

WORLD FOOTWEAR

JANUARY/FEBRUARY 2013 • VOLUME 1

MAGAZINE FOR THE GLOBAL SHOE INDUSTRY



**What's new in soling?
PU products from waste**

**Anger as EU backtracks on origin labels
Global expansion for African shoe brand**

Tenson: comfort in the wild



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Cover; footwear from the latest Tenson collection. *Image: Tenson, Sweden*

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News

UK Footwear was the best performing out of eight retail sectors in the UK for 2012, according to the British Retail Consortium and consultancy KPMG. It saw a higher growth rate than food, clothing, furniture and flooring, house textiles, health and beauty, home accessories and other non-food every month last year.

PORTUGAL The Portuguese footwear industry is to invest €12 million in 2013 in promoting its shoe brands in various markets around the world. Portugal currently exports footwear to more than 80 international markets. Industry sources say the average price per pair of Portuguese shoes has increased by 20% in the last four years and has now reached €25. Markets such as South Africa, Brazil, China, Colombia, the United Arab Emirates, Japan and Russia will be among the top priorities in 2013.

ITALY Luxury group LVMH began the year by giving the go-ahead for a new production centre that the Berluti footwear brand will open in Gaibanella, near the Italian city of Ferrara. Clearance to start work on the project came on January 2 and Berluti has said construction will begin in the coming months. The company believes the new site will be up and running in 2014. In total, the new factory, which will specialise in high-end handmade footwear and incorporate a centre of excellence for training a new generation of craftsmen and women, will employ more than 200 people.

BELARUS The president of Belarus, Alexander Lukashenko, has called for a reversal in the decline in the country's footwear manufacturing industry that has seen production fall from 16 million to 13 million pairs of shoes per year over the last 10 years while imports have risen tenfold.

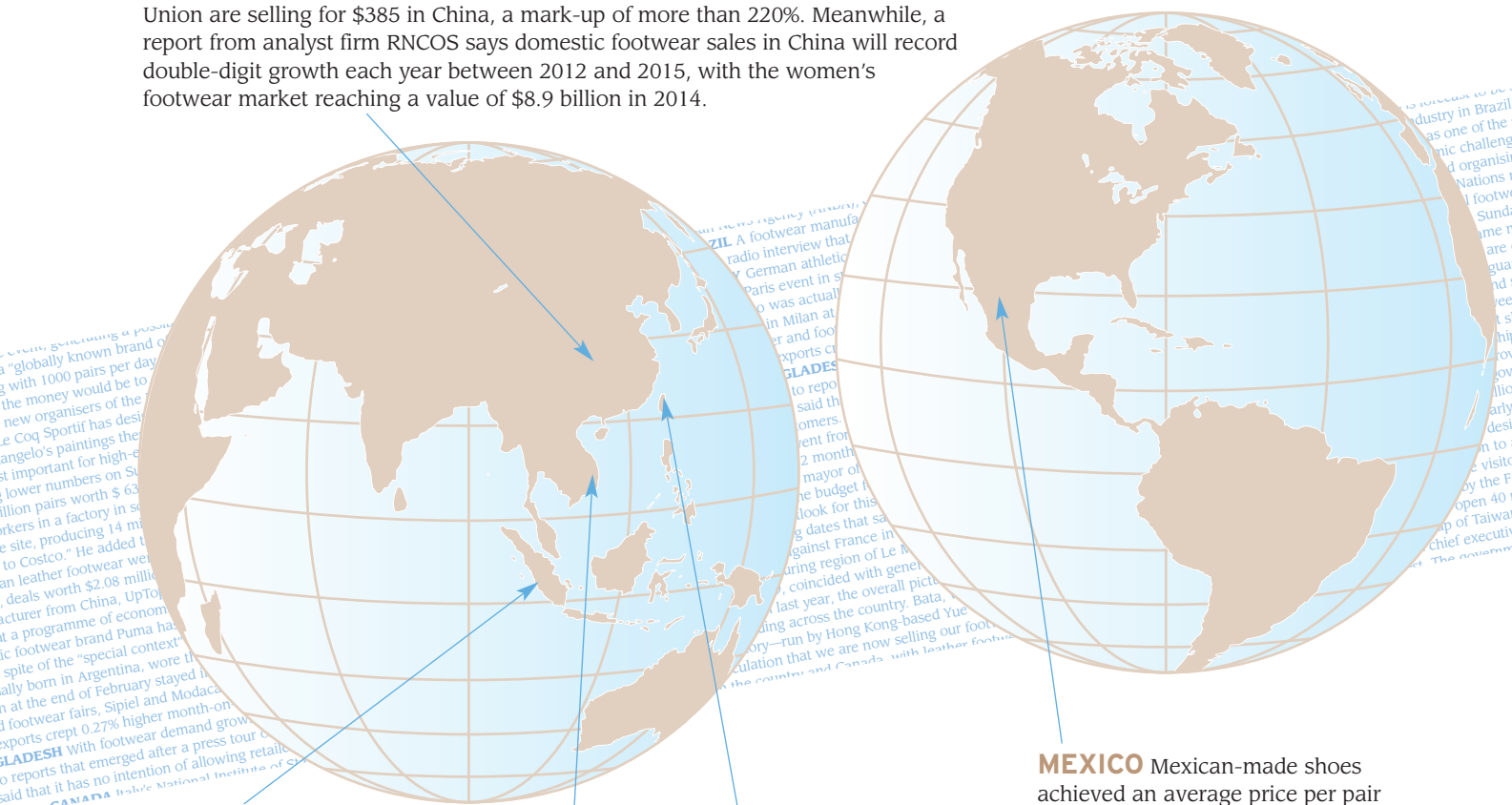
MOROCCO Morocco leather industry federation Fédic has said imports of shoes into the North African country from Asia are causing a slow-down in local footwear manufacture. Fédic estimates domestic footwear consumption at around 60 million pairs per year, but says that about 75% of the total, 45 million pairs, is being imported from Asia at the moment. Local industry leaders have called on the Moroccan government to put in place controls over the volume of imports coming specifically from China, for example by increasing the minimum price for imported shoes, fixed in 2011 at 80 dirham (less than \$10). Increasing this figure to 130 dirham (\$15) would be a good first step, Fédic has suggested.

ARGENTINA The country's footwear manufacturing industry has met a target of producing a record 120 million pairs of shoes in 2012, a 5% increase in 2011. A statement from the footwear industry association CIC confirmed the figure and said 85% of the shoes made by Argentinean footwear firms were destined for the domestic market. In the course of 2012, Argentina also imported 20.4 million pairs of shoes, with 60% coming from Brazil and the rest from Asia.

BRAZIL Anti-dumping measures against footwear imports into Brazil from China have been in place since 2010 but authorities in the South American country have become suspicious that some exporters are using a trick known as triangulation to get round this, by shipping shoes made in China through a third country. In 2010, footwear imports from Malaysia increased in value to \$20.3 million, from \$1.2 million the year before. Since investigations into triangulation began in 2011, the figure has fallen considerably.

CHINA Recent reports from the China Leather Industry Association have confirmed the number of “large-scale” footwear manufacturers in the country as just over 4,000. In the first 11 months of 2012, these companies produced shoes with a value of \$83.6 billion, an increase of 12.3% on the previous year. Specific to leather shoes, the number of “large-scale” manufacturers in China is currently 2,378. Over the 11-month period, these companies produced shoes with a value of \$56.5 billion. In terms of volume, they produced just over 4 billion pairs of leather shoes.

● A report in Chinese media has highlighted the gap in prices for European shoes sold in China compared to the price consumers in Europe have to pay. A pair of shoes from Danish brand Ecco, which cost the equivalent of \$120 in the European Union are selling for \$385 in China, a mark-up of more than 220%. Meanwhile, a report from analyst firm RNCOS says domestic footwear sales in China will record double-digit growth each year between 2012 and 2015, with the women’s footwear market reaching a value of \$8.9 billion in 2014.



INDONESIA An executive at the Indonesian Footwear Association said investors in the shoe-making sector backed out of their plans involving Indonesia, following the recent wave of labour demonstrations at a major industrial park. He said that a number of companies had planned to invest \$100 million, creating around 10,000 jobs in the sector, although it was not clear which companies, or how many had backed out. The rally on the outskirts of the capital involved thousands of factory workers from various industries calling for better pay and conditions at the start of December.

TAIWAN Taiwanese outsource footwear manufacturing group Feng Tay Enterprises reported an increase of 4.3% in production in November compared to the previous month. During November, Feng Tay factories produced 5.6 million pairs of shoes. In spite of the increase compared with October 2012, the total represented a decline of 11.4% compared to November 2011.

VIETNAM Officials in Vietnam have said total exports for 2012 are likely to have brought revenue of \$114.6 billion into the country. The leather industry’s share (with footwear dominating) of this total will be greater than \$8.7 billion, growth of nearly 12.4% compared to 2011. In the course of 2012, Vietnamese manufacturers exported leather footwear with a value of \$7.2 billion, an increase of 11.1% on the year before.

MEXICO Mexican-made shoes achieved an average price per pair of \$38 in export markets in 2012, an increase of 31% compared to the previous year. Industry commentators have reacted by saying this shows that Mexican footwear manufacturers have had success in their attempts to add value to their products.

● External trade promotions agency COFOCE has said the popularity of formal shoes and boots made from leather has put Mexico as the number-four exporter of footwear to the US in 2012. The country shipped 11.7 million pairs of footwear north of the border in the first eight months.

Footprints

WOLVERINE ANNOUNCES CHANGES

Footwear group Wolverine Worldwide has announced several key organisational moves following its acquisition last year of the Performance & Lifestyle group of footwear brands from Collective Brands.

As a major part of the change, Wolverine will separate Performance and Lifestyle into separate operating groups. Along with its Heritage group (brands such as Wolverine, Caterpillar Footwear, Bates, Harley-Davidson Footwear, and HyTest), this division means Wolverine Worldwide will now run its business as three operating groups.

Brands that come into the new Performance group are Merrell, Saucony, Chaco, Patagonia Footwear, and Cushe.

Lifestyle will encompass fashion and mainstream consumer brands including Keds, Hush Puppies and Stride Rite, but one of the newly acquired brands, Sperry Top-Sider, will also fit here. In the build-up to completing the acquisition, Wolverine chief executive, Blake Krueger, compared Sperry with the group's existing boat-shoe brand Sebago. Sebago isn't in the Performance group either, but will now come under Heritage.

Gregg Ribatt, former chief executive of the Collective Brands Performance & Lifestyle Group, who initially transferred to Wolverine Worldwide, has now announced that he will leave the group, and indeed the industry.

Wolverine Worldwide also recently appointed Daniel Le Vesconte as managing director for Europe, the Middle East and Africa (EMEA) to help grow the US-based company in those markets.

MINISTER PRESIDES OVER REPETTO EXPANSION

France's minister for industrial renewal, Arnaud Montebourg, presided at the official opening of the newly extended production site that high-end footwear brand Repetto runs in the small town of Saint-Médard d'Excideuil



RECYCLED SHOES AT THE HEART OF LISBON STREET ART

A giant pair of boots made by a lecturer from the University for the Creative Arts (UCA) at Canterbury in the UK went on display in a busy square in Lisbon during October and November.

Anthony Heywood, head of sculpture at the university, created the colourful sculpture from 2,000 items of used footwear for the city's festival of culture.

The 5m long, 3m high boots were installed at Martim Moniz Square in Lisbon as the centrepiece of the Take a Walk project which aims to encourage visitors to explore the Portuguese capital on foot. The installation will move to Porto's Museum of Modern Art in the new year and will be on display there from the end of January until April 2013.

in the Dordogne. The ceremony took place on November 16.

Run since 2002 by former Reebok executive Jean-Marc Gaucher, Repetto has spent the last ten years focusing on high-end materials and traditional methods of production. It is most famous for ballet shoes, but the company also makes fashion shoes for men, women and children in high-end leather, including exotic leather.

During the ceremony, Mr Gaucher made it clear that Repetto's commitment to handmade footwear will continue. He told the minister that the factory would continue to employ skilled people and that the last word in automation at Repetto is the sewing machine.

BLAHNIK HONOURED

Footwear designer Manolo Blahnik has been named as the recipient of the Outstanding Achievement Award at The British Fashion Awards.

Mr Blahnik said: "To be recognised for doing something I love is really wonderful."

FICE PRESIDENT TO STEP DOWN AFTER 20 YEARS

Spanish Footwear Industry Federation (FICE) has announced that its president Rafael Calvo is to step down in the new year.

Current vice-president José Sanchís is favourite to take over, although some reports suggest Mr Sanchís would prefer not to take up the role full time so as to be able to continue to focus on his own footwear business in Elda, in the province of Alicante.

The most likely outcome is that Mr Sanchís will carry out the role temporarily while FICE searches for a full-time president.

Rafael Calvo has been FICE's president for 20 years. He said on making the announcement that he would step down that he had wanted to retire for some time, having reached the age of 68 and having spent a total of 47 years working. But he said that, with the current difficult economic situation in Spain, he had not been able to find the right moment to walk away.

LAGERFELD TO DESIGN FOR BRAZILIAN BRAND

Brazilian footwear brand Melissa has agreed a partnership with Karl Lagerfeld. The deal means the German designer will work on four exclusive women's footwear models for Melissa.

Part of the Grendene footwear group, Melissa has said it will have the Lagerfeld designs ready for a March 2013 launch.

