

WORLD FOOTWEAR

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THE MAGAZINE FOR THE GLOBAL SHOE INDUSTRY



Italian shoemakers see signs of improvement

Why insoles need to be fit-for-purpose

Shoes must adapt to changing foot health concerns

Older women need to watch heel height



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Image: Combat Flip Flops

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News

GLOBAL The global footwear market is estimated grow at 5% per year for the next five years and be worth \$371.8 billion by 2020, according to research firm Research and Markets. It says leather footwear made up 60% of the market in 2014.

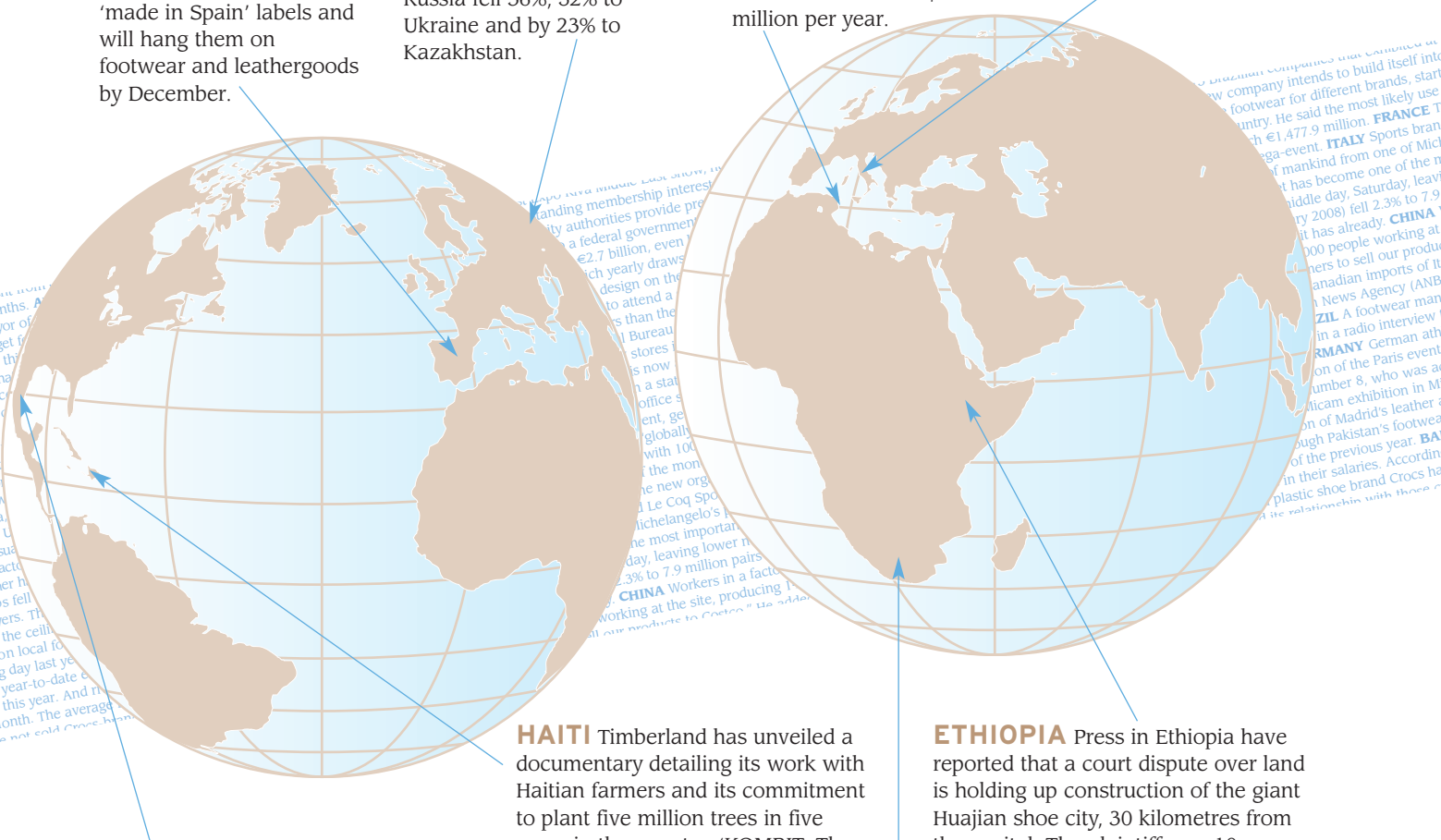
SPAIN Spanish footwear manufacturers achieved export growth of 17.4% to €1.5 billion in the first half of the year.

● Department store group El Corte Inglés has become the first major backer of a campaign to highlight Spanish-made products. It has laid claim to almost all of the initial nine million 'made in Spain' labels and will hang them on footwear and leathers goods by December.

