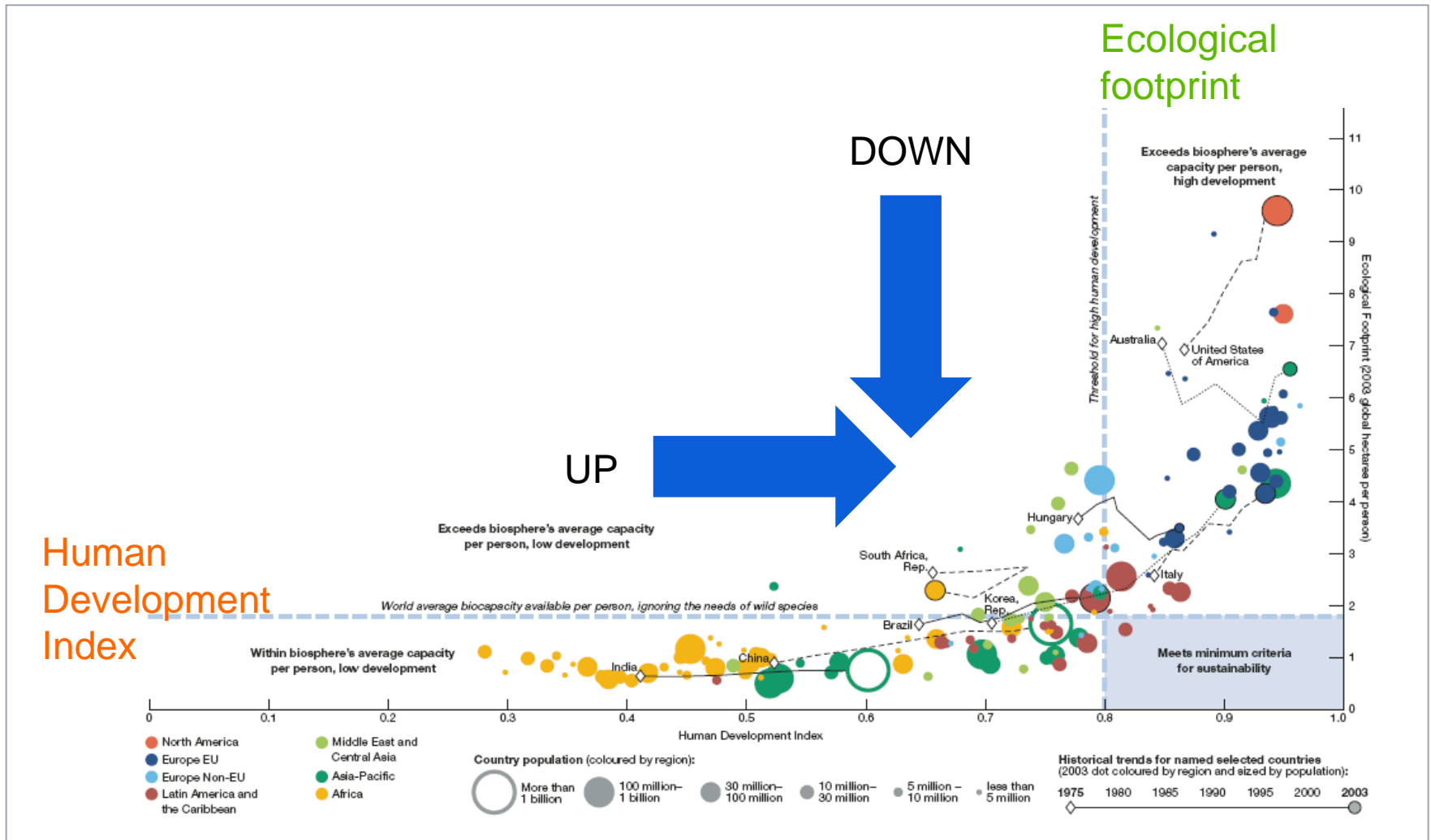
¹ Last twelve months March 2013

² Excluding Central sector (IG&S)

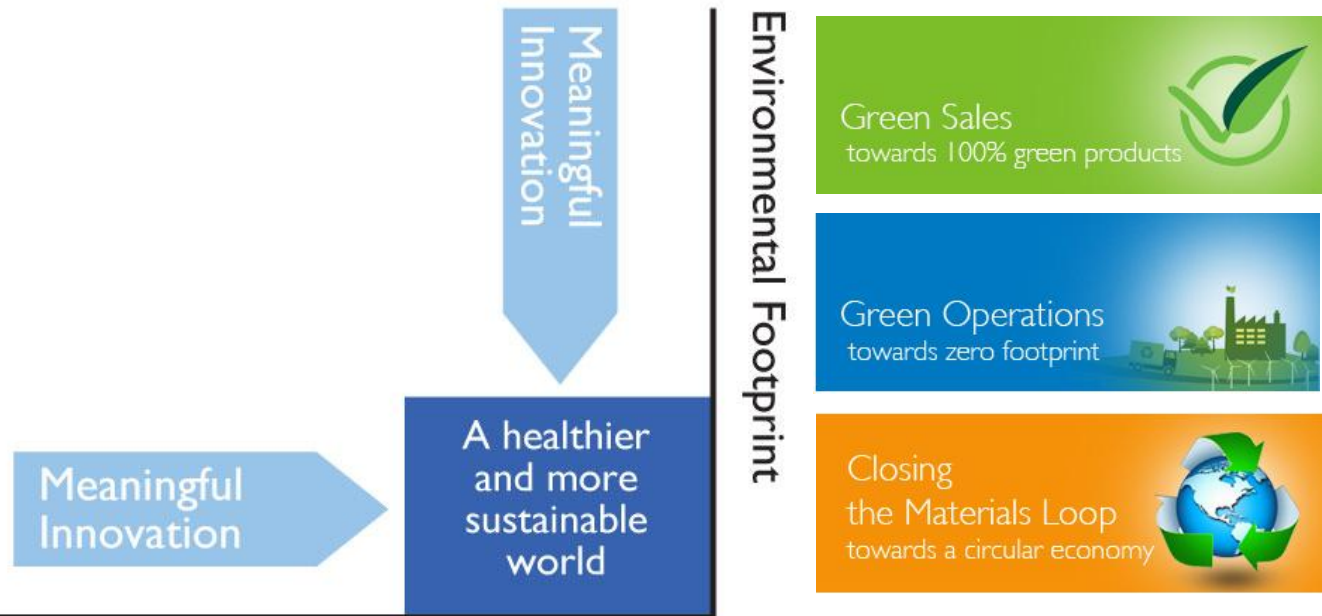
³ Growth geographies are all geographies excluding USA, Canada, Western Europe, Australia, New Zealand, South Korea, Japan and Israel