GLASGOW LUXURY FOOTWEAR BRAND DEBUTS AT PITTI UOMO

A new brand of luxury handmade men's shoes from Glasgow celebrated its launch at the Pitti Uomo exhibition in Florence earlier this month.

Designer and co-founder Kevin Sefton has called the brand Govan Originals partly because he wanted the quality of the craftsmanship, design and materials going into the shoes to reflect the ship-building traditions of Govan, an industrial district on Glasgow's southside.

Govan is already home to one luxury shoe company, Buchanan Bespoke Footwear, and Buchanan managing director, Diana Currie, is Mr Sefton's co-founder for the new venture. However, both brands will operate entirely separately.

SENIOR LEADERSHIP CHANGES AT NIKE

US sportswear giant Nike has appointed a new vice-president of action sports, with responsibility for its skateboarding and snow businesses as well as Hurley International. Roger Wyett joined Nike in 1994 and has held a variety of roles including CEO of Hurley and vice-president of global apparel.

Sandy Bodecker, the current VP of action sports, will now work on special projects involving long-term product innovation. Scott LeClair, VP of Nike Skate and Nike Snow, will report to Mr Wyett. Bob Hurley, currently the interim CEO of Hurley, will remain in that position and will also report to Mr Wyett.

EARLY SUCCESS FOR ONE ADC PROTEGÉE

One of the first young designers to have won the backing of a French industry initiative called Au-delà du cuir (ADC), Amélie Pichard, has won a design award.

Ms Pichard, who specialises in shoes and leather accessories, won a newcomer award in the 2012 edition of the Paris Grands Prix de la Création. Apart from the prestige, the award also means she wins €8,000 in cash. She has already won orders from important retail groups Bon Marché, Printemps and Colette.

ADC is a joint-initiative of a range of industry organisations in France, with the French Footwear Federation, The French Leather Council (le Conseil National du Cuir), and CTC (The French Professional Development Committee for Leather, Footwear, Leather Goods) among the most prominent.

PEAK TO FOCUS ON BASKETBALL

Tony Parker has left Nike and signed a sponsorship deal with Peak, becoming the second US basketball star to join a Chinese sportswear brand in recent months.

Reports from the US suggest the NBA star has entered a three-year deal worth between \$2 million and \$4 million, following Dwyane Wade's deal with Li-Ning in October. And in a push for greater brand recognition in the US, Li-Ning has brought in footwear designer Alejandro Ingelmo as creative consultant for Dwyane Wade's footwear and apparel line.



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NEW SENIOR MANAGER FOR FOOTWEAR BRANDS GROUP

The US group that owns footwear brands Kurt Geiger, Stuart Weitzman and Brian Atwood has created a new senior management role to oversee its "people-related initiatives".

The Jones Group has promoted Aida Tejero-DeColli to chief people officer, supporting human resources, including talent acquisition and management, training and development, and compensation programmes. She will report to Wesley Card, chief executive of the group.

HANDMADE SHOES AND WHISKY MIX WELL

A special-edition shoe-centred Chivas Regal gift box, for which the whisky brand worked with footwear designer Tim Little, has gone down well with customers across the world.

The company launched Chivas Regal 12 Made for Gentlemen in the autumn and has already had orders for more than two million units.

Mr Little is widely credited with having transformed Northampton-based men's footwear brand Grenson into an internationally renowned maker of artisan men's shoes.

For the Chivas project, he came up with the idea of presenting the bottle in a tin depicting a handmade shoe, a traditional brogue, but in an eye-catching red, white and silver colour combination.

At the time of the launch, Mr Little described handmade shoes as a basic element of a gentlemen's wardrobe. He said the combination of a traditional handmade, Goodyear-welted shoe with premium-blend Chivas whisky aged for 12 years was a meeting of two ancient traditions, both of which require time and skills passed down from one generation to the next.

ECCO OWNER DENMARK'S RICHEST WOMAN

The owner of the Ecco footwear company, Hanni Toosbuy Kasprzak, has been named by newspaper

Berlingske as Denmark's wealthiest woman.

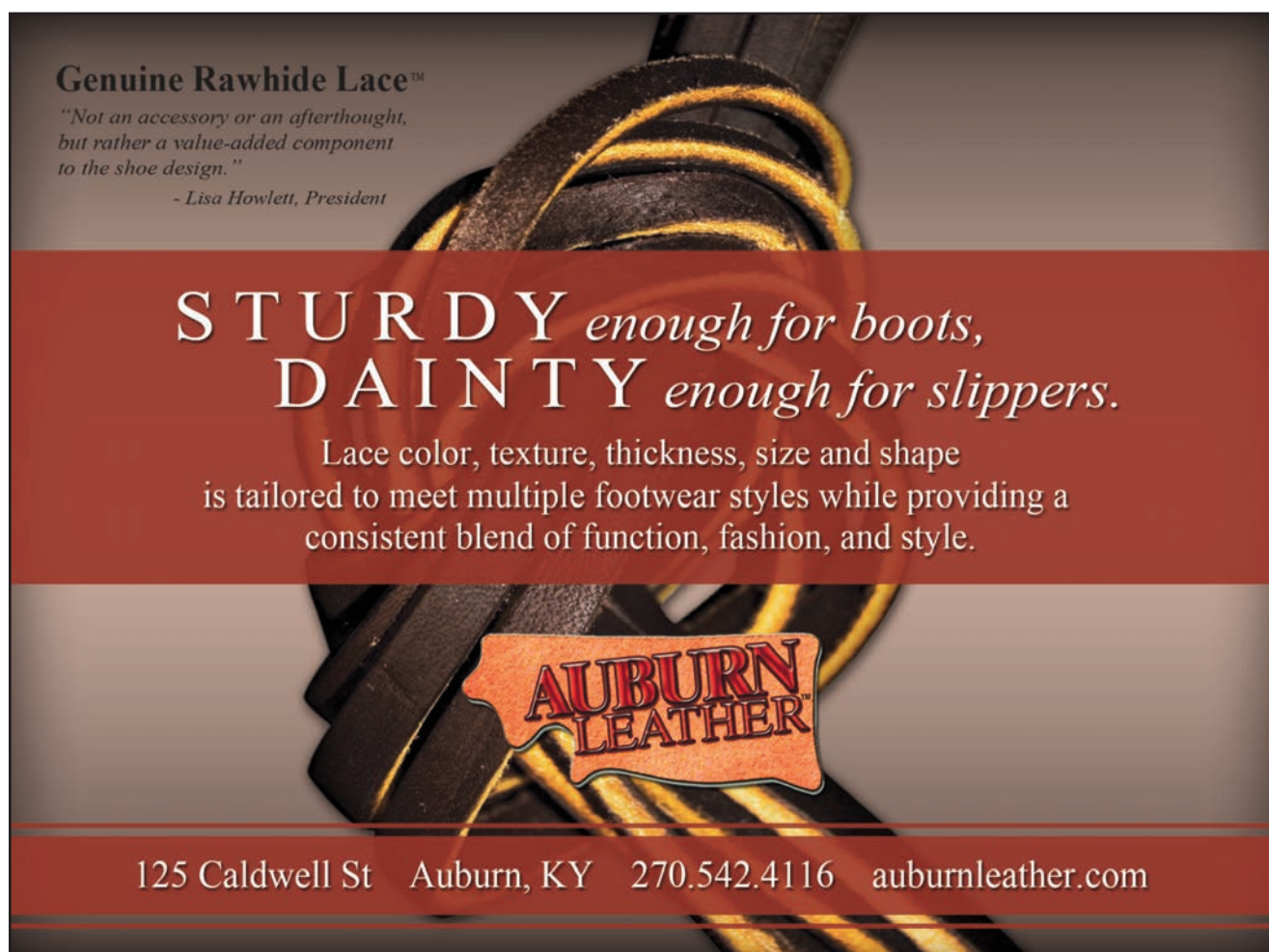
Ms Toosbuy Kasprzak took over as owner of the company in 2004 when her father, Karl Toosbuy, died. He founded Ecco in 1963. The newspaper estimated Ms Toosbuy Kasprzak's personal fortune at more than \$2.5 billion.

HUNTER BOOT NAMES CHIEF EXECUTIVE

UK-based footwear company Hunter Boot has appointed a new chief executive as it looks to diversify its offering and increase sales.

James Seuss joins from watch retailer Tourneau, where he was also CEO, and previously worked at leathergoods company Cole Haan and fashion house Stella McCartney. He said he is looking to expand the rubber boot company in "key cities and cold weather cities".

Eileen Shields has returned to the brand as vice-president of footwear design to rejuvenate its shoe category. 🌀



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 - Lisa Howlett, President

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Products & Services

STUDY "PROVES" WOMEN IN HEELS ARE ATTRACTIVE

A new research study claims to prove that women appear more attractive when they wear shoes with high heels.

In a study published at the end of 2012, researchers at the University of Portsmouth concluded that high-heeled shoes help a woman look attractive because of the effect they have on the way her whole body moves.

Research involved asking observers (men and women) to gauge the attractiveness of a range of women from their walk. The women were filmed wearing shoes with a six-centimetre heel and, at different times, flat shoes. The technology used in the study meant the observers watched only a pattern of lights.

Ten women featured in the study; all ten were judged to look more attractive and more feminine when wearing heels. In a second part of the study, observers watching the pattern of lights were asked to guess if the wearer of the shoes was a man or a woman. Women wearing flat shoes were twice as likely to be mistaken for a man.

The team from the UK university concluded that women wearing heels were more likely to attract admiring glances because of the way their hips, shoulders, legs, knees and feet move as a result of wearing the shoes.

Researchers found that, on average, the women walked more quickly when wearing heels, increasing the number of strides per minute from 106 to 110 steps. However, their stride shortened with high-heeled shoes on their feet, 1.24 metres in length to 1.2 metres.

UITIC SETS DATE FOR FOOTWEAR CONGRESS

The International Union of Shoe Industry Technicians (UITIC) has announced that its 18th International Technical Footwear Congress will be held in Guangzhou, China, from November 13 to 16, 2013, and will be organised by the China Leather Industry Association.

The key themes will be product and process innovation, consumer protection, business practice and know-

how. Footwear manufacturers, retailers and experts will be invited to discuss "social responsibility: a challenge for the footwear industry" and innovation in the footwear market. Several visits of footwear factories are also planned.

DELCAM CRISPIN UNVEILS NEW SOFTWARE

Footwear technology provider Delcam CRISPIN has revealed the latest developments in its range of software for footwear design and manufacture at a user meeting in Quanzhou, China.

The updated ShoeMaker product is used to make 3D footwear models for design and marketing reviews. New functionality includes user-defined flattening for offset concept lasts, improvements to the last import with automatic detection of the centre lines, and better control for the positioning of image stencils, including a three-point alignment tool. There is a new flattening parameter file editing tool for adjusting specific aspects of the flattened forms, plus some additional fine controls to change the shape of the flattening.

Engineer Pro helps users to produce 2D sample and graded footwear patterns. New functionality includes single click boundary, a new way to create boundaries where a left-click in a closed area creates a boundary from the enclosing lines.

FOOTWEAR LAMINATES MAKER ADDS EVENT

GE has announced a new collaboration with VEGAM, an Italian manufacturer of laminates and fabrics, to bring to the European market air-permeable and waterproof footwear fabrics. The fabrics will use GE's eVent membrane technology.

VEGAM will make both three-layer and four-layer footwear laminates using eVent waterproof and protective membranes.

"We've been looking for a proven technology to pair with our fabrics, and eVent membranes are regarded as the best in the industry for their combination of air permeability and waterproofness," said Nadir Santagiuliana, research and development manager for VEGAM.

CAMBRELLE BOOSTS TIMBERLAND'S GREEN CREDENTIALS

With sustainability rising up corporate agendas, Camtex Fabrics, the maker of Cambrelle shoe linings, has introduced fabrics with increased recycled content – as favoured by Timberland for its Earthkeeper range. With its Earthkeeper shoes, boots and clothing, Timberland is trying to "reduce its impact on the planet and make better gear" – and so needed a shoe lining that would fit with its goals.

"Timberland asked us to develop a fabric that had at least 50% recycled content," explained Camtex Fabrics chief executive Kieran O' Hare, "so we used a polyester product that comes from recycled polyester bottles."

DOW ANNOUNCES ADHESIVE BREAKTHROUGH

Dow Polyurethanes has launched Vorasil Silane Modified Polymers (SMP), calling the development "a cost-effective breakthrough in adhesive and sealant solutions".

They constitute a hybrid, comprised of a polyurethane backbone and silane end groups, allowing for what has been described as "a balance of low viscosity and fast ambient cure time".

EMMA LAUNCHES NEW-GENERATION LEATHER CUTTING SYSTEM

Dongguan-based technology firm Emma has launched a new computerised cutting system that it claims can save footwear manufacturers and other finished product companies 4% in their use of leather.

The company also said the technology could help manufacturers reduce labour costs, allowing them to carry out operations with up to three times fewer people.

Founded in 2002, Emma claims to be the fifth-largest supplier of leather-cutting systems in the world. 🌐

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FOR THE VERY LATEST GLOBAL
FOOTWEAR INDUSTRY NEWS



Backtrack

World Footwear's publishing cycle and limitations on space make it impossible for us to run more than a carefully selected sample of news from across the industry.

However, we publish hundreds more stories on **www.footwearbiz.com**. The site is updated every day with news from every continent and every part of the industry, making footwearbiz.com one of the most

comprehensive archives of news anywhere on the web for the global footwear industry.

We list below just a few of the headlines that have appeared on the site in recent weeks — **www.footwearbiz.com** allows you to read those you have missed.

