

INNOVATION AS ENABLER OF A HEALTHIER, MORE SUSTAINABLE WORLD

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PHILIPS

Our world is facing significant challenges: population growth and aging, rising healthcare costs, unprecedented urbanisation, and serious resource constraints, to name just a few. To address these challenges we urgently need to step up the pursuit and adoption of both social and ecological innovation, as well as clean, smart, people-focused solutions.

On the social innovation side, aging societies, the rise of chronic and lifestyle-related diseases and scarcity of medical personnel are putting healthcare systems worldwide under tremendous pressure. Innovation throughout the care cycle contributes to healthcare systems that are accessible, affordable and more sustainable. On the ecological innovation side it is necessary to address the resource constraints the world is facing. A shift from our current linear society (optimised toward lowest initial cost, with progress measured by GDP) to a “circular society” (with quality of life as the key indicator), is a vital area of innovation. In a circular society, new business models are applied with innovative (re-)use of resources, creating a competitive economy centered on resource effectiveness.

We have often seen how difficult it is for national governments to arrive at practicable global agreements. For social and ecological innovation to gain momentum, such top-down drivers of change must be complemented by a bottom-up sectoral approach, in which public and private partners join forces to advance the common good. A good example is the lighting industry, where inspired by Philips leadership, the industry sector is working in the global switch to energy efficient lighting. In addition, the en.lighten Public Private Partnership between UNEP, the Global Environmental Facility, Philips, Osram and

NLTC to promote the adoption of efficient lighting in developing and emerging countries, has created a virtual global sectoral market transition.

Hopefully, the *en.lighten* initiative will not only deliver a lasting carbon reduction and sustainable development contribution, but will also inspire other sectors such as building, transport and power generation to follow suit with bottom-up sectoral approaches.

INNOVATION AND PHILLIPS

With a mission to improve the quality of life through meaningful innovations, and the vision to strive for a healthier and more sustainable world, Philips provides solutions in a number of areas that are central to social and ecological innovation:

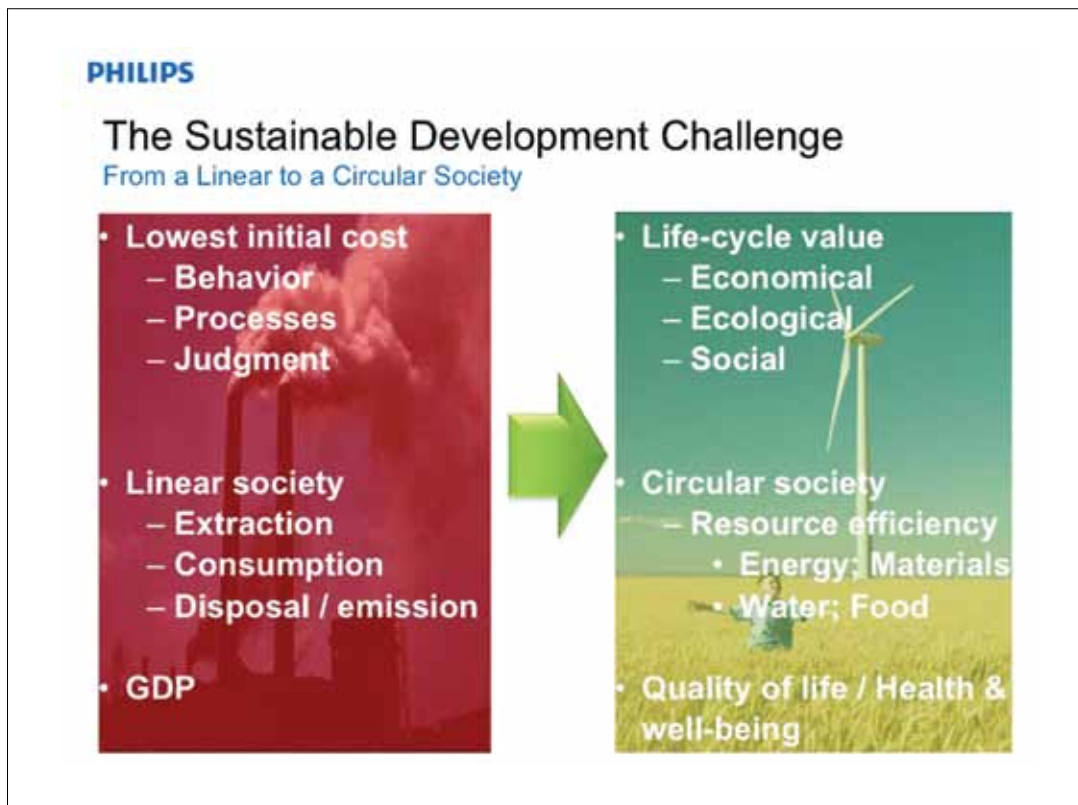
■ **Energy:** Lighting accounts for 19 per cent of the world’s electricity consumption. Significant savings are possible – on average 40 per cent – by switching to energy-efficient lighting solutions. On a global level, these savings amount to €28 billion in reduced electricity cost, 670 million tons of CO₂, or the equivalent of 642 power plants. Philips is driving the lighting industry’s transition toward energy-efficient lighting, particularly LED lighting, and we aim to improve the energy efficiency of all the products we bring to market by 50 per cent in the period from 2010 to 2015.

