

# Q&A

Pierre Wiertz,  
EDANA



At the Outlook personal care products conference which took place in Cascais, Portugal, from September 26-28, industry body EDANA released its 2nd Sustainability Report, developed by HAPCO's Sustainability and Environmental Working Group. Using data from 2005 and 2006, this is an update of the 2005 report and has been extended to contain data on sanitary pads, pantyliners and tampons. NRI editor Adrian Wilson quizzed EDANA's general manager Pierre Wiertz about the significance of its findings.

**AW: Mr Wiertz, could you outline the main points made in the latest report, in respect of progress made over the past two years?**

PW: The 2007-2008 report is an update of the first edition which was published in 2005, rather than a completely new report. Our ongoing efforts as an industry mean that we are continuously improving our sustainability performance so we have been able to update the data to show improvements since 2005. Of particular note is the trend analysis of the environmental impact of baby diapers and incontinence products we commissioned in 2006. This shows the change in the environmental impact of our products in various important areas over time. The global warming and summer smog impacts of baby

diapers, for example fell between 1987 and 2005 by 37% and 43% respectively. Similar positive trends have been shown with incontinence products.

The 2007-2008 report not only updates data but also extends the scope of the products on which we are reporting. For the first time it contains data on the feminine care category of absorbent hygiene products, sanitary pads, pantyliners and tampons.

**AW: EDANA and HAPCO aside, where is the urge to produce more sustainably coming from? Is it from the supply industry, the brands, or the consumer?**

PW: None of these, but mostly – and not always for the most rational and scientific reasons – from the retail trade.

**AW: Renewable is not necessarily synonymous with more sustainable, you have said recently. Could you explain this distinction further?**

PW: Well, this is based on scientific evidence, which has been collected both on biofuels and biopolymers, based on a 'cradle-to-grave' perspective. A recent report from an OECD Round-Table on Sustainable Development in Paris entitled '*Biofuels: Is The Cure Worse Than The Disease?*' reads: "Even without taking into account carbon emissions through land-use change, among current technologies only sugarcane-to-ethanol in Brazil, ethanol produced as a by-product of cellulose production (as in Sweden and Switzerland), and the manufacture of biodiesel from

animal fats and used cooking oil, can substantially reduce greenhouse gases (GHG) compared with gasoline and mineral diesel. The other conventional biofuel technologies typically deliver GHG reductions of less than 40% compared with their fossil-fuel alternatives. When such impacts as soil acidification, fertiliser use, biodiversity loss and toxicity of agricultural pesticides are taken into account, the overall environmental impacts of ethanol and biodiesel can very easily exceed those of petrol and mineral diesel."

This argument is also likely to apply to conventional biopolymer technologies compared to oil-derived polymers such as polyolefins. A Finnish study for instance (VTT, 1997) actually compared biopolymer-based and conventional diapers with polyolefins and found little, if any, difference in overall impacts between the two systems.

**AW: In the past few years a broad range of synthetic biodegradable resins have been commercialised. How rapidly are these being adopted by the industry, and what are the obstacles?**

PW: Polymers derived from renewable sources that can be used to produce compostable plastics have been available in limited quantities for many years and have generally been used to produce plastic films for use in packaging and organic waste disposal applications. These films can also be used in absorbent hygiene products. Currently there is a cost differential between polyolefin resin and resin derived from these polymers of a factor of one to three. In a cost sensitive market such as absorbent hygiene products this presents a significant barrier. Currently cost and availability restrict the use of such materials to absorbent hygiene products within low volume specialized niche markets. This may well change however as availability increases and economies of scale emerge.

More recent developments have seen the emergence of fibres made

from polymers from renewable sources. Such fibres can be used in nonwoven applications and providing there is economic fibre supply these could be interesting developments for the future, which the absorbent hygiene products industry is monitoring.

The environmental impact of such polymers must be measured by a complete cradle to grave LCA (life cycle assessment) approach. The fact that they are derived from renewable resources does not automatically mean that they are better for the environment. All energy consumption and emissions occurring in the production process and its conversion into a substrate need to be considered. The broader sustainability issues surrounding these polymers are complex and include the CO<sub>2</sub> emissions that occur in the degradation of biodegradable materials, the ethics of using food crops, and the use of arable land to grow precursor materials.

New materials must also be assessed in terms of their safety profile and their performance to ensure that there is no deterioration in either the performance or the safety of the final product compared with those produced using existing materials. The absorbent hygiene product industry will continue to monitor opportunities to use sustainable alternatives to fossil fuel based resource while at the same time continuing to reduce the amount of material in our products which is the most effective way to minimise their environmental impact at the current time.

**AW: In hygienic disposables, packaging can be as important as the product itself, are you aware of any notable initiatives from this area?**

PW: The industry has made several improvements to diaper packaging, for example, over the years. Overall, packaging weight has been significantly reduced. The use of superabsorber in diapers has not only made the product thinner, but has also enabled us to use less packaging

material for a smaller surface area. Several innovations have collectively resulted in significant environmental improvements, with less water, energy and raw material usage, as well as less emissions to air, water, and soil.

**AW: The 2005 UK Environment Agency report, carried out by independent environmental consultants, confirmed what the disposables industry has claimed for decades – there is little or no advantage to reusable diapers. Yet at the same time the UK government was funding an organisation promoting re-usable diapers as eco-friendly. What is the current position?**

PW: The Waste Resource Awareness Programme (WRAP) 'Real Nappy Project' was implemented while the LCA study was underway, and was not published until two years after the programme had begun.

Government funding for the WRAP 'Real Nappy Project' has ended. The programme fell short of its target for nappy waste diversion, and WRAP has moved on to areas where more significant gains can be made. There is no indication at this time that there are plans for any further spending of public funds on nappy projects by the UK government.

The LCA, which was published in 2005, made a number of suggestions for further improving the environmental profile of disposable and cloth nappies and there is a smaller scale follow-on study underway, which will be looking at best practice scenarios for the manufacture and use phases of disposable and cloth nappies in order that manufacturers and users of these products can seek to minimise their impacts. There will also be an update of the data for disposable nappies which will take into account technical improvements, since the data was collected for the LCA, and a newer style of cloth nappy will be assessed to take into account changes in this market also.

The follow-on study is progressing and is expected to be published towards the end of the year.