10.01.13

US court rejects lawsuit over Nike trademark
ANCI predicts difficult months ahead

08.01.13

Pretty Ballerinas aims to appeal to urban Cinderellas
Finish Line takes hit after shoe strategy backfires

07.01.13

MM&T leather and shoe fair adds sectors for March

04.01.13

Wolverine appoints president to drive growth

03.01.13

DSW reopens hurricane-hit store
Adidas unveils ultra-lightweight golf shoes
Italian footwear brand opens first store in China

20.12.12

Vietnamese consumers happy with Vietnamese shoes
Merrell announces exclusive partnership with Gore
Rio Grande do Sul's shoe share is down
Data capture tool boosts Brooks' CSR drive

19.12.12

Indonesia: Footwear workers could miss out on wage rise
Li Ning launches revival plan

17.12.12

'Dollar depreciation' hits Taiwanese footwear groups
It's leather shoes that add value for Spain

14.12.12

Restructured JAL Group unveils products at Expoprotection

13.12.12

Production at Belwest threatened by tax dispute
Jimmy Choo to launch men's flagship
Tough start to the financial year for footwear in Pakistan
Clarks employees among footwear technology graduates

12.12.12

UK: Satra to host REACH seminar
Crocs publicises copyright court-case results in China

07.12.12

Ferragamo boss defies gloom: 2012 our best year
Italian sandal firm in financial difficulty

06.12.12

GDS prepares for China debut
Spanish footwear components companies 'over the worst'
Sole leather may not be the sole attraction for Loake in León

05.12.12

Footwear tops UK retail, boosted by children's shoes

04.12.12

Three years before sports shoe brands in China will grow again
New functional footwear line from Tenson

03.12.12

Adidas defends position as fourth university ends contract
Italian footwear brands remain optimistic about Russia

30.11.12

Crocs reports progress in sustainability and promises more

29.11.12

Cambodian footwear workers demand better pay
Vietnam: 2013 expected to be tough for footwear exporters
Materials and components suppliers suffer as Chinese shoemaker goes bust
Growth continues for Indian footwear firms in Germany

28.11.12

Africa proves lucrative for shoemakers in Zhejiang

27.11.12

African shoe brand advances into Asia
Zeha expands beyond Berlin

26.11.12

UGG could become target for private equity buyers

23.11.12

Brown Shoe to sell another brand as profit shrinks

22.11.12

DSW sets sights on 30 new stores
Affluent Chinese consumers will double in number by 2020
Leather footwear exports let India down
French footwear industry expects only slight downturn in 2012

21.11.12

FDRA hosts forum in Dongguan
Outdoor Industry Association calls for urgent support on footwear ruling

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September 2011

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Jennie Hegeman of Toklat Originals
Product Design Specialist

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The European Commission has closed the door on pushing through in 2013 obligatory labels of origin on shoes sold there.

PHOTO CREDIT: VIOLAVINCA

Italian shoe manufacturers bemoan Brussels labelling decision

The European Commission originally proposed compulsory 'Made In' labelling in 2005 and the European Parliament approved the idea in a vote in 2010. Nevertheless, the trade directorate of the Brussels-based body has dropped the labelling proposal from its programme of work for 2013. EU trade spokesperson, John Clancy, commented on questions from a journalist in a press briefing in Brussels on October 23. He said that, although the 'Made In' proposal had been tabled in 2005, "no consensus has ever been gathered" and, as a result, the Commission has decided to withdraw it. The European Parliament and the Council will now have the opportunity to comment.

"Even if there was widespread support in the European Parliament for this proposal, member states hold very different positions," Mr Clancy said. "It has become clear that there is no future for this proposal. This withdrawal is in line with both the Commission's competences in its agenda of smart regulation and its reiterated efforts to focus on its trade priorities. For the time being, there is no intention to issue a revised proposal."

This means retailers in Europe will be able to sell shoes without having to tell consumers where they come from. Retail groups have said that they believe many consumers today only care about the look and price of shoes rather than their origin, the quality of construction or the materials used. This is like saying consumers have no interest in where wine comes from, only the price and what the bottle design looks like. Of course, no one at the European Commission would buy wine that failed to state clearly the region, not just the country, of origin. What is more, the Commission would ban winemakers and retailers from trying to pull such a stunt.

Only marketing

In response, ANCI said it was "extremely disappointed" in the development. The organisation's chairman, Cleto Sagripanti, said the decision "unfairly benefits the big trading lobbies and multinationals that maintain only marketing activities in the EU, at the expense of the manufacturers, already heavily penalised by the economic crisis." He said it was unfair to consumers too because they have a right to clear, accurate product information.

ANCI has written to Italy's minister for economic development, Corrado Passera, to express its concerns. It says it will not give up the fight on this issue. In truth, though, this is a new battle in an old south-north footwear war.

Anti-dumping duties on imports of shoes with leather uppers from China and Vietnam were in place in the European Union between 2006 and March 2011. The European Commission, often sounding extremely reluctant about it, put the measures in place because European footwear manufacturers were able

A new controversy over product labelling has opened old wounds of division in the footwear sector of the European Union.

to prove accusations of falsely low export prices against competitors from the two Asian countries.

Many northern members of the 27-state European Union were vocally opposed to the anti-dumping measures, while those in the south, where most of Europe's footwear manufacturing jobs are, bore the brunt of amassing documentation to prove that Chinese and Vietnamese footwear brands were receiving enough help from their governments to allow their shoes to sell for a lower price in Europe than in their domestic markets.

Grounds for objection

Footwear companies in the north (mostly brands and retailers) objected on two main grounds. Retailers were unhappy because anti-dumping duties of, say, 16.5% on shoes from China made a hole in the mark-up they were able to secure by sourcing shoes cheaply in Asia and selling them at prices only slightly below what they were charging for shoes made in Portugal, Spain and even Italy (if they sold these at all). It's hard to get retail groups to confirm, but in some cases the mark-up in European shops on shoes from China must be more than 1,000%.



ANCI president, Cleto Sagripanti (right), is concerned that the European Union no longer wants to protect its small manufacturers.

PHOTO CREDIT: MICAM



Tuscan touch. The label on a €5 bottle of wine usually requires not just the country of origin but the region of origin. The European Commission is unconvinced that consumers paying 20 times more for a pair of shoes need the same reassurance.

PHOTO CREDIT: VIOLAVINCA.

Footwear brands that have outsourced most of their manufacturing to partner companies in Asia, often with great success, were equally unhappy about anti-dumping. Many of those lobbying the loudest were sports shoe brands (all the big ones have most of their shoes made by partners in Asia). Theirs is a fiercely competitive market, although the retail prices of their shoes are high, and they objected to the extra cost. In the middle of the anti-dumping regime, in the spring of 2010, Puma's then chief executive, Jochen Zeitz, said the measures were "useless".

At the time, *World Footwear* questioned him about this, pointing out that one of the things that makes Puma shoes desirable is that it is a European brand and to sustain this desirability, European footwear brands need a supply base in Europe. It was put to him that if there is dumping and it is not opposed there is a risk of losing brands and, therefore, the supply base. Large numbers of jobs could be at stake. He responded by saying: "All right, but we are not dumping anything and we are being made to pay. At our price point, there is no dumping. They should be going after the companies at the cheaper end, the ones who pay no attention whatsoever to social responsibility or the environment. There are companies that should be investing and are not, and we who are not responsible for dumping are being made to pay. That's why this whole thing makes no sense."

Ongoing battle

But it did make enough sense for the European Commission to support it for five years. That the measures stayed in place for so long did little to heal the European footwear sector's

north-south divide, the ongoing existence of which is, tacitly, acknowledged in John Clancy's remarks about compulsory labelling on which "no consensus has ever been gathered". And in an interesting aside, he has said that consensus became even less likely when, in recent years, the World Trade Organization tightened the regulations on origin-marking, making "room for manoeuvre" more limited.

Footwear brands and retailers that want room for manoeuvre on this are usually the ones that want to present their products in a falsely positive light to consumers, in the hope that people will pay up without asking awkward questions. Tactics include using made-up Italian-sounding brand names for shoes made in Guangdong and claiming as the country of origin the place from where only a few components have come (if it's prestigious enough).

Premium prices

'Made in Italy' commands a premium, and ANCI wants that to continue to be the case and for consumers to be as aware as possible of the differences between a shoe handmade by artisans in Italy (the same would apply to Spain, Portugal, France, the UK and most other EU countries) and one mass produced in south-east Asia. Seven out of ten pairs of Italian shoes that leave Italy go to customers in the other 26 EU member states. At the start of 2013, ANCI said in a statement that it senses its member companies, high-end Italian footwear manufacturers, are perhaps becoming disillusioned with these external markets.

Cleto Sagripanti admitted immediately that this is partly because of the downturn in the economy in most EU countries. In the first eight months of 2012, exports of Italian shoes to Spain and Greece (two of the most severely affected economies) experienced double-digit declines compared to the same period in 2011. Shipments to France, Italian brands' number-one export market, were down by 9%. However, the economy is not the whole story.

"We are and remain committed Europeans," the ANCI president said, "but we cannot imagine a de-industrialised Europe which does not want to defend its own manufacturing and does not know how to defend it, which does not want to pursue the idea of origin-labelling for imported products and does not know how to pursue it. We should not compromise on this if we want to build a Europe with which hundreds of thousands of small manufacturing firms and their workers can identify."

Besides, it's simply not true that consumers care nothing about the origin and quality of the shoes they buy. We have made the point before about the total dominance of Italian and French brand names (many French fashion companies make their shoes in Italy) on the lists that New York-based research organisation The Luxury Institute publishes showing the most popular footwear brands among the most wealthy consumers.

If you want a money argument, Italy earned almost €5.4 billion from the 152.5 million pairs of shoes it exported to all markets in the January-August 2012 period Cleto Sagripanti was talking about. Over the same eight-month period, China earned four times as much from footwear exports, nearly €21.8 billion. But to earn that much, for every pair of shoes their Italian counterparts turned out, Chinese manufacturers had to make almost 45 pairs. 🌀

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Crocs' distinctive water-resistant shoes are growing in popularity in Asia. PHOTO CREDIT: SHUTTERSTOCK

Crocs bite back

At the beginning of December, courts in China sentenced 18 individuals to more than 46 years in prison for manufacturing and selling fake Crocs goods. Seventeen individuals were convicted of counterfeiting, and two of the 17 also were convicted of offering bribes. Another was convicted on bribery charges in connection with the production of counterfeit Crocs shoes. In addition to prison sentences, the men, together with another two, face fines totalling RMB 2,832,500 (\$450,900). Nearly 128,800 pairs of counterfeit Crocs products valued at \$9.5 million were seized as part of these recent investigations.

"The lengthy prison terms and heavy fines handed down in these cases show that Chinese authorities are serious about assisting us to eradicate the production of counterfeit Crocs products in China, and so are we," comments Dan Hart, chief legal and administrative officer for the US-based footwear brand. "The Crocs intellectual property rights symbolise the reputation and hard-earned, valuable goodwill the company has acquired. We will not tolerate counterfeiters compromising our brand, and will continue to work with the authorities to hunt down and prosecute anyone who uses Crocs' name, design or other intellectual property without permission."

After a long investigation, the footwear brand successfully prosecuted a Chinese gang that had produced \$9.5 million-worth of fake goods. But faced with increasingly sophisticated counterfeit operations, are shoe companies fighting a losing battle?

More than 600,000 pairs of counterfeit Crocs shoes have been confiscated during factory raids and customs seizures throughout China in the last few years, resulting in 35 criminal convictions, mainly in Guangdong, Shanghai and Fujian Province. The numbers attest to the scale of counterfeiting in Asia, of which seized goods are merely the tip of the iceberg, with China accounting for about 80% of the counterfeit goods entering the US and EU, according to US officials. But is prosecution worth footwear brands' time and money, when they are so notoriously difficult to trace and when their manufacture can easily move elsewhere?

Hatching an idea

Since it launched in 2002, Crocs has sold more than 200 million pairs of shoes in more than 90 countries and now has more than 300 styles. It hit a low in 2007, knocked by changing trends, but returned to profitability in 2010 after a restructure that saw it close factories in Brazil and Canada as well as a number of distribution centres. Its CEO John McCarvel also ended a profit-swallowing \$10 million sponsorship deal of the AVP beach volleyball tour and moved some of its production from China to Vietnam to diversify the supply chain.

The clamp-down on counterfeiters in China coincides with a push to increase sales in that country; Mr McCarvel anticipates it will be the brand's most important market by the end of this year. "Asia is the future for many brands, and especially for ours," he told *USA Today*. "We think our product fits well into the Asian lifestyle: easy off, easy on, more casual footwear."

One of the reasons that Crocs have become an easy target for the counterfeiters is, despite being "instantly recognisable", they have a fairly simple shape to copy. The myriad of colours helps the criminals produce them in various shades without suspicion. What is more difficult to imitate is the texture of the trademarked proprietary foam resin they are made of, called Croslite, which is lightweight, non-marking and odour-resistant. Many of the fakes, while feeling similar, are reported to be of a lower quality material that can become slippery when wet.

Mr McCarvel attributes the manufacture of imitations to growing demand. "The products are so popular in Asia that we have significant counterfeiting. People even open up counterfeit Crocs stores," he said.

