

No magic formula...

...but Sustainable Minds is removing the complexity and cost of life cycle assessment for the nonwovens industry.

Nonwovens body INDA is joining forces with Sustainable Minds (SM) – the global leader in cloud-based life cycle assessment (LCA) software.

In order to measure a product's life cycle impact, an LCA calculates requirements in the raw material production, manufacture, distribution, use and disposal of a product, including all intervening transportation steps necessary or caused by its existence. As such, it can be used to optimise the environmental performance of a single product – and also contribute to improving the environmental performance of a company.

It can also assist in:

- The identification of improvement, innovation, cost-reduction and efficiency opportunities for the product in each stage of the lifecycle.
- Standardizing how environmental

performance will be measured for internal teams and suppliers

- Marketing opportunities for products in respect of LCA eco-labelling, environmental product declaration (EPD) etc.
- Responding to customer reporting requirements.

Making 'greener' decisions

While being a globally recognised scientific method for sustainable measurement, LCAs today are time consuming, not to mention expensive. In addition, there is a shortage of Life Cycle Inventory (LCI) data and what is available is often out of date.

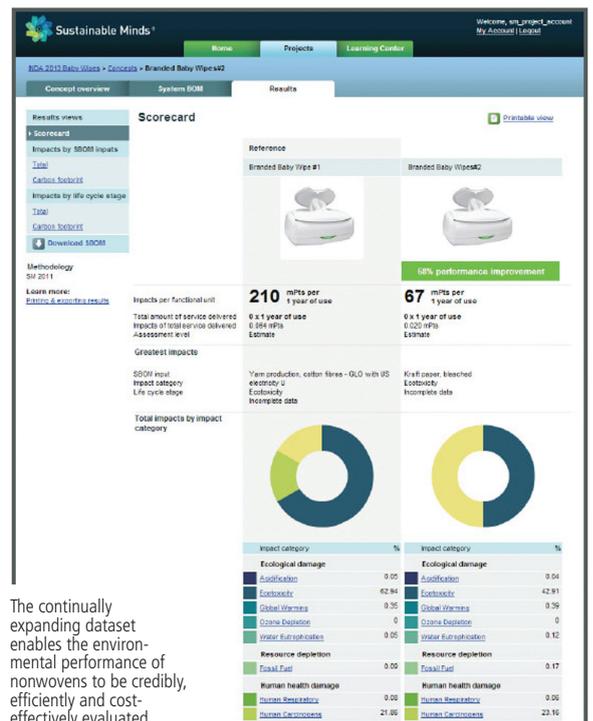
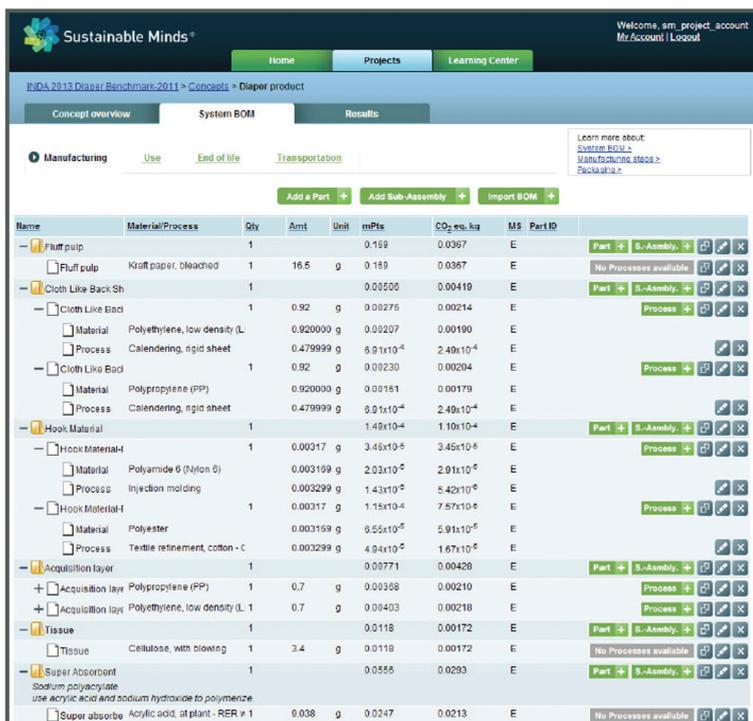
LCAs have traditionally been carried out after manufacture, even though 75% of manufacturing costs are committed by the end of the concept phase and it's in the early stages that

critical decisions should be made on the materials, energy requirements, recyclability and longevity, which determine the life cycle performance of the product.

