

WORLD FOOTWEAR

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THE MAGAZINE FOR THE GLOBAL SHOE INDUSTRY



How to manage chromium VI
The shoe factory experience
Millennials make demanding customers

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Contents

Front cover

Footwear from Portuguese brand Shoes
Your Mood, which offers millennial
consumers quick access to customised
products.

Image: Messe Düsseldorf/Constanze Tillmann

2. News map

Highlights from around the world of
footwear. For news on footwear matters
every day, go to footwearbiz.com, the
best news website in the business.

4. Footprints

People making their footprints felt in
the industry, including politicians,
industry leaders and designers.

6. Products and services

Details of innovations from suppliers
and service providers across the globe.



10. Backtrack

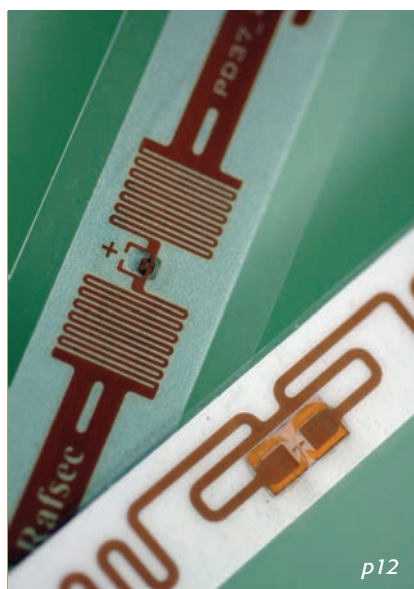
Headline highlights from
footwearbiz.com over recent weeks.

12. Genuine article

High-end brand Ferragamo is putting
RFID tags into shoes to give its
customers confidence they are
buying the real thing. In 2015 it had
to block 91,000 advertisements for
counterfeit goods.

16. Bright future

The nineteenth UITIC Congress in
Chennai earlier this year predicted a
positive future for footwear
manufacturers who "think big".





18. Fast and flexible

Portuguese partners CTCP and Kyaia have worked together on a project called High-Speed Shoe Factory, offering the flexibility to work on 70 different models on the same production line.

20. Three in one

Carvalhos Group has extended its OakLeather range to include shoe upper material that is water-repellent, metal-free and biodegradable.

22. Under attack

Footwear producers who use leather have a sustainability story to be proud of, and one they perhaps ought to tell more often.



26. Chrome VI can be avoided

SATRA's John Hubbard offers pointers on how shoe companies can help their suppliers stay on track to avoid chromium VI.

34. Young generation

Today's young consumers, the so-called millennials, know what they want from fashion brands and will not put up with second-best.

36. Appetite for India

Heidelberg-based footwear company Melvin & Hamilton says it can find all the flair and craftsmanship it needs from manufacturing partners in India.

29. Step inside

Visitor-friendly factories can be good for business as people yearn to learn more about how products are made.

40. Essential reading



Advertiser's Index

Company Name	Page
American & Efid	28
Auburn Leather	9
Desma	7
Emtex	32
Ethicaleather	25
Faytex	31
Footwearbiz	11
Milspeed	39
Rhenoflex	15
Sheehan Associates	Cover 3
Texon	Cover 4

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News

BRAZIL Export figures for the Brazilian footwear industry in 2015 make painful reading for national footwear association Abicalçados. In recent comments to local media, the organisation's executive president, Heitor Klein, said export revenues fell year on year by 8% in 2015. The amount Brazilian shoe companies brought in from export markets fell below the \$1 billion mark to \$960 million. In addition, Mr Klein revealed that levels of employment in the industry in Brazil also declined last year, from 330,000 jobs in footwear production in 2014 to 284,000 in 2015, a fall of 14%.

ARGENTINA A senior figure in the footwear industry in Córdoba, Argentina, has said production levels there are down by 35% or 40% compared to this time last year. Miguel Hames, president of the Córdoba footwear industry association, has said increases in costs, a drop in consumer spending and an increase in imported shoes have combined to make life difficult for local manufacturers.

ITALY Italian footwear company Salvatore Ferragamo has reported a 7% rise in 2015 revenues to €1.4 billion. About 36% of sales occurred in the Asia-Pacific, the group's top market, an increase of 4%. Sales in China rose 10%.

● In the first 10 months of 2015, Italy registered a 4.8% increase in the volume of shoe exports to Germany and 0.9% growth terms of value over the same period in 2014. Germany is the second biggest export destination for Italian shoes after France.

FRANCE Footwear brand Bata appears close to bringing all of its business in the country to an end after 90 years. The famous Czech footwear firm, which still produces and sells shoes in about 70 countries in the world, entered the French market in the mid-1920s, in the early days of its international expansion.

INDIA Indian exports of leather and leathers goods were valued at \$5.92 billion for the 2015-2016 financial year, below the target of \$6.25 billion. From April 2015 to March 2016, exports dropped 10.11%. Exports of finished leather were down 21% whilst there was a 20.88% drop in the value of footwear components exported.

● Indian conglomerate Reliance Industries has pledged to invest \$190 million building a footwear and electronics manufacturing hub in Haryana, northern India, according to local press.

SPAIN Exports of Spanish footwear decreased 6.9% in February compared to the same period last year, the first drop in nearly three years. Total footwear exports were valued at €272 million, down from €283 million in February 2015, according to the Spanish Institute for Foreign Trade.

SOUTH AFRICA A South Africa-based leather publication has reported that the National Footwear & Leather Cluster (NFLC) has been closed, following an investigation by new management. Executive director Ernest Heunis told S&V Mag the closure was temporary pending restructuring but did not give a reason for the suspension.

CAMBODIA Garment and footwear exports from Cambodia increased 7.6% in 2015 to \$6.3 billion with footwear leading the way, according to figures from the Cambodian Garment and Footwear Sector bulletin. Cambodia's footwear sector continued its strong growth, reaching export levels of \$538 million, a 21.8% increase on 2014's figures.

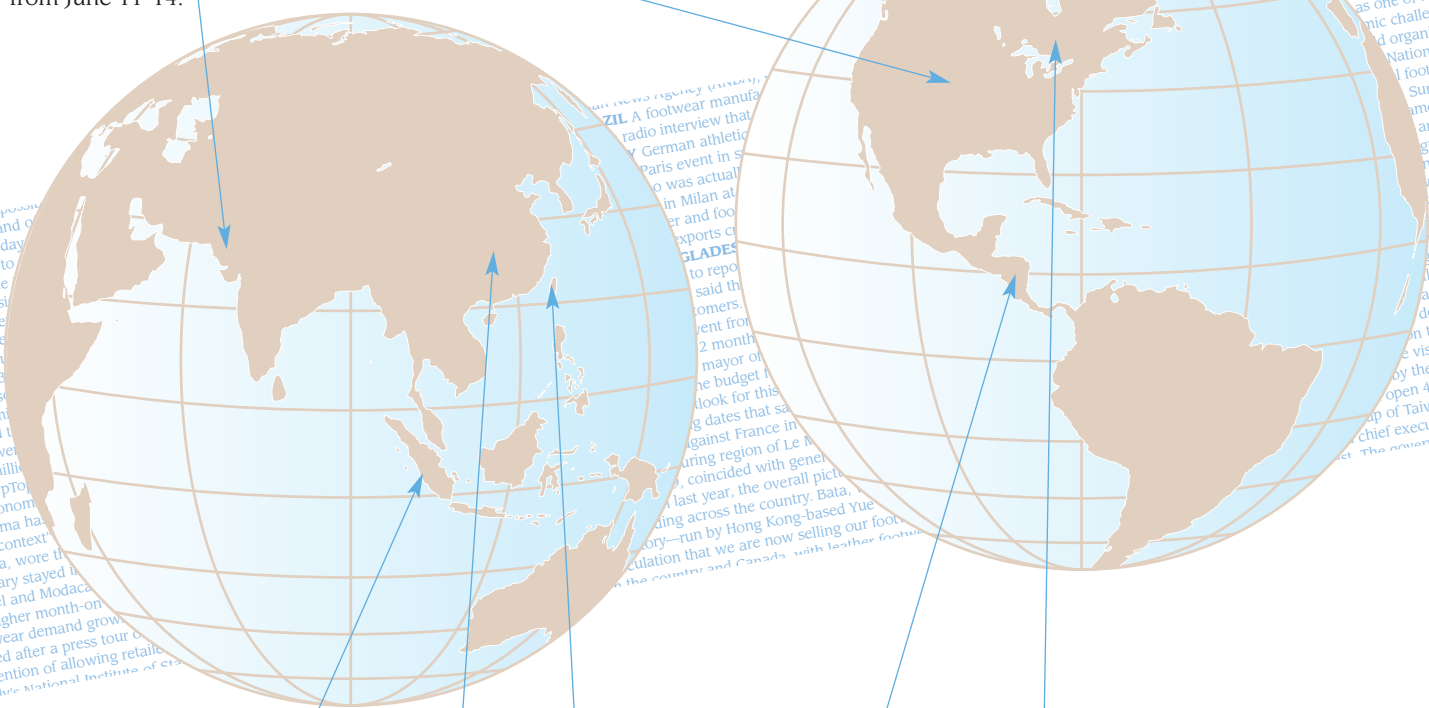
PAKISTAN Results for January show that Pakistan's total leather sector exports fell by 25% during the first seven months of current financial year (July 2015-January 2016), dropping to \$590 million. Over the period, there were exports of 6.8 million pairs of shoes, with a value of \$77.5 million.

● Pakistan's Trade Development Authority (TDAP) has announced a support package to allow shoe manufacturers that are active in export markets in Europe to take part in the Expo Riva Schuh exhibition in Italy from June 11-14.

US Outdoor footwear group Wolverine World Wide has reported revenues of \$577.6 million for the first quarter of 2016, a decline of 8.5% compared to the same quarter last year. Chief executive, Blake Krueger, said this figure exceeded the group's expectations and that Wolverine is well positioned to achieve its full-year objectives for 2016.

● The monthly report from market research organisation NPD Group showed a 2% decline in US footwear sales in March. Total sales were valued at \$2.9 billion, down from \$3 billion in the same month of 2015.

● Sportswear brand Under Armour's net revenues increased 30% to \$1.05 billion in the first quarter of 2016. This compares with \$805 million in the same period of 2015. Net income in the quarter rose from \$12 million in 2015 to \$19 million this year.



INDONESIA Testing and certification body SGS has opened a new state-of-the-art testing laboratory in the city of Semarang. It will serve the nearby cities of Surakarta (also known as Solo) and Yogyakarta, both centres of batik production. The new facility on the island of Java will provide physical testing for a full range of apparel and textiles products.

TAIWAN Outsource shoe manufacturing group Pou Chen has announced revenues for the first quarter of 2016 of almost \$2.1 billion. This represents an increase year on year of 8.3%.

CANADA Canadian footwear components manufacturer Swenco is to assume responsibility for the distribution of its products in the US. MEGACOMFORT International had previously been the exclusive reseller of Swenco's Steel-Flex product line in the US.

NICARAGUA Nicaragua's national leather and footwear association has said an increase in the quality of the shoes local manufacturers are producing is bringing buyers from other locations to the Central American country. In recent comments to local media, association president, Alejandro Delgado, said important buyers from other countries in the region visited Nicaragua in late November to place orders totalling more than 400,000 pairs. He said Nicaragua's footwear industry produced around 6.5 million pairs in 2014 and that the figure for 2015 is likely to be 8 million.

CHINA Chinese customs authorities have said footwear manufacturers in the country brought in just over \$8 billion in shoe exports in the first two months of 2016. This figure represents a decline of 17.3% compared to the first two months of 2015.

● Chinese footwear group Stella International has reported revenues of \$267.6 million for the first quarter of 2016. This figure represents a decline year-on-year of 6.5%, which the company said was attributable to a warm winter.



Footprints

FERRAGAMO CEO TO LEAVE BY END OF 2016

Italian footwear company Salvatore Ferragamo has announced that CEO **Michele Norsa** will leave his role by the end of the year.

Norsa has led the luxury goods maker since 2006 and news of his departure follows the announcement in March that creative director **Massimiliano Giornetti** had stepped down.

"Norsa has expressed the wish to prioritise family and to focus on new professional interests after a long period of intense efforts and rewarding results," the company said in a statement.

According to the company, Norsa will remain part of the company in a non-executive capacity until the shareholders' meeting to approve 2017 results, which is expected to take place in early 2018.

ASSINTECAL NAMES NEW PRESIDENT

Brazil's association of machinery and materials suppliers to the footwear and leather sectors, Assintecal, has named **Milton José Killing** as its new president. He will hold the presidency until April 2018.

The new Assintecal president is chief executive of Killing SA, a Novo Hamburgo-based provider of specialist dyes and adhesives. Mr Killing was Assintecal's president between 1996 and 2002. He said on taking up the post again that he will aim to forge greater unity among suppliers to the country's leather industry in an attempt to make Brazilian shoes and leather more competitive in the global market.

"This is going to be hard work," he said. "The economic crisis has slowed down the development of the components sector, but it has not stagnated. We've got to get the development of the sector going again and place our products at a high level of global competitiveness."

PUMA SNAPS UP FORMER ADIDAS MAN

Former adidas senior director of project management, **Matthias Mecking**, has confirmed a move to sportswear rivals



INTERNATIONAL TRADE AWARD FOR JOSEPH CHEANEY & SONS

English footwear-brand Joseph Cheaney has been awarded the Queen's Award for Enterprise, a business award conferred on UK companies with a high level of performance in international trade.

Joseph Cheaney has been making traditional English shoes in Northamptonshire since 1886. Cousins **Jonathan** and **William Church**, fifth-generation shoemakers (from the family behind the Church shoe brand), conducted a management buy-out of Joseph Cheaney & Sons in 2009.

