

The white stuff

FrieslandCampina, one of Europe's largest dairy companies, has looked to implement simple yet effective product innovation with austerity in mind. The company's creative service manager, **Raja Thomas**, talks to Rod James about his team's approach to industrial design, the rise of bioplastics and what factors will shape future company strategy.

When economic conditions are difficult, product design teams from all industries face the task of pairing innovation with cost-effectiveness. Tricky at the best of times, this is even more of a challenge in the highly developed and competitive European dairy sector. Dairy prices slumped during 2009, the result of low global demand and fierce price wars between European supermarkets. Consumer confidence across the continent is almost universally low in the wake of the economic downturn and September's €300 million renewal of the European Union emergency milk fund, set up to help struggling dairy farmers, suggests that conditions are unlikely to improve significantly in 2011.

For FrieslandCampina, this is only half the story. One of Europe's largest dairy companies, with 22,000 employees and 17,000 member farmers in the Netherlands, Belgium and Germany, the company's first-half results showed net profits doubling on an annualised basis, driven by a successful expansion into new markets and product price recovery from the lows of 2009. But business has proved difficult in its core European market, where, according to company chief executive Cees 't Hart, "both revenue and profit growth are under

Raja Thomas

Raja Thomas began his design career in 1998 with New Delhi-based 5th Quadrant. He became design and creative service manager of FrieslandCampina's European packaging and systems department in 2009.

pressure." These difficulties are compounded by the need to pay its member farmers the leading milk price in Western Europe, an important aspect of the company's pricing model.

"With the effect of the downturn, we are under a bit of pressure regarding sustainability in packaging," says Raja Thomas, FrieslandCampina's design and creative service manager for Europe. "It is a double-edged sword. If we increase the prices of products based on packaging costs, it becomes difficult."

Subtlety of design

With consumers unwilling to pay more for their dairy products, FrieslandCampina's European packaging team has looked to adopt a strategy based on subtle but effective product development within a sustainable framework. Not only has this kept costs down, it has also increased the profitability and valorisation of milk, one of the company's long-term business goals. For example, FrieslandCampina increased the size of its largest high-

density polyethylene bottles, boosting milk sales in the process, and at no extra cost to the consumer.

"Normally, milk is sold in packages of 1l, then one of around 2l", Thomas explains. "Our package is 2.4l, one of the highest volumes available."

As well as providing free added volume, the design of the bottle has been modified. The handle on the model is exceptionally large, offsetting the extra weight of the size increase and improving product usability. Cost sustainability is ensured by adhering to the constraints of the supply chain, with sizes of crates and machines remaining unchanged, removing the need to develop expensive technology to accommodate the modified design.

"Our main idea was to provide as convenient a product as we could while working within the constraints of the supply chain," Thomas says. "We seem to have achieved that. Once people use it, they continue to buy it. We have seen it in our sales." These may seem like minor modifications, but

they are in tune with the mood of the European dairy market and the regional customer base generally. The enlarged carton has been especially popular with families, whose weekly shopping budgets now have to stretch that bit further. In addition, the idea was generated by the design team itself and not through feedback from the company's marketing division.

"It was an internal decision and did not come directly from market research or a consumer test," Thomas says. "We just understood that it would work for the consumer."

The initiative taken by the packaging team is, according to Thomas, one of its great strengths. He also believes the company is good at learning from the successes of its different departments, taking proven ideas and incorporating them into the main research and development strategy.

"We are not waiting for things to be proven in the development world, but are being proactive and acquiring technology to apply to our design process," he says. "We're not afraid of taking something into our hands and trying it out first. And when we find results, they become a part of the R&D centre"

Ideas into reality

This desire to try new technologies will also continue to dominate the company's design strategy well beyond the current 'age of austerity'. As firms look towards more environmentally friendly ways of operating untested materials, this will increase in importance. PET, which is commonly used for food packaging, is technically sustainable in that it is fully recyclable. However, it takes a sophisticated and efficient recycling system such as that found in FrieslandCampina's home market, the Netherlands, for this to provide a genuinely green solution. PET is also relatively inflexible and difficult to mould, meaning that its use is generally restricted to round bottles. According to Thomas, bioplastics are where the future lies.

Bioplastics are organic materials derived from biomass sources such as vegetable oil, corn and starch as opposed to traditional plastics, which are petroleum based. They are often biodegradable, sidestepping the

need for an effective recycling system, and, due to their organic basis, produce few greenhouse emissions during the biodegradation process. Japan has spearheaded their use, incorporating them into the design of cars and electronic appliances, and certain British firms have started to use them for fruit and vegetable packaging. Bioplastics are not, however, a viable option yet. Research is continuing and the FrieslandCampina packaging team is paying close attention.

"The availability of these materials is not making a business case for us, not only in terms of cost, but in terms of quantity," Thomas explains. "We need high quantities. We are continually watching their development and hoping that we can start to use them at a high level."

The future direction of FrieslandCampina looks to be deviating from the tried and tested path. The company's strategy to 2020, unveiled in June of this year, saw a shift in focus from commodities like milk towards more specialised products, such as ingredients designed for infants and toddlers. Most notably, emerging markets, and Asia in particular, were picked out as targets for expansion.

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These new markets already play a significant role in the company's operations and were a key driver behind FrieslandCampina's first-half profit rebound. Already this year the company has announced an €8.8 million expansion of its Vietnamese production facility, and total revenue from the Consumer Products International business group, which includes Asia, Africa and the Middle East, grew 15.9% in the first half of 2010.

This strategy will bring its own challenges. Shipment, sorting, handling and mixed stacking puts demands on the protective ability of packaging, even without the added consideration of distribution in the local environment.

"You have to really consider local

logistics," Thomas explains. "In African and Asian markets, in particular, the roads are pretty bad and the packages are shaken much more, so stronger designs are necessary. Also, different people have different uses for their products. For example, if milk is mainly used for cooking, a larger handle might be necessary to increase convenience."

With this expansion and the success of the company's packaging design team, Thomas believes that the production expertise fostered in Europe will be disseminated throughout the company's international operations, a process that is already beginning to take shape.

"[Management] were looking for someone who could convert ideas into reality. I had an industrial design background and said I could do it," Thomas explains. "But through the years, as we've seen real results, there is more demand for this industrial design expertise."

He sees his role as central to this process. With production interests from Nigeria to Vietnam, and with future expansion planned, training and consultation will increase in

importance, although this might not take the form of collaborative projects.

"These groups are beginning to ask for support," Thomas explains. "So what is happening, in terms of my role in the future is, if everything remains on track, the know-how will be distributed further, beyond our regional group."

As globalisation takes hold and the industrial output of emerging markets increases, striking the balance between sustainability and innovation will become increasingly important to any business. The small but customer-focused modifications adopted by FrieslandCampina could prove highly effective in achieving this. ■