LED lighting also offers exceptional freedom in terms of controlled lighting effect – colour, dynamics and design. This is driving a shift from “quantitative” functional lighting towards “qualitative” intelligent and emotive lighting that transforms environments,

“ IN A CIRCULAR SOCIETY, NEW BUSINESS MODELS ARE APPLIED WITH INNOVATIVE (RE-) USE OF RESOURCES,”

Pictured: Philips solutions for energy, materials recycling (plastics in the vacuum cleaner), food productivity (horticultural lighting), water purification and healthcare





Left: The Sustainable Development Challenge

offering people safety and spectacle, uplifting and inspiring experiences.

■ **Materials:** Philips is increasingly moving from linear to circular closed-loop business models, and we expect to double recycling rates and re-use of recycled materials by 2015.

■ **Food:** Philips provides solutions for healthy and nutritious food preparation and preservation, as well as developing horticultural lighting that boosts global food productivity.

■ **Water:** Philips' InstantTrust water disinfection solution, optimised for point-of-use water dispensers, heralds the beginning of a new era where water can be disinfected instantly, efficiently and independent of water temperature.

■ **Healthcare:** Philips delivers innovations that improve the quality of care, enhance patients' lives and enable the delivery of better outcomes at lower cost. These cover, among other things, prevention, early/better diagnostics, efficiency enhancement, minimally invasive intervention, and shifting care from hospital to the home.

ESSENTIAL POLICY AND FINANCING MEASURES

The key question is: how can we create impetus for cooperation between the business community and

public stakeholders, who in new public-private partnerships can speed up the market penetration of innovative new technologies, products and services, and so tackle the enormous task of transforming our linear society into a circular and sustainable one?

Besides solutions like those outlined above, it is imperative that governments create policy frameworks (governing, for instance, public procurement, Total Cost of Ownership, and fiscal incentives) that stimulate clean, smart innovation, as well as adopt more ambitious energy and resource efficiency performance standards. At the same time, governments would benefit from healthcare system reform, with greater focus on prevention and home healthcare solutions.

It is also vital that we renovate all existing building stock and other city infrastructure with energy and resource-efficient solutions. An annual commitment to a 3 per cent energy-efficiency improvement in this area (compared to the current 1 per cent) would lower the required investment in zero-carbon energy infrastructure (renewable energy; nuclear; carbon capture and storage) up to 2050 by a factor of three.

Likewise, we would benefit greatly by moving financing mechanisms from "the lowest price tag" to integral performance (based on "life-cycle value"). This involves advancing new business models that balance operating expense and capital expenditure.