The two cousins believed they could build the Cheaney brand up and give it a new lease of life. William Church has said: "It had all the right ingredients, a strong heritage, its own UK factory and a skilled local workforce. Being independent gave us the opportunity to raise the profile of Cheaney, as a brand in its own right, both in the UK and internationally."

Jonathan Church said at the time of the announcement about the Queen's Award: "It's a great accolade to receive the award in 2016; a year that not only celebrates the ninetieth birthday of the HM Queen, but also the 130th anniversary of our company. For us the award also demonstrates how quality products 'Made in England' are recognised the world over."

Puma, where he will take on the role of general manager of Teamsport.

In over 20 years at adidas, Mr Mecking occupied a variety of management positions, including category director for football and rugby footwear, and vice-president and product business unit director for football footwear and hardware.

Prior to his appointment at Puma, Mr Mecking spent two months working as a strategy consultant for football team SV Werder Bremen, that plays in Germany's Bundesliga.

UNDER ARMOUR PAIR WITH SPIETH FOR FOOTWEAR RANGE

Under Armour has teamed up with **Jordan Spieth** to launch a range of golf shoes. The American star, who narrowly missed out on a second consecutive Masters title, joins basketball's **Stephen Curry** and **Tom Brady** of the NFL on the list of sporting superstars affiliated with the US sportswear brand.

According to reports, Spieth had considerable input when it came to the design of the collection, his contribution ranging from comments on flexibility to feedback on overall comfort.

As well as the signature footwear range, Under Armour unveiled pioneering new golf pants. An elastic waistband is designed to facilitate a wide range of movements whilst there are rubber grips to stop a golf shirt from coming untucked on the course.

NATIONAL HONOUR FOR BERLUTI MASTER SHOE MAKER

Berluti master shoemaker **Patrice Rock** was one of eight artisans who received the Chevalier des Lettres et des Arts award from the French ministry of culture in February. The brand's chief executive, **Antoine Arnault**, accompanied Mr Rock to the special ceremony at which he and his fellow award winners received their insignia.

On presenting his award, culture minister, **Audrey Azoulay**, paid tribute to Patrice Rock's commitment to "a

constant dialogue with customers, through which you are continuously able to reinvent your art". She said Mr Rock's ability to make sure no two pairs of shoes were the same was one of the main reasons Berluti is "one of the few brands in the sector that can offer made-to-measure shoes".

She said that, during his 12 years at Berluti, Mr Rock has had "1,500 unique pieces" pass through his hands.

SAUCONY NAMES GLOBAL FOOTWEAR VP

Footwear group Wolverine World Wide has appointed **Thomas Hartge** as vice president of global footwear for its Saucony running shoe brand. He replaces **Patrick O'Malley** who was recently named Saucony president.

"Tom personifies Saucony's relentless commitment to elevate the running experience through performance innovation," said O'Malley.

Hartge counts Nike and Quiksilver amongst his previous employers during a 30-year career in the performance running footwear industry. His roles have included global brand director for Nike Running and executive vice president of footwear at Quiksilver.

ASHLEY ROBERTS LAUNCHES FOOTWEAR RANGE

Former Pussycat Doll singer **Ashley Roberts** is to launch her first footwear collection in December 2016.

The range, which will carry Ms Roberts' middle name Allyn, is being developed in collaboration with a family-run factory in Italy which produces high-quality shoes.

The collection is the result of Ms Roberts' passion for footwear and takes its inspiration from her own family.

TOMS CELEBRATES ONE DAY WITHOUT SHOES

US footwear brand Toms is asking people to share pictures of their bare feet on Instagram to help provide children in need with shoes.

'One Day Without Shoes', which took place on May 10, was an event organised to raise awareness of the health and education issues facing children and the importance of proper footwear.

BATA SELECTS CEO FROM HEINEKEN

Footwear group Bata has appointed a former president of Heineken as its CEO. **Alexis Nasard** has been at the brewing company for six years and has also spent 17 years at Procter & Gamble.

"I am very excited at the opportunity to work with the Bata team to further develop the company and its brands, particularly the Bata brand, through a fast-changing consumer and retail environment, building on the company's strong assets and global footprint," he said.



Using the hashtag #withoutshoes, Toms wanted participants to experience the importance of proper footwear and take a picture without their shoes on. The company will give away a pair of shoes for every unique photo shared, up to 100,000 in 10 different countries.

FFANY NAMES SCHOLARSHIP WINNER

The Fashion Footwear Association of New York (FFANY) has announced the winner of a scholarship named in honour of the organisation's former president and CEO.

The 2016 Joseph C. Moore Footwear Scholarship was awarded to **Chelsea Fu**, a student of accessories design at the Parsons School of Design in New York. She beat six other finalists to win the scholarship and will now have the opportunity to receive advanced training in footwear design at a 13-week course at the Arsutoria School in Milan.

TWO LUXURY BRANDS TO OPEN NEW BOUTIQUES IN LUXEMBOURG

Reports from Luxembourg say luxury brands Louboutin and Christian Dior are preparing to open new boutiques in the Ville Haute quarter of the capital in the coming months.

The rue Philippe II in the Ville Haute, one of the most prestigious areas of Luxembourg City, already hosts a number of prominent luxury brands' boutiques, including those of Louis Vuitton, Chanel, Hermès and Dolce & Gabbana.

MIZUNO US PROMOTES MARK O'BRIEN

Sports footwear brand Mizuno has promoted **Mark O'Brien** to the position of chief operating officer of its business in the US.

Until now, Mr O'Brien has served as Mizuno US's vice-president of brand management and marketing. He will still report to Mizuno US president, **Bob Puccini**.

SWIFT WINS US TRIP AFTER UK AWARDS

Burnley-based footwear company Swift & Co had the chance to exhibit at the FN Platform event in Las Vegas in February following its success in winning awards last year from The Worshipful Company of Cordwainers Award for innovation and from the British Footwear Association for new production techniques and developments in comfort.

As an example of the innovation it has introduced, Swift said the foam it uses in insole footbeds is between 10 and 11 millimetres thick at the toe, and between 12 and 13 millimetres thick at the heel, offering, it claimed "a 300% to 400% uplift in underfoot shock absorbency over a standard insock".

The company has now launched a new website from which customers around the world can order shoes directly. It said it was looking forward to fulfilling its first e-commerce orders. 📱

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footwearbiz.com

Products & Services

NEW CHROME VI INITIATIVE RECEIVES MAJOR BOOST

Moves to address ongoing questions over the potential for hexavalent chromium (chrome VI) to form in finished leather have won a significant boost.

The UK Leather Federation and the University of Northampton established a joint initiative towards the end of last year, aiming to set up a doctoral programme to define the problems surrounding chrome VI, produce evidence using advanced digital analysis and come up with a definitive answer to key chrome VI questions.

Funding is now in place for this important development in the form of a three-year grant from venerable City of London livery, The Worshipful Company of Leathersellers. The university's Institute for Creative Leather Technologies (ICLT) is now in the process of selecting a PhD student to carry out the research. The aim is for this work to start in this year under the guidance of ICLT, with additional support from the UK Leather Federation.

Emeritus professor of leather science at the University of Northampton, Tony Covington, has said the industry needs to address concerns about chrome VI "once and for all". At a recent event organised by COTANCE, Professor Covington said: "I'm sick of this subject constantly being brought up and of the uncertainty over the possibility that existing analytical techniques give us false positives or false negatives [in tests for chrome VI]. We simply don't know. My gut feeling is that the chemistry and the thermodynamics indicate that it's not a problem."

But he added immediately that he realises this is not enough to "convince the marketplace" and said he hopes the new initiative will put the matter to bed and confirm definitively the safety of chrome-tanned leather.

SHOE INNOVATION CENTRES OPEN IN MEXICO

Mexico's footwear industry has a new specialist footwear design, innovation and development centre.



NEW BALANCE RELEASES 3D PRINTED RUNNING SHOE

US sportswear brand New Balance is to begin selling the first running shoe with a full-length 3D printed midsole. The 'Zante Generate' went on sale in April with 44 pairs available for the price of \$400.

The number is symbolic as it represents the 44 years since New Balance owner and chairman, Jim Davis, purchased the company in 1972 and the release date was timed to coincide with the 2016 Boston Marathon which took place on April 18. They are available on the New Balance website as well as at the New Balance experience store in Boston.

New Balance collaborated exclusively with 3D Systems to develop the product. The midsole is printed using a 'selective laser sintering' process which converts the new powder material into a solid, layer by layer.

"New Balance is at the forefront of 3D printing and has been utilising this exciting and innovative technology to customise product for our athletes for a number of years," said New Balance president and CEO Robert DeMartini.

The federal government provided around \$300,000 in funding for the new facility, located in San Mateo Atenco, near Mexico City. Similar facilities will open in the important footwear-producing states of Jalisco, later this year, and Guanajuato next year.

This first innovation centre will serve the 1,400 footwear companies active in the region around San Mateo Atenco, employing a combined total of 10,000 people. The new equipment available to these companies includes a laser cutter, access to specialist footwear design software, a 3D scanner and printer and a high-tech camera to allow designers to take and share advanced images of their shoe concepts. National footwear industry body Canaical has said only

two such cameras are in use in the whole of Mexico at the moment.

Canaical president, José Ignacio Irurita, said of the new facility: "Thanks to all this technology, manufacturers will be able to produce samples, prototypes, digital designs and so on in less than two days. In contrast, it takes a month to complete the same tasks using artisanal methods."

FDRA: "SURPRISE AND DISAPPOINTMENT" AT NEW BALANCE TPP DECISION

Footwear industry representatives in the US have said they are surprised and disappointed by an alleged change of heart at athletic footwear brand New Balance over free trade agreement, the

Trans-Pacific Partnership (TPP).

New Balance, which still makes shoes in the US, initially appeared to support the agreement. Now, according to the *Boston Globe*, it has withdrawn that support because it hoped backing the government over TPP would open up a path for New Balance to start supplying athletic shoes to US armed forces personnel. Opportunities in that arena have not come New Balance's way and the company has decided to withdraw its support for the free trade deal, the newspaper said, citing senior managers at the New England-based company.

In response, the Footwear Distributors and Retailers of America (FDRA), a loud backer of TPP, said it found New Balance's about-face surprising and disappointing. FDRA president, Matt Priest, said in a statement: "TPP will save footwear consumers and companies \$450 million in the first year of implementation and \$6 billion over the first decade. That is why 99% of the entire footwear industry, both domestic manufacturers and importers, support TPP and why we will continue to lead the charge in

explaining to lawmakers how this agreement will strengthen jobs across the US and provide real value to footwear consumers."

eVENT MEMBRANE LEADS TO SHOE WITH "DOUBLE THE BREATHABILITY"

Membrane technology provider eVent has worked with Kansas-based outdoor footwear company Topo Athletic to launch Hydroventure, which the two partner companies have called "the lightest waterproof breathable trail running shoe available on the market".

Hydroventure is also the first footwear product to use eVent's newest waterproof and air permeable technology, eVent DvdryLT. 'DV' in the new technology's name stands for 'direct venting'.

Its ability to dissipate heat and moisture through footwear and to advance breathability during athletic use is also highlighted.

A patented one-piece upper construction was developed for the Hydroventure, which allows the fabric laminate "to become the body, or upper,

of the shoe", the companies said at the time of the launch, saying this reduces the complexity of the construction found in most light, waterproof shoes. The manufacturing process eliminates layers and glue to save weight and cost while increasing breathability and improving flexibility.

According to eVent its new construction yields "a significant weight reduction" because it requires 50% fewer parts and 30% fewer steps compared to typical waterproof shoe construction; it has calculated this at almost 30 grammes per pair.

STAHL OPENS SHOES AND LEATHERGOODS CENTRE OF EXCELLENCE

Chemicals manufacturer Stahl has opened a Centre of Excellence focused on shoes and leathergoods in Castelfranco di Sotto, Italy.

"It will enable us to meet the needs of the fashion industry as well as those of leathergoods tanneries. We can provide tailor-made solutions for the entire production process from raw hides to finish and aftercare," said

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Alberto Cantone, a general manager for Stahl in Italy.

Stahl aims to develop technologies and create customised solutions based on the needs of clients.

Mr Cantone added: "By working closely together with our partners, we can combine our strengths and create high-end leather goods processed with our chemicals."

CAMTEX FABRICS SUES INFRINGER WENZHOU SUPERTENG

After a two-year battle, Camtex Fabrics Limited, manufacturer of breathable, moisture-absorbing footwear lining material Cambrelle, has won a landmark decision in the Chinese courts against a company that infringed Camtex's intellectual property rights.

The court found that Wenzhou Superteng had infringed Article 57 of the trademark law of the People's Republic of China. The authorities had previously confiscated 6.2 tonnes of imitation piqué Cambrelle fabric along with an embossing roll that had enabled the company to copy the trademarked design.

Camtex Fabrics managing director, Kieran O'Hare, decided to press charges against Wenzhou Superteng having caught the company brazenly selling material it claimed was Cambrelle at the INDEX exhibition in Geneva in 2014. Not only was the Chinese company exhibiting the imitation fabric on its stand, it also had the Cambrelle logo on posters and business cards.

Tracking them to the Cinte Techtextil China, in September 2014, Mr O'Hare again saw Wenzhou Superteng representatives openly promoting and claiming to sell Cambrelle. On this occasion, with the assistance of a local law firm, he was able to have the product removed from the stand and to initiate a legal case against the defendant in China.

UNIVERSITY TAKES LEAD ON 3D PRINTED FASHION

A project led by Loughborough University is looking to revolutionise the way consumers shop for clothes using 3D textile printing techniques.

Dr Guy Bingham, senior lecturer in product and industrial design, has partnered with textile and garment manufacturer, the Yeh Group, on '3D

TIMBERLAND CUSTOMERS TO CROWDFUND BOOT RANGE

Outdoor brand Timberland is offering consumers the chance to crowdfund and help design a boot – a move it says will enable it to "engage consumers in a truly innovative way".