The recent clamp-down is part of an ongoing battle. In 2006 Crocs filed complaints in the US against 11 companies that manufactured, imported or distributed products they called 'Croc-offs'. Seizures of fake Crocs occurred in 2007 in the Philippines, Denmark and South Africa. In 2010, the Crocs' crackdown team returned to the Philippines, where they seized more than \$1.7 million-worth of fake merchandise in warehouses, stalls and malls. Raymond Rojas, the legal counsel for Crocs at the time, said the shoes had come from China using moulds, steel casings and other shoe components stolen from a factory where original Crocs are made. The faking of Crocs "resulted in brand confusion, trademark infringement and unfair competition", he added.

A more sinister problem

The prison sentences handed out in the Crocs case might serve as a deterrent to would-be counterfeiters, but unfortunately it has been estimated that between 7% and 10% of the world's trade - \$650 billion annually - is in counterfeit goods, according to consultancy Frontier Economics. Over the past decade, the item most often seized has been footwear, with more than two-thirds coming from China.

The market is flourishing, from the low-grade knock-offs to sophisticated imitations made in similar factories that are often difficult to tell from the real thing - both damage a brand's reputation and revenue. Counterfeit shoes are seized on a daily basis - Uggs, Clarks, adidas, Nike and Havaianas are among the brands that have made headlines recently. US Customs officials in August seized more than 20,000 pairs of counterfeit Christian Louboutin shoes with a street value of \$18 million.

The growth has coincided with the increase in internet shopping, offering a bigger 'shop window' to the world, as well

as harder-to-trace postal methods. Shipping from China has also become easier - shipments made via Hong Kong or elsewhere are difficult to prevent.

The CEO of footwear company Vibram, who found imitations of its Five Finger design being 'returned' to his office when they fell apart, told the BBC recently: "We knew if we didn't react quickly enough, the counterfeits were only going to get better." He put warnings on his website, asked bloggers to spread the word and offered vouchers to those who had bought fakes. "Candidly, you have to realise that intellectual property only gets you so far," he adds. "At the end of the day it's really about your relationship with the consumer."

While many companies operate a zero-tolerance policy against counterfeiting, others see it as an unavoidable evil. The *New York Times* quoted a senior employee at a major sports shoe company as saying: "Does it cut into our business? Probably not. Is it frustrating? Of course. But we put it as a form of flattery, I guess."

However, the consequences of counterfeiting, if left unchecked, can be more serious than simply brands going out of business. According to the World Health Organization, around 10% of drug supplies in developing countries are counterfeit medicines, causing thousands of deaths annually. "I thought it was just handbags and shoes, but it's way bigger than that - people are dying," said Geoff D'Eon, the director of a recently screened US documentary about counterfeiting in China. "The people who make fake hockey jerseys are also making fake antimalarial drugs."

The authorities in China take the situation seriously - which Crocs was quick to praise in its recent case. "The sentences and fines associated with these cases are encouraging and reflect the vigour with which the authorities prosecuted these matters," said Sara Hoverstock, Crocs' regional general counsel for Asia. "As we continue to monitor and take action against counterfeit activity, we recognise the important role of the Chinese authorities and appreciate their support."



Crocs classic clog, the most widely copied design.

PHOTO CREDIT: CROCS



An operator at the Loake factory in Kettering, UK, stitches the sole of a new shoe using the traditional Goodyear welted construction method.

PHOTO CREDIT: LOAKE

Still work to do for León to tie up Loake link

Reports in the Mexican media at the end of last year suggested that the leather and footwear sector in León, in the Mexican state of Guanajuato, had persuaded high-end English footwear brand Loake to outsource some of its shoemaking to the skilled manufacturers in the city and the surrounding area. Outsource production of finished Loake shoes would begin in 2013, they said, adding that this would not be the last big international brand to take such a step. However, when *World Footwear* asked Loake about its plans, it said nothing was, as yet, confirmed regarding the production of its shoes in Mexico.

The promotions director for Cofoce, Guanajuato's external trade promotions agency, Jacob Torres Espino, has explained to us that comments attributed to him in the Mexican media mistakenly presented the Loake idea as more or less a done deal. "It's not," he says. "It's what we hope will happen in the future, but we know there is a long way to go and that we have a lot of work still to do."

Last year, newspapers based in the Mexican city of León said traditional English footwear brand Loake was set to outsource some of its production to shoe manufacturers there. Loake insisted it had made no such decision, yet.

He goes on to say that Loake developed its first contacts with Guanajuato around 18 months ago. Representatives of the company, which specialises in quality English Goodyear-welted footwear, visited footwear components and materials exhibition Anpic in León and began sourcing sole leather from a number of the city's 500 tanneries. Follow-up visits to the show and the city took place in 2012 leading to the optimistic reports in León newspapers that finished footwear manufacturers there were

FIVE GENERATIONS OF SHOE SOPHISTICATION

The Loake family has been making traditional English shoes in Kettering, near Northampton, since 1880. Four generations on, the company is still family run, with Andrew Loake, great-grandson and great-nephew of the founders, the current managing director and now a fifth generation is also involved. "As the current custodians of Loake, we are immensely proud of the commitment of our forefathers and the tradition they worked so hard to establish," he says. "For this reason our premium grade Goodyear welted shoes continue to be made in Kettering. Only the very highest quality materials are used. Each pair takes eight weeks to make and we still believe there is no finer way to make a gentleman's shoe."

However, it is also the case that for some years now, an entry-level range of Loake shoes has been available on the market alongside the main lines of Goodyear welted footwear. Some of these entry-level shoes are produced overseas, using a variety of construction methods. "This enables us to offer a complete wardrobe of shoes suitable for every occasion," Mr Loake explains.

He estimates that the company has made more than 50 million pairs of Goodyear welted shoes since his great-grandfather and two great-uncles started out. It now exports to more than 50 countries and as recently as 2011 opened its first own-brand store, in Princes Arcade on London's most famous centre of men's fashion, Jermyn Street. "Our aim is to uphold this tradition and continue making the most handsome, comfortable and durable shoes we can," the managing director concludes.



Loake's Churchill model in black calfskin. PHOTO CREDIT: LOAKE

on the point of securing contracts to make Loake shoes as outsource partners.

Mr Torres says he hopes this will happen and insists companies in the city and the surrounding area have the skills, expertise and high-quality materials to be able to carry out the work. Contacts have also been established with other international footwear brands for which he harbours similar ambitions. Companies he names as already having had discussions with Cofoce include Clarks, Burberry and Timberland. "Good Mexican footwear brands are already well established in Guanajuato," he says, "but we also believe we can convince these major international names that our offering is a good one."

A fundamental element of this offering is the access to high-quality leather in the location. Not only is the local tanning sector unusually strong in the number of tanneries operating there (some of which are admittedly small), but there is quality too. "This is at the heart of our approach to companies such as Loake, the Cofoce director continues. "We have been involved for some time with the Leather Working Group (LWG) and we now have 13 or 14 tanneries that have come through audits and received accreditation."

The LWG is a multi-stakeholder group that assesses the environmental performance of tanneries and awards gold, silver and bronze status to those achieving the best results. It has won the backing of important footwear brands; Deckers is one of a number that have committed to sourcing leather only from LWG-accredited tanneries by the end of 2013.🔗



The Anpic exhibition in León. Loake has visited the show and sourced some sole leather from tanneries in the area, but, despite local newspaper claims to the contrary, has not yet made a decision on outsourcing production of some of its finished shoes to this part of Mexico. PHOTO CREDIT: ANPIC

CREDIT: HUNTSMAN/ISTOCK

Innovations at Atlanta

The Polyurethanes 2012 Technical Conference sponsored by the Center for the Polyurethanes Industry (CPI) at Atlanta, Georgia in September did not feature as many presentations on footwear applications as in some other years. Nevertheless, two companies that regularly contribute papers, Huntsman and Desma, revealed some interesting new developments.

Huntsman has been a leader in footwear soling systems for over 30 years during which time it has introduced soft thermoplastic polyurethanes (TPUs) and dual density PU/TPU systems to the industry. A recent development programme has been evaluating the practicalities of producing polyols from sources other than oil.

A joint paper presented at Atlanta by Rafael Camargo and Daniel Rosenvasser of Huntsman and Jason M Anderson and Scott Allen of Novomer Inc., raises some interesting possibilities in regard to the creation of polyols using waste CO₂.

Increasing pressure for sustainably produced chemicals and a corresponding reduction of oil consumption in recent years has driven a large number of companies to investigate the possibility of producing raw materials from sources that are not based on fossil feedstock. Consumers and leading finished product companies in many markets are actively seeking raw material options that rely on sources such as recycled goods or products derived from renewable resources.

An alternative approach is to develop products that are based on waste stream or materials that are themselves not derived from oil. The chemical industry in general, and the polyurethane industry in particular, have increased R&D resources dedicated to the development of intermediates and

final products based on such resources.

Huntsman's previous work has involved the use of bio-based 1,3-propane diol (PDO) as a co-monomer in polyesters or as a chain extender and how it was possible to formulate elastomers with similar performance and properties to equivalent ones using existing oil-based products.

This showed that it was possible to introduce new bio-based intermediates in the formulation of footwear elastomers with similar performance and properties to equivalent formulations derived from conventional oil-based intermediates and already in commercial use. The typical bio-renewable carbon content in this instance was as high as 65 percent, as measured by ASTM D-6866 if, in addition to the bio-based glycol, a bio-based dicarboxylic acid such as succinic acid is used to make the polyester.

To further investigate non traditional feedstock alternatives to footwear elastomers, Huntsman teamed up with Novomer Inc. to develop new alternatives. Novomer has pioneered the approach to alternative sources by developing novel catalyst technologies that can convert gases such as carbon dioxide or carbon monoxide into value-added chemicals for a number of applications. This proprietary catalyst technology allows the insertion of carbon dioxide into a propylene or ethylene oxide molecule in order to

produce a number of hydroxyl terminated polycarbonates that can be tailored in molecular weight and composition as polyols for the formulation of PU products.

Over the past few years, a number of companies have explored possible renewable alternatives to petroleum-based polyols for various PU applications. Huntsman and Novomer, however, have taken a novel approach by developing flexible footwear foams using an entirely new class of CO₂-based polyols. These new polyols appear to offer a real chance to increase the possibilities of developing sustainable foam alternatives for the footwear industry.

Novomer's technology offers the potential to deliver renewable polyols that are up to 50% CO₂ by weight and have a 3-9x carbon footprint advantage versus existing petroleum-based materials and are at the same time cost effective. The flexible platform technology involved enables polymer structure and molecular weight to be tailored for specific applications.

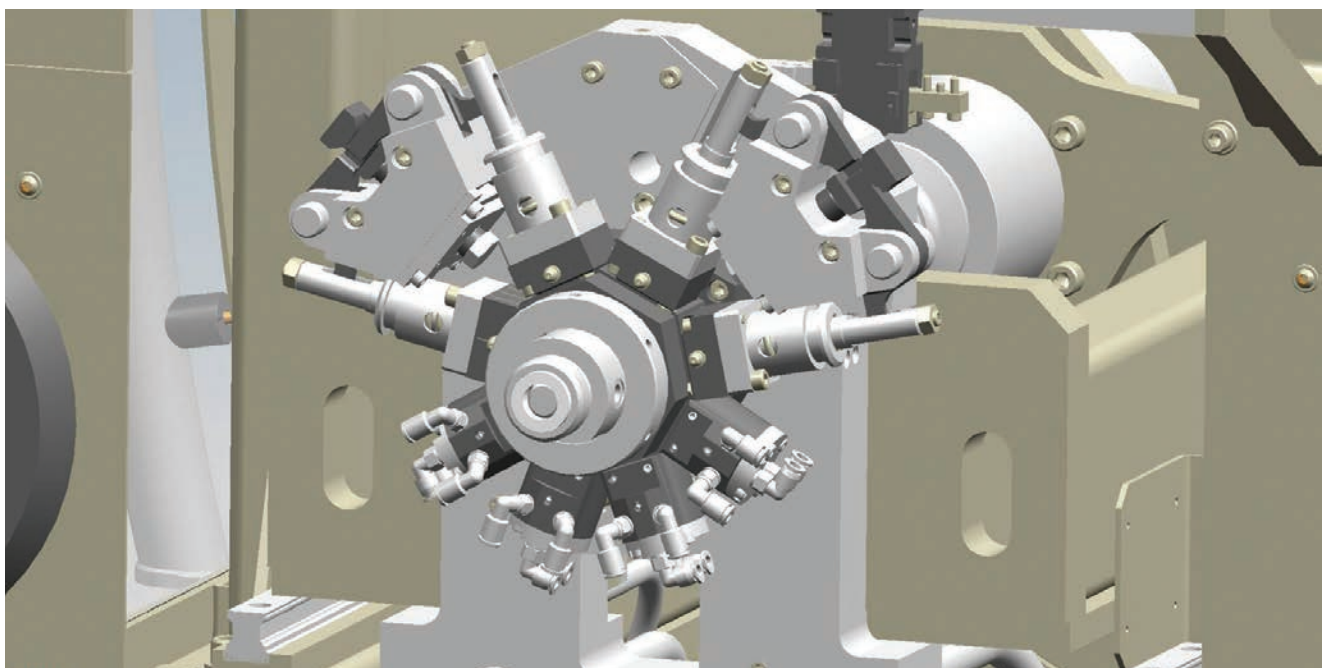
This highly flexible polyol technology can be applied to a wide range of thermoplastic or thermoset applications including coatings, foams, adhesives, elastomers and TPUs. Huntsman has worked closely with Novomer in order to combine this technology together with its expertise in formulating PU systems and product development capabilities, to explore

the use of these materials in conventional footwear foams. The resulting materials possess some interesting performance characteristics which it is best to sum up rather than to explore in depth as the chemistry involved is extremely advanced and complex.