RUSSIA The director for Russian business in Italian footwear association Assocalzaturifici has said orders at the Moscow-based show Obuv Mir Koži were "inevitably" down but has vowed to keep investing in the market. Italy's total footwear sales fell by more than a third in the first six months. The volume to Russia fell 36%, 52% to Ukraine and by 23% to Kazakhstan.

TUNISIA Tunisia's National Leather and Footwear Centre (CNCC) has signed an agreement with the Italian tanning machinery sector cementing what it calls commercial and knowledge ties between industry representatives. Sixty Italian manufacturers are active in Tunisia and have collective export revenues of around \$200 million per year.

ITALY Micam director Paolo Borghini has confirmed that 1,443 exhibitors took part in the September edition of the Milan-based show. About 841 were from Italy and 602 from overseas. He was confident visitor numbers would be in keeping with recent years, around 34,000.



MEXICO Mexican footwear manufacturers have a chance to "capture" new buyers thanks to recent changes in currency rates and to changes taking place in China's economy, according to Luis Gerardo González García, president of the Sapica shoe and leathers goods exhibition. "US companies are finding it difficult to have shoes made in China," Mr González said, "because the available workforce in China is turning to other industries."

HAITI Timberland has unveiled a documentary detailing its work with Haitian farmers and its commitment to plant five million trees in five years in the country. 'KOMBIT: The Cooperative' tells the story of the brand's work with the Smallholder Farmers Alliance (SFA) to create a self-sustaining agroforestry programme owned and operated by smallholder farmers.

SOUTH AFRICA South African footwear companies are expected to produce 65 million pairs this year, an increase of six million over last year, according to a report in local industry press. It quoted Jay Irkhede, a director of leather and footwear at the Department of Trade and Industry, as saying the tanning and leather sectors should produce \$460 million of product, an increase of \$40 million from the previous year. Exports will make up around \$260 million of this.

ETHIOPIA Press in Ethiopia have reported that a court dispute over land is holding up construction of the giant Huajian shoe city, 30 kilometres from the capital. The plaintiffs are 10 residents of Lebu area who assert they have rights to the land, according to the report. However, the city council is arguing compensation has been given to displaced farmers but the 10 do not own the land.

US Twelve Pacific rim countries have signed a trade agreement, the Trans-Pacific Partnership (TPP). The Footwear Distributors and Retailers of America welcomed the deal, saying it had worked for years to ensure “the voice of the industry” was heard. However, the former president of CICEG, the footwear industry’s representative body in Guanajuato, Mexico, said the TPP would leave Mexico’s footwear manufacturers at a disadvantage.

● Nike has partnered with manufacturer Flex “to bring advanced innovation to its supply chain”. It claims the project will enable footwear to reach consumers more speedily, with customised solutions and increased performance, and will bring manufacturing “closer to major markets”. It has been developing technologies to enhance its manufacturing business model for the past few years with investments in automation, modernisation and new methods of manufacturing such as Flyknit.

VIETNAM Vietnam’s leather and footwear sector earned \$8.8 billion in export revenues in the first nine months of the year. This is an 18.4% increase over the same period last year, according to Vietnam’s Ministry of Planning and Investment.

BANGLADESH

Bangladesh has posted a 2.8% decline in the overall value of leather sector exports, including footwear, during the first two months of the current financial year, July and August, compared with the same months in 2014.

Bangladeshi manufacturers exported finished leather worth \$46.8 million and leather footwear with a value of \$97.5 million.

THAILAND

A delegation of footwear companies from Thailand has visited Vietnam as part of a trade mission. Vietnam has favourable incoming export agreements with Europe and is set to benefit from the Transpacific Partnership (TPP).

DOMINICAN REPUBLIC

Workers’ representatives and manufacturing companies in the Dominican Republic’s Free Zones, (duty-free, export-only manufacturing zones), have agreed to boost minimum salary levels by more than \$20 per month, equivalent to an increase of 15%. An official body said this was of great importance for “labour peace”.

CHINA

The China Leather Industry Association has said growth slowed last year to single figures. The industry achieved revenues of \$200 billion in 2014, year-on-year growth of 9%. China exported 2.7 billion pairs of shoes, with a value of \$54 billion, with leather shoes accounting for \$14 billion.

● The CLIA says 10% of all shoes were produced in and around Dongguan, giving the area an annual output of close to two billion pairs. However, production has begun to move away owing to higher labour costs and a downturn in orders as consumers have begun to buy more shoes online.

BOLIVIA Safety footwear is one of a limited number of product categories to become subject to new import tariff rates in Bolivia and will now be between 30% and 40%. The government said imports of cheaper products are harming domestic manufacturers’ ability to compete.

ECUADOR

Ecuador is planning to set up a Shoe City project in the province of Tungurahua, where footwear manufacturers can produce collections and sell them, on site, directly to consumers. The project will be completed some time in 2018, according to initial reports.