Timberland's design team have sketched the shape and structure of 14 styles across three unisex boot categories and consumers are invited to vote for their favourite on project partner Betabrand's site, while suggesting materials and colour.

The best-received idea for the Craftletic range will be made into a prototype, available for crowdfunding from May 13. Consumers will be asked to bid on the footwear and this will determine if the chosen design has created enough demand to go into production.

Chris Lindland, CEO of crowdfunded clothing company Betabrand, said: "Timberland is the largest lifestyle brand Betabrand has collaborated with and we're excited about the impact our crowd-sourced design process can have on these boots.

"Together we're creating an innovative model through a system that gives new meaning to the term 'fast fashion' – using a quick crowdsourcing period to inform design decisions and bring first-to-market product in a faster way than ever before."



Fashion', an 18-month project which will create personalised 3D printed fashion. With design input from a major fashion house, 3D Fashion will produce 3D wearable, full size, additive manufacturing (AM) textile garments and footwear. The aim is to eventually be able to manufacture garments within 24 hours.

Due to advancements in AM textiles, it is now possible to create 3D printed garments directly from polymer and other raw materials in a single manufacturing operation. This could bring about a reduction in waste, labour costs and CO₂e, carbon dioxide equivalent, as well as promoting localised manufacturing and production.

"With 3D printing there is no limit to what you can build and it is this design freedom which makes the technology so exciting by bringing to life what was previously considered to be impossible," Dr Bingham said.

CTC EXPANSION PROJECT COMPLETE

French leather and footwear research and technology CTC recently hosted an inauguration ceremony after the completion of an expansion project at its headquarters near Lyon. Local

politicians and guests from across the leather and footwear supply chain attended the event.

The facilities at CTC include training rooms, physical and chemical laboratories and dedicated research facilities for the tanning sector as well as for footwear and leathers goods production. The expansion project added 3,000 square-metres to the site, which now covers almost 8,000 square-metres in all.

CTC chief executive, Yves Morin, reminded guests at the event of the scope and size of the French leather sector. There are 36 companies in the raw hide sector and France is the number-one exporter of hides in Europe and third-largest in the world; exports of hides and skins have a value of €390 million per year, he said.

VIBRAM LAUNCHES 'LUXURY RUBBER' FOR SHOE UPPERS

Italy-based soles maker Vibram has taken a new turn, offering its rubber in sheets, after realising a potential use in the material for uppers.

It said: "Vibram rubber is not a mere material for shoe soles, but it becomes a versatile solution for creating something new, sophisticated luxury

ideas without imaginative limitations.”

The sheets - available in black, cream, tobacco and brick red - are being marketed at the “luxury industry”.

The group has also extended the colour range of its EcoStep soles. The compound incorporates production scraps, capable of reducing waste and the use of virgin materials by up to 30%, it claims.

IMPROVED RUBBER AND PVC ARE BASF'S TARGETS WITH NEW ANTIOXIDANTS

Chemicals manufacturer BASF is to launch two new specialised liquid antioxidants that improve the efficiency of polymerisation in rubber and PVC.

Irgastab IS 6113L is for synthetic rubber, particularly butadiene rubber and styrene butadiene rubber, with shoes and gloves among the most prominent end applications that BASF envisions.

For PVC, the name of the new antioxidant is Irgastab IS 3026L, which the manufacturer describes as a cost-effective solution that improves the quality of PVC during the polymerisation process as a result of its

thermal stability, uniform dispersion and easy dosing features. Tents are among the finished products that BASF imagines can be improved as a result.

ALGEOS PRESENTS O&P PRODUCTS AT OT WORLD

Medical products distributor Algeos has collaborated with fellow British company Standard Engineering to create two new grinding machines for use in orthopaedic workshops.

The machines, which were exhibited at the OT World International Trade Show in Leipzig, will be released under the company's orthotics and prosthetics (O&P) brand Aortha and are named in honour of the two leading O&P universities in the UK.

According to Algeos, Aortha Salford “combines super-efficient dust extraction with low noise, ease-of-use and maintenance and meets all orthopaedic workshop requirements. It is suitable for podiatrists, orthotists and insole manufacturers.”

Aortha Strathclyde can be used in the manufacturing of footwear adaptations, orthopaedic footwear, leather and

plastics. It incorporates the same features as the Aortha Salford but is designed with orthotists (prosthetists) and technicians in mind.

FOOTWEAR A POSSIBLE MARKET FOR NEW FRUIT-DERIVED PLASTIC

The developers of a new plastic bottle have said footwear is one of the potential markets they have identified for the material.

Representatives of the fruit juice industry in Spain have worked with Valencia-based technology centre Ainia to make a bottle from bio-derived and biodegradable plastic. In this instance, the raw material for the plastic is polyhydroxybutyrate (PHB), a polymer formed from waste material from fruit juice production.

Ainia and representatives of the juice industry presented a bottle made from PHB in April, using it as a container for, naturally enough, fruit juice. They stated immediately that they see a variety of uses for the new bio-plastic, including in the footwear and automotive industries. 🍷



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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.

11/05/16

Assintecal announces 6% increase in export values in Q1

IACC justifies Alibaba inclusion as big-name brands walk away

Increase in earnings for Crocs

10/05/16

Momad Metropolis and Momad Shoes to hold joint event

09/05/16

Dominican Republic remains ambitious about leather and footwear growth

American Apparel turns to crowdsourcing

06/05/16

Ziylan sees the rise of Turkish-made shoes

05/05/16

Business in Pakistan remains robust for Bata

04/05/16

Panama's sandal industry hangs by a thread

Under Armour to challenge knockoff brand

03/05/16

Ferragamo opens boutique in Cambodia

29/04/16

Timberland sets sustainability goals

28/04/16

Skechers sues maker of Bernie Mev

Baldinini wants to open its own museum

27/04/16

Adidas to remove plastic bags from stores

Date change for North West Materials show

Stuart Weitzman contributes to strong Coach quarter

19/04/16

Louboutin takes up space in Paris department store

Adidas unveils 2020 sustainability goals

18/04/16

Legislation targets US-made footwear for military

14/04/16

Oboz aiming to plant 100,000 trees

OrthoLite agrees New York Yankees deal

13/04/16

Sympatex and Sinterama show off 'New Life' laminates in Munich

11/04/16

China's share of the US footwear market is falling

07/04/16

SLEM hosts two conferences in Waalwijk

06/04/16

End of the road for famous Tuscan children's shoe brand

Inditex wants Tempe distribution centre to double in size

Footwear market to grow 2.5% until 2023 – report

Nike offers glimpse at redesigned headquarters

05/04/16

Football helps boost sports footwear sales in China

04/04/16

CLIA expects "positive new policies" to encourage people to buy in China

Currency fluctuations impact Spanish footwear exports

01/04/16

Spanish shoe brands achieve 20% jump in average export price per pair

Ever-Glory closes 270 stores in 2015

30/03/16

France turns away from China for footwear sourcing

Puma's latest shoe tying method is 'reintroduction'

JM Weston won't rush to meet waiting-list demands

29/03/16

Nike hails 'amazing' results from China strategy

24/03/16

East African countries could phase out second-hand footwear imports

23/03/16

Numbers for Assocalzaturifici Munich event even better than expected

Record exhibitors expected at Asia Outdoor

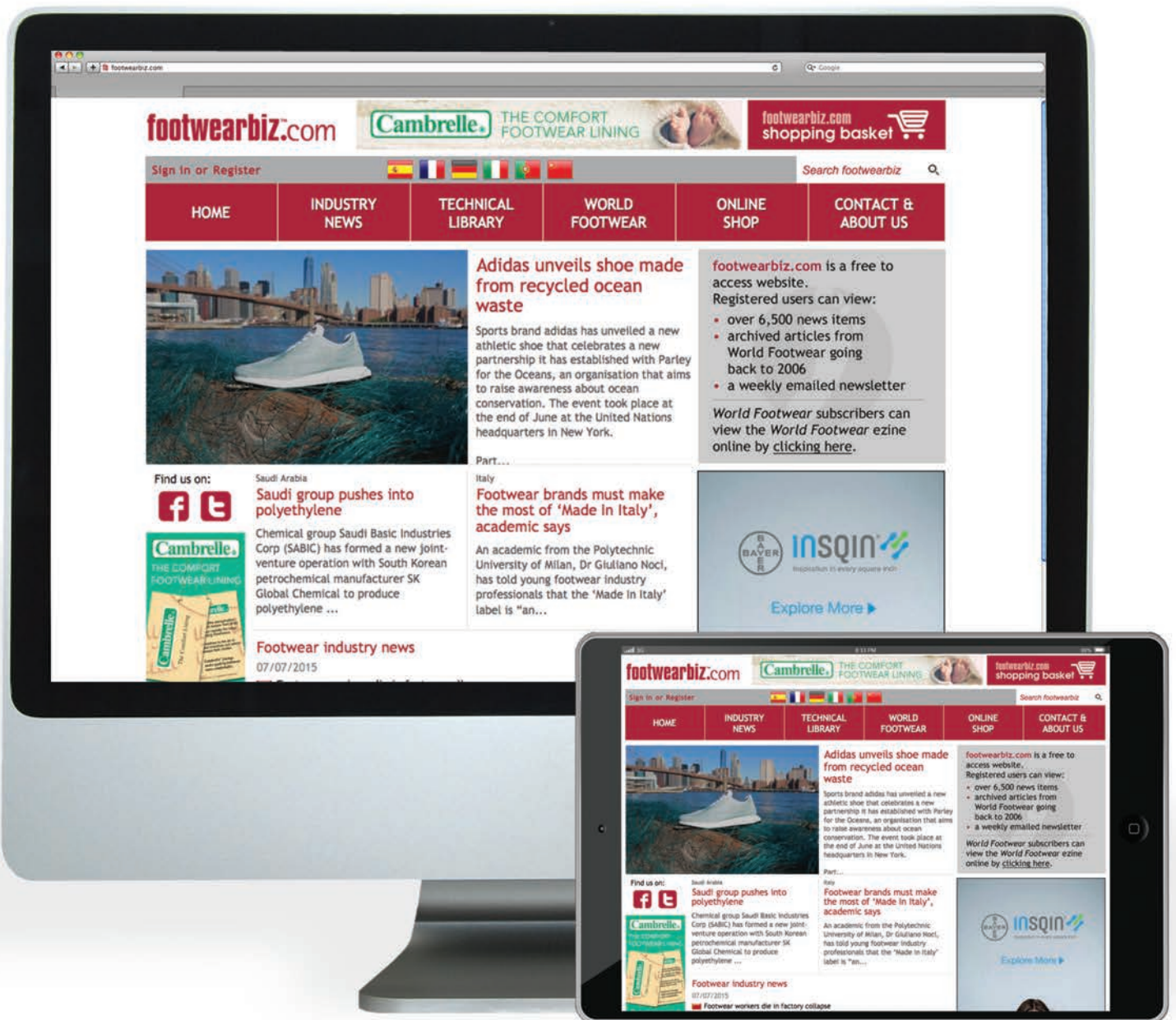
Better year for Li Ning as Chinese consumers embrace sport

Assintecal names award winners

22/03/16

Fourth quarter sales knock Caleres

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Ferragamo has been using RFID tags to confirm the authenticity of its women's shoes since 2014. CREDIT: FERRAGAMO



RFID helps Ferragamo win counterfeiting war

The Salvatore Ferragamo Group has said it is reaping rewards from a battle it has been waging for several seasons against counterfeiting. In 2015, the Florence-based luxury group's anti-counterfeiting efforts, focused especially in China and on the internet, led to the interception and blocking of approximately 91,000 advertisements for counterfeit products, an increase of more than 1,000 such advertisements since 2014.

As a result, more putative sellers of goods masquerading as Ferragamo products have had their attempts to sell counterfeits thwarted with adverts removed from online auction sites and 140 domain names and illegal websites, mainly managed by Chinese operators, cancelled. These activities also led to the seizure and destruction of more than 12,500 counterfeit products and action from the Chinese customs authorities to prevent a further 12,400 counterfeit goods from leaving the country in 2015. Salvatore Ferragamo has said the total estimated value of these goods was in excess of \$17 million.

High-end footwear brand Ferragamo has gone to war against counterfeiters, with tiny RFID tags inserted into the sole of each left shoe a key weapon in the fight.

Effect on shoe sales

More than 60% of the counterfeit products that were seized and destroyed last year were belts, but Ferragamo is far from complacent about the possible effect on its sales of shoes and is taking specific action to stop shoppers from being duped into buying fake Ferragamo footwear. It has started using radio frequency identification (RFID) tags as a means of tracking its shoes.

COMPONENT BRANDS CAN FIGHT BACK TOO

A big advantage that Ferragamo has in its fight against counterfeiting is in controlling the finished product that goes into retail stores and onto official online shopping channels. When you are a component brand, as so many manufacturers in the wider footwear industry are, you have to find ways of taking the fight against counterfeiting upstream in the supply chain.

Shoe lining manufacturer Camtex Fabrics recently scored a notable success in just such a battle involving its Cambrelle brand of breathable, moisture-absorbing footwear lining materials.

"EVERYONE DOES THIS"

Two years ago, Camtex Fabrics chief executive, Kieran O'Hare, attended a specialist nonwoven materials exhibition in Geneva, Index. He noticed an exhibitor from China claiming to sell Cambrelle in a trade-marked piqué design, even using the trade-marked Cambrelle name on its samples, on display posters at its stand and on its business cards. The product on display was counterfeit. When Mr O'Hare remonstrated with staff on the stand their answer was: "Everyone in China imitates Cambrelle."