Note - Prior-period financials revised for discontinued operations, the adoption of IAS19R, and for restatements included in the Annual Report 2012 (please refer to the Annual Report section 12.10 "Significant Accounting Policies")

Sustainability in a nutshell



Improving people's lives through meaningful innovation Philips core sustainability programs



Healthy People

Access to Care
towards accessible healthcare for all



Well-being
towards enabling healthy living



Social Innovation
towards prosperity



Overview of current EU ErP regulations

- These product groups represent $\pm 50\%$ of total energy consumption in EU
- ‘Hot spot’ in all regulations adopted so far: energy efficiency during use phase
- Savings up to 1000TWh per year by 2020

| DG ENERGY | Product group | | Product group |
|-----------|--|----------------------|---|
| 1 | Boilers and combiboilers | 19 | Domestic lighting (general lighting equipment) |
| 2 | Water heaters | 19 | Directional lighting |
| 3 | PC:s and servers | 20 | Local room heating products |
| 4 | Imaging equipment | 21 | Central heating products (other than CHP) |
| 5 | Televisions | 22 | Domestic and commercial ovens |
| 6 | Standby and off-mode losses of ErPs | 23 | Domestic and commercial hobs and grills |
| 7 | Battery chargers and external power supplies | 24 | Professional wet appliances and dryers |
| 8+9 | Tertiary Lighting | 25 | Non-tertiary coffee machines |
| 10 | Room air conditioning appliances | 26 | Networked standby losses |
| 10 | Residential ventilation and kitchen hoods | 27 | Uninterruptible power supplies |
| 11 | Electric motors | 28 | Pumps for waste waters |
| 11 | Ventilation fans | 29 | Large pumps and pumps for pools, fountains, aquariums |
| 11 | Circulators in buildings | 30 | Special motors |
| 11 | Electric pumps | 31 | Compressors |
| 12 | Commercial refrigerators and freezers | | |
| 13 | Domestic refrigerators and freezers | DG Enterprise | |
| 14 | Domestic washing machines | 1 | Refrigerating and freezing equipment |
| 14 | Domestic dishwashers | 2 | Distribution and power transformers |
| 15 | Solid fuel small combustion installations | 3 | Sound and imaging equipment |
| 16 | Laundry driers | 4 | Industrial ovens |
| 17 | Vacuum cleaners | 5 | Machine tools |
| 18 | Complex set-top boxes | 6 | Tertiary Air Conditioning |
| 18a | Simple set-top boxes | | Medical imaging equipment |

Evolution of Mobile phones

Nokia Talkman



10kg
1984

Nokia Cityman



770g
1987

Nokia 2110



236g
1994

Nokia 6110



137g
1997

Nokia 8210



79g
1999



150 g
2003

110 g
2013



99% weight reduction in 15 years

Convergence of devices + dematerialization by replacing physical products

Evolution of televisions



2002
CRT
60kg

LCD



2012
LED
10kg



85% weight reduction in 10 years

Energy consumption/year:
180kwh/year

60kWh/year



>60% reduction in 10 years

Revision ecodesign EC/642/2009 – (Televisions/Displays)

- More stringent Energy Efficiency requirements
- EU Commission study (JRC) embedding waste management and resource efficiency criteria into ecodesign
- EU Commission proposal for “non energy” requirements
 - Extraction of key components: PCB <180 seconds
 - Marking of plastics > 200 gram
 - Material selection: minimum recyclability rate of plastic parts 80%

| Materials | Recyclability rate after selective extraction |
|--|---|
| Polypropylene (PP) | 94% |
| Polypropylene (PP) with natural fibers | 0% |
| Acrylonitrile butadiene styrene (ABS) | 94% |
| ... | 94% |
| Other polymer | 0% |

Resource Efficiency in Ecodesign

- Hot spot for ecodesign is energy efficiency
 - EE should be key driver for setting requirements
- Resource Efficiency:
 - Industry driven achievements in past decade, and willingness to further contribute to RE
 - However embedding mandatory RE requirements into ecodesign these requirements should:
 - Have clear environmental benefits with tangible results
 - Not hamper innovation:
 - Manufacturers: E.g. How does a display look like in 10 years from now?
 - Recyclers: what is the incentive for recyclers to improve existing processes?
 - Not result in quality, safety or durability issues.
 - Be measurable, enforceable, relevant, competitiveness proofing