Footprints

FORMER CTC MANAGER PASSES AWAY

Leather and footwear testing institute CTC has announced "with great sadness" that **Roland Steyns** has passed away.

Mr Steyns helped to set up CTC Dongguan, China, in 2007, and also worked as a footwear consultant to the European Commission.

Previous roles included production director at Crockett & Jones and managing director for Indonesia and India at Reebok.

He was also project director for South China for leather research institute Centre Technique du Cuir.

CTC said: "Roland was a quiet, efficient, courteous and pleasant man, always available for clients and colleagues.

"As a skilled professional, Roland had developed a strong understanding of footwear global supply markets, within both the fashion and sport sectors.

"Our condolences go out to his family and friends."

FOOTWEAR IN FOCUS FOR NICARAGUAN MINISTER

Nicaragua has appointed a junior minister for development, industry and commerce, **Ana Isabel Argüello**, after her predecessor, **Verónica Rojas**, was named as the central American country's new ambassador to Spain.

Ms Argüello said she would pay special attention to the needs of Nicaragua's small- and medium-sized businesses, with the footwear sector an area of specific focus.

VITO ARTIOLI: CHANGE HAPPENING TOO FAST

Former president of the European Confederation of the Footwear Industry (CEC) **Vito Artioli** has said changes that are taking place in the global footwear industry are necessary, but are happening too quickly, with uncertainty in the footwear market and a lack of unity in the global industry among the consequences.

Speaking exclusively to *World*



ASICS MANAGER TO LEAD WFSGI COMMITTEE

Marc Pinsard, a marketing manager for sports brand Asics, has been appointed as chairman of the Committee on International Sports Organisations for the World Federation of the Sporting Goods Industry (WFSGI).

He succeeds **Wolfgang Schnellbuegel**, former managing director of SPORT 2000 International.

The committee maintains relations with international federations and sport organisations on sporting-goods related issues including kit and advertisement regulations for major events.

"We are in close collaboration with sport governing bodies such as the International Olympic Committee and International Sport Federations to simplify and align the manufacturing identification guidelines. Therefore it is very important that with Marc we have found a successor who adequately has a wealth of experience in brand marketing and relations to international sports organisations," said **Robbert de Kock**, WFSGI secretary general.

Mr Pinsard, a French national, is also fluent in Japanese and has more than 20 years of experience. He worked at Babolat and Reebok before joining Asics in 2009.

Footwear, Mr Artioli said changes such as the movement of mass manufacturing of shoes and the introduction of new materials and technologies are important.

He said: "These are the right changes, but they are happening too quickly and there is a price to pay for that. Changes should come slowly, step by step, with each development taking place at just the right time."

STRIDE RITE VETERAN TO LEAD AEROSOL

Aerosoles has hired **Shawn Neville** as CEO, taking over from interim CEO **Caryn Lerner**, operating partner of investment from Palladin Consumer Retail Partners which bought the company in June last year.

His initial key initiatives will include strengthening Aerosoles' branding, store design, merchandising, product development, e-commerce and expansion strategy.

Mr Neville comes to Aerosoles following six years at Avery Dennison, leading its \$1.6 billion retail branding and information solutions division.

Previously, he spent four years as a senior officer of Stride Rite and president of its Keds division after five years with Footstar, as president and CEO of its athletic division and the same role with Footaction USA.

ECCO PROMOTES VETERAN SENIOR SALES ROLE

Ecco USA has promoted company veteran **Greg Marchini** to vice-president of sales.

He has worked for the Danish company for 19 years, most recently as sales director.

Dave Quel, president of Ecco USA, said: "Greg's experience in taking a strategic vision and executing upon that will strengthen Ecco's market position. His skills are well suited to lead Ecco."

HIGH-LEVEL DEPARTURE AT UNDER ARMOUR

Under Armour's chief operating officer **Brad Dickerson** is leaving the company

after only a few months in the role. He has been with the company since 2004, serving as chief financial officer since 2008, gaining the title of COO this year.

Under Armour explained he is leaving to pursue a “professional opportunity” outside of the athletic performance industry.

CEO **Kevin Plank** said: “Brad has played an integral role in providing value for the company by building a strong team and demonstrating a core competency of accelerating growth, taking the company from pre-IPO to a multi-billion dollar global business.”

WHY DIEGO DELLA VALLE VALUES INDEPENDENCE

The chief executive of luxury footwear and accessories group Tod's, **Diego Della Valle**, has said he values his independence highly because it allows him to direct money into philanthropic projects of his choosing and to speak his mind in public.

He did both in 2011 by putting up €25 million to help complete a restoration project on the Colosseum in Rome while being heavily critical of successive governments for their inability to complete the work on their own.

In an interview in the *Financial Times*, Mr Della Valle explained that a new initiative he will launch in October, Noi Italiani (We Italians), will channel donations from entrepreneurs into an education programme for schoolchildren. It will aim to teach them the importance of striking a balance between being competitive and sharing the benefits of success, he said, adding that “the Ferrari and the private jet are not everything”.