The Camtex chief executive took photographs and gathered other pieces of evidence and complained to the organisers of Index. They made it clear they would prefer not to take one side or the other in a dispute like this and advised Camtex to engage the services of a local lawyer. Mr O'Hare waited until the Chinese company, Wenzhou Superteng, turned up to display its counterfeit products at another exhibition, Cinte Tectextil China, in Shanghai that autumn.

LOCAL LAWYER

He travelled to China in September 2014 to attend the exhibition and arrived at the Wenzhou Superteng stand, bringing a local lawyer and all the necessary intellectual property certification with him. Armed with this evidence, the lawyer

took Mr O'Hare to the offices in Shanghai of China's own intellectual property protection agency, where the pair had to spend the best part of three hours going over the photographs and documentation and explaining in detail what had gone on. It was only then that agents got in a car and drove to Cinte Tectextil China to see for themselves. The Chinese company removed the counterfeit products from its stand that afternoon, only to put them on display again when the exhibition opened next day as though nothing had happened.

In time, though, this led to a raid on a Wenzhou Superteng production plant and the seizure of 6.5 tonnes of counterfeit material. Just before the end of 2015, a court case took place in which the Chinese company was ordered to pay damages to Camtex Fabrics and stop infringing its intellectual property rights. But the story did not end there because Wenzhou Superteng tried to appeal the decision, on what basis Kieran O'Hare says he cannot imagine. In February 2016, the courts in China concluded that this appeal would not be permitted to go ahead.

HELP ON THE GROUND

Following this decision, Mr O'Hare said securing the help of local legal experts and of Camtex Fabrics' joint-venture partner in Hong Kong had been crucial in his company's victory over the counterfeiters. "You can't do this from afar," he said. "You need to be on the ground to gather evidence and to convince the authorities to investigate and verify for themselves what is going on."

He's pleased that he did this, principally because he does not want his customers to be fooled into buying counterfeit lining materials. "Copycats can ruin your brand," he added, "and they can hurt consumers. That's why we fought so hard to win this case. I want my customers to be certain that when they choose Cambrelle they will get the real thing."

Logistics efficiency, inventory accuracy

RFID technology has been around since the 1940s but has only become widespread in logistics applications in the last 15 years. Unlike barcodes, which have to be scanned one at a time, readers can read hundreds of RFID tags at a time, even when these are concealed. Early adopters, including retail groups Wal-Mart in the US and Metro Group in Germany, said in the early years of this century that they saw the technology's potential to help them improve the efficiency of their logistics operations and their inventory accuracy. At first, though, they asked their suppliers to put RFID tags on cases and pallets only because tagging individual items was deemed too expensive.

In the intervening years the technology has become cheaper and more common in applications such as hotel key cards, public transport passes as well as in labels on individual items in stores. If cheaper items such as most (though by no means

all) clothes still rely on barcodes, it's now very common for RFID technology to be included, often for its anti-theft functionality in many clothing items as well as to supply accurate data on issues such as stock management.

A growing band

Research group IDTechEx has tracked the RFID market since 1999 and said in a recent report it expects users of the technology to buy 10.4 billion RFID tags in 2016, an increase of more than 15% compared to 2015. Tagging fashion items will demand 4.6 billion RFID labels in 2016, it said, making this by far the biggest market for RFID tags, although IDTechEx calculates that 85% of the apparel market has still to start using RFID. However, an April 2016 survey by GS1 UK, a user-group community that promotes the technology in retail healthcare and other application areas, found that 25% of the



More than 50% of the biggest retailers in the UK are now either using RFID or planning pilot projects to test the technology.

CREDIT: ISTOCK

biggest 20 retail groups in the UK are already using RFID, while a further 20% of the same group companies are carrying out trials of the technology and 15% investigating it and planning pilot projects.

Product authenticity

In this context it's far from surprising to learn of Ferragamo's determination to make the technology a key tool in its fight against counterfeiting.

In Ferragamo's case, the tags cannot be seen and cannot be tampered with. "The aim of using this technology is to guarantee product authenticity by proving the product's origin and making it possible to track the shoe with certainty, giving the group better control in the fight against fakes," Salvatore Ferragamo has stated.

In the sole of the left shoe

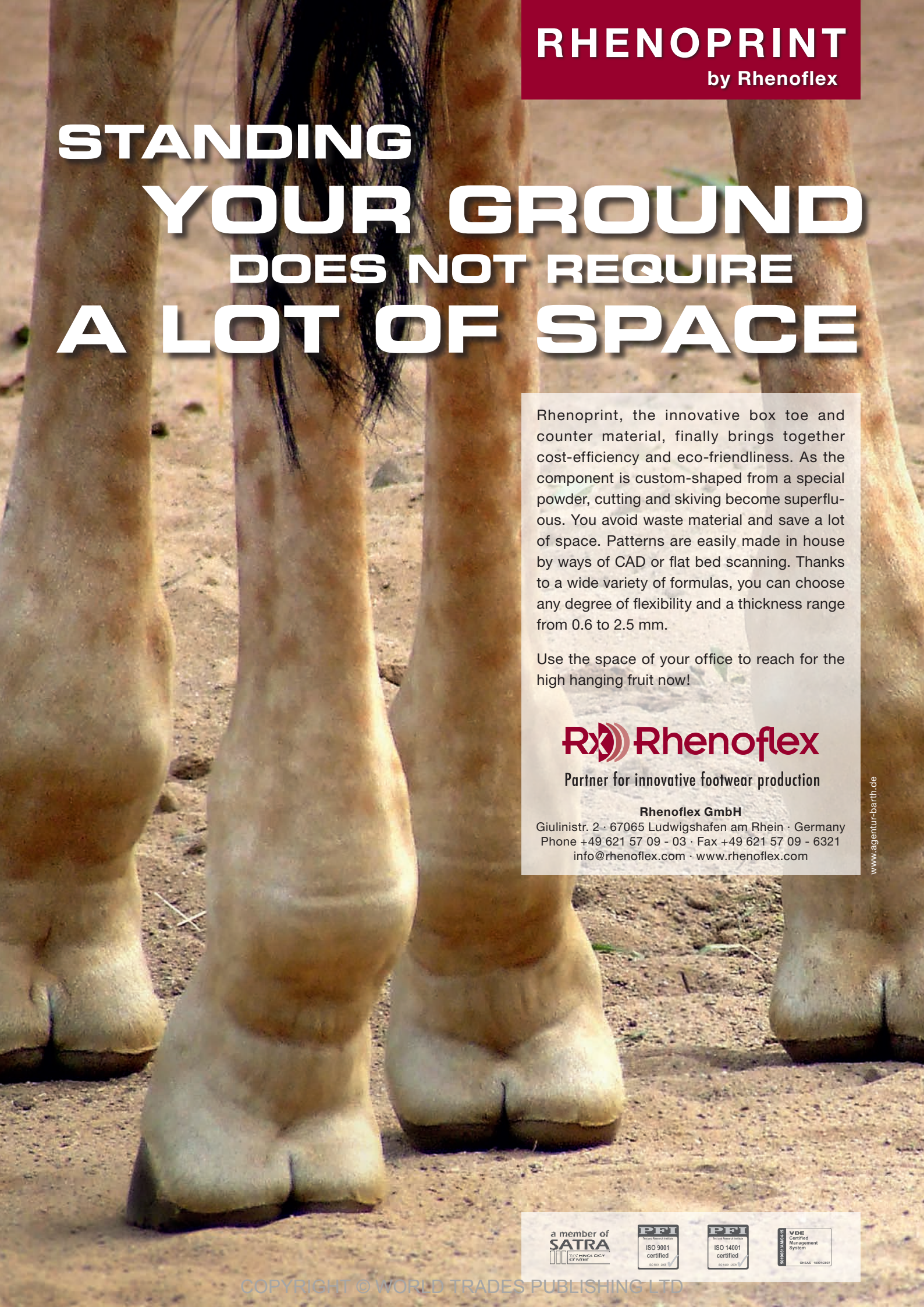
The luxury brand has taken advantage of advances that have made RFID tags less and less conspicuous to fit a tag into each left shoe in its women's collections (with a few exceptions). It has been doing this since its autumn 2014 collections. A tag in the sole of each left shoe makes tracking each pair perfectly feasible. The tag cannot be seen and cannot be copied because it carries information from the Ferragamo product management system.

Ferragamo carried the idea over into its men's collections in summer 2015 and has said it will further intensify its commitment to fighting counterfeiting this year, both to protect intellectual property rights and defend customers who want to be sure they are receiving the genuine article. 📡



An RFID tag is now being inserted into the left sole in most pairs of Ferragamo shoes.

CREDIT: GS1 UK



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The 2016 UITIC Congress in Chennai was one of the biggest events in the history of the Indian Council for Leather Exports.
CREDIT: UITIC

The nineteenth UITIC Congress took place in India in the early part of 2016. The message it delivered to the industry is one of hope for a positive future for footwear manufacturers, especially if they “think big” and keep investing in innovation.

Bright future for “connected” shoe companies

The nineteenth International Union of Shoe Industry Technicians (UITIC) Congress in Chennai in February was one of the biggest events in the history of India’s Council for Leather Exports (CLE), according to regional CLE chairman for south-east India, Aqeel Ahmed. Demand for places saw 568 delegates registered to attend. Of these, 180 were visitors from overseas, representing 28 different countries in all. The event was co-organised by UITIC and by CLE.

UITIC president (and chief executive of Lyon-based testing and research institute CTC), Yves Morin, said in the build-up

that he was looking forward to discussions at the conference about the footwear factory of the future, the event’s main theme. He said: “The world is changing faster than ever and the factories of tomorrow will be very different from what we have in place today.” He added that only “connected companies” will be successful in the footwear industry of the future.

Global production must grow

In his opening address, Mr Morin said it’s clear to him that the global footwear industry still has “a very promising future”.

He pointed out that global production reached 24 billion pairs in 2014, representing growth of 8% year on year. In the context of a world population of 7.3 billion people, this works out at an average consumption of 3.3 pairs of shoes, sandals and boots per person per year.

Mr Morin then invited the delegates to imagine if this average of 3.3 pairs moves closer to the US average of 7.7 pairs per person. "The population will continue to grow," he said, "and we are going to have to grow global production. Changes are coming that will modify the entire supply chain, but we still have a promising future." He warned, though, that it will be essential for footwear manufacturers to "think big" if they want to attract skilled workers into modern footwear factories.

Discussions about the local market

Presentations at the congress divided neatly into four sessions covering: manufacturing based on the needs of consumers; intelligent factories and smart supply chains; sustainability and regulatory trends and, finally, attractive footwear factories and new ways of management. Speakers from all parts of the world took part.

Discussions over the course of the congress about the state of the industry in host country India repeated frequently the message about a bright future. CLE chairman, Rafeeqe Ahmed, told the congress his country's footwear industry has "huge market potential" and he echoed recent predictions from other senior CLE representatives that the market there could double in size.

Confidence for the future

Owner of one of the country's biggest footwear manufacturers, Farida Group, Mr Ahmed said that per capita consumption across India at the moment is two pairs per person, giving a domestic market size of around 2.2 billion pairs and an annual value of about \$5 billion. But he said per capita consumption will increase to more than three pairs per person by 2020, taking the market size to more than 4 billion pairs.



UITIC president, Yves Morin, said that only "connected companies" will succeed in the footwear industry of the future.

CREDIT: WTP

As the event came to a close Yves Morin said at the closing ceremony that he was leaving Chennai convinced that India has "footwear spirit, great management and great leaders", which he said gave him confidence in the future of the Indian footwear industry.

UITIC has announced that its twentieth congress will take place in spring 2018 with Portugal as the host country. 📌



Closing ceremony of the Congress. Delegates heard a positive message about the future of the shoe industry.

CREDIT: WTP



Cutting technology from CEI by Zipor in action at Kyaia's High-Speed Shoe Factory in Portugal.

CREDIT: CTCP

Freedom of movement

The last five years may not have been the easiest in the history of international trade, but Dr Maria José Ferreira, a researcher at the Portuguese Footwear Technology Centre (CTCP), says the shoe industry in her country has still been able to move forward. Portugal's footwear manufacturers increased export revenues over that time from €700 million to more than €1.8 billion, the result of a concentrated effort on the part of the manufacturers themselves, industry association APICCAPS, research and development partners, the political authorities and CTCP, Dr Ferreira says.

"This has permitted our manufacturers to advance in innovation," she explains, "innovation in materials, products and in manufacturing technologies and in logistics." Twenty or 30 years ago, shoe producers in Portugal were mostly outsource manufacturing partners making product for big international brands. In

Major Portuguese footwear brand Kyaia worked closely with the CTCP footwear technology centre and a number of other partner organisations to develop the High-Speed Shoe Factory project, giving the company the flexibility to work on 70 different models on the same production line and to offer consumers high levels of customisation.

the Portuguese industry in those days, people, processes and technologies were all geared towards producing large volumes of a limited range of shoes: almost everything was black, brown or blue. Then, what she calls "a revolution in our sector" occurred when consumers began to regard shoes as a fashion accessory, forcing a radical change in processes and business models.

All of this helps to put into context a series of advanced footwear technology projects to have emerged in Portugal in

recent years, in particular a concept called the High-Speed Shoe Factory. With production typically divided into cutting, stitching, assembly and finishing activities, manufacturers have, historically, kept each segment separate, even to the extent of using different management software applications to run each one. "This results in huge stock levels," Dr Ferreira explains, "and in having people spending time on operations that add no value to the product. It also means longer lead times and delivery times."



Kyaia founder, Fortunato Frederico, says the project has helped make his company more productive.

CREDIT: Kyaia

FASTER AND MORE FLEXIBLE

High-Speed Shoe Factory's proposal, as the name suggests, is to speed all of this up. It does so by integrating into a single productive phase all these sections, using a new logistics system (that links directly to the enterprise resource planning software that most companies use these days to run their businesses). The project also incorporates a number of parallel applications to take care of cutting, stitching and assembly.

