LIGHTING UP THE ROAD TO A HEALTHY AND SUSTAINABLE WORLD

HARRY VERHAAR, HEAD OF GLOBAL PUBLIC & GOVERNMENT AFFAIRS, PHILIPS LIGHTING

PHILIPS

When commentators debate the topic of sustainable development, things are sometimes made unnecessarily complex. This can cloud public understanding and, to a degree, restrict engagement. We need to keep things simple and real: sustainable development is development that can be sustained. No more, and no less.

This is something to bear in mind when contemplating the significant challenges the world is facing: population growth and population aging, rising healthcare costs, unprecedented urbanisation, the expanding middle class in emerging economies, and serious resource constraints. Addressing these challenges demands the pursuit and adoption of both social and ecological innovation as well as clean, smart, people-focused solutions. On the social innovation side, there is a pressing need to reform our healthcare systems. Demographic shifts (aging societies), the rise of chronic and lifestyle-related diseases, and scarcity of medical personnel are putting healthcare systems worldwide under 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, which is optimised toward lowest initial cost (progress measured by GDP), to a "circular society" is a key 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.

PHILIPS SOLUTIONS

As a leading innovator in the field of health and well-being, 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 key 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 €128 billion in reduced electricity cost, 670 million tons of CO2, or the equivalent of 642 power plants (in itself representing a € 1,300 billion saving in reduced need for power infrastructure – virtually making this an economic necessity in these times of national budget deficits). 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.

■ **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.

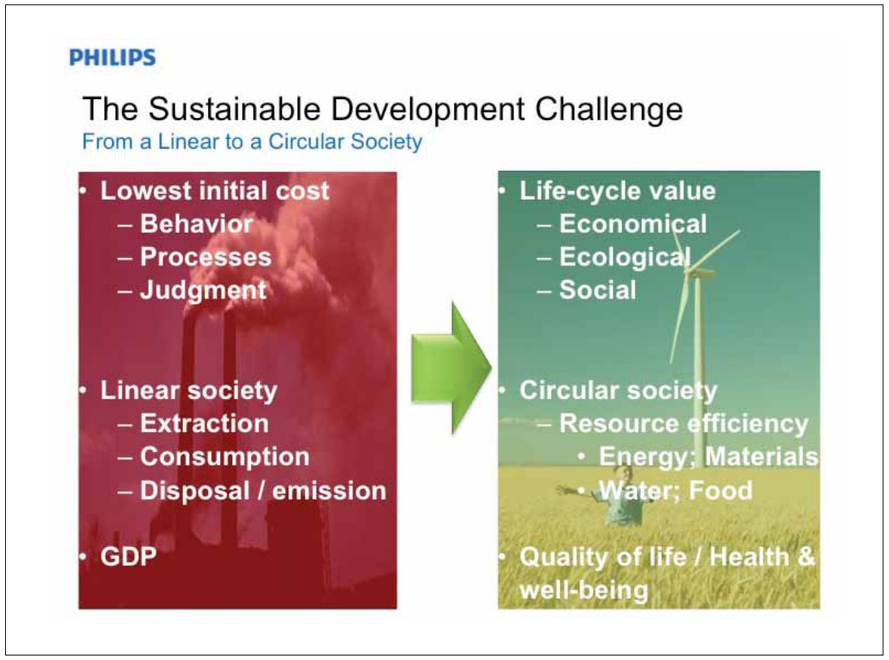
■ **Food:** Philips provides meaningful solutions for healthy and nutritious food preparation and preservation, as well as developing horticultural lighting that serves to enhance global food productivity.

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

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

■ **Water:** Water is essential to all forms of life. Philips' InstantTrust water disinfection solution, optimised for point-of-use water dispensers, heralds the first time 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.



POLICY AND FINANCING MEASURES

Besides solutions like the ones outlined above, it is imperative that governments create policy frameworks (governing, among other things, public procurement, Total Cost of Ownership, and fiscal incentives) that stimulate clean, smart innovation, as well as adopting more ambitious energy and resource efficiency performance standards. At the same time, governments need to facilitate reform of healthcare systems, in order to make them more accessible and affordable, with greater focus on prevention and home healthcare solutions.

It is also vital that we drive the renovation of all existing building stock and other city infrastructure with energy and resource-efficient solutions and approaches. An annual commitment to a 3 per cent energy-efficiency improvement in this area (compared to the current 1 per cent) would lower Europe's 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 away from "lowest initial cost" to integral "life-cycle value"-based. This involves developing new business models that balance operating expense and capital expenditure. In this respect, it is important to recognise that when people or projects need financing mechanisms and solutions, there is a budgeting issue that must be addressed too. As we move from lowest initial cost/linear business models to address our medium and longer-term challenges, we have to do the same with our budgeting processes and financial planning. Too often, budgets have a one-year scope, or companies are judged on annual or even quarterly performance. By taking resource efficiency considerations into account when making budgetary projections, we – politicians, businesses, the electorate – will be able to make better choices with real long-term benefits.

At Philips, we are designing and testing innovative new business models that can help 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. It works like this: 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.

CONCLUSION

With a forward-looking agenda focused firmly on the greater common good in the long term, and based on a collaborative model that brings together both the private and public sectors, we can move toward a healthy and more sustainable world. Key to that approach is to drive social and ecological innovation simultaneously. In this regard, reform of healthcare systems and the concept of a "circular society" are the main drivers that will enable all economies and geographies to develop healthy, prosperous and equitable lifestyles that can be sustained far into the future.

For more information: http://www.philips.com/about/company/index.page

Above: The Sustainable Development Challenge

Above: SchoolVision lighting by Philips
Below: Harry Verhaar

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-ligthing; non-residential buildings and homes. Furthermore, he is responsible for the 'off-grid lighting' program at Philips Lighting, aimed at supporting sustainable pathways for developing countries. He is an active member of a number of partnership networks, among which The Climate Group; WBCSD; World Green Building Council; Prince of Wales Corporate Leadership Group on Climate Change; several UN organizations and 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.

Contact details:

Harry Verhaar
Philips Lighting B.V.
Mathildelaan 1, Bldg EEC1.17
5611 BD Eindhoven
The Netherlands
harry.verhaar@philips.com