Asked if he thought his outspokenness had prevented Tod's from becoming even more successful than it is, Mr Della Valle said it had had “repercussions” but added that he likes the fact that running a successful business that is “totally independent” allows him to say what he wants.

RAW MATERIAL SHORTAGE HOLDS VENEZUELA BACK

Venezuela's footwear industry is operating at less than 50% of full capacity, a shoe industry workers' representative has said, but companies are at least trying to make more shoes on home soil rather than continuing



ROCKPORT PRESIDENT EYES ONLINE RETAIL

Bob Mullaney, former president of Rockport Americas, has joined online accessories retailer ShoeBuy as chief operating officer and president.

He was part of the executive team that facilitated the sale of Rockport from adidas to a new entity established by Boston-based investment firm Berkshire Partners and New Balance.

He said: “As consumers increasingly shop online, it is a great time to join one of the first online shoe retailers to partner with great brands, offer new experiences and create new ways to engage with our customers.”

with a policy of bringing in importing shoes from the cheapest source available.

Mr Solano said Venezuela has the capacity to produce around 80 million pairs of shoes per year, but production levels are running at levels of between 35 million and 40 million pairs annually. He said the main reason for this is a lack of raw materials rather than a lack of willingness on the part of footwear manufacturers to employ workers and produce shoes in Venezuela.

He said things have changed from the days when footwear companies were happy to employ “just four or five sales people and a fleet of lorries” to distribute cheap, imported shoes.

DOMINICAN SHOE SECTOR TO RECRUIT THOUSANDS

A government minister in the Dominican Republic, **José Ramón Peralta**, has said the footwear industry has created 11,000 new jobs in the last five years.

He said that in the course of the next five years, the industry will need to recruit a further 32,000 people to keep pace with growth and that experts in footwear manufacturing from Taiwan were in the country to deliver a programme aimed at training trainers.

In 2014, footwear manufacturers in

the Dominican Republic exported 14.7 million pairs of shoes and boots.

SCHOOL SHOE PROGRAMME HAS BEEN GOOD FOR SALVADORIAN MANUFACTURERS

A programme set up by the government of El Salvador to supply schoolchildren with shoes made by local producers is working so well that many of the manufacturers engaged in the programme are now able to export their shoes to other countries, such as Guatemala and Costa Rica.

A junior minister in El Salvador's ministry of commerce and industry, **Merlin Barrera**, said she was sure having the Salvadorian government as a principal customer had helped footwear manufacturers in the Central American country expand their businesses.

She said that the government's commitment to providing shoes, made by local producers, to children in Salvadorian schools, at no cost to parents, had helped make the domestic shoe industry stronger. The government's argument is that if children are given shoes, a uniform and school materials free of charge, the children will be more likely to keep turning up for school. 

MATERIALS SHOW

SoCal
January 5-6, 2016
Los Angeles, CA

NW
March 1-2, 2016
Portland, OR



NE
March 8-9, 2016
Danvers, MA

#WeAreMaterials

AmericanEvents.com

Products & Services

SATRA CONDUCTS 'WORLD'S LARGEST' FOOT SURVEY...

Footwear testing institute SATRA is releasing the results of a three-year project in which it conducted foot measurement surveys in the UK, USA and China.

The SATRA foot scanner uses lasers and cameras to capture a 3D model of each foot, which is then used to measure length, joint girth and instep height.

Participants were also asked for the shoe size they would normally purchase. It was noted that male participants tended to be more likely to favour a larger shoe size than the dimensions suggested, while women were more likely to select a smaller shoe.

The results of the survey – which SATRA claims is the largest of its kind – will be revealed to members in the UK on September 30, to be followed in the US on October 28 and 30, and in China on November 16.

... AND CREATES WATER ABRASION TEST

SATRA has developed a test to replicate the effect that abrasive substances such as sand, silt and mud have on footwear in water.

The machine, which tests footwear for immersive flexing, also incorporates an abrasive aluminium oxide grit. A 'baffle bed' is used to diffuse air around the tank, which stops the grit from settling at the bottom.

Up until now, SATRA has been able to test for abrasion to individual components, but the new method allows manufacturers to see how their footwear will perform in extreme situations.

NIKE TEAMS UP WITH MIT FOR MATERIALS FOCUS

Nike has teamed up with the Massachusetts Institute of Technology (MIT) Climate CoLab in a project that aims to "bring innovation in materials to the forefront of the climate conversation" and has committed to reach 100% renewable energy in company-owned and operated

facilities by 2025.

"For more than a decade, we've worked hard to understand where our greatest impacts lie. We know materials make up about 60% of the environmental impact in a pair of Nike shoes," said Hannah Jones, chief sustainability officer. "This knowledge has focused us on the need to bring new low-impact performance materials to scale through innovative solutions."

