

# INNOVATE and increase REVENUES

Dr Martin Baitz

Good afternoon ladies and gentlemen thank you for sparing the time to take part in this event.

We'd like to share with you our experiences of working with some of the most commercially successful and environmentally and socially responsible organisations and how you can use these ideas in your own work to achieve your product sustainability goals.

## Your hosts



Dr. Martin Baitz  
Director Content



Sabine Fischbach  
Product Marketing



Jim Craig  
Product Marketing

I have pleasure in introducing my colleagues Sabine Fischbach from product marketing and Dr Martin Baitz who is director of the data and content team here at PE INTERNATIONAL.

I'm Jim Craig and I'll be your host for the next hour.

We would welcome any questions you have throughout the event and we'll do our best to respond to them as they arise, we also have a few minutes reserved for questions and answers at the end. Anything we don't get to today we will respond to and you will receive this as part of the post event follow up, along with the slides you are seeing now.

## Introduction

When you registered for this event we asked you a couple of questions to help us understand where you are at with integrating sustainability into product design.

## An insight into your world

Is product sustainability part of your innovation program?	
yes	90
We are setting this up now	33
no	20

What is the biggest challenge integrating sustainability into product innovation?	
Set up a strategy	29
Find relevant areas of improvement	21
How to bring sustainability aspects into the design process	63
Communicate improvements to stakeholders	25

The results are quite positive with most of you having a program in place already or are starting to implement one.

The biggest challenge is how to merge design and sustainability into an integrated process.

The good news is we'll cover these over the next hour, using some real life customer examples and our own analyses of what makes for a successful integrated product sustainability design process.

Consumers are willing to pay more greener products

Consumers that are willing to pay more for goods and services from companies that give back to society



Percent who agree and strongly agree

Source: Nielsen, Consumers Who Care, August 2013



Let's start with we should even bother with this. Two studies by Nielsen Research last year and in 2011 have shown not a high willingness by consumers to pay more for green products and that this demand is on the increase.

LCA is the foundation for sustainable design

Product and Project Companies Must Incorporate Life Cycle Thinking



Green Research Report "Life Cycle Assessment - An Executive Overview of Applications, Market Drivers and Business Benefits, 2011"



Within organisations Life Cycle thinking is seen as a key to developing better products. This from a Green Research Report also from 2011.

Life Cycle Thinking...with GaBi Software



So if we look into this Life Cycle Thinking in a little more detail we can see that it allows you to:

- manage business & supply chain sustainability complexity by...
- ...breaking a product down into every material and process
- ...analyzing all related supply chain components
- ... for every phase in its life cycle
- ... for any quantifiable sustainability metric (energy consumption, water used, ecological emissions impact, labor, social impacts, customer acceptability...) enabling identification of trade-offs.

What's needed for successful product innovation?



Let's now look at how we can develop successful sustainable product innovation.

From our experience looking at the customers we've engaged with our the last 20 years we can distil things into 4 key building blocks:

- Strategy
- Good Data
- Collaboration
- Communication

We'll dip into each one of these in a little more detail, starting with strategy

Strategy - Sustainable Product Innovation & Design

- Identify key areas of concern of stakeholders, customers and leadership
- What's important – carbon, non-renewable resource conservation, water, other?
- Determine the key impacts of your product
- Weigh these issues against your business strategy & manage trade-offs
- Integrate sustainability metrics into design guidelines
- Set goals & measure progress
- Communicate



As with most things in life we are balancing:

- Quality
- Performance and
- Price
- with sustainability indicators

The different stakeholders you engage with across your entire value chain are all motivated by different drivers typically it's about increasing:

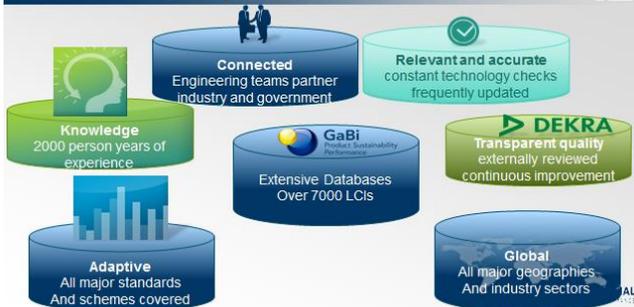
- **Revenue**
- **Brand preference**
- **Satisfaction** of employees and consumers
- **Compliance** cost effectively at scale

And it's about reducing:

- Costs
- Risks

A little later we'll take this to the next level and look at how you can implement this and measure success. For now I'd like to hand you over to Dr. Martin Baitz our Director of Data and Content to give you a view on what we mean by "good data" from the perspective of product innovation, Martin ...

