

The Canmaker Summit held in Brazil in November provided a buzzing network platform for industry peers in a country where the growth of metal packaging and its recycling rates are the envy of the world.

It also enabled delegates to hear an encouraging keynote address from Nestlé's corporate packaging manager in Brazil, Eduardo Yugue, who spoke of the "winning combination" between the company and metal packaging.

Nestlé, the world's largest food company, is also Brazil's leading manufacturer of steel cans. It uses 83,000 tonnes of tinplate a year from which in 2009 it made about 1.1 billion cans. Almost a third of Nestlé's products in Brazil are sold in metal packaging, much higher than the food sector as a whole, in which metal packaging represents 18 percent.

Clever marketing and shaped cans that reflect the branding have been the key to sales success in Brazil, where Nestlé's partnership with the can dates back to 1921 and the launch of its first product – Moça canned condensed milk.

But by the turn of the century, consumers regarded culinary ingredients, including canned condensed milk, as a commodity, Yugue explained and margins suffered. So in 2004 Nestlé rebranded Moça with decorated shaped cans to differentiate it on market shelves.

The move was a success and sales and market share grew, he said. Shaped metal packaging was expanded into brands that include Nescau, Nescafé, Ninho and Mucilon.

Nestlé Brasil has six canmaking plants with 14 production lines. Four of these plants feature a total of five lines that make shaped cans using dedicated equipment from PSG and Indústria de Máquinas Moreno.

Brazil's leading machinery manufacturer, Moreno has been developing its Stretch process for expanding and shaping cans for a number of years. Sales and marketing manager Vlademir Moreno Filho detailed the evolution of Stretch technology which, depending on can size, achieves an average expansion of 15 percent with single-reduced and 8 percent with double-reduced tinplate.

Moreno's Stretch technology expands and flanges cans in the same process, and is said to be more gentle with the metal in contrast to traditional necking systems.

The stretched can's deep necking is also said to enable cost savings of ten percent in metal usage compared to the traditional three-piece food can. They derive from a smaller can body blank, a smaller lid and lower gauge, since the stretching process increases the final can body strength,

Successful new ideas

Trends and technologies as catalysts for packaging ideas that generate successful results were under discussion at the recent industry summit. Mónica Higuera reports

explained Moreno.

Speeds reach 1,200cpm for necking through expansion, and between 200 and 600cpm for shaping bodies. The latest model, the Stretch Machine Flex, is more flexible for can height changes and works at up to 250cpm.

Nestlé Brasil's corporate packaging manager Eduardo Yague: developing added-value metal packaging in a growing market



Brazil's leading general line canmaker with almost half of the market, Brasilata, is also using Stretch technology to expand its cans. At the Summit, chief executive Antonio Teixeira, who is also president of the Brazilian association of metal packaging producers SINIEM and professor of innovation at São Paulo's leading business school, illustrated and defines innovation with examples of locally-made cans that he achieved savings in metal usage as well as increased sales.

In 1995 Brasilata had 18 percent of the market for 1 gallon (litres) paint cans. Following the introduction of its patented P1 closure system in the late 1990s the company now has a market share of around 55 percent and has sold more than 800m cans in Brazil.

"Innovation is not only a new idea," said Teixeira. "It is a successful new idea, followed by



implementation and results. Without these it fails."

Brasilata's latest idea is the Top-can, a ringless paint can that aids opening and pouring, and which has been further developed into Top-Gun, a version that fits onto automotive paint spray guns.

Domestic beverage can demand continues to grow and Novelis, the world leader in aluminium can sheet production, is investing US\$300 million at its Pindamonhangaba mill to raise capacity from 400,000 to more than 600,000 tonnes by 2013.

Novelis president and chief operating officer Phil Martens detailed global

trends and how the beverage can is responding to these in a world where more than half of its 6 billion population lives in cities.

In Brazil, cans continue to win market share from PET and glass, especially among younger consumers. The can's share in the



↗ increasing popularity of flavored beers in Brazil such as Kaiser, owned by Heineken, has increased demand for cans by 20 percent in 2010 alone. Manufacturing capacity for drinks in Brazil is expected to reach 5 billion by the end of 2011

One of the latest can designs to be launched by Nestlé on the Brazilian market is this shaped container made by Metalúrgica Mococa for Nescafé Cappuccino coffee. It continues a culture at Nestlé in Brazil for using striking shapes and designs that started in 2004 with the development of the Moça condensed milk brand and evolved with Nescau chocolate cans which used a spiral shape that reflected the brand's logo



beer segment is expected to grow from 36 percent in 2010 to 44 percent by 2015, and possibly 50 percent by 2020.