The MIT Climate CoLab Materials Challenge seeks ideas for how to engage industries, designers and consumers demanding and adopting low-impact fabrics and textiles.

Nike has also launched the Making App, which it says helps designers make better decisions about their materials.

AMERICAN & EFIRD MEETS ZERO WASTE TARGET

Thread manufacturer American & Efird (A&E) has reached a company target of 100% zero waste to landfill at each of its US manufacturing facilities and at two corporate office buildings.

"We are very proud of our US manufacturing operations," said the company's chief executive, Fred Jackson. "This achievement is the result of the hard work, commitment and dedication of our company leadership and our employees. We are committed to the principle that practising sustainability and corporate social responsibility is the right thing to do."

Other initiatives the company has undertaken as part of a broad environmental strategy include water conservation efforts across the company's network of factories.

ADIDAS EMBARKS ON SHOE RECYCLING PROJECT

Adidas is to lead a European Commission-funded cross-industry WRAP Consortium project entitled Sport Infinity, researching recyclable sporting goods.

The German sportswear company says almost 30% of all material used in sportswear production is wasted, most ending up in landfills.

The project aims to identify and



ADIDAS EMBRACES 3D PRINTING WITH MIDSOLE CONCEPT

Adidas has launched a prototype shoe with a customisable 3D printed midsole, which it claims can offer "unprecedented individualised support and cushioning".

Futurecraft 3D is a prototype and a "statement of intent", launched in collaboration with 3D printed insole maker Materialise.

Adidas says the idea is that consumers will run on a monitored treadmill and have their feet measured by scanners, and the insole will be printed in store.

Adidas creative director Paul Gaudio said: "The initiative will announce more groundbreaking design innovations in the coming six months and further support adidas' ambition to be the best sports brand in the world."

See WF Jan/Feb 2015, 'Personalised insoles using 3D printing'.

develop innovative recyclable materials which will enable the production of easily customisable products, allowing greater design freedom.

It says every gram of a football boot could be broken down and recycled into a 3-D shapeable material for the next creator to mould without the use of adhesives.

"The new manufacturing method which will be piloted in Europe in Ansbach, Germany, allows us to bring production to where the design happens and, more importantly, to

where the consumers are. Say hello to customisable production, ranging from modular factories to in-store personalisation," said adidas.

"The new super-material will make every sports fan a product designer. A pair of boots can be restyled as often as the wearer wants without worrying about waste. Whether to keep up with the latest trends or react to on-pitch needs, the football fan of the future will never wear old boots again."

NEW NAME FOR INDEPENDENT BAYER

Polymer materials supplier Bayer MaterialScience began operating under a new name, Covestro, on September 1. The company is now legally and economically independent, but will remain a 100% subsidiary of Bayer.

Parent company Bayer said it intends to float Covestro on the stock market by mid-2016 at the latest, allowing Bayer "to concentrate exclusively on the life sciences businesses".

Covestro chief executive, Patrick Thomas, said: "Independence will enable us to bring our strengths to bear in global competition more quickly, effectively and flexibly."

Sporting goods and textiles will remain among the target markets for Covestro's products and applications, including its raw materials for polyurethane foam, high-performance polycarbonates and specialty chemicals, including raw materials for coatings, adhesives and films.

The parts of Bayer's business that now make up Covestro achieved sales of €11.7 billion in 2014 and employed 14,200 at 30 production sites at the start of 2015. Its headquarters are in Leverkusen in Germany.

INTERTEK UPS OFFERING

Testing group Intertek has expanded its footwear testing laboratory in Vietnam to support the rapidly growing industry.

Analysts can perform a range of chemical testing for substances of very high concern, as well as chemicals commonly found in leather and footwear.

Michael Fok, vice president for Intertek in South East Asia, said: "The expansion is not just an addition to our global service footprint, but the key intent is to empower our customers in the manufacturing, retail and other

sectors with greater accessibility to reliable turnaround solutions."

LOUGHBOROUGH AND TEXON JOIN FORCES

The materials research team from Loughborough University, UK, has partnered with components supplier Texon to find new ways to enhance the materials and manufacturing processes currently employed in the global footwear industry.

Research projects the two groups have targeted include footwear with embedded functionality.

Steve James, commercial director of Texon, said: "The next generation of footwear will be driven by the need to be produced faster, more efficiently and more sustainably than ever before if we are to conquer the challenges set by the modern market, and fulfil our responsibilities as a leading global supplier. Our relationship with Loughborough University is producing exciting results in advanced structural solutions and we believe it has the potential to make a significant impact on the industry."

ADHESIVE ADVANCES INCLUDE CO₂-BASED POLYMERS AND POLYOLS

Delegates at a conference on adhesives, run at the end of September by Spanish footwear technology institute INESCOP, were given the chance to learn about new-generation (PU) polyurethane adhesives that use waste carbon dioxide as their chemical feedstock.