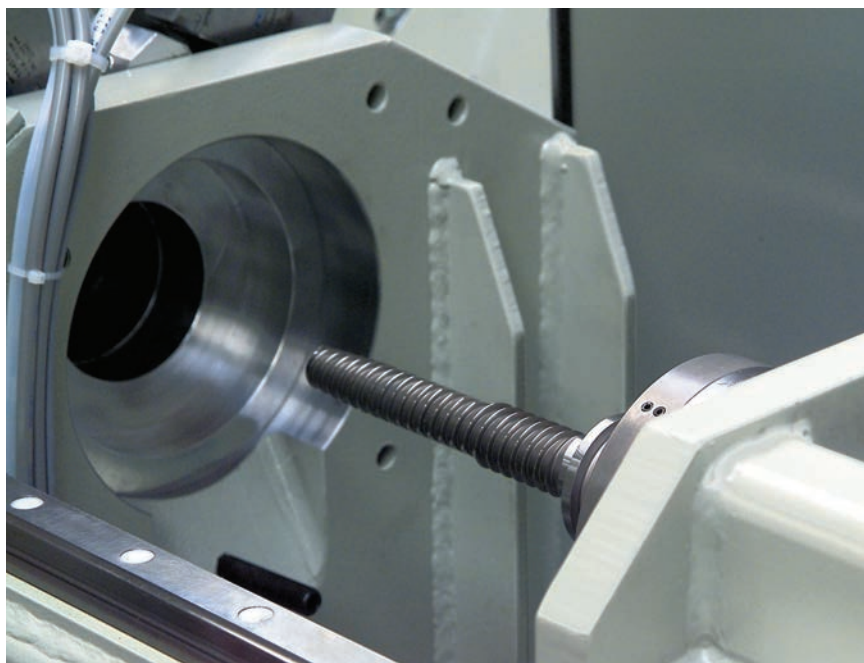
This new family of polycarbonate diols obtained by the polymerization of carbon dioxide and propylene oxide creates urethane systems with unique properties when compared with conventional footwear elastomers. For the most part, straight use of these polyols without other polyols in the formulation leads to high strength microcellular foams that can be both soft and high dampening or rigid and very tough. This would not make them suitable for use as drop-in substitutes in traditional midsole applications.

However, the increased hardness, tensile strength, and tear strength of PPC-based foams suggest that these polyols have interesting potential as a performance enhancing component of a polyol formulation in foams requiring these characteristics, including certain footwear foams and elastomers. Given the high dampening behaviour of some formulations, these materials are also worth exploring in energy absorbing applications including vibration dampening and viscoelastic foams.

So, while it is clear that these new polyols cannot be used as drop-in replacements for existing polyol



Desma self-cleaning mixing head.



The mixing screw is designed in several different shapes to match the materials to be processed. CREDIT: DESMA

systems, they do nevertheless offer a unique set of properties that are not easily achievable with existing raw materials and thus warrant additional exploration in formulated foam systems. It is innovation such as this that continues to make PU such an exciting and valuable solving system for footwear.

REACTION INJECTION

As usual, PU moulding machine manufacturer Desma of Germany has been busy. Christian Decker, Managing Director and Bjoern Dormann, Manager Technical Department, presented two papers, the first described the company's new Reaction Injection System where liquid additives are injected directly into liquid PU via the mixing head. Using this technique Desma says that the weight of a shoe can be reduced by at least 20% with positive benefits in terms of walking and running. The reduction in density also makes it increasingly practical to replace EVA as a midsole material in sports shoes.

Low pressure mixing technology for PU is already well established and this type of machine is working reliably and cost-effectively in the industry. Based on the fact that PU machines have to be flexible and serviceable in a wide range of applications, Desma has developed a new one where it is possible to use a further four on top of the existing four

valves in the mixing head. These extra valves can be used for dosing a huge variety of different liquids such as colours, stabilisers and cross-linkers.

ACCURATE CONTROLS

An extremely accurate control system allows mixing parameters in the most sensitive of PU material systems to be varied and offers a wide range of benefits:

- No solvents due to a self-cleaning mixing screw system
- Up to eight components on the mixing head with changes from shot to shot without an intermediate dump shot
- Up to six additives or colours on the mixing head with additive or colour change from shot to shot without an intermediate cleaning dump shot
- Dosing of physical foaming additives and up to 25% in static inhibitors direct into the mixing chamber
- Wide material range of ether or ester PU systems and the ability to multi-layer PU/PU, TPU/PU and Rubber/PU in one process

Desma says that a big advantage of its mixing technology is consistency as this means that the manufacturer does not have to think about the mixing ratio. The machine is equipped with patented controlled component valves which ensure their simultaneous

opening and therefore guarantees the same mixing ratio all the time. This in turn leads to better quality and more satisfied customers.

FLEXIBILITY

The new machine is designed like a toolbox kit where many different valve configurations are possible. The standard version starts at two component valves and can be expanded to four component valves plus four additive valves. Three component valves plus four additive valves is also perfectly practicable. Where the four component mixing head can handle two PUs with totally different chemical configurations, the three component head can cope with two different polyols plus one isocyanate. Furthermore, the new system is able to change the entire mixing ratio as well as total article parameters and PU components from shot to shot without any interruption to the production cycle.

The control system uses a DEScan control database where details on every final product are stored. It covers shot weight and formulation to be used as well as additives or colours and any other parameter-defining machine data. This intelligent control makes it possible for all the properties involved to be varied by changing the percentage formulation of components and additives over thousands of different system formulations.

The new machine uses Desma's low pressure mixing technology where the screw is used as an auger to mix the polyol with the isocyanate. This makes it possible to react to every kind of different material independently whether ether or ester is used. It is therefore able to handle a huge variety of different PU components. The new twelve-capacity screw changer operates in just a few seconds with dirty screws cleaned by an environmentally friendly process before being returned to the changer.

AGENT FOR CHANGE?

Gas or additives are used with PU to increase certain properties or reduce overall weight. Now, a liquid gas or additive can be introduced at the same time as the actual PU components. The specially designed mixing screw ensures everything is thoroughly and

homogenously distributed into the mould with the chemical reaction starting immediately after. Furthermore, the precise gear pumps used make it possible to inject every shot into the mould with absolute precision every single time.

As remarked earlier, the resulting lightweight PU system is now a viable substitute for EVA as a midsole material. This also means that a number of predominantly manual operations such as roughing, cementing and pressing can be avoided so that by using this form of direct injection, production can become fully automated. Desma also believes that this could in turn bring back more shoe production to high labour cost countries and closer to major consumer markets.

DIRECT INJECTION AND FOOTWEAR DESIGN

The second paper from Desma in many ways followed on from where the first left off. It dealt with the use of direct injected PU not only for the outsole but also the midsole, shank and to add other ergonomic or visual properties to the shoe while also cutting production time and costs. For instance, most shoes are still produced using the cemented processes due to the soling materials involved. Rubber outsoles for example have to be produced as a shell and filled with a lightweight midsole to save weight. While the result is a light, comfortable and hard wearing shoe, this can only be achieved using the cemented process.

This has been perfectly adequate while labour costs in developing countries have remained low. It is changing and costs there are rising rapidly while, at the same time, there is increasing interest in bringing manufacturing back to consumer markets to cut lead times and transport costs. This however requires a high degree of automation and, as far as soling is concerned, this means direct injection.

EVA is still used for the midsole of almost every athletic sport shoe. The disadvantage is that almost no automated production steps are possible plus the inconsistent dimensions associated with the material are often unacceptable. In addition, technical properties such as life cycle and compression set are much lower than those of PU.

The simple ballerina style shown in the photo is a single density PU-soled shoe where the sole functions both as the outsole as well as a comfortable midsole. All the technical performance has to be contained within the soling material which results in compromise. By using this simple method of direct injection, no further functions can be performed. The shoe designer needs to add additional components to the shoe in order to provide the shoe with necessary functions such as stability and comfort.

Adding these, however, requires additional manufacturing steps which, in turn, mean higher labour and production costs. Direct injecting of a combined outsole and midsole is an obvious solution but one that also calls for more advanced moulds. A few manufacturers are already using them and have also taken the opportunity to explore visual and ergonomic factors at the same time. Today's PU systems are highly effective and the material can be used not only as a sole material but, in some cases, as a stabiliser or shank in the heel and waist area. The material can also be used visually by creating 'windows' to add further design highlights to the shoe.

ERGONOMIC SHOES

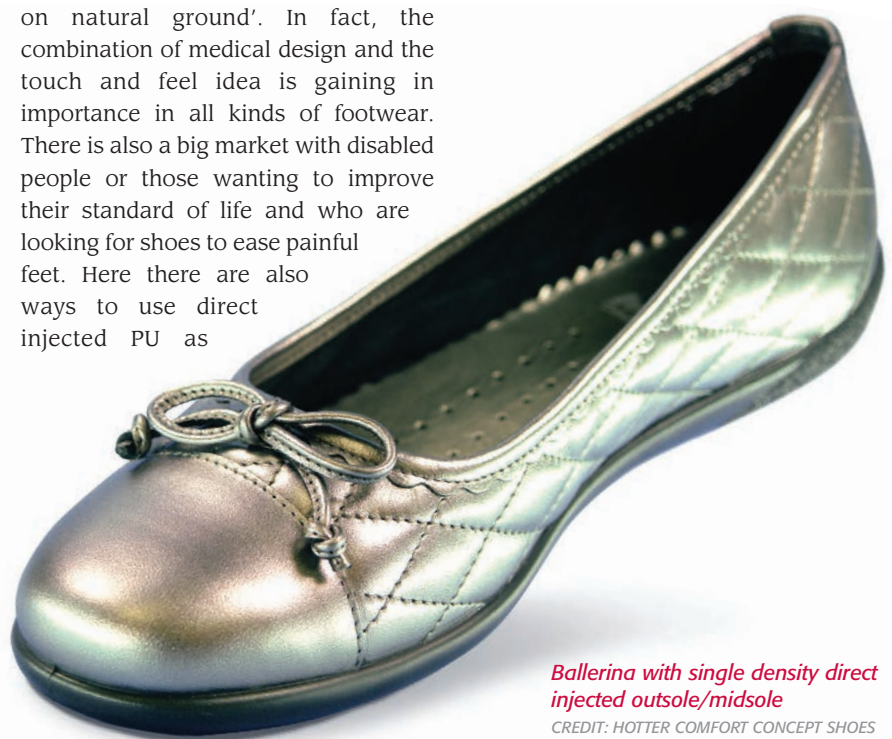
Some brands concentrate on ergonomic walking and there are designs around that follow the barefoot concept that promotes 'natural walking on natural ground'. In fact, the combination of medical design and the touch and feel idea is gaining in importance in all kinds of footwear. There is also a big market with disabled people or those wanting to improve their standard of life and who are looking for shoes to ease painful feet. Here there are also ways to use direct injected PU as

different parts of the midsole with different densities that can be adjusted to target the shoe's performance to the needs of this type of consumer.

LESS ADHESIVE

The other big advantage of direct injected PU is of course the elimination of adhesives. This is a relatively new trend but has already become a basic strategy for many companies. The aim is to improve the conditions for the people involved in the production process. The shoes produced nevertheless feature excellent design, performance and variety, the latter growing from season to season. Designers do not like to be limited and PU offers them complete design freedom.

Two other gains are cost and flexibility. The costs of adhesive-based production are higher than direct injection and continuously rising as wages in previously low labour cost countries are increasing, such that they are influencing total product cost to an ever greater extent. Automation has therefore become a keyword in the equation of containing costs while still pursuing the highest possible quality. PU direct injection has the potential to eliminate more than 50% of adhesives used in the cemented process while at the same time offering high performance bonding between the various layers of the sole and better compression-set properties compared with EVA. 



Ballerina with single density direct injected outsole/midsole

CREDIT: HOTTER COMFORT CONCEPT SHOES



In-vivo testing for grip. CREDIT: VIBRAM

What's new in soling?

Vibram has enjoyed an outstanding reputation for high performance rubber soles in demanding applications ever since its first, and probably most famous, product—the Carrarmato climbing boot—sole was created in 1937. Its patented wedge-shaped lugs became the benchmark by which all other climbing boot soles were judged. Over the years more than twenty variants were developed using new rubber formulations. The development of the right compound to suit each demanding application remains the company's philosophy 75 years later.

Finding the right compound can often be time consuming as it requires three types of testing: physical property, 'in-vivo' (testing with humans) and field testing. The procedures of each of the lab and in-vivo tests are repeated with each different rubber formulation until the best compound for the sole's targeted end use is found. Further field tests are then run to validate data found

by the other test methods in the environments the sole is intended to be used in.

TESTING IS THE KEY

Lab testing involves subjecting the different compounds to a litany of tests to extrapolate a number of physical properties such as hardness, density, tensile strength, oil resistance, and abrasion resistance to name but a few. Physical properties yield the first glimpse into the potential advantages of any given compound.

In the *in-vivo* tests, outside environments are brought into a controlled lab setting and human testers are used to collect data. In one test method, testers use their body weight to pull on a rope attached to a load cell until the sole begins to slip. The forces can be used to calculate dynamic and static coefficients of friction on different materials, surfaces with varying degrees of roughness and surface contaminants depending on the intended end use.