As we move from lowest initial cost/linear business models to address our medium and longer-term

“ IT IS IMPERATIVE THAT GOVERNMENTS CREATE POLICY FRAMEWORKS THAT STIMULATE CLEAN, SMART INNOVATION ”

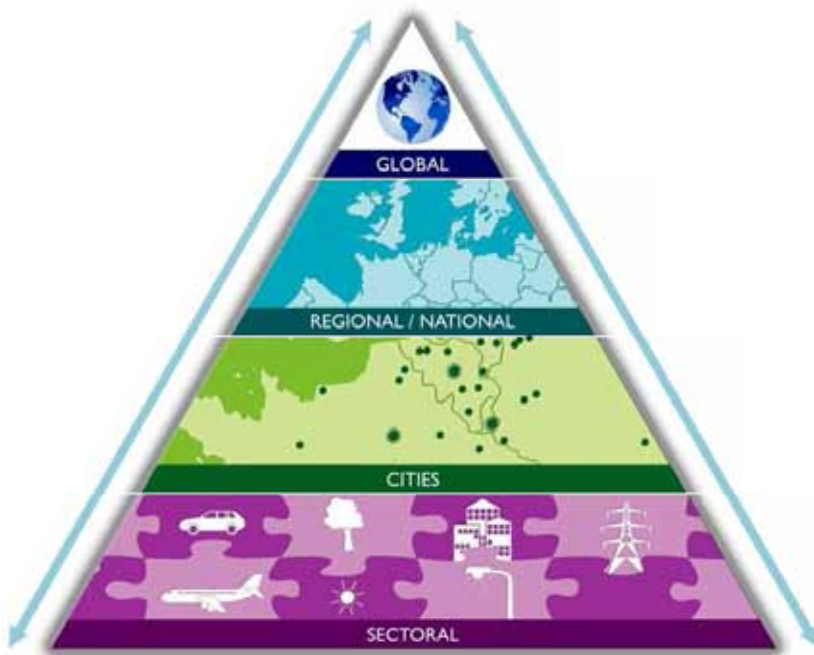
ABOUT THE AUTHOR

Harry Verhaar has over 20 years of experience in the lighting industry, and is currently Head of Global Public & Government Affairs for Philips Lighting. He is responsible for the strategy, outreach and stakeholder management on energy & climate change, resource efficiency and sustainable development, with a key focus on the role of the LED lighting revolution.

Since the end of 2003, Mr Verhaar has been the architect of the lighting strategy on energy and climate change, which has resulted in a global momentum for phasing out of old lighting technologies for street-lighting, non-residential buildings and homes. Furthermore, he is responsible for the “off-grid lighting” programme at Philips Lighting, aimed at supporting sustainable pathways for developing countries. He is an active member of a number of partnership networks, including The Climate Group, WBCSD, The World Green Building Council, Prince of Wales Corporate Leadership Group on Climate Change and several UN organisations. He is also a member of the Advisory Board of The Lisbon Council. Mr Verhaar is a recipient of the 2011 UN Leader of Change Award, and has received the Carbon War Room's Gigaton award on behalf of Philips. He holds an MSc in Solid State Luminescence from the University of Utrecht, The Netherlands.

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Above: Cap & Trade versus complementary Sectoral Approaches

Below: Harry Verhaar

challenges, we have to do the same with our budgeting processes and financial planning. By taking resource efficiency considerations into account when making budgetary projections, we – politicians, businesses, the electorate – will make better choices with real long-term benefits.

At Philips, we are testing innovative new business models that foster sustainable development. For example, the “Pay per Lux” lighting concept currently being trialed in the Netherlands provides companies with state-of-the-art energy-saving lighting systems without any capital expenditure. After installation, we retain ownership and maintenance of the lighting, and in return the customer pays only for the amount of light emitted. This encourages the deployment of energy-efficient solutions and advanced lighting controls.

THE WAY FORWARD

While there are major challenges to be overcome, the future nevertheless promises so much. With a forward-looking agenda focused firmly on the greater common good in the long term and a collaborative model that brings together the private and public sectors, we can move toward a healthier, more prosperous and equitable model that can be sustained far into the future. ■

For more information please visit: <http://www.philips.com/about/company/index.page>