In a keynote speech at the event, polyurethane industry veteran, Simon Waddington, presented the idea of using CO₂-based adhesives in footwear manufacture. Based in Switzerland, Mr Waddington previously worked for Dow Chemical but now works for Novomer as its European market development manager.

Novomer, which has its headquarters in Rochester, New York, has already begun commercialising a family of what it calls high-performance, CO₂-based, low-cost polyols and polymers, developed using a proprietary catalyst system that enables the transformation of waste CO₂ into new raw materials. These polymers contain up to 50% CO₂ by mass, and sequester the CO₂ permanently from the environment, cutting greenhouse gas emissions.

Mr Waddington told the INESCOP audience that PU adhesives based on these products is one of a number of possible applications.

SYMPATEX SAYS SAFETY SHOES ARE A GOOD FIT

Functional materials developer Sympatex Technologies is presenting "modular functional garment systems" for the corporate wear and workwear sectors at the A+A 2015 trade fair in Düsseldorf (October 27-30).

Sympatex has added new laminates made from recycled and recyclable PES materials to its portfolio. It will also aim to show visitors that its Moisture-tech waterproof lining laminate solution can work well in safety footwear. Moisture-tech wicks moisture from the foot through an inner lining into a hydrophilic intermediate layer.

Surplus moisture is "buffered" there, the company says, and cannot go back into the inner lining thanks to a suction effect that directs the moisture towards the outside.

INDONESIAN HELPDESK HOPES TO PREVENT LAYOFFS

Indonesia's government has announced a new helpdesk that will aim to prevent layoffs in the footwear sector.

Footwear is one of three labour-intensive industries that the government suspects may be particularly vulnerable to job losses at a time when the economy is sluggish, the local currency, the rupiah, is weak and imported raw materials, including leather, have become more expensive.

Companies will be able to call the helpdesk to discuss problems they are experiencing and receive specific advice on how to address their difficulties.

COVESTRO AND REVERDIA ENTER JOINT AGREEMENT ON BIO-BASED TPU

Covestro, which was formerly Bayer MaterialScience, and Reverdia have reached an agreement to develop and promote together thermoplastic polyurethanes (TPU) based on renewable raw materials.

Covestro will employ Biosuccinim succinic acid from Reverdia in the production of its Desmopan brand TPU for use in a variety of applications, including footwear. 

RHENOPRINT

by Rhenoflex

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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.

16/10/2015

UK workwear supplier makes eVent its “premium technology”