Field testing is more complicated and involves recruiting teams of testers in the market segment the product is intended for. Tests usually involve comparing two different compounds with the tester wearing one of each compound. Frequently old compounds that are well understood are used as benchmarks and competitor products are added to the mix to truly see where the compound stands. A precise schedule and protocol helps to mitigate discrepancies. The resultant data are recorded and the test is filmed to ensure results are reliable.

MEGAGRIP

Vibram has always had rubber compounds that exhibit good wet grip and exceptional mechanical properties and others with exceptional wet grip and good mechanical properties but Vibram wanted to develop a 'hybrid' which had the best of both worlds: exceptional wet grip and exceptional durability. Vibram chemists have had

to work long and hard as they found there was always a compromise between the two extremes. Their in-depth research resulted in a compound that had great physical properties on paper and excellent results during field testing causing the company to name it Megagrip.

In order to reach full validation for such a revolutionary compound, field testing for Megagrip was even more strenuous than normal and involved teams of testers working across three continents. Vibram personnel worked with acknowledged experts to ensure consistency and prove the value of the enhanced grip coupled with the improved durability across a variety of performance segments. The result of the field testing was a new 'super rubber' soling compound for which the company has high hopes.

Available in soft 65/70 Shore A and firm 75/80 Shore A hardnesses, the compound is said to offer excellent grip on both wet and dry terrain while also maintaining a high level of durability. It is primarily aimed at consumers who frequently encounter wet surfaces while trekking as well as those who participate in extremely rugged activities such as canyoneering. Megagrip would, however, appear to be a compound that could be well used in a large number of soling applications for a wide consumer base.

TWO COLOUR EVA

Main Group produces a wide range of injection moulding machines of both static and rotary configurations, and covering a wide range of soling compounds. Its latest development is the E266 Evaluation series of static machines for two-colour EVA production. They are available in two, four, six or eight station units and can produce unit soles in one or two-colour, single colour in two densities or two colour and two densities. The company has long promoted EVA as a soling material due to its comfort/stability ratio, lightweight, rubbery touch and good thermal insulation properties.

Main Group claims some significant advantages can be obtained from the new machine including an absence of rejects caused by the long sprues and flashes that are sometimes a problem

in EVA moulding. This increases productivity as well as avoiding waste material and added cost. Productivity is also enhanced by an innovative mould cleaning system that is both fast and simple so that both operator workload and the time needed to clean a mould are substantially reduced.

A wide mounting plate allows two moulds to be used side-by-side, each of which is divided into three parts: top and bottom which are heated and a centre section which is cold. EVA is simultaneously injected into each mould cavity by the injectors which are mounted vertically, such that one fills the top cavity and the other the bottom. The moulds open and the centre sections move to the side out of the way. The top and bottom sections then close bringing the upper and lower elements of the sole together until cured. The moulds then open to allow extraction of the finished unit soles and the cycle to be repeated.

DESIGN FEATURES

The whole ethos of the machine has been centred on the use of mechanical solutions designed to save as much energy as possible. A good example is the method of mould closing where a special mechanism provides much faster movement than on previous machines thus not only saving time but also reducing the flow rate of oil used. E266 machines also feature an hydraulic pump unit and system where the dissipation of energy is very low indeed and this in turn has meant that,

as no refrigeration unit is required, further energy is saved.

The machines are specifically designed to produce unit soles, sandals, galoshes and boots. A long opening stroke which can reach 450 mm provides a large amount of space for access by the operator and for mould changing. Four independent injectors mounted vertically in pairs are used as this allows great flexibility in the use of colours during the moulding cycle. Each has its own management of pressures, flow rates and volumes, and is served by its own dedicated hydraulic pump. This allows the finest of adjustments to be made in order to produce mouldings of the very best quality and consistency.

The operator-machine interface is a touch screen PC positioned in a console located beside the machine while the main electrical panel is located on the back of the machine in order to minimise its footprint on the factory floor. The energy saving hydraulic system consists of five motor-pump groups having fixed delivery and a very high rate of efficiency controlled by a purpose-built inverter system providing completely independent management of flow rate and pressure. The unit itself is built into the machine structure and totally silent. Overall control of machine functions is by a PLC using simple to follow menus and supervised by software that draws on the company's long experience of EVA moulding. 



Main Group E266 EVALUATION moulding machine for two colour EVA.

CREDIT: MAIN GROUP TECHNOLOGIES



Oak bark for quality tanning

CREDIT: RENDENBACH

Oak bark soles

For thousands of years leather was produced using plant extracts and other natural materials. Over time, some were shown to produce better results than others. The bark from certain types of tree, particularly the oak, seemed best and bark tanning became the norm for almost all leather up until the discovery of chrome tannage in the late 19th century. It is now very restricted where footwear is concerned but still used to produce the very best quality leather soles.

The expression tanning comes from tannin, the name given to the extracts used and its roots lie in the old High German word *tanna* meaning oak or fir tree. Tannin is an astringent molecule that bonds readily with proteins and is present to varying degrees in almost all plant forms. Trees have good levels concentrated in the bark layer where it forms a barrier against micro-

organisms such as fungi and bacteria. It is this molecule that lies at the heart of the bark tanning process.

TYPES OF TANNIN

There are two types of tannin: catechol and pyrogallol. Catechol is more astringent, tans more quickly and makes pink, red or dark brown leather. Mimosa, birch, quebracho, alder and fir all contain it. Pyrogallol deposits an acidic sediment called 'bloom' which helps to produce a solid leather with the good wearing and water resistance properties required for soling. Colouring varies from creamy or yellowish to light brown. Sumac, chestnut, oak galls and oak-wood all contain it.

Oak bark has both and is the principal source of tannin used for bark tanning although some spruce, valonia and mimosa are also employed. Bark is collected in the spring when the sap begins to rise and the leaves come out as this is when it will peel most easily.

Tannin is concentrated in its inner or cambium layer and at the lower part of the tree. Once collected, it is thoroughly dried after which it can be stored indefinitely, ready to be ground as needed for use in the tanning process.

OAK BARK LEATHER

Oak bark leather is extremely durable and oak bark tanned soles will outwear all other vegetable tanned soles by a considerable margin. It also produces a flexible, lightweight and water resistant sole due to the slow and gentle nature of the tanning process that ensures the fibres in the leather retain their original weave. Furthermore, due to the fact that the tannin protects the tree against fungi and bacteria, it does the same in footwear so that shoes with oak bark tanned soles and insoles provide a healthy environment for the foot.

It is also easy to work once wetted back and allowed to mellow. It then

becomes easy to mould to shape, channel and stitch in the welted process of manufacture and, if allowed to dry out naturally, will hold its shape permanently. Lighter weight shoulders and bellies are used to produce insoles, toe puffs and counters in hand made and the very best machine welted shoes for this very reason. The fact that the hides used are also selected to be free of blemish means that oak bark soles need very little scouring at the finishing stage which again helps to prolong wear.

PROCESSING

The actual tanning process is carried out in a series of oak lined pits about three metres in depth with no drum work involved at any stage. The concentrations of tannin used are quite low so it is also a lengthy process in order for the leather fibres to be thoroughly tanned. It is this combination that gives bark tanned leather its special properties.

It is also a time consuming and costly process due to the sheer number of hides in progress during the twelve months it takes to complete it, so shoes with oak bark soles are inevitably expensive. They are however looked upon by those who buy them as a long term investment and, properly looked after and repaired, they can have a very long life indeed. While there is naturally some variation between tanners, the procedure for tanning oak bark soling leather is broadly as follows.

PREPARATION

First grade hides of 36kg and above are carefully selected for overall quality and lack of blemishes or imperfections. These will come to the tannery salted for preservation, so they must first be thoroughly slaked to remove the salt. Hides of this sort of weight are large, heavy and difficult to handle especially when wet, so they are often cut up into the standard sections of double or single butt, shoulders and bellies at this stage although they can be left uncut until the end of preparation if preferred.

The resulting hides or sections are further soaked to rehydrate them and restore flexibility, fleshed and then limed in a solution of around 2% hydrated lime in water. This is stirred



Oak lined pits are used for the tanning process.

CREDIT: RENDENBACH

daily and the hides or sections moved through a series of pits over a two week period after which they are ready for dehairing. This process is very important to the finished leather as no sodium sulphide or mechanical action is used which would damage the natural fibre structure. After dehairing, they are fleshed (if not already), delimed and sectioned (again if not already done) ready for tanning.

TANNING

The first stage uses a series of up to a dozen pits containing tanning liquor ranging from a maximum 30% bark down to 10-12% at the end. The high strength liquor uses the tannin directly extracted by soaking ground bark and is fed into the first or 'top' pit from which it is successively pumped down a pit per week until reaching the last or 'bottom' pit where the sections start their tanning.

Sectioning the hides is essential before this point so that each can be suspended in the liquor in order that the tan is evenly absorbed. Each week they are moved on to the next pit until finally reaching the final top pit where

they are layered on top of each other with ground oak bark scattered between each layer and fresh liquor added. Each pit takes about 80 butts and they remain there for between nine and ten months. During this time they will be pulled out once for a further dusting with ground oak bark to top up the strength of the liquor. The total tanning process therefore takes approximately one year from start to finish.

FINISHING

The sections are thoroughly washed once more, excess moisture removed, the flesh side smoothed and the grain side oiled to fix the tanning agents, lubricate the fibre structure and give the leather a supple feel. They are then air-dried for up to a week until the moisture content is down to about 14%, then dampened, piled to mellow, rolled and hung up to dry for the last time. As remarked earlier, it is a laborious, time consuming and expensive process, but one that produces without exception the best leather soles that money can buy.

As already indicated the process of

bark tanning stretches back into the mists of time, yet there are very few such tanneries remaining. In Europe there are now only two: one in Germany and one in the UK. While both are long established, one of them has a particularly long history as a tannery site.

JOH. RENDENBACH, JR.

Rendenbach has practised the time honoured craft of bark tanning in Germany's oldest city Trier for 141 years and, from around 80 such tanneries a century ago, the company is now the only one to have survived. Established in 1871 by Johann Rendenbach, Jr., the company has remained in the same family ever since and is now led by the founder's great-grandson Hanns Rendenbach, Jr.

During its existence, the company has experienced two World Wars, the second of which saw it totally destroyed by bombing. The tanning pits however survived and since re-opening in 1948, the tannery has gone from strength to strength. Nature still provides the main raw materials employed, however, just as it did at the beginning. The agents it uses for this intensive but gentle form of tanning are mainly oak but with some additional spruce and mimosa bark and valonia (oak tree galls), to produce very high quality leather indeed.

Rendenbach concentrates on supplying the very best shoemakers, orthopaedic suppliers and repairers under its internationally recognised JR brand. Its finished products include bends for soles and insoles, orthopaedic necks and bellies and specially treated perspiration necks and bellies also for orthopaedic applications. A separate part of the tannery converts some of tanning output into cut components such as soles, insoles, toepuffs, counters and welts. It also produces top pieces with rubber tips, special soles with vulcanised rubber treads as well as complete heels and sole units to individual customer's requirements. By a continued allegiance to its traditional tanning process and of making no concessions in the

pursuit of quality in its finished products, the company has gained an enviable list of high profile customers across the world.

J & FJ BAKER & CO. LTD.

Even older is J & FJ Baker, situated Colyton in the south west of the UK. Its origins go back to the time of the Roman occupation two thousand years ago if not further. The site was ideal for tanning as there was oak for tannin, limestone to produce lime for dehairing and abundant water from the local river. It has been in the Baker family since 1862 and Andrew Parr, the current managing director, is the great-great-grandson of FJ Baker. He says: "One reason why oak bark tanneries tended to stay in the same family is that the process is one that has always been handed down from generation to generation and, as each tannery had its own peculiarities, it was not knowledge that anyone could readily acquire from books."

Baker uses nothing but oak bark tanning agents and sells 50% of its finished leather either as butts, shoulders and bellies or pre-cut components to the best Goodyear welted and hand sewn shoemakers in the UK. The top end of the footwear market has remained busy despite the current economic downturn as, while volumes are not large, a demand is still there for shoes reflecting the very best in terms of quality and exclusivity.

Oak bark tanners were traditionally also curriers producing leathers for saddlery and harness makers; Baker still does and this accounts for the other 50% of the tannery's output. After tanning, butts are shaved to a level substance and retanned in sumac to soften the leather and give it a paler colour. It is then dressed or 'curried' with fish oils and mutton tallow using traditional hand tools for setting, whitening and staining. This feeds the fibres and makes the leather softer and more supple, as well as stronger and more water resistant. The demand for top grade equine equipment also remains strong internationally and the majority of this output goes for export. 📌



Airing loft. CREDIT: RENDENBACH



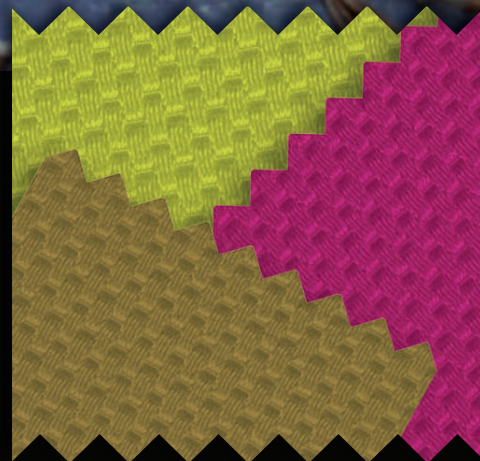
Rolling oak bark leather. CREDIT: J & FJ BAKER

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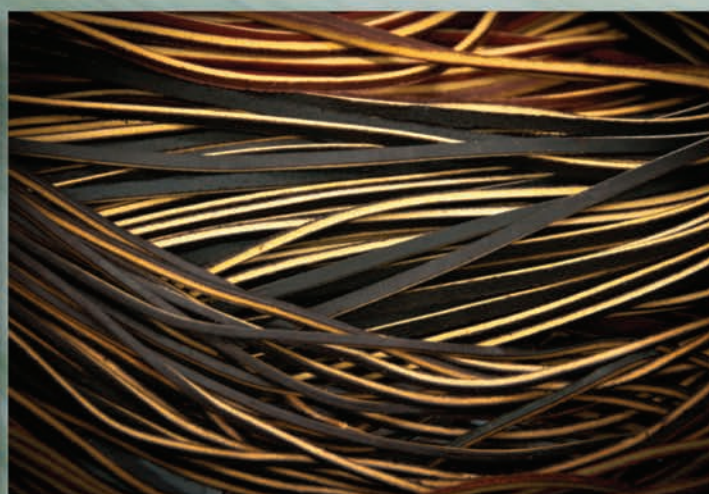
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Vibram's FiveFinger sole is a good example of modern rubber moulding.