Elements of the system came from

other technology providers, including CEI by Zipor, a cutting application from a specialist company based in the São João da Madeira footwear production cluster near Porto. Others involved were footwear machinery providers Flowmat and Silva e Ferreira, with a company called Creative Systems providing the necessary expertise in the use of RFID technology. At the same time, the project had academic support from InescTec and the faculty of engineering of the University of Porto.

Links to the enterprise resource planning system mean that material stocks are always up to date, but another feature that Dr Ferreira believes will prove attractive to footwear companies is that High-Speed Shoe Factory offers them enough flexibility to let consumers select and add design elements to the shoes they want to buy. "You can design whatever you want," she says. "You can introduce your name and lots of other features. Aesthetically, you can really personalise your shoes."

It's the new cutting application, CEI by Zipor, that makes this customisation feasible. It comprises two cutting heads that can work simultaneously. Each head can incorporate up to 11 different tools, and it's these tools, which include differently shaped punches as well as laser-engraving capability, that make personalisation possible.

70 MODELS AT THE SAME TIME

High-Speed Shoe Factory is a joint-project on which CTCP and the other partners worked closely with Portuguese footwear manufacturing group Kyaia. The Guimarães-based company is the manufacturer behind one of Portugal's most famous shoe brands, Fly London (it also produces shoes under the Sapatália, Foreva and Fungi brands); the original High-Speed Shoe Factory is in place at one of Kyaia's production plants. Inside it, RFID-enabled logistics technology locates exactly the right materials and components in double-quick time and robots shift materials from one sensor-enabled (to add connectivity) workstation to another. As a result, Dr Ferreira says, one production line can manufacture 70 different models at the same time. Some elements of the system, such as stitching and assembly machines, were already in place and did not require modification; "they just needed to be reorganised," she explains.

Kyaia founder, Fortunato Frederico, has said of High-Speed Shoe Factory: "It not only makes our lay-out easier, but also the way we organise our workers, which obviously means we can be more productive." The system and the individual solutions are now available to footwear manufacturers in other countries who want to use them. 



Robots shift materials to the stitching line.

CREDIT: CTCP



One assembly line, but with a wide range of shoes possible.

CREDIT: CTCP



Three in one

In recent years, a combination of media and consumer concern has led to increasing pressures on tanners to review certain of their processing operations. A key area has been the use of chrome tanning. Although only chrome III compounds are used, it has been shown that, under certain conditions, this harmless form can oxidise into chrome VI which is a potential health risk even though we have been using chrome tanning, apparently safely, for shoe upper leathers for well over one hundred years.

This has led to the development of wet white tanning systems which use combinations of synthetic and vegetable tannins, glutaraldehydes and mineral such as aluminium and zirconium as alternatives to chrome compounds. They are thus free of base metals which not only eliminates the potential risk to health factor but also makes them far more biodegradable. One tanner that has gone down this route is Portugal's Carvalhos Group with its OakLeather range of materials for shoe uppers that

features some positive properties for both shoemakers, consumers and the environment.

METAL-FREE LEATHER

The first of these is the metal-free factor, based on a wet white tanning system that also incorporates tannins extracted from the bark of oak trees. The original development work began around 10 years ago and was focused on the automotive sector which was a prime mover in the development of wet white tanning to aid biodegradability at end of life for car seats. The range has now expanded to other uses including leathers for furniture, leathergoods and shoe uppers and linings.

A demand for metal-free leather in footwear has increased with requests from makers of shoes for babies up to three months and toddlers of up to three years. This follows concerns that small children sometimes put their feet (and shoes) in their mouths, making metal-free options attractive to concerned parents. The use of this material has

since extended through into adult footwear and the range now also contains leathers offering a further two useful properties.

BIODEGRADABLE LEATHER

The second is a leather that is designed to be completely biodegradable once an article has reached the end of its useful life. This breakdown is complete within a period of two months under normal conditions of moisture and temperature as found within landfill, and in accordance with the conditions of ISO 20200-2004 (*Figures 1-4*). Known as BiOnature this product was developed by the Carvalhos Group through joint investigations with the faculty of science and technology (FCT) of the Universidade NOVA de Lisboa, and the leather and shoe technological centres CTIC in Alcanena and CTC, France.

WATER REPELLENT LEATHER

More recently, the project has expanded further to create a leather within the same family that is water-

repellent as well as metal-free. This has been called HydroOak and was initially aimed at the outdoor footwear sector covering activities such as hiking, mountain walking, sailing and golf. To achieve this within the scope of a metal-free leather making process, products were identified and incorporated within wet processing to link and maintain waterproofing agents within the fibre structure and create an effective barrier to water penetration and uptake.

Extensive testing has shown that leathers from this range perform extremely well in terms of repelling water. For instance, they are able to withstand over 420 minutes of flexing using the Bally Penetrometer (crank motion 15%, and visual end point), with a final water uptake of 13.2% at that time. They will also withstand more than 25,000 cycles using the Maeser Penetrometer (alarm for end point), with a water absorption of 8.2% at that time. These results have been verified by CTIC, the parameters being tested across several analyses with excellent

repeatability and confirmation that these leathers are chrome-, heavy metal- and CFC-free.

ENVIRONMENTAL ADVANTAGES

These new leathers offer distinct environmental advantages all round. As far as the consumer is concerned, they meet all the parameters normally expected such as colour- and light-fastness and smoothness of grain surface, while remaining within the same price range as normal chrome-tanned or wet white leathers.

The raw material used to produce them is taken from fresh Iberian hides that have been preserved by cold storage and without any use of preserving agents. As a result, there is a lower level of salinity for ultimate discharge which, when added to the possibility for high-grade use of both fleshings and trimmings, also helps to control costs.

Another big plus is, of course, the absence of any chromium-based products which in light of ongoing consumer concerns with regard to

chrome VI can only be seen in a positive light. This also avoids the need to separate chrome-containing wastewaters for subsequent treatment, simplifies the management of effluent treatment and solids disposal, and therefore again reduces costs.

A further advantage is that as solid waste products from the tannery are metal-free, they can be used as a component in fertilisers. At the same time all dyestuffs used are also metal-free and the finishing systems water-based thus again simplifying the treatment of emissions.

A change in drying operations inside the tannery has also taken place whereby vacuum driers are no longer used, leading to considerable energy savings and a lower carbon footprint. Instead, the leather is suspension-dried using on-line pole conveyors that circulate in the roof areas of the finishing department. Although this requires a longer drying time, it utilises heat from the finish drying cabinets which again reduces energy consumption. 

COMPOSTING UNDER LABORATORY CONDITIONS



Figure 1. The test shoe was produced using only biodegradable components with uppers and linings made from BioNature leathers.



Figure 2. After 7 days the shoe shows colour fading and degradation of the fibre structure. This compares to a similar breakdown after 17 days under natural composting conditions.



Figure 3. After 14 days degradation of the leather structure is profound. This compares to 31 days under natural composting conditions.



Figure 4. After 21 days the shoe has now totally disintegrated. This compares with 2 months under natural composting conditions.



A story worth telling

The value of an article can be defined as a function of its performance in use and perceptions of its uniqueness or desirability. Performance is determined as a combination of material properties and engineered design. Perceptions are subjective and malleable, shaped by information deemed reliable and by personal experience. Leather has a good reputation for durable performance and is widely perceived as being a luxurious material that wears well and ages gracefully.

LEATHER'S STRUCTURE

Leather's unique performance stems directly from an intriguing physical structure based on nano-strands of triple helical collagen twisted into very fine fibrils. These are then counter-twisted to form larger fibres which, in turn, are intertwined into fibre bundles that provide great physical strength.

Very fine fibres that give a smooth glossiness to the grain surface, along with the distinctively patterned hair follicles, impart a pleasing touch and a natural beauty to full-grain leather.

Once the pelt of an animal is cleaned and purified, the tanner uses his knowledge of the leather-making process to stabilise the structure and create additional desirable physical and aesthetic properties. The tanning process builds upon the existing properties to ensure the natural protein bio-material is made resistant to microbial attack and remains stable at higher temperatures.

Selection of different raw materials coupled with appropriate processing enables tanners to create a wide range of features as required for various end-uses. For example, its mouldability, durability and moisture management properties make it a premium material for shoemaking. Some people,

nevertheless, claim that modern synthetic materials are as good as leather. This is a myth; some synthetic materials may indeed imitate some of the properties or structure of leather, but none can emulate all its qualities.

When the physical properties of leather, combined with visual appearance and feel, are properly crafted into a well designed article, leather is truly deserving of its reputation as something special. It is an honest, natural product that readily deserves its place in the market as a premium material. It is, however, still a 'component material' and not a finished consumer article. There are a number of steps in the value chain separating the tanner who produces it and the consumer who ultimately buys the finished product in which has been used.

Although there are some good examples of vertical integration up and

down the value chain, there remains an opening for better understanding between the leather industry and the consumer. This would allow the tanner's knowledge of leather to be better communicated up the supply chain to the point of retail. The tanner understands the raw material and its intrinsic properties and has the ability to ensure that the most advantageous features are built into the leather depending on the final article and its intended use.

LEATHER'S IDENTITY

Leather is featured as a selected premium material by many of the world's leading manufacturers of consumer brands and is used to promote desirability for their products. This is largely based on what a typical consumer will know and expect from leather – their perception. We see this used as sales strategy at point of retail where the word leather is used to convey a sense of value.

However, not every consumer necessarily recognises leather immediately when they see it in the finished product, so the description by a salesperson of it being a 'leather shoe' is used to invoke a favourable emotional response in their mind. It is designed to elicit expectations of durability, luxury, performance and intrinsic value.

Indispensable for many articles in earlier times, leather has now become a choice. Synthetic material replacements exist for many leather end-uses and are becoming increasingly competitive. Their functional and aesthetic properties have improved significantly over the last few decades, surpassing those of leather for some applications. Polymeric shoe soles are waterproof and wear better. Many athletic shoes feature thinner, stronger materials that are also lighter in weight. Others, made to look and perform increasingly like leather, may also prove cheaper.

Some retailers use the confusion surrounding leather material identity for profit. Synthetics or materials that might contain some leather but are not natural leather (bonded leather, e-leather, etc.), are sold using the word 'leather'. At times this is deliberately designed to confuse or deceive the consumer. In addition, some countries have lax labelling laws and synthetic



Tanners can build a wide range of properties into leather in order to enhance the final product.

CREDIT: MESSE DÜSSELDORF

materials, made to look like leather, are intentionally mislabelled. Such practices blur leather's true identity in the eyes of many consumers.

Unfortunately, some leathers are poorly made or are notionally 'upgraded' with a plastic coating. While some enhancing techniques may be necessary and acceptable if well done, the appearance and touch of many lower-quality, heavily-finished leathers make them look and perform unsatisfactorily. Indeed, they are more like a cheap synthetic than leather. Sales people are often of little help in enlightening the customer about the differences between what is and what is not leather or about the true benefits of good quality genuine leather.

INDUSTRY'S IMAGE

To add to concerns about leather identity, influential voices in the fashion and animal rights sectors advocate

against its use, arguing that it is no longer necessary and should be avoided. High utilisation of resources (water, energy, chemicals), controversy over carbon footprint and the way some in the industry handle waste also invite criticism from a world increasingly focused on transparency in sourcing and demanding more sustainable manufacturing and stewardship of resources.

This is unfortunate, as leather can—and is—being made sustainably and without undue damage to the environment. However, the practice of some can impact the view of many. Confusion in the mind of the consumer about leather as a product and the industry that makes it, can detract from the desirability or demand for leather and so negatively affect its value. Certain sections of the press seek to promote this view by publishing misleading articles on the practices of the leather industry. It is frightening how little research as well as how many prejudices are shown by so-called journalists have when seeking to influence public opinion.

At the same time it must be said that the leather industry itself has not worked hard enough on the image of the product and the transparency of the production chain. It is touting traceability and it seems that everybody wants to believe this will solve these problems; it may well fail to do so. It is not traceability that will influence consumers' opinions, it is more the campaign against beef in general. Since leather is the most valuable by-product and is used in so many branded consumer products, it has been dragged into focus as being a major driver rather than result of the beef industry.

People illustrate the story with pictures from slaughter operations and unacceptable working conditions, which are far from standard and not at all representative of the production of the majority of leather around the world. Quite the reverse. If we compare what the leather industry has achieved in the past 25 years, many people would be more than surprised. However, yet again, the leather pipeline is used as a tool for a totally different purpose.

What they ignore is the huge number of people in the world who consider lamb, goat or beef a serious part of their culture and diet. One can of course



In countries such as Somalia, up to 80% of the population rely on animal husbandry for both income and food.

CREDIT: FREE WIND 2014 / SHUTTERSTOCK

debate how much of something should be consumed, whether it be sugar, alcohol, drugs, salt and fat, or meat in general. To ignore the fact that many people will continue to eat meat regardless, is simple arrogance and as long as meat—especially beef—is produced, leather will continue to be one of the most sustainable by-products available.

LEATHER AS A BRAND

Using price as proxy, ultimately, the value of leather is established at point of retail by what the consumer is willing to pay. Depending upon the article and design, leather may be a major or lesser component part. For example, it can represent over 80% of the material content of a pair of shoes. It thus becomes a central feature of the product and one that can be actively promoted as a selling point. Leather in that sense fits all the definitions of a brand.

Ingredient or component branding is a rapidly growing segment of marketing today, especially with global brands. The desired result of such a strategy is a win-win partnership between component manufacturer and brand. Each brings their expertise and knowledge to help

enhance the value of the final article. This demands clear communication and a close working relationship with agreed and defined responsibilities and goals. When done correctly, the effort is synergistic and benefits everyone involved in the supply chain.

The goal of marketing is to enhance value. In a world of alternatives and substitutes, it is important to clearly differentiate leather as the component product of choice. This can be done by good labelling—a simple tag is not enough. Brand marketing is about creating and sustaining a positive mental image or feeling, including all that is known and experienced about the product.