GaBi Data – What does good data mean?



INDUSTRY

Company specific data  
Verified data and audited workflows  
Engineering + Product Improvement  
Decision support + Innovation  
Integration in daily operations  
Transparency of QA and workflows  
Solution interest

3 Approaches  
3 Interests  
1 Goal

Public data  
Manipulable data  
System behavior  
Model theory  
Transparency of public data  
Cognitive interest  
Life cycle assessment

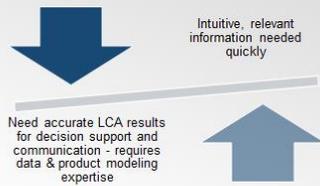
ACADEMIA

Sustainability

POLITICS

Reproducibility  
Public opinion  
Method regulation  
Transparency of rules  
Stimulation interest  
Life cycle thinking

Collaboration in your product innovation



Thank you Martin. Again you can see the need for balance, in this case a holy trinity of industry, academia and public administration all striving for the same goal with 3 different approaches and interests.

The next level for consideration is collaboration. This can cover a range of stakeholders including designers, R&D, sales, marketing, engineering, to name a few.

Along with balancing opposing forces comes the added pressure of time. Or lack of it to be precise.

So we need to deliver accurate results quickly.

Collaboration in your product innovation - process



- LCA experts within your company
- External consultants like PE
- Sector specific, pre-configured models



But having accurate results alone is not enough. They have to be understood by a range of different stakeholders, more often than not who are not product sustainability experts.

To help with this we've developed a software tool appropriately enough called Envision that helps product designers interact with the sustainability credentials of their products, in a language they are familiar with.

The models the designer interacts with can be developed by you if you are an LCA expert, or an external consultant, like the lovely people we have here at PE. Increasingly sector specific models are being developed and made available as well.

Collaboration in your product innovation - process



- Detailed LCA models
- Streamlined, easy to use interface
- Products and design scenarios in terms users recognize



Envision has a really easy to use web interface that sits on top of the serious data that Martin mentioned earlier.

There is a live demonstration you can use with packaging as the example. We'll include a link in the follow up materials if you'd like to take a look.

Collaboration in your product innovation - process



- LCA decision support for product design
- Evaluate scenarios to enable decisions and drive improvements



It means that you can have a distributed team of internal and external people take a look at different scenario's in a consistent manner without having to call on the LCA expert every time.

Collaboration in your product innovation - process



- Save reports of products and design scenarios
- Internal benchmarking to track progress
- EPD generation



What is also really helpful is the ability to save reports illustrating the different design scenarios. You can use these for internal benchmarking to track progress over time and even support the generation of Environmental Product Declarations (EPDs) for external audiences.

Next we'll spend a few minutes looking at external communications and specifically what makes a good claim

Communication – what makes a good claim?

- Caution with 'comparative' claims - very difficult to substantiate
  - No absolutes ("most sustainable material")
  - Some impacts cannot be assessed through a LCA study only (biodiversity or land use)
- ✓ Know what is meaningful (and legal) to say without comparative claims
  - ✓ Be truthful and not misleading
  - ✓ Hit the relevant issues for the product
  - ✓ Talk about metrics.



Be cautious with 'comparative' claims. Saying you are demonstrably better than a competitor is very difficult to substantiate – it depends on too many factors.

In general, there are no absolutes – in terms of the most sustainable material, source location, or just about any other aspect of your supply chain.

A highly efficient company using a more intensive material might have a lower overall burden than an inefficient provider using a low-burden material.

Also if an LCA is used to support 'comparative' claim(s), it should be recognized that not all impacts can be assessed through a LCA study.

For example, for any biodiversity or land use impacts, approaches outside of LCA are preferable.

Know what is meaningful (and legal) to say without comparative claims.

Some of the work we have helped our clients with includes:

- Sustainable Brand Assessments
- Embedding sustainability into innovation
- Communicating sustainability claims

A good example of a global brand that has benefited from working with PE is Johnson and Johnson or J&J as they are often known



Johnson & Johnson

meaningful claims



**NATUSAN<sup>®</sup> First Touch Diaper Ointment**  
 40% REDUCED GREENHOUSE GAS EMISSIONS  
 WITH 100% ENVIRONMENTALLY PREFERRED INGREDIENTS

**NUCYNTA<sup>®</sup> Tapentadol**  
 78% REDUCTION IN WATER USE

**SUNDOWN<sup>®</sup> Sunblock Lotion**  
 95% REDUCED GREENHOUSE GAS EMISSIONS

Life cycle thinking spread across product commercialization

The program developed in conjunction with PE “Earthwards” won an award from Environmental Leader in March 2014.