CREDIT: VIBRAM



Footwear Fundamentals

Vulcanised rubber

Natural rubber (NR) has been known for hundreds of years. In its natural form, it was not suitable for use in footwear as it was too elastic, became sticky in hot conditions and hard and brittle in the cold. It was not until the 19th century that it became possible to modify it sufficiently for footwear use. The first step came in 1819 with the invention of an internal mixing machine that made it softer and easier to process.

The most significant advance, however, came in the early 1840s with the addition of sulphur and subsequent heating of the mixture, a process called vulcanisation, which made it more stable. In 1904 it was found that introducing carbon black significantly increased its mechanical properties. In 1910, the first synthetic rubber (polybutadiene or BR), was developed to be followed by Buna-S (styrene butadiene copolymer) in the 1930s.

SBR

These synthetic rubbers were further improved during the 1940s to produce styrene-butadiene rubber (SBR) which is the major material used in the rubber industry today. The main footwear grades are NR and SBR, plus nitrile butadiene rubber (NBR) and isobutylene isoprene copolymer (IIR). The final compound to be vulcanised is normally based on a mixture of 100 parts of the basic rubber plus polymers, fillers and other additives to assist vulcanisation and measured as parts per hundred (phr) of the rubber content.

VULCANISATION

Unvulcanised rubber consists primarily of long polymer chains entangled like a mass of elastic fibres which, when stretched, disentangle and slip over each other as they straighten. Traditional vulcanisation using heat and sulphur forms cross-

links between the polymer chains which greatly decreases the amount of slippage. As well as making the rubber more dimensionally stable and heat resistant, vulcanisation also improves its physical properties.

CROSS-LINKING

The sulphur links one polymer chain to another by opening the double bonds. With NR and SBR only a small percentage of these needs to be linked and can be achieved with 2-3phr of sulphur using a conventional cure system. Unfortunately, this leaves a large percentage of double bonds unused and vulnerable to attack by oxygen, ozone and heat. If more than 30phr is added, cross-linking is increased to such an extent that the final compound becomes very hard at around 70D even without fillers, very inelastic and with an elongation at break of about 5%.

TYPICAL ADDITIVES

FUNCTION	ADDITIVE
Accelerators	Dithiocarbamate, guanidines, sulfenamides, thiazoles, thiurams
Activators	Zinc oxide, stearic acid
Antidegradants	Antioxidants, antiozonants, UV stabilisers
Fillers	Carbon black, silica, calcium carbonate
Pigments	Carbon black, TiO ₂ , coloured pigments
Plasticisers	Aromatic, naphthenic and paraffinic oils
Retarders	Benzoic acid, phthalic anhydride, salicylic acid
Vulcanisates	Sulphur and peroxides

Vulcanisation using just sulphur and heat is slow and not very efficient, so activators such as zinc oxide and stearic acid plus accelerators are needed to speed up and control the process. A correct balance results in efficient vulcanisation (EV). Too much sulphur leads to weaker internal bonds which are less thermally stable and also result in poorer compression set. On the other hand, they increase flexibility and fatigue life, so it is clear that selecting the cure profile depends very much on the required performance of the cured rubber.

Peroxides are an alternative which do not need a double bond and act by forming free radicals on the polymer chain by removing hydrogen atoms. Carbon to carbon bonds are formed, which are much stronger than carbon to sulphur, more thermally stable and have better compression set. Unfortunately, they also tend to have poorer tensile and fatigue properties. NBR and SBR can both be vulcanised using peroxides so, together with all the types of sulphur cure, there is a wide range of possibilities for compounders.

ADDITIVES

As well as these additives, others are needed to ensure that the expected properties and life expectancy are obtained from the final vulcanised rubber. Carbon black is still used to reinforce and improve physical properties, while silica and calcium carbonate are commonly employed as fillers. Three types of oil-based plasticiser are also used, aromatic, naphthenic and paraffinic. Final choice depends on the rubber mix being used, its ability to absorb oil and the final

properties required.

Complex mouldings may also call for retarders to slow the vulcanisation process at the start of the reaction. Anti-degradants are also needed to protect the final component from ageing through attack from oxygen, ozone, UV and heat. A wide range of compounds is available to meet this function, most of which are free radical scavengers, the main cause of the degradation.

BLENDING

Once a formulation has been finalised, the various ingredients must be precisely weighed and carefully mixed to achieve a final homogeneous, blended compound without setting off the vulcanisation process or damaging any of the components. There are two main methods of doing this.

Milling blends the ingredients between two horizontal metal cylinders rotating towards each, with the rear one approximately 25% faster than the front, and where the gap or 'nip' between them can be varied from 2mm to 20mm. The difference in speed creates a shearing action at the nip to

disperse and heat the ingredients and force the compound to stay on one cylinder only.

Raw gum rubber is loaded into the nip and run to form a continuous sheet to which the powders, liquids and oils are added in a specific order based on experience. Heat is removed by passing cold water through the hollow cylinders and end guides keep the mix centred on them. Once the ingredients are fully blended the continuous sheet can be cut and removed in one piece.

Mixing uses two blades rotating in a chamber with a top hopper to load materials, a ram to force them into the mixing chamber and a discharge door at the bottom. The best known machine is the Banbury, where heat is removed by channels drilled into the walls of the mixing chamber. Good mixing is obtained by correct setting of the rotor-rotor and rotor-wall clearances. This type of mixing has largely replaced milling as it is cleaner, faster and less reliant on operator skill.

VULCANISED SOLING

Vulcanised rubber unit soles have traditionally been made using compression moulding in single or multiple hydraulic presses heated to a temperature of 160-180°C. Partially-vulcanised milled rubber sheet is cut into blanks to fit the mould cavity plus an extra piece for the heel. These are pre-heated to around 110°C to reduce cycle time and manually loaded into the moulds. The press is closed and the components compressed for between four to ten minutes until the rubber is fully vulcanised. Blanks usually weigh 2-8% more than the required final weight as the excess material ensures the mould is fully filled and all the air forced out when the press closes.



Rubber overshoe marked Goodyear patent 1858.

CREDIT: M WOSHNER



Desma rubber extrusion head.

CREDIT: DESMA

SPECIAL DEMANDS

Obtaining a good bond between the vulcanised rubber and PU was not easy however. Desma solved the problem by using an injector head that tracks over the piston in the open mould and extrudes pre-vulcanised rubber along its length as 'spaghetti'. This is then vulcanised by closing the mould and applying heat. When the mould opens prior to injecting the PU, a robot head sprays the surface of the vulcanised outsole with an adhesive that bonds it securely to the PU. The resulting sole combines the durability of rubber with the light weight and shock absorbency of polyurethane. 

DIRECT MOULDING

This uses four-part moulds consisting of a sole mould or piston, two side moulds and a metal foot/last. Because of the high pressure used, the moulds have to be securely fixed to the machine and are difficult to change quickly. In operation a roughed and cemented upper is force-lasted on to the foot, the pre-heated sole blank placed on the piston, the foot positioned over it, the side rings closed on to the lasted upper and the piston moved upwards to a preset level. The rubber melts, flows to fill the mould evenly and vulcanises itself to the upper. At the end of the cycle the mould opens automatically and the foot rises so that the completed shoe can be de-lasted and the cycle repeated.

INJECTION MOULDING

Main Group in Italy introduced its Incom Process in 1992. This featured a nozzle that could be inserted through the back of the mould so that the rubber could be injected as a ribbon rather than inserted as a blank. The new system made it possible to produce direct moulded footwear with either a solid vulcanised rubber outsole or a combination of a thin solid outsole and a thicker, lower density blown rubber midsole. At the same time Desma in Germany produced a system that replaced the blown rubber with microcellular PU which proved so successful that it is still in extensive use today.



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Out of Africa

A brand borne out of a desire to help women in Ethiopia earn a wage and create a better life for their families opened its first stores in Taiwan at the end of 2012, becoming the first African footwear brand to open a standalone store in Asia. The company is aiming to add between \$15 million and \$20 million in revenues by 2015 – not bad for a company that hand stitches shoes made mainly from recycled material.

The speed at which the brand has grown could point to a wider desire among consumers to connect with the background of a brand – particularly if the message is seen as worthy. SoleRebels' growth mirrors that of Toms Shoes – a US brand that has built its reputation on a philanthropic message, donating a pair to the developing world for each pair bought. But soleRebels' founder Bethlehem Alemu is keen that the shoes are bought on merit – that consumers think they are comfortable, stylish and "cool".

"Some people may know the shoes are Fair Trade or made in Ethiopia, some may not, but everyone who sees them and tries them on knows they are incredible footwear," she says. "That to me is critical as it means the product and the brand are what draw people in."

SoleRebels' shops in Kaoshiung, Taichung and Pingtung City are the first of 30 earmarked for Taiwan in the next three years. Ms Alemu sees it as a springboard into the rest of Asia, including China, where she also plans to open stores this year.

"Taiwan is an incredible market," she explains. "The people there are fashion savvy and they know good products when they see them. Their history as a footwear manufacturing centre means they are incredibly smart and discerning as customers."

Ethiopian footwear brand soleRebels' powerful message has helped it grow from a community enterprise into a multimillion dollar company, and it is setting its sights on a global invasion.



The launch of soleRebels store in Pingtung City, the third of 30 set to open in Taiwan in the next three years

ALL PHOTO CREDITS: SOLEREBELS



Bethlehem Tilahun Alemu, founder/CEO of soleRebels footwear.

We found that very attractive in terms of proving the strength of soleRebels from both a product and brand point of view. Additionally, Taiwan is a key retail market in Asia and one of the top 10 footwear markets in the world."

Fair trade

Established in Zenabwork on the outskirts of Addis Ababa in 2005, soleRebels is the world's first World Fair Trade Organization-certified footwear company, meaning its labour policies, wages and working environment have been deemed Fairtrade compliant. Artisans hand craft the sandals and shoes using traditional methods and materials, including local organically grown cotton and fibres from the indigenous koba plant. By viewing sewing as a key part of the quality of the end product, Ms Alemu has created some of the highest paid sewing jobs in the country. "I saw what a lot of these people could do in terms of various craft and creative skills. However, owing to extreme poverty, stigma, marginalisation and a whole load of other factors, many of them couldn't even get simple jobs."

Each of the styles is almost completely made from organic or recycled material, including car tyres, although not because it is the "in thing or because we held a focus group or because some marketing genius told us to be green," she adds. "We embrace these production methodologies because they are integral parts of Ethiopia's cultural fabric, are by their essence sustainable and low impact and, best of all, make amazing products."

"Recycling things here is a way of life; we've been recycling for years without ever calling it recycling. When you have limited resources everything is valued and valuable, everything has a purpose even if not the original purpose it was intended for."

Ms Alemu thought big from the start. As the potential market within the country was relatively small, and her ambition was to change how people viewed Ethiopia as a whole, she had to establish a product that could compete on a global stage. She also wanted people inside the country to think differently. "I saw the devastating effect that aid and charity had had on the

wider community, in terms of making people complacent and dependant. I wanted to show people that if we all worked hard we could have jobs that pay decently and we could all start to feel the pride that comes with financing ourselves and not waiting for handouts," she says.

"My story has flipped the discourse on African development from one of poverty alleviation orchestrated by external factors to one about prosperity creation driven by local Africans maximising their talents and resources."

This drive has not gone unnoticed. In 2010, a delegation from the World Bank visited soleRebels' factory and in 2011 Ms Alemu was named Young Global Leader by the World Economic Forum. She presented at the World Bank and International Monetary Fund, and joined Nelson Mandela discussing the next generation of leadership in Africa at the US's Harvard university. Forbes magazine named her among the most successful women in Africa and, in 2012, as 'one to watch' on a global scale.

Giant leaps

SoleRebels is concluding agreements for stores in the US, Germany, Australia, Kuwait, Israel and Mexico, among others, with each housing hundreds of designs. A promise to replace any shoe "no questions asked" and a guarantee that lasts as long as the sole has appealed to consumers, as has the option to customise designs online.

"We co-develop products with local partners so as to be able to reflect the tastes of their specific market, be it in style or colour or anything else. We are able to turn many new ideas into fully realised products within three to five working days," adds Ms Alemu.

Preserving traditional skills such as hand spinning and looming is important to the ethnicity of the brand but the idea was also to create employment options that would appeal to a new generation. "We want to be the company that provides the jobs that mean thousands of people – from the semi-skilled right up to the college graduate – do not have to leave Ethiopia to find well-paid, rewarding work," she explains.