CREATING THE STORY

A compelling story is often used to engage consumers and stimulate their interest and loyalty. Modern consumers are interested not only in the story of what the material can do for them, but increasingly about what it means, and where and how the material was made. The story that should be told of leather is one of a natural product, each piece unique; a durable material with many desirable performance properties—both

inherent and crafted—and an aesthetic appeal, highly engaging to the senses.

The story should include the fact that leather is sourced in an ethical way, that it has been made in a tannery that takes responsibility for the environment, cares for workers and community, and that the material has progressed through a traceable and verifiable supply chain. Such a story—if properly told—can work to the benefit of both shoemaker and tanner, enhancing the image of their products and their value in the market place.

Shoemaking is a global industry that has developed over centuries on the back of a totally sustainable natural by-product that is now under attack through deliberate misinformation. If the leather industry is damaged, so is the footwear industry; we are inseparable. The true story is therefore surely one we should all be telling. 📢

This article is based on one by leading leather industry chemist Elton Hurlow that first appeared in sister publication World Leather in its series 'Nothing to Hide'. Details of this important series of articles by key industry figures can be found at www.nothing-to-hide.org



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Managing chrome VI

JOHN HUBBARD, SATRA TECHNOLOGY CENTRE

Last year, European Regulation 301/2014 came into force restricting Chromium VI (hexavalent Chrome) in leather articles. This regulation amends entry 47 of Annex XVII of the REACH regulation (1907/2006) and contains the following clauses.

5. *Leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3mg/kg (0.0003% by weight) of the total dry weight of the leather.*
6. *Articles containing leather parts coming into contact with the skin shall not be placed on the market where any of those leather parts contains*

chromium VI in concentrations equal to or greater than 3mg/kg (0.0003% by weight) of the total dry weight of that leather part.

7. *Paragraphs 5 and 6 shall not apply to the placing on the market of second-hand articles which were in end-use in the Union before 1st May 2015.*

These requirements apply to all products within the scope placed on the market from 1st May 2015 and include footwear and clothing made from leather.

The regulation cites EN ISO 17075 as the reference test method and 3mg/kg as the determination limit of this method and forms the basis for monitoring and enforcing these

requirements. This limit is, however, higher than the European Chemicals Agency - Committee for Risk Assessment Lowest-Observed Adverse Effect level and therefore there is pressure for a more sensitive test method to be developed.

The regulation is aimed at reducing the occurrence of chrome VI related allergic dermatitis from leather goods and it is envisaged that the instance of such reactions will fall by 80% when the regulation is in place. This requirement has meant that many more retailers are checking the products they supply which fall within the scope of this regulation for the presence of chrome VI.

SATRA carries out many tests either

as part of demonstrating the innocuousness requirement for Personal Protective Equipment (PPE) such as leather gloves or footwear or when products are being tested against retailer or sourcing company specifications. In its overall experience, around 10% of leathers tested fail the chrome VI requirement. There is however, no clearly observable trend in identifying the types of leathers that are more likely to fail, as failures have been observed in gloves, motor cycle boots, footwear linings, footwear uppers and leather swatches.

In order to address concerns about the impact of this regulation on the tanning and leather goods industry as a whole, the Society of Leather Technologists and Chemists convened a Chromium VI panel as part of their 119th Conference held at the University of Northampton in April this year. SATRA was represented on the panel by John Hubbard, its technical manager, alongside industry experts on leather production, tanning chemicals and leather research. The panel addressed questions from the conference floor of the conference as well as answering those that had been submitted prior to the conference from across the supply chain.

The questions received covered topics ranging from the impact of leather use on the environment and the frequency of failures, through the external factors that can influence the formation of chrome VI to issues surrounding testing for its presence, end of life concerns about disposal of leather goods in landfill and incineration.

The experts on the panel acknowledged that chrome VI was a recognised problem in the industry and that there are still unanswered questions about its formation, conversion and detection which will be the focus of an ongoing research project. The panel was able to reassure delegates that by following best practice such as the nine rules published by the IULTCS (International Union of Leather Technologists and Chemists Societies) then it is possible to produce good quality leather that should not exhibit the formation of chrome VI during its functional lifetime.



SATRA has found that around 10% of leathers tested fail the chrome VI requirement.

CREDIT: SATRA

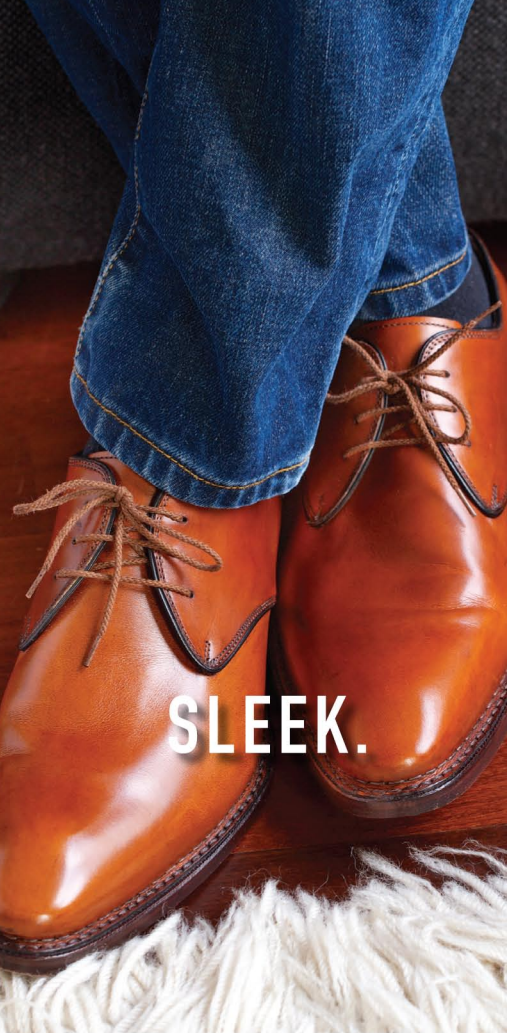
1. Always use premium chrome tanning salts.
2. No use of oxidation agents (i.e. bleaching) on leather after tanning.
3. Finish the wet end processing at low pH conditions (3.5 - 4).
4. Carry out a final washing.
5. Avoid the use of excess ammonia prior to the dyeing process.
6. Use high performance softening chemicals (no unsaturated lipids or waxes).
7. Avoid the use of chromate pigments (yellow and orange inorganic pigments).
8. Use between 1% and 3% vegetable tannin extract as this provides antioxidant protection.
9. Use synthetic antioxidants where it is not possible to apply vegetable agents.

A number of specifications are now being written that include a pre-ageing step before testing for chrome VI to ensure that products should remain free from it during their useable lifetime. However, as there are unanswered questions about the mechanisms that

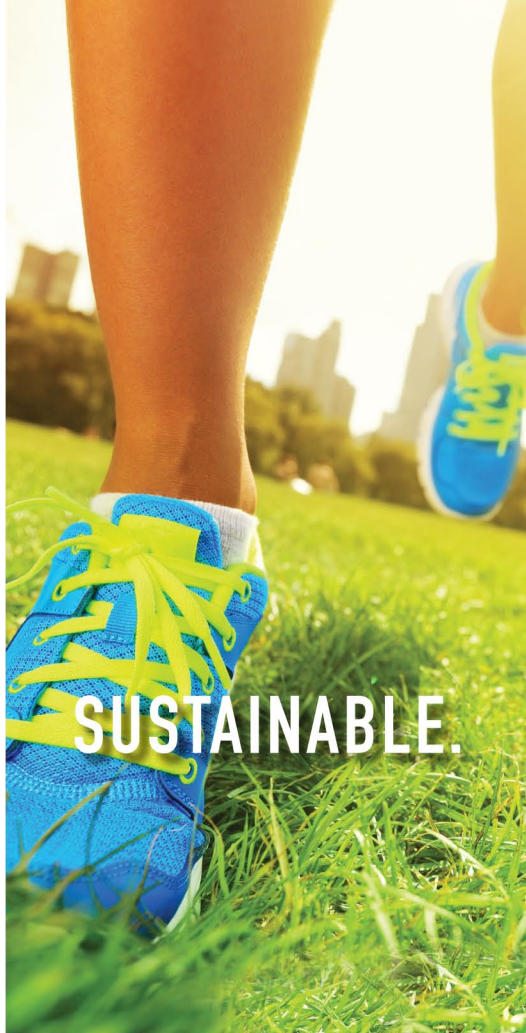
can influence its development, a number of different ageing methods have been proposed.

The European standards committees for leather and footwear have been working together to develop a single ageing protocol that will meet the needs of both sectors. It should be stressed that the regulation does not imply that the chrome VI content of a product should be determined after the product has been aged. Many retailers and sourcing companies nevertheless consider that such ageing could describe foreseeable use under the General Product Safety concept and by testing in this manner they show due diligence.

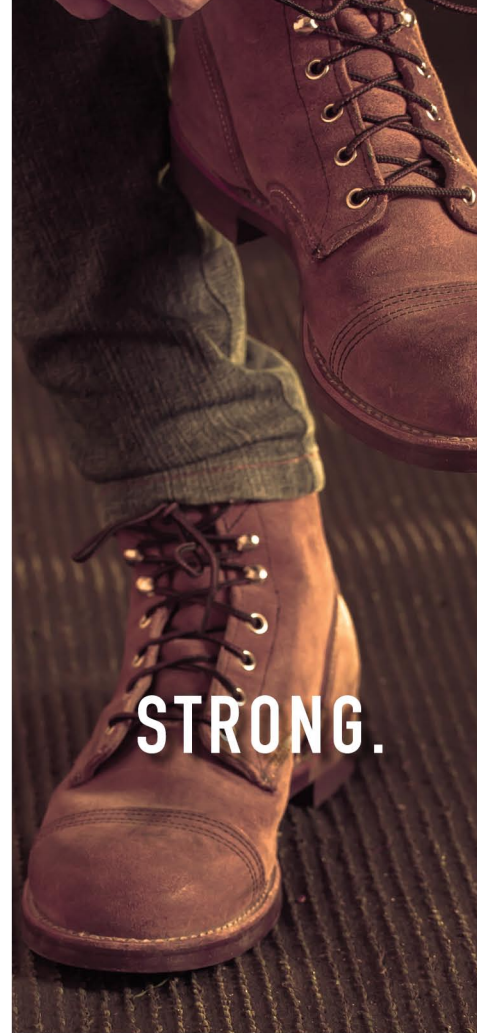
This correlates with SATRA's experience that there has been a marked increase in testing for chrome VI, particularly outside PPE, where it has been mandatory for several years in order to demonstrate that products placed on the market in the European Union are in compliance with the requirements of the new regulation. Nevertheless, there are no reasons for complacency as many products listed on the product recall database RAPEX are associated with the presence of chrome VI in leather goods. 



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Production at the Louis Vuitton factory can be viewed from a central courtyard.

CREDIT: LOUIS VUITTON



The experiential factory

SERGIO DULIO

The title of this article may appear at a first glance somewhat exotic and contradictory by putting together two words that are not frequently associated. If we turn to the Oxford Dictionary for the word 'factory', we obtain a definition that is very much in line with our common perception; 'a building or a group of buildings where goods are manufactured chiefly by machines'. However, making a deeper analysis, that definition stimulates some further thinking.

To begin with, a factory is a building, a well-defined and confined place where something happens, namely goods (in our case shoes) are manufactured. There is a clear connection with the physicality of the establishment, with the walls and windows of the buildings that we are used to seeing in the specific districts that, since the early years of the industrial era, have populated the outskirts of all big cities in our industrialised countries. Areas that

most of the time are unattractive and where equally unattractive working conditions were home to the numerous workers who took part in the daily manufacturing activity.

The second part of the definition is even more interesting where the dictionary says 'goods are manufactured chiefly by machines'. Once again, a clear association is made between the production process as such and the machines that seem to be the only participants in this performance. It is as if the human beings who spent their daily time in the factory did not matter or merely played a secondary role. Having so often dealt with topics such as process automation and robotics, this certainly does not sound like a great revelation. Yet there is an on-going debate on the respective roles of human workers and machines in modern factories and on the best way of ensuring a safe and healthy co-existence between the two in future manufacturing scenarios.

So what does bring us to associate factory with experience? Again the Oxford Dictionary tells us that experience is 'the practical contact with and the observation of facts or events'. Thinking about a factory, this means being exposed to what is happening within its walls, to the manufacturing organisation, to the processes that transform materials and components into the pleasing products we all know as shoes. So an experiential factory is a place where we are given the chance of experiencing how products are made, learning the values that lay behind the manufacturing process and that contribute to the appeal and the attractiveness of what we buy.

INSIDE THE WALLS

But to whom do we refer when we say we? Certainly not to the people who spend their daily hours in the workshop or office areas. The subjects of this experience are therefore others, persons who are not normally allowed

in factories and who are so far only interested in what they produce: the products they buy. The new subjects we are thinking of are consumers who, in the experiential concept, are given the possibility of seeing how their shoes are made from within the walls of factories that become open spaces where they can actually experience the challenging combination of high tech and human touch that modern shoemaking has become.

Experiential factories are therefore places where consumers are exposed to the intricacies of the manufacturing process of the shoes they buy and so can appreciate the true values that underline them. Obviously, this scenario necessitates a profound transformation of the manufacturing, distribution and retail model and calls for a new role and a new place for the consumer.

First, we have to re-educate consumers to the value of manufacturing and overcome the obsolete logistical split between twentieth-century origins of manufacture and distribution. One where specialisation of labour often contributed to an impoverishment of the urban environment, depriving it first of artisan workshops and then of manufacturing itself, as it moved further and further away on the wave of a progressive offshoring and outsourcing of production. For each production pipeline that supplies our consumer goods, we should perhaps rethink our traditional industrial approach. Instead, we should perhaps create examples of the 'experiential factory of the future', an open factory embodying a contemporary revival of the old workshop principle in an environment of sophisticated industrial automation.