14/10/2015

Outdoor industry association calls for public help to allocate funding

Cambodia raises minimum wage

OrthoLite to focus on new products with latest hirings

\$50 cowboy boots have brought Nicaraguan artisan a good living

13/10/2015

Nike, adidas and Puma join ZDHC board

Covestro and Reverdia enter joint agreement on bio-based TPU

08/10/2015

Hispanitas to launch own-brand stores with Madrid flagship

Outdoor promotion campaign could reach 15m people

07/10/2015

Delcam's businesses merged and renamed

02/10/2015

BASF to build renewable-BDO plant with Genomatica know-how

01/10/2015

Nicaragua wants to compete in the global leather market

30/09/2015

Momad organisers confirm visitor rise

Praise for footwear and leather progress in Cuban province

The shoes that should last 35 years

Nike reports record first-quarter revenues

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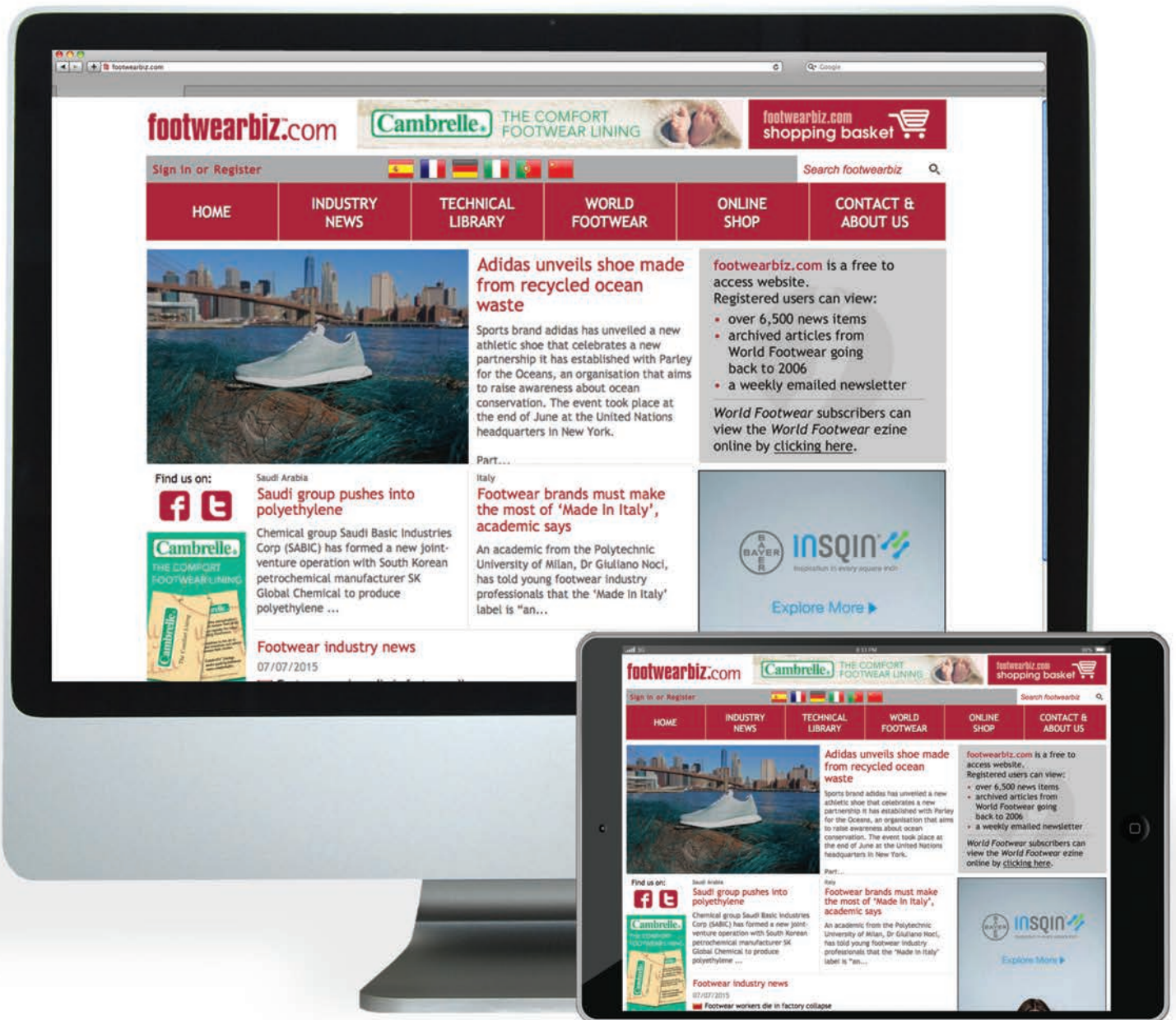
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A new US brand is using flip flop manufacturing to bring jobs and income to areas affected by conflict under the concept of the 'unarmed forces'.

Shoemaking as a force for peace

Walking around a thriving bootmaking factory in a buzzing Afghan district of Kabul, US army consultant and former veteran Matthew Griffin was struck by how the hundreds of workers were supporting thousands of family members with incomes that were helping to rebuild districts ravaged by war. It was 2012 and after two tours of the country and subsequent postings representing government agencies in Africa in the Middle East, Mr Griffin and his colleague Donald Lee were becoming disillusioned. Speaking to the footwear workers, they saw that leftover leather and soles could be used to make flip flops, and spied a commercial opportunity.

"The feeling of despair I had for all those years after my deployments and years in the military started to go away, replaced by a feeling that turned into action," he says. "The concept was simple: we were going to take military capacity that was established to manufacture tools for war in countries affected by conflict, and manufacture products for peace, and ship them all over the world and help people."

While the concept was simple, the logistics, to start with, were not. The initial idea was to source the flip flops from the factory that had provided the inspiration, particularly as it lost its combat boot contract when the government outsourced the manufacture to Asia. The first small production run was a success, so Griffin and Lee increased the order. However, doing business in a region still caught up in red tape and with complicated customs procedures proved difficult. The second run was rejected because of the quality of the materials from Asia, and a subsequent batch of materials got stuck on the Pakistan border. The factory then closed as "the war was ending", and the materials had to be redirected. "We ended up manufacturing our first 4,000 pairs in my garage in Issaquah (Washington State) from February to May 2013," Mr Griffin tells us.

They headed to Las Vegas-based footwear trade show Magic in search of partners. "As a first time vendor, we got a poor booth location and had little traffic. We used that down-time to source other footwear manufacturers and

Donald Lee and Matthew Griffin in Afghanistan.

ALL CREDITS: COMBAT FLIP FLOPS





The factory in Bogota had a local supply of high-quality leather and skilled workers in place to make the shoes.

found the Colombian section of the supplier tradeshow. We were impressed by the quality of materials, craftsmanship and pricing. Plus, the Colombians had a great vibe about them that made us want to work with their growing footwear industry."

The suppliers operated a factory in Bogota and had a local supply of high-quality leather and skilled workers in place to make the shoes, and the free trade agreement established between the US and Colombia in 2012 meant logistics were relatively simple. "It's a fantastic set-up because all of our materials are made within a short drive of our final assembly location. It's truly eased logistics, enabled rapid quality assurance along the entire manufacturing process, and minimised our carbon footprint."

