



Report PES Seminar 2015

Introduction

On the 11th of June, 2015, the first PES Seminar took place at the sustainable Wasven farm in Eindhoven. The main objectives of this seminar were to share experiences and best practices between sustainability practitioners from various companies.

The attendants of this seminar were managers and business professionals from industry and university. An overview of the attendees can be found in the appendix.

The topic of the seminar was *The business value of Life-Cycle Thinking and Analysis*. Speakers from DSM and Philips shared their views and internal practices which stimulated a lively discussion afterwards in small groups.

In this report some highlights of the presentations and discussions are shared. The presentations of DSM and Philips are available in the attachment.

DSM and Philips user stories

At **DSM**, Dave Morris explained how LCA competence is being organized within his company and for what purpose this methodology is used, viz. to generate and validate ECO+ and PEOPLE+ products respectively with less environmental impact and with better impact on people's life's compared to competitor products.

DSM's LCA landscape is centered around a central team of 2 people with LCA expertise who executes and coordinates LCA studies (see DSM presentation). This central team also supports LCA competence and projects in the businesses.

A powerful message of Dave is that DSM's ECO+ program proves to be a strong business driver: **the delta in contribution margin % of ECO+ products with the non-ECO+ products is now more than 10 full percentage points.**

As a next step DSM wants to improve the methodology and application of social LCA and also leverage profit on PEOPLE+ business.



For **Philips**, Michela van Kampen first gave an introduction on the current LCA landscape within Philips. Like DSM, Philips has a central team of 2 LCA experts who executes LCA's and maintains the internal simplified LCA tool EcoScan used by the business units.

LCA within Philips is being used:

1. To steer and validate the Green Products' KPIs
2. To support the KPI Green Manufacturing
3. To support Green Marketing

Three colleagues with different roles within the company explained how they use LCA for the purpose of Green products and Green Manufacturing.

Hans van der Wel (Director Sustainability and EcoDesign at Philips Group Sustainability) explained that Philips used LCA in the past to determine the environmental hotspots of the Philips products. These hotspots were translated into six Green Focal Areas (weight, energy efficiency, packaging, hazardous substances, lifetime reliability and recycling & disposal) and green product¹ requirements.



Hans uses the internal, simplified LCA tool, called EcoScan, to validate Green Product applications. He checks whether an improvement on one or more green focal areas also results in an overall improvement of the life-cycle performance of the product. He emphasized that easy and accurate data collection, especially the Bill of Materials (BOM) is the key for future LCA work.

Ruud Balkenende (Principal Scientist) uses LCA essentially for material comparison. He mentioned that much of the (electronic) data are generic and outdated. He also commented on the limitation of the current LCA methodology to capture benefits of Circular Economy: LCA can be used to screen different material options but when it comes to the full life-cycle with recycling loops and many possible repair, recovery and recycling scenarios, the LCA methodology has its limitations. The way forward is to specify additional metrics and methodologies that can be added to the existing LCA.

Bas van Der Hoek (senior manager New Product Introduction at the Philips shaver factory in Drachten) explained why they started a pilot with EcoChain. EcoChain is a new generation LCA tool based on Activity Based Footprinting. The tool enabled them not only to assess environmental hotspots from cradle-to-gate but also to identify potential cost saving opportunities in the supply chain. Bas indicated that the tool provides management with additional arguments (e.g. considering societal costs) when deciding on investments.

¹ A Green Product is a product that offers a significant improvement (10% higher environmental performance) in one or more of the green focal areas.

Insights from the group discussions

Two questions were addressed during the breakout session:

1) For what business purposes could LCA be of value to your company?

The main responses were:

- To answer specific customer demands on environmental performance of products;
- To set and monitor internal targets and define roadmaps & improvement programs on hot spots, including savings on materials, wastes, and logistics;
- To support marketing purposes and communication with customers & stakeholders by providing relevant green metrics;
- To steer R&D on green products that can improve sales and deliver competitive advantage.



2) What is needed to make the use of LCA (more) effective for your company?

- A standardization to allow for fair comparison between products (currently companies have their own metrics);
- More transparency and relevant data from suppliers;
- Assessing the function of products instead of products itself¹;
- LCA should be simple and easy to use for end-users
- A reliable database is essential for a high quality assessment
- Improved insights how to measure recyclability²

¹ This triggered an active discussion. Some companies with products that hardly contribute to the environmental impact of the final application argue that LCA assessment is not very useful to them. Others state that in that case it is even more important to consider the full value chain, e.g. to show your environmental position in the value chain and to find ways how you can still contribute to minimizing the environmental impact by having a full life-cycle perspective.

² The new EU legislation on circular economy (expected in September) will be a challenge as it is expected that non-energy requirements will be imposed on products. This implies that recyclability of materials will have to be taken into account. This could be challenging as it not possible yet to measure this exactly.

What's next?

The seminar received positive feedback from the participants (Net Promotor Score of 8). This encourages us to continue organizing similar seminars. The participants suggested topics like Circular Economy, Cradle-to-Cradle concepts & methodologies and social LCA. We will inform the participants in due time of the **next seminar** that will most likely take place during the last quarter of this year.





Appendix: List of participants

Organization	Name
DSM	Dave Morris
Arizona Chemical	Laura Riittinen
Arizona Chemical	Bas Govers
Arizona Chemical	Laurent Porot
ASML	Daniela Voinea
Beter Bed	Frans Beurskens
Beter Bed	Menno Kuiper
Bonar	Leonie A. Stigter
CRH Europe	Martine de Wit
Desso	Nicole Schaffroth
Dishman Netherlands	Jeroen de Jong
Fairphone	Miquel Ballester
Fudura	Ivo Schoemaker
HP	Manuel Sosa
Interface European Manufacturing B.V.	Paul Bruinenberg
Kendrion N.V.	Wijgert Gooijer
Koninklijke BAM Groep	Tom Blankendaal
NXP Semiconductors	Harry Thewissen
NXP Semiconductors	Peter Belde
Océ-Technologies B.V	Tanya Nimalasuriya
Philips	Bas van der Hoek
Philips	Caroline Santamaria
Philips	Hans van der Wel
Philips	Ruud Balkenende
Philips	Siebe Trompert
Philips	Thomas Marinelli
Philips Environment & Safety	Willy Enzing
Philips Environment & Safety	Juliette Herin
Philips Environment & Safety	Michela Van Kampen
Philips Environment & Safety	Roy Savelkoul
Philips Environment & Safety	Saskia Verbunt
Philips Environment & Safety	Danielle Schreuder
Rijksdienst voor Ondernemend Nederland	Leon Wolthers
Rijksdienst voor Ondernemend Nederland	Antoinette van Schaik
Smurfit Kappa	Jurgita Girzadiene
Solvay	Alain Wathelet
Technische Unie B.V.	Robert Brouwer
Technische Unie B.V.	Stella Dijksterhuis
TEN CATE NEDERLAND BV	Jaap de Carpentier Wolf
TU Delft	Joost Vogtlander
Van Houtum B.V.	Joep Verbaanderd
Wessanen	Debora Faiman
Xycarb Ceramics BV	Eric Tielemans