A NEW PHILOSOPHY

The underlying philosophy is that only through the direct education of demand on the actual industrial process will we be able in the future to create communities of aware and responsible consumers. The possibility to innovate through the web, triggering beneficial growth paths and development for all those involved, have never been so vast and powerful as in recent years. In this vision, industry must find a way to once again become visible, central and relevant in the debate about the future of the economy and of society.

Old fashioned industrial districts should be turned into new industrial retail parks, manufacturing and commercial clusters centred on offering consumers a brand new purchasing experience. The goal is to create factory retail platforms that are customer-centric and experiential in order to capture and retain consumers using elements of personalisation, individualisation of product and augmented reality technologies to transform the purchase transaction time into a relational / experiential moment. The goal is to also generate input from consumers (the demand side) with viral effects and of sharing with them essential benefits of the underlying strategy, namely innovation, sustainability, inclusion and participation.

THE TRANSPARENT FACTORY

Are there examples of experiential factories that we can already see? Perhaps the most famous and quoted one is the Volkswagen Phaeton production facility. The building is located in the heart of Dresden, Germany, an 800-year-old city known for its arts and craftsmanship. The factory's walls are made almost entirely of glass—over 290,000 square feet of it—and its floors are covered entirely in Canadian maple. Its layout is visitor friendly and is able to receive 250 visitors per day (by advance reservation at five euros each). There is no charge

for customers or prospective customers.

There are no smokestacks, no loud noises and no toxic by-products. Parts arrive and luxury cars depart. It may look like an expensive way to build them but if the process convinces customers they're getting something special, maybe it's worth the added expense. It looks more like the lobby of an opera house than a factory. In actual fact, during the European floods of 2002, when Dresden's opera house was inundated, the transparent factory did indeed play host to the opera Carmen.

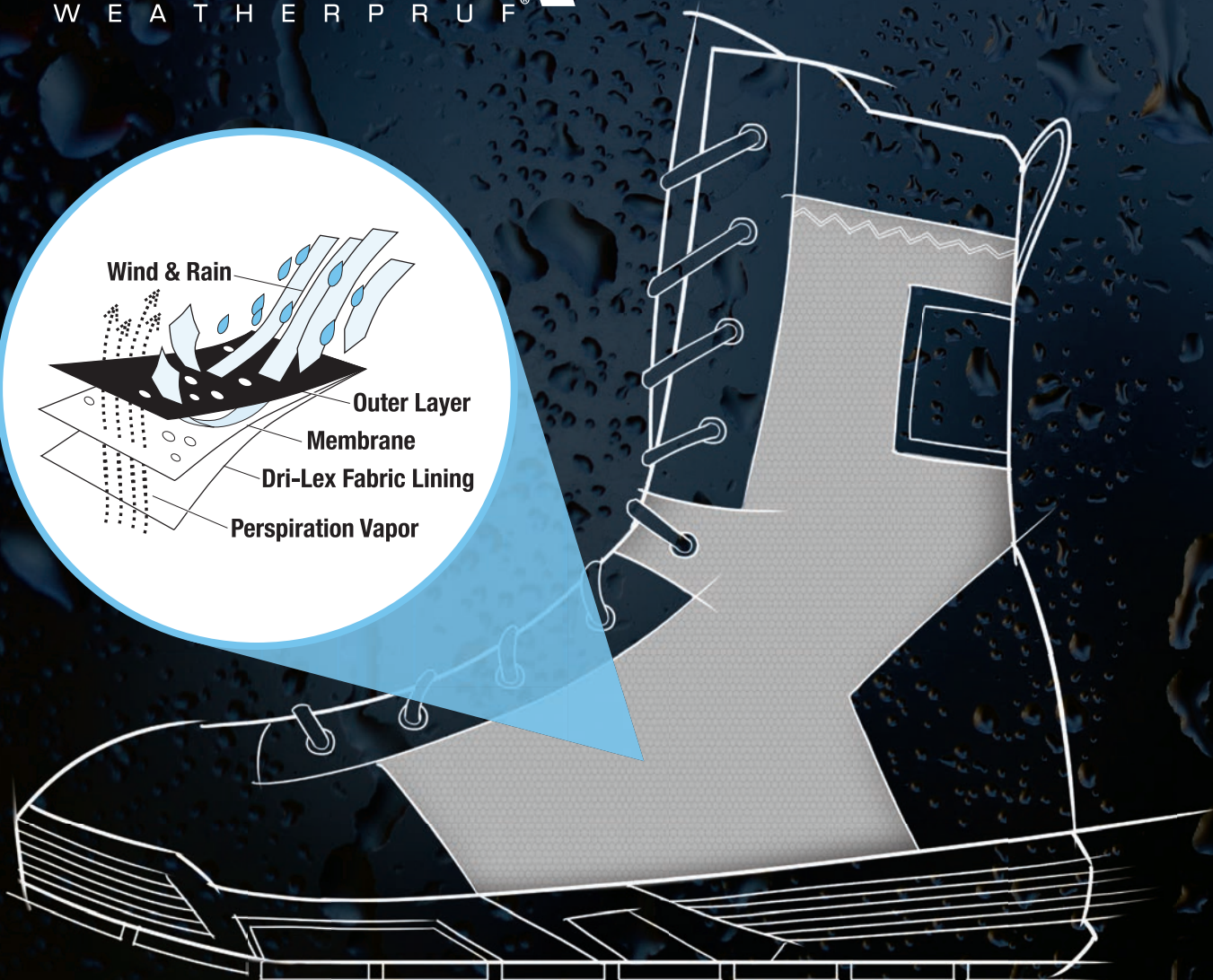
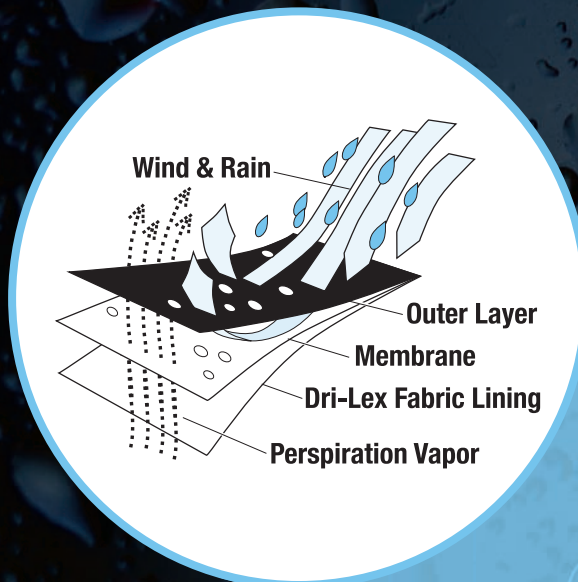
A sphere at the entrance houses an interactive video experience for learning about VW. A customer-commissioning centre forms part of the lobby, inside which Phaeton buyers can choose colours, leathers, woods, etc., for their cars. The ground floor houses a restaurant, and on the lower level there is a simulator that provides visitors with a virtual test drive of the Phaeton, VW's intent being to invite many of the customers for a factory visit.

The transparent factory handles the final assembly only. All the smelly, noisy operations, such as stamping, welding and then painting the steel body, take place elsewhere (in Zwickau to be specific). Painted bodies arrive at the factory by truck. The other 1,200 parts and 34 pre-assembled components are shipped to a remote logistics centre some three miles away and are transferred from there to the factory via trams that run on Dresden's public transport tracks. At the end of the



VW's transparent factory was designed to create a multi-faceted experience.

CREDIT: VOLKSWAGEN



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At Louis Vuitton, all production is carried out in pristine conditions.

CREDIT: LOUIS VUITTON

assembly line once all tests have been satisfactorily passed, the Phaeton is either wrapped for shipment by truck or placed in the glass tower, which is another distinctive feature of the establishment, for eventual factory delivery (all cars in the tower and on the assembly line are already sold).

Factory delivery customers are treated to lunch and a tour. Their cars are then parked in the lobby area where an associate familiarises the customer with all functional aspects of the car before he or she drives it away. Isn't that a unique experience that will be remembered forever by the lucky customers who can afford buying a Phaeton (the luxury brand of the VW group)? In this description we have all the relevant features of the experiential factory. Customers are welcomed and treated as special guests, they are exposed to VW brand values, they can personalise the cars they will drive, they are showcased the manufacturing process and eventually they pay and drive away with their brand new luxury sedan.

For the sake of accuracy we have to say that VW discontinued production of the Phaeton in March this year and the beautiful Dresden factory is now left without anything to produce. Nevertheless, this does not in any way affect the validity of the concept and its contribution to the brand corporate image notwithstanding the emissions scandal that rocked the group last year.

IS IT APPLICABLE TO FOOTWEAR?

A luxury car sells for several tens of thousands of euros while shoes might cost in the hundreds; is such an example therefore applicable in our sector? A visit to the Louis Vuitton factory in Fiesco D'Artico in the north-east of Italy could provide us with an answer. The factory hosts several manufacturing lines, each one dedicated to a specific product or family of products, from top of the range sneakers constructed using the most advanced robotic technologies in a fully automated production line, to elegant ladies shoes and high class Goodyear welted mens footwear.

What the factory has in common with the VW facility is the 'transparent glass concept'. Most of the manufacturing areas face an inner courtyard and are visible through large windows that expose the work in progress to occasional or invited visitors. The factory runs and buzzes inside and allows them to glance at the process through the large windows as if looking at the brand's luxury products in one of the flagship stores in the centre of Paris or London.

The working spaces are totally clean, very well lit, silent and with wood flooring as in the VW factory. Standards are certainly above the average of those found in the most modern and well organised conventional shoe factories. They are in fact far more similar to the ambience

that can be found in LV boutiques. We are, however, looking at one of the top luxury footwear brands, so doubts as to whether all this is generally applicable to any footwear producer are entirely legitimate.

A DREAM OR A VISION?

Yet there is in fact nothing in this concept that makes it inapplicable to other categories of brands or classes of shoes. It is just the concept of the role of the factory and the vision of how it is organised that changes. So, let's indulge in the vision. Let's imagine that, as in the case of the VW glass factory, our experiential shoe factory welcomes us with a 'story telling area' where, with the most modern multimedia technologies (virtual reality and augmented reality), we are presented with the values and story of the product and the brand. We are then shown the 'experiential outlet area' where we can create, personalise or simply order our shoes again using a full wealth of digital technologies to support our choice, digitally see what does not yet exist and even try it on virtually using magic mirrors or similar devices.

The journey continues with the manufacturing line where we see leather and other materials being cut with modern NC machines, uppers stitched with the ability and skill of committed and engaged workers and finally the assembly line where humans and robots work side by side in perfect harmony based on ideal complementary roles shared between humans and their mechatronic servants. Traditional fabrication techniques exist alongside additive manufacturing ones to provide a virtuous hybridisation of technologies and contents that will more and more characterise products of the future.

Eventually, when we leave the shop floor area, we will be able collect our shoes that have been produced on demand, customised or simply picked from stock if already available, fully enriched by a unique learning experience. It is more than Industry 4.0, the fourth industrial revolution, it is 'buying 4.0' a totally new dimension of inclusiveness, one of understanding and participation. Industry 4.0 will rely on workers 4.0 as well as on consumers 4.0. Perhaps it is more a dream than a vision but, then again, all big endeavours start with a dream. 🌀

Young consumers expect a lot from footwear brands.

CREDIT: ARA/SABRINA WENIGER



Young audience

Fashion-focused footwear firms have a good chance of success in coming years if they are able to develop a deep understanding of the millennial consumer. This is the opinion of Jayne Estève-Curé, founder of Paris-based Jayne Fashion Consultancy. She explains that this group, comprising people aged between 15 and 35 today, numbers approximately two billion globally. "Their purchasing power is huge," Ms Estève-Curé says. "Collectively, they spend \$10 trillion per year and \$2.45 trillion of that goes on fashion. And over the next five years, these amounts are going to double."

She describes these young consumers as "complex" because they expect a lot from consumer products, manufacturers and brands and are difficult to please. "This generation grew up with the internet and multi-channel shopping is all they have known; they don't know a world without the web," she explains. "They are careful shoppers too. They spend a lot of time researching but they are brand addicts and if you can seduce them, they can become good ambassadors for your brand."