It’s a great example of taking Life Cycle Thinking and communicating the results in an engaging and informative manner.

If you’d like to learn more about how we can help you here please just let us know.

## Deriving business value



Right so far we’ve touched on some high level thinking based on a combination of our experiences.

How do we know?



In a moment I’m going to ask Martin to talk first-hand about some of his experiences working with global brands.

If we take a step back you can see that for more than the last 20 years PE has been engaged with global brands, with large complex supply chains across a range of industries.

This means that we have learned a lot of things along the way and welcome the opportunities such as this to share them with you.

Martin would you mind taking our audience through some examples in a lot more detail please?



- ✓ **Embedded** into product development strategy
- ✓ **Optimise** cost and environmental impact during product development
- ✓ **Results** used in Design for Environment and Marketing communications



- ✓ “From Project to Process”
- ✓ **Avoided risks** during implementation
- ✓ **Highly visible** internally and externally



- ✓ **Transparency** right across a global supply chain
- ✓ **Achieve** ambitious targets
- ✓ **Change** consumer behaviour based on use phase impacts

Different tools for different people to achieve different things



The customer case studies you have just heard use a mixture of tools to deliver the results to a wide range of stakeholders.

We mentioned GaBi Envision earlier which is just one member of a family of software products optimised to make product sustainability easier for experts and non-experts alike.

WE can link the case studies with the different tools used

VW: DFX and Server → automation and Team connection

Evonik: GaBi and Envision: → Engineering Details and customer communication

Unilever: GaBi and Envision: → Supply chain details and user behaviour

All of these tools sit on top of GaBi databases which Martin described earlier and highlighted just how suitable they are for product innovation and design

## When and how do I get started?



So when and how do you get started?



Earlier this week the IPCC released its latest report on climate change.

It makes for disturbing reading so anything we can do to help reduce our overall impact is a good thing, and now rather than later.

### What are the steps I can take?



Typically our clients have followed a three stage process starting with understanding impacts.

These impacts vary depending on the different stakeholders in your supply chain.

NGO's and the general public are concerned with the environmentally and social impacts of your operations.

Investors are interested in financial performance, analysts in your ability to innovate and develop new products and services.

Employees would like to work for organisations that align with their values and customers are looking for value, often over a long term.

Understanding what is the key impacts to these groups is important, be it carbon, non-renewable resources, water, toxicity to name a few.

Having identified the impacts the next stage is to weigh these impacts against the strategy of the business.

From here it is possible to integrate sustainability metrics into the innovation guidelines and set goals to measure performance over time.

The final stage is about communicating the results through an approved external scheme

like an EPD or by self-declaration, as Volkswagen do with product commendations.

Or you may choose to use the results for internal benchmarking similar in part at least to how Evonik deploy the LCA results.

Or maybe you wish to use it for competitive differentiation and illustrate how your products sustainability performance is improving over time.

#### Success Factors



So what does success look like?

- It starts by having a clear strategy to this you will need to ...
- Gain management commitment to achieve this management will want you to demonstrate a ...
- Cost-effective implementation plan with clear Return-on-Investment
- Engagement & empowering stakeholders at all levels of organization, including acceptance from contractors, consultants, this is an important step as knowledge of the inner workings of your organization exists at many different levels and often with people you might not expect.
- Simplifying existing procedures, decision making processes, to paraphrase Einstein "Any fool can make things bigger, more complex, and more violent. It takes a touch of genius-and a lot of courage-to move in the opposite direction." It's also about providing tools that simply the interaction without simplifying the data.
- Establishing accountabilities, tracking procedures and centres of responsibility is of real importance especially with a new project and something that you want to embed into the DNA of your organisation
- Setting realistic targets and implementing incentives. Make sure people experience success, start with small targets and grow quickly, share the success and the lessons you learn along the way. Otherwise you risk making the same mistakes over again.

<p style="text-align: center;"><b>Questions &amp; Answers</b></p> 	<p>Thanks for your time; do you have any further questions?</p>
 <p style="text-align: center;"><b>Thank you for your valuable time</b></p> <p style="text-align: right;">Dr Martin Baitz</p>	<p>We will make available a copy of these slides as well as post a recording of the webinar.</p> <p>All the questions which have been asked have been captured and we'll provide responses to all of them, including the ones we didn't have time to answer today.</p>
 <p style="text-align: center;"><b>INNOVATE and increase REVENUES</b></p> <p style="text-align: center;"><a href="http://www.pe-international.com">www.pe-international.com</a></p>	<p>Thank you and we look forward to seeing you online or in person soon.</p>