And job creation is not something she is focusing on solely for Ethiopia – the company is looking to add 600 jobs outside of the country by 2015. "This is deeply exciting as soleRebels emerges as the first African brand to become an international job creation powerhouse, proof that growth in Africa equals real global economic and jobs growth across the planet. The stores we are opening in Taiwan give us a fantastic platform to showcase our products in an equally dynamic market. We feel very strongly that Taiwan is the perfect place for us to anchor our Asia-wide rollout - truly historic strides for soleRebels," she concludes. 🌀



The Heritage Roos from its Red collection. The majority of ranges still feature the signature pocket – some large enough to hold a small wallet.

ALL CREDITS: KANGAROOS



Bouncing back

‘Bouncing back’ is a phrase that suits KangaROOS. The brand went from being one of the top five US sports apparel companies in the early 1980s to a massive slump in sales at the end of the decade, followed by a revival in the late 1990s. And it seems again, after a lull, the shoes are gaining ground – there has been a surge in sales in Northern Europe and Scandinavia where the shoes have been ‘repositioned’ to appeal to teens and skaters. “Today’s customers don’t just buy shoes, they buy into stories, values and credibility,” KangaROOS managing director for Europe Julia Hummel tells *World Footwear*. “KangaROOS has all of this, with its great story and wonderful heritage.”

In the beginning

Like many of the best ideas, the first KangaROOS were borne from a need to solve a problem – that American Bob Gamm, whose family was in the shoe business, didn’t like

KangaROOS shoes have suffered mixed fortunes - from leaping off the shelves in the early 1980s to heading towards a crash a decade later. But true to the name, it is on the way back up, and its managing director Julia Hummel tells *World Footwear* about its giant leaps in Northern Europe.

leaving his keys and money on the floor while he went running. A shoe with pockets seemed a fitting solution, and the public agreed. Within five years of launching in 1979, sales grew to more than 700,000 per month.

Mr Gamm was keen that the shoes weren't merely a fad or a fashion item, however – he wanted them to be taken seriously as performance footwear and in 1986 invested in a 10,000 square-metre testing facility, the KangaROOS Laboratory & Gymnasium, in Illinois. Former Nike designer Ray Tonkel created the Dynacoil for KangaROOS, a system approved by NASA that reduced impact shock, provided lateral stability and was said to increase athletic efficiency. Athletes, basketballers, footballers and ice-hockey teams wore the shoes, and KangaROOS became one of the first companies to use sports stars for endorsements.

By the end of the 1980s, however, sales began to slip, caused by a number of factors including strong growth of its competitors. In 1988, company sales dipped to \$50 million from a high of \$114 million four years earlier and Mr Gamm took the decision to sell the business.

European stronghold

But fashion moves in cycles, and it was this cyclical motion that saw a second wave of sales in the late 1990s. Retro styles, particularly in sportswear, saw a surge in popularity, were worn by indie and rock bands and filtered into street fashion. KangaROOS, like many heritage sports brands, took on a cult-like status, and the demand for old-school meant the company saw a growth in sales and it reacted with new apparel lines to complement the footwear.

It is this same demand for retro or heritage looks that has seen the company take another leap forward in Scandinavia and Northern Europe recently. Its base in Northern Europe is particularly strong, partly due to the strength of its distributor, Germany-based Bernd Hummel. It is the largest licensee of KangaROOS worldwide and distributes the brand in 20 European countries.

Ms Hummel, daughter of the company's founder, says the experience gained from continuity is essential: Bernd Hummel has been a distributor since 1981 and it appears to be going from strength to strength.

"A good indicator is the fact that we are in the best sneakerstores in Scandinavia and Germany, on their shelves as well as in their shop windows," says Ms Hummel, mentioning Amen in Munich, AFEW in Düsseldorf, Norse in Copenhagen and SNS Sneakerstuff in Stockholm among them. The shoes are also stocked at Colette in Paris, a well-known indicator of trends. "This shows popularity and forecasts the trend, as only a small selection of brands actually make it to this level of retail," says Ms Hummel.

Positioning the brand as a fashion shoe, rather than performance shoe, has been a key differentiator in Europe, and it has again been propelled by a resurgence in popularity of retro fashion in general. "However, you cannot survive for seasons just 'playing the retro game'," she adds. "You have to develop and update continuously, especially in terms of colour and material. We develop completely new styles and we update 'icon styles' that we find in our archives. It's not just a retro but also a sneaker resurgence going on in the market that we benefit from."

Appealing to a new generation

With a focus on its key European markets, KangaROOS has launched various limited editions and collaborations, most recently in August with Premium Supply Store in the



Julia Hummel, KangaROOS managing director of Europe, looks after the brand in more than 20 countries.

Netherlands and Danish international footballer Lasse Schöne, and a design with German streetwear label Wemoto Clothing – a partnership formed at the Bright tradeshow in Frankfurt in 2010.

It is these alignments that the company hopes will resonate with the younger generation. Last year it launched the Flying KangaROOS, a competition to sponsor skate and bike stunt riders promoted through its German Facebook page, and offered design students at Deutsche Schuhfachschule, the German College of Footwear Design and Technology, the chance to design a limited edition shoe that was produced in time for DWF shoe fair in Düsseldorf in September. As well as seeing her design as a commercially available finished product, the winner, 23 year-old Tina Dauenhauer, has been offered a training place at KangaROOS' head office and "ideas factory" in Neuffer am Park in Pirmasens, in another example of the brand keeping itself relevant to youth tastes and talent.

"The competition was, of course, designed to unearth new talent. We can examine the potential of future designers and specifically select them for our brand – an opportunity for both sides," adds Ms Hummel.

Global picture

Looking at the brand on a global scale, Pentland Group, which owns the KangaROOS worldwide brand, is eyeing growth. James Wilson, vice-president of KangaROOS International, says: "While Europe continues to be our



The Premium Supply Store and Lasse Schöne collection is offered in green, red and black, the colours of NEC Nijmegen football team in the Netherlands. Designers Shane and Shawn in the US and Wemoto in Germany have also collaborated with the brand.

strongest market we have also focused in recent years on building strong local partners globally and we are now seeing new growth in Asia and the Americas. Our partners in Germany have distributed KangaROOS since the 1980s and this year we have seen higher-than-expected growth in Scandinavia."

The groundwork for the growth in Scandinavia was laid in Germany, according to Thomas Vangsgaard, product controller for Viking Footwear, which distributes the brand in Norway. He said the growth is "the outcome of a segmentation that KangaROOS in Germany made some years ago, where the heritage styles were only offered to fashion retailers and high-profile stores". He added: "The timing for heritage styles is just right now."

Last year, KangaROOS relaunched its Nordic-facing website, featuring interactive sections and videos, and sponsored Team KangaROOS, a basketball team from Kongsberg in Norway that gained popularity through a TV programme called Norwegian Talent. The marketing and message has resonated with a young Scandinavian client base.

"Scandinavia, in particular, has always been a leader in

terms of style and open to new, fresh brands, looking for an alternative to what's worn by the masses," adds Ms Hummel.

Mass appeal

For the brand as a whole, sponsorships, astute collaborations and social media strategies are bringing the shoes to a new audience too young to remember them the first, or even second, time around. "For those who loved KangaROOS in the 1980s as children or in their teenage years, we love to bring back those memories of what they carried in their pockets," says Ms Hummel of the elder customers. And of the youth: "We like to make sneaker and heritage lovers happy and address them with a fantastic product, that not only stands for quality but also a very charming heritage."

It seems the duality of the focus is working. Trend predictor WGSN recently stated: "The retro runner is confirmed as a collection staple for spring/summer 2013. For silhouette, this trend is all about the 90s by way of the 70s, with seasonal colour and contrast laces bringing the look up to date."

Looks like the ROOS could be set for yet another leap. 🐨



Bright colours are a key feature, of the Invader Fluorite in purple.

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Tenson produces a range of products for the outdoor wear market, including jackets, coats and footwear.
PHOTO CREDIT: TENSION



Tenson marches on

Scandinavians are good at many things, and establishing outdoor brands that are innovative and adaptive is one of them. Take Tenson: borne from one man's realisation that there were no fashionable cycling helmets in the 1940s, the Swedish brand has moulded itself over the years, branching into a wide range of sports. It sponsors a cross-country ski team, supports a triathlon and endorses snowboarders and mountaineers. Its tagline, "a way of living", speaks to the outdoors and the 'Tenson man', a vision conjured up by founder Paul Rydholm in the 1950s.

Its latest release is a line of functional footwear, which "allows the wearer to enjoy the rugged, unspoiled natural world in the utmost comfort".

The collection combines influences from the outdoor and sports worlds with a typically Scandinavian sense of style. No-nonsense and understated, the sneakers and boots have a calm and muted colour palette: fawn, anthracite, olive and taupe, with accents in the blue and yellow Tenson (and Swedish) colours.

Much of the collection features the company's Air Push technology. The shock absorber is located in the outer sole and helps to soften the impact of the downward step. The polyurethane-injected inner sole moulds itself around the foot and, after use, returns to its original shape. The flexible latex middle sole provides extra freedom of movement and the inner lining contains perforations that aid the discharge of moisture from perspiration.

The collection includes sporty and more formal sneakers, as well as ankle boots with sturdy soles. "They have been designed with the lover of the outdoors in mind and offer comfort in the most extreme conditions," states the company.

The collection is divided into three. There are purely functional boots with nylon uppers, models in leather and suede and ultra-light variants with neoprene uppers. "Thanks to the ingenious 'print' lining, these boots are as sturdy as it gets," it adds.

Back to the roots

Today, as well as home soil, Denmark, Belgium and the Netherlands are key markets for Tenson, and its current owner, Holland's Unlimited Sports Group, has begun an aggressive push into Germany with the hope of regaining market share and revitalising the brand. USG owns INQ, SPEX, Wildebeast and Athlete, and is the agent for Le Coq Sportif, Ellesse, Diadora, Admiral, Helly Hansen and Champion Footwear in several markets.

"The ambition is to continue the building of the Tenson brand to one of the strongest within sport and outdoor in Europe," said Johan

The Swedish brand has spanned the product spectrum from swimwear to skiwear and its new line of footwear showcases the innovative nature that keeps it fresh after 60 years.

Lövqvist, managing director of Tenson, at the time of USG's takeover in 2010.

Rewind 60 years to Mr Rydholm working in his father's clothes store in the tiny northern Swedish village of Varburg and the seeds of this kind of ambition would be apparent.

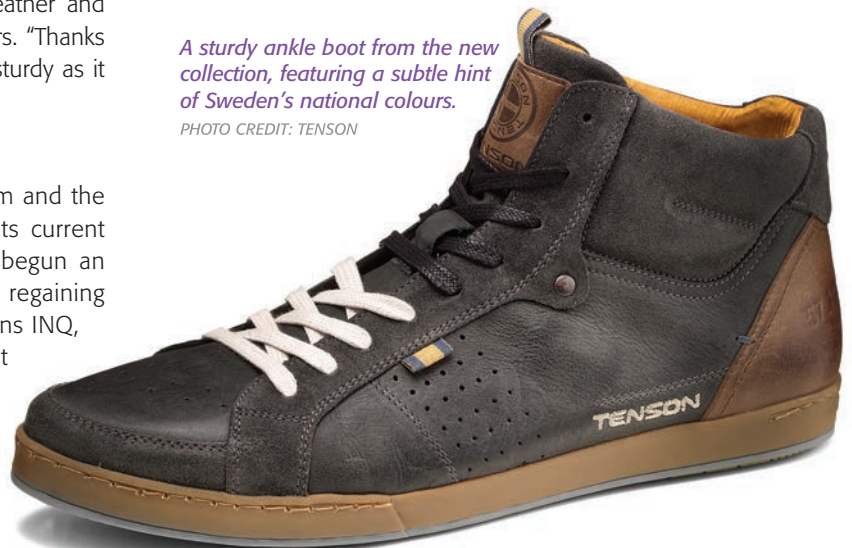
The young man created a new shape of cycling helmet and persuaded local bike manufacturer Monark to buy the design from him. Next he drew trousers with innovative pockets; shortly after, he took inspiration from French magazine Elle to design a range of swimwear. Armed with a car full of samples, he travelled to a German trade fair with his sister, where his designs caught the attention of international distributors; Tenson's overseas footprint was cemented.

Mr Rydholm's vision of the 'Tenson Man' still informs the company's line: "He skis, hunts and fishes, wanders in the forest with his pipe in his mouth. Can't live without his jacket; sleeps in it if he can". Perhaps the description that he's "the kind of guy every girl wants to roll meatballs and fold the bedclothes for" hasn't aged quite so well but there's no denying the charm behind the ethos.

"The Tenson heart continues to beat for Paul and all our customers who, just like us, are people who enjoy living an active and prosperous life," says the company. 

A sturdy ankle boot from the new collection, featuring a subtle hint of Sweden's national colours.

PHOTO CREDIT: TENSION



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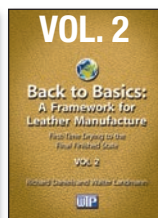
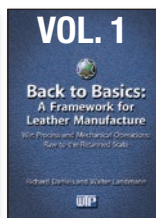
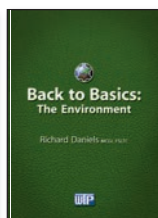
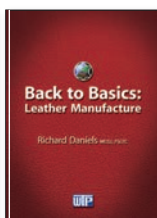


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