Aluminium is gaining the right for recognition as the most sustainable material, he said, and reminded delegates that 75 percent of the aluminium ever produced is still in use.

The extra capacity being installed in Brazil by Novelis will in part mitigate the 12 percent import tax on can sheet, the reduction of which is one of the objectives of the aluminium can manufacturers lobby group Abралatas.

Abралatas' executive director Renault Castro detailed the activities of the organisation and the investments that Crown, Ball and Rexam are committing to Brazil, where beverage can demand is estimated to have grown by 20 percent in 2010, fuelled by sales of canned beer.

More than \$520 million is being spent on new manufacturing capacity to reach 25.5 billion units a year by the end of 2011, he said.

Chairman of European canmaking lobby group Empac, Francis Labbé: beware of the globalisation of fear



Brazil boasts the highest beverage can recycling rate in the world with 98.2 percent for aluminium and 81.5 percent for steel in 2009.

Tinplate consumption in Brazil for packaging is around 600,000 tonnes a year. Fernando Mourão, general commercial manager at CSN, the country's sole tinplate supplier, provided background to the country's consumer trends and innovative cans.

Consumer 'megatrends' and how these affect R&D were also discussed by fellow

tinplate maker Rasselstein, which has the world's largest production site for packaging steel with capacity to make 1.5 million tonnes in Germany.

In Brazil, parent company ThyssenKrupp commissioned a steel making plant near Rio de Janeiro last year from which some 500,000 tonnes of slabs will be destined to make tinplate in Europe, chairman Dr Ulrich Roeske said.

Phil Martens, president and chief operating officer of aluminium canstock manufacture Novelis: investing \$300 million in South America to expand capacity



In his presentation *Global warming: Hot issue or hot air?* Francis Labbé, chairman of Europe's canmaking lobby group Empac, illustrated how a globalisation of 'information' leads to a globalisation of fear, with dominant thinking being driven by the media, NGOs and politicians, rather than good science.

For example, last October Canada became the first country to declare BPA a toxic substance that poses risks to human health and the environment, despite the country's health authority saying that exposure to BPA from canned products poses no health or safety concerns.

In Europe, the European Food Safety Authority (EFSA) third comprehensive and scientific review in four years has reached the same conclusion, he added, noting that EFSA's recommended daily intake of BPA is 120 times higher than that from one full 400g can.

Recycling, and metal packaging's benefits, will only be broadcast better by stronger communications, he concluded.

The regulatory framework for metal packaging in Brazil was covered by Dr Sílvia Tondella Dantas, from the local

Packaging Technology Centre. She reviewed some of the existing food contact legislation in Brazil and Mercosur countries, with specifics such as that for hearts of palm, of which Brazil produces 85 percent of the world's output.

Jakob Guyer, metal packaging chief at Swiss canmaking machinery manufacturer Soudronic presented a comprehensive review of the three-piece can sector worldwide.

He also outlined the environmental benefits of pursuing lightweighting programmes that have the objective of using 0.10mm tinplate for can bodies where current best practice is 0.13mm.

Soudronic is also working towards welding speeds of 140 metres per minute and production speeds of 1,100 cans per minute for 125mm high bodies, compared to current state-of-the-art speed of 115mpm, or 900cpm.

For two-piece drawn food cans, the company's R&D objective is 180 strokes per minute on 0.10mm tinplate, he said, compared to the current 150spm on 0.14mm material, giving the potential for 720 cans per minute on a four-out press. Experiments at a canmaker in Russia had shown that current presses are capable of running 0.10mm, and samples of such cans were handed to delegates. For sanitary end-making systems, the goal is to downgauge from 0.14mm to 0.12mm.

Part of the Soudronic Group, Cantec's general manager Rolf Geide highlighted the material savings achievable with its Can-o-mat and End-o-mat systems, such as the downgauging of 153mm diameter ends from 0.30mm to 0.24mm; or down to 0.18mm from 0.21mm on 73mm ends.

Brasilata's chief executive Antonio Teixeira: Innovation is only successful if it is properly implemented



Soudronic's downgauging projects gained momentum in 2008 when at The Canmaker Summit in Poland, Guyer met Rasselstein's Roeske. Since then the two companies are collaborating to promote the benefits of moving the industry towards lighter can bodies using a gauge of 0.10mm, further qualifying cans as the best packaging for the environment.