Working with INDA, SM now aims to change all of this for manufacturers across the nonwovens industry value chain and enable stakeholders to credibly, efficiently and cost-effectively evaluate the environmental performance of their nonwovens, in order to design better products for the future.

Ultimately, every end product manufacturer will require its suppliers to make this information available – enabling them to credibly make greener products.

The company's LCA software is already employed by industry and education in 600 locations in 60 countries and has initially proved particularly successful within the building products industry.



The continually expanding dataset enables the environmental performance of nonwovens to be credibly, efficiently and cost-effectively evaluated.

In presentations at the IDEA13 show in Miami, SM CEO Terry Swack emphasised the simplicity of the company's software, with which it's easy to interpret and share graphical results and for non-experts in a given field to integrate the data into product development.

There is, she said, no such thing as a 'green product' – because ultimately its non-existence would be the most beneficial in terms of resources. Benchmarking and comparing, however, are the key to successful decisions, and the SM software provides quantified estimates of environmental performance.

Single figure methodology

The calculations are based on science from trusted sources including the Environmental Protection Agency's TRACI methodology combined with National Institute of Standards and Technology normalisation and weighting calculations. The beauty of the methodology is that it delivers two results:

1. Carbon footprint
2. A single figure impact factor which represents the 10 TRACI impact categories:

Ecological damage

- Acidification
- Ecotoxicity
- Global warming
- Ozone depletion
- Smog

Human health damage

- Carcinogens
- Respiratory effects
- Non-carcinogens

Resource depletion

- Fossil fuel depletion
- Eutrophication

Expanding data

The SM nonwovens solution will include a continually expanding dataset, example products, knowledge sharing, training and a platform for showcasing greener materials and products, their uses and applications.

The first offering, the expanded nonwovens lifecycle dataset, became available in SM Version 3.0 in May, following IDEA. The 3.0 release includes



Sustainable Minds CEO Terry Swack.

publicly-available data for materials such as bio-based oils, organic and inorganic chemicals and fibres.

On an ongoing basis, to expand these and to add new categories, SM will create new data through its custom data creation programme and publish existing data provided by nonwoven manufacturers and other industry sources.

To enable the rapid adoption of this solution, SM will be offering INDA members discounted access to the software and data creation services. It has also teamed with nonwovens industry expert Chapas & Chinai Associates to provide expert nonwovens benchmarking and innovation services.

"We have had a dialogue with Sustainable Minds for some time and unlike other LCA software providers, they recognise the importance of expanding the nonwovens dataset for use by manufacturers globally," says Dave Rousse, INDA president. "Designing greener products is becoming increasingly important in all industries. It is critical for raw material suppliers, roll goods suppliers, end product and process equipment manufacturers within the nonwoven industry to keep up with this trend to develop and showcase their products' environmental performance. Operating with sustainable principles can also save costs. This relationship is yet another example of INDA's commitment to advancing nonwovens globally by providing members access to the information and tools to better plan and execute their product development and sustainability strategy."

Sustainable Nonwovens caught up with SM's CEO Terry Swack to ask a few

questions about how the company's nonwovens solution is progressing.

What impressions did you take away from the IDEA show in Miami in April?

Sustainability is no longer an option or a word without substance, and was being widely discussed. The nonwovens industry has a very global reach and appears to be a very dynamic and thriving industry sector.

The industry is very diverse in its end-use applications though, so where will your immediate focus lie?

To support customer needs our focus is on curating commonly used, yet not publicly available data. We have been working on some benchmark examples like diapers, wipes and material for surgical wear as thought starters.

How important is the cloud-based sharing of data to the success of your nonwovens solution?

The cloud deployment is essential to both the ease of use and responsiveness to customer needs. As soon as any data is added it's immediately available to everyone, everywhere.

Is data confidentiality a problem?

That's always been a concern for material and process manufacturers who have completed LCAs and have life cycle inventory (LCI) data which often includes valuable IP. We use the LCI data to create the single figure impact factors. It is never exposed to customers and resides in a secure environment.

Why should manufacturers get started now?

Ultimately, every end product manufacturer will require its suppliers to make this information available to them. Sustainable Minds is making the process fast, and cost-effective.

If you are a part of the nonwovens value chain, learn how to get visibility for your brand and make your product data available to manufacturers, consultancies, educators and students world-wide.

www.sustainableminds.com/nonwovens **SNW**