Blogs' big influence

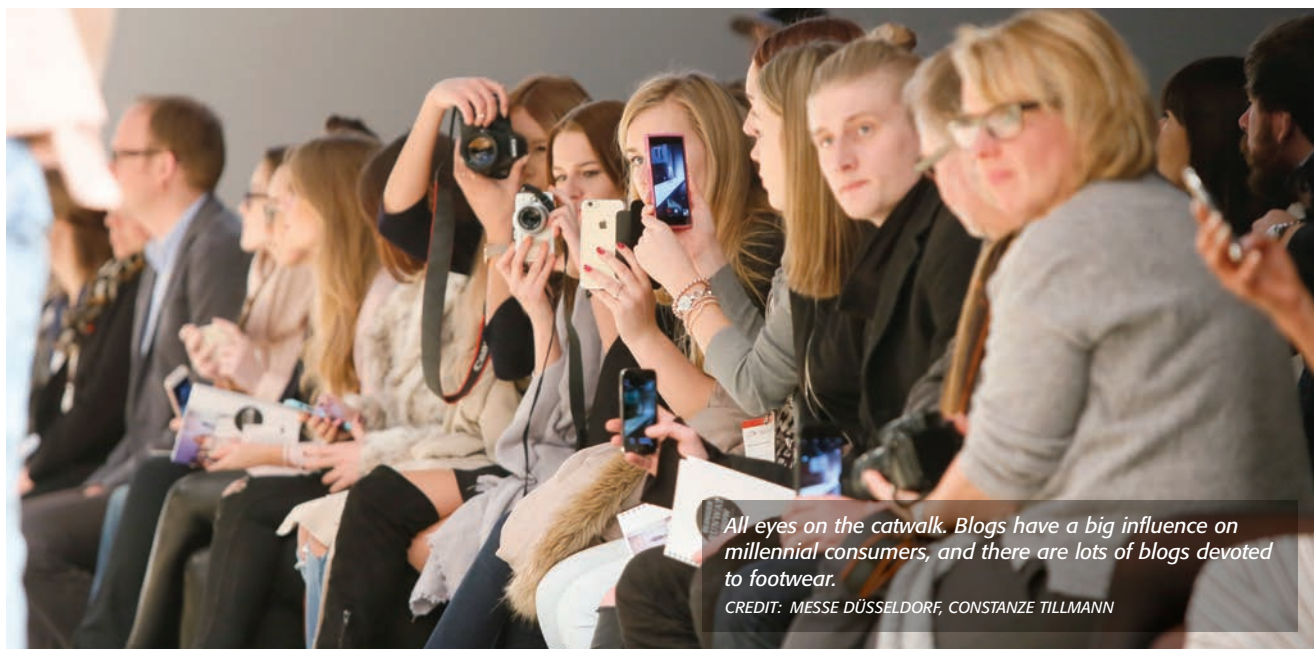
For this reason, social platforms and online communities are important. Among these, though, she says Facebook is not the "top influencer" in fashion, although it's important. Blogs have a big influence, she says, and there are lots of blogs devoted to footwear. Image-based social media platforms can also be

Paris-based fashion consultant Jayne Estève-Curé has clear ideas about the questions footwear companies need to address if they are to reach out successfully to millennial consumers.

a good way to inspire consumers, she says, mentioning by name Pinterest and Instagram, which have 100 million and 400 million active users respectively. Of course, instant direct access to brands' latest products and messages is one of the results of this and this represents another way in which the world of fashion has changed for this generation of shoppers, making it easier for them to dream of couture and of finding it at affordable prices in "accessible" outlets. Everyone has their own idea of what this might actually mean in terms of a shoe's colour, style and heel height and this is pushing young consumers towards an insistence on "a unique and individualised online-offline shopping experience".

Belief in a better future

Ms Estève-Curé also points out that this is a generation that has grown up with environmental awareness and they know all about organic materials and fair wages for factory workers.



All eyes on the catwalk. Blogs have a big influence on millennial consumers, and there are lots of blogs devoted to footwear.

CREDIT: MESSE DÜSSELDORF, CONSTANCE TILLMANN

They want manufacturers who create “no waste and no greenwashing”. They are “emotion-driven”, she says, and they want to believe in a better future.

For this reason, she insists that younger consumers are becoming more and more interested in materials and craftsmanship, which is good news for higher-end shoe companies. To offer them an artisan product is to help them feel “privileged and unique”, she says, and brands that find a way to become “successful story-telling experts” will “definitely attract consumers”.

Be prepared

According to *World Footwear* contributor Sergio Dulio, these insights from Jayne Estève-Curé present five main challenges to footwear companies. Head of ATOMLab, the research and innovation business unit at cutting technology provider ATOM Group, Mr Dulio says that if millennial consumers insist on customised product, manufacturers have to be prepared to produce what their customers “generate” by using customisation features on shoe companies’ websites, for example. “This is an excellent way to tackle sustainability,” he says. “If you only produce exactly what consumers want, you tackle waste.”

Another challenge is to turn footwear factories into “experiences” for consumers, allowing people to spend time, not just money, with the company supplying their shoes. “Consumers used to be kept out of factories,” he points out, “but now we have facilities like the Louis Vuitton footwear factory in Fiesse d’Artico in Veneto in northern Italy, which is like a factory and an outlet store at the same time. It’s worth seeing.”

People not robots should have the best jobs

Third, Mr Dulio believes producers everywhere are going to have to use robot-assisted manufacturing well. Robots are appearing in factories in almost all parts of the world now, but the role of robots will change, he insists. Factories have to be attractive places to work if companies are to keep key workers on board; therefore, the clever thing to do will be to have robots do repetitive and dangerous jobs and keep the more fulfilling jobs for people to do.

Still on the subject of workers, he says footwear brands

should take advantage of the amount of information you can put onto a radio frequency identification (RFID) tag to tell buyers a little bit about the person who made their shoes for them. “It would be high-tech but high touch,” he explains, “a human digital fingerprint. Telling consumers about the contribution workers make carries value.”

Finally, Mr Dulio thinks there is “lots of enthusiasm” for technologies such as 3D printing that he says can “democratise” manufacturing and that consumers of shoes are going to become “pro-sumers”, buyers backed with lots of professional knowledge, and “con-workers” a new class of consumer that knows so much they could almost do the job themselves. “It’s not going to happen tomorrow, but it may be that in the future people really will just download a design they like from a brand website and print their own shoes,” he says. 📱

Portuguese casual footwear brand Shoes Your Mood attracted attention at the GDS exhibition in Düsseldorf in February 2016 by offering visitors the chance to customise designs and take away a personalised pair.

CREDIT: MESSE DÜSSELDORF, CONSTANCE TILLMANN



Family-run business Melvin & Hamilton has been producing sophisticated shoes since 1988 by adding unique twists to classic designs. It manufactures all of its footwear in India, a strategy that more brands could adopt if labour costs in China continue to increase.

Shoes with soul



Melvin & Hamilton was founded on the idea of creating 'business shoes' that were suitable for wear during leisure time as well as in the office.

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Melvin & Hamilton adds handcrafted detail to each of its shoes despite the extra time it takes. The company wants their products to have "soul" and stand out from the crowd.

CREDIT: MELVIN & HAMILTON



Rajab Choukair, founder of footwear brand Melvin & Hamilton, was born in Lebanon but his personal and professional life was built in Germany. As well as meeting Paris-born Nicole, who would go on to become his wife, it was in the city of Heidelberg that his love affair with shoes was born.

In the 1960s he was training as a business administrator when an opportunity arose to work in the footwear industry. A fascination with skilled shoemaking has continued ever since and he handed this passion down to his sons Karim and Olivier. Shoes were "omnipresent" during their childhood and the shoes they design point to an immersion in the footwear industry from a young age. They are now in charge of driving forward the brand that their father established nearly 30 years ago.

He founded the company in 1988, taking advantage of men who were discovering the 'business look' and wanted to wear it in their leisure time as well as in professional environments. His aim was to create a shoe that could be worn in the office then out on the town afterwards. Understanding that the key to the success of the brand would be to find a niche that set it apart from the competition, he began to blend traditional craftsmanship with contemporary flourishes.

Twenty-five years later the approach remains the same and the brand's extended range includes footwear for women. Melvin & Hamilton now makes a wide variety of products from ankle boots to sandals and from Derbies to sneakers with the use of non-traditional colours, one of the things that help it to stand out. With shades like warm red or rich orange, the company has tried to inspire its customers to wear outfit combinations that they had never considered before. The Choukairs maintain that they are the only company to offer business shoes in such a variety of colours. Not that every quirk is deliberate. The coloured soles found on some products were the result of a mistake but the brothers felt it added character to the design and so it became a regular feature.

Labour of love

Karim and Olivier are hands on when it comes to their products. They choose the materials, design the shape of the shoe and take care to make sure of a comfortable fit. One of the ways that they do this is through the use of a quality insole which also offers great durability. Linings are made from calfskin

leather which gives excellent breathability and further increases comfort. The search for fresh ideas is never complete, whether this be a different shape, unusual colour or distinctive pattern to inject life into a design. Melvin & Hamilton insists that its shoes "should have soul" and be clearly distinguishable from "industrialised products that lack charm".

Choukair Sr's enduring passion for shoes means he still comes in to the office every day and is always available in an advisory role to offer his sons the benefit of his vast experience. The Choukair brothers describe the creation of each shoe as "giving birth" and the extra care they take illustrates a sense of pride in their work. They strive to offer their products at reasonable prices but not at the expense of quality.

Handcrafted detail is added to every shoe and they are willing to invest time and to offer customers the best in hand-finished leather footwear. They have no problem spending a whole day on the finish of their shoes because this special finishing, which they have perfected over many years, is what distinguishes them from other brands.

Most products are made from vegetable-tanned leather. Melvin & Hamilton insists that the increased cost of this method is irrelevant, as is the extra time required to complete it, because it ensures the sustainability of the brand. In fact, it stresses that the different shades and nuances of leather which has undergone vegetable tanning gives the shoes their unique appearance. Karim and Olivier believe that it would be impossible to achieve these colour effects using any other material or tanning process.

The brand's growth in the past decade has been impressive. Eight consecutive years of turnover growth in excess of 30% saw it achieve consolidated turnover of €14 million in 2015, according to company figures. Online sales are the key driver of the business and a connection to consumers is maintained through an active social media presence. Exports currently make up 35% of sales with a target of 50% a key feature of the short-term strategy for the future. Plans are afoot to expand into markets in Asia and Russia but the brothers intend to continue the company's long-standing affiliation with small boutiques in Germany. Their mother's family links have allowed them to make a positive impact in France with physical retail outlets in various locations, including a pop-up store in Paris.

Ongoing success has not diminished the importance of the

small family team in Germany, who remain the lifeblood of the company. The limits to a group of this size mean that the emphasis must always be on efficiency if the brand is to meet its target of offering well-crafted footwear at competitive prices. By taking responsibility for product design as well as strategy and logistics, the brothers avoid considerable additional costs. This involvement through the whole process also gives them an excellent understanding of their products.

All manufacturing takes place in factories in India, two of which they own, where the company says they employ highly skilled specialised personnel. Melvin & Hamilton believes in treating its workers well and paying them properly in order to build on established partnerships. These relationships are key to ensuring that manufacturing remains efficient to avoid the need for prices to be increased or for there to be a reduction in quality.

Made in india

India, with a potential 500 million strong workforce at its disposal, could capitalise on a move away from manufacturing in China if labour costs in that country continue to rise. HSBC senior economist Frederic Neumann believes that India "is the only country that has the scale to take up where China is leaving off" and that the changing attitude towards China gives the country a "golden opportunity".

A 2016 report from the World Bank entitled 'Stitches to Riches? Apparel Employment, Trade and Economic Development' estimated that 1.2 million jobs could be created in the Indian apparel industry if wages in China were to rise by 10%. Wage increases are driving up the cost of manufacturing to the extent that global brands with established operations in China are beginning to consider alternatives.

The Economist Intelligence Unit (EIU), part of the Economist publishing group, predicts that labour costs in China will continue to increase steeply in the coming years, having risen every year since 2000 when average manufacturing earnings were just \$0.4 per hour. By 2012 that figure was \$2.1 and most recent estimates place it closer to \$3.5 meaning that the cost of Chinese labour now exceeds that of India and several other Asian countries.

China is on course in 2016 for its lowest share in the US footwear market since the turn of the century and figures from Chinese customs authorities showed a 17.3% decline in revenue from footwear exports in the first two months of 2016. Footwear group Wolverine World Wide has already announced a reduction in its manufacturing operations in China. In November 2014, the company unveiled plans to relocate the majority of manufacturing to Vietnam due to the combined effect of wage rises in China and the expected agreement of the Trans-Pacific Partnership (TPP), which was eventually signed in February 2016. This shift will see only a third of their supplies coming from China by 2020.

India meanwhile is aiming to grow its footwear exports as part of the strategy to boost the turnover of the country's leather sector. The government has set an ambitious objective of increasing overall leather turnover from current levels of around \$12 billion to \$27 billion by 2020.

A lack of dependable infrastructure has so far dissuaded brands from relocating their manufacturing to India but Prime Minister Narendra Modi's government has taken steps to address this issue. The 'Made in India' initiative, launched by



Melvin & Hamilton is headquartered in Heidelberg. The brothers are determined to remain grounded in a city that has played such an important role in the history of their family. (centre: Rajab Choukair, left: Karim, right: Olivier)

CREDIT: MESSE DÜSSELDORF

Modi in September 2014, is to overhaul out of date policies and regulations, including export tariffs, and improve infrastructure in order to attract foreign investment.

A separate initiative to establish ready-made Apparel and Garment Making Centres (AGMCs) in the eight northeastern states of the country will see the textile ministry inject \$2.7 million to stimulate job opportunities in the area. The first two AGMCs in Nagaland and Tripura were inaugurated in April this year.

India also hosted the nineteenth International Union of Shoe Industry Technicians (UITIC) Congress in Chennai in February, an event which was described by the CLE as one of the biggest ever in its history. The theme of the event was the Future Footwear Factory and it gave over 170 delegates from 28 different countries the opportunity to see first hand the manufacturing potential of the country.

Testing group Intertek opened a leather and footwear testing facility in Chennai in 2015 whilst testing and research organisation CTC has expanded its operations in the country with a new laboratory in Delhi to complement its facilities in operation in Kolkata and Chennai.

India is beginning to gather together all of the elements needed to accelerate its growth as a manufacturing hub and present itself as a viable alternative to China. Conscious efforts are being made to improve infrastructure, discouraging duties or tariffs are being re-examined and modern testing facilities are in place to satisfy the demands of large-scale manufacturing.

Melvin & Hamilton sees India as the perfect location to manufacture its distinctive footwear. With foreign direct investment already increasing and a government striving to make India an attractive prospect for overseas investors it might not be long before other footwear and apparel brands follow in its footsteps and consider establishing their manufacturing units in the country.🌐

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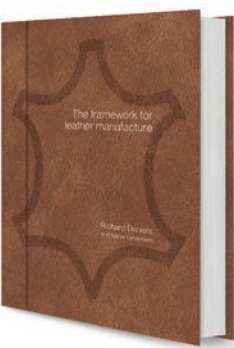
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