'Bad for running, worse for combat'

With the flip flops supply chain up and running, the pair turned their attention back to Afghanistan. The income from the shoes allowed them to look into other avenues.

"Our motivator to return to Afghanistan was the same motivator that started this company in the first place. We quickly learned that Afghanistan does not have the ability to supply the materials for footwear: rubber production, tanneries, thread manufacturing, etc. Textile manufacturing jobs provide the shortest path to steady, long term employment. Knowing that, we focused on products that could be vertically integrated in Afghanistan: cotton and cashmere.

"After serving multiple tours in the Middle East and Southeast Asia, the shemagh (scarf) became an indispensable accessory. The Afghan products have a look, style and feel that we enjoy, so we started exporting products to round out our accessory line."

Through the search for a cashmere supplier and textile facility, they met a lady who had earlier negotiated (albeit unsuccessfully) with the Taliban on educating women and had set up several girls' schools. She was now running a textile factory making scarves and sarongs and Combat, the company name used by the founders, is now the only client. "Over the past year, scarves and sarongs have climbed to be nearly



Scarf sales support a women's school in Afghanistan, with each purchase paying for one week's schooling for one woman.

20% of our business and these sales support a local school, with each purchase paying for one week's schooling. Win, win, win."

So far this year, sales of scarves have funded 21 years of secondary education. The target for the end of the year is to reach 52 years.

Further opportunities to turn conflict into income presented themselves in the form of jewellery made from cleared landmines in Laos. Around 30% of the 270 million bombs the US dropped on the country during the Vietnam War are still in the ground, and families take scrap recovered from the landmines, melt it down and repurpose it. Each sale funds the clearance of three square-metres of unexploded ordnance. So far sales have helped clear 1,173 square-metres of land; by the end of the year the target is 2,000.

The next goal is to boost sales and grow the business to increase the impact on communities. "A full clothing, footwear and lifestyle brand that puts little girls through schools, clears regions of land mines, and rehabilitates veterans," envisages Mr Griffin. The flip flops' slogan: 'Bad for running, worse for combat' sums up the ethos: "The mission is to enable the mindful consumer to manufacture peace through trade." 🧠



The original Combat design uses thick soles and leather details.

There are some signs of improvement in the business environment that the Italian footwear industry finds itself in, although it's clear that further progress will be required before the mood among many manufacturers becomes buoyant again.

Italian shoe firms see some signs of recovery

Italy's shoe manufacturers say they are still less than satisfied with their business situation in spite of some positives in the first half of 2015. At the end of June 2015, the number of footwear manufacturing companies operating in Italy had dipped below 5,000 (the figure was 4,968), a fall of 1.3% compared with the figure in December 2014, but the number of people employed in making shoes stayed steady, and in fact rose slightly (by 0.7%) compared to December, reaching 77,119.

Export volumes down overall

The volume of shoes exported from Italy (these figures are for the first five months of the year) was down by 5.2% in 2015 compared to the same period in the previous year at 93.1 million pairs, but in value terms there was growth of 3.1%, with revenues of just under €3.5 billion overall, and growth in the average price per pair of a handsome 8.7%, with an average of €37.59 in the first five months of this year compared to €34.57 in the same period last year.

Even in volume terms, there were impressive growth figures for exports to certain important markets, including Germany (up 4.9% to more than 15.1 million pairs in the first five months), Switzerland (up 3.6% to more than 5.3 million) and South Korea (a volume of just 655,000, but an increase of almost 50% compared to the first five months of 2014).

Who pays the highest average price per pair?

Volumes were almost flat for exports to China at just under 700,000 pairs over the period, but the value of exports to China were up by more than 25% and importers in China and Hong Kong paid Italian shoe suppliers by far the highest average price per pair in the global market at more than €130. Overall, the total value of exports over the first five months, and the average price per pair of exported shoes from Italy, have gone up each year since 2002.

Nevertheless, Italy's main footwear sector association, Assocalzaturifici (Assocal), said on reporting the industry's performance for the first half of this year that "the long-

Assocal says the signs of improvement that appeared in the first half of 2015 bear testimony to the enduring quality of 'Made in Italy'. ALL CREDITS: MICAM



awaited recovery" remains "delayed", even though other areas of the Italian economy are showing signs of recovery, thanks to a decrease in the value of the euro and a fall in the price of oil.

Changing market needs

Footwear companies continue to feel the effects of what Assocal refers to as the economic and political crisis in Russia, and it bemoans also "the marked slowdown in the Japanese economy". Shipments to Russia in the first five months fell by 36.2% in volume to just over 2 million pairs and by 35% in value to €143.3 million. Those to Japan fell by 13.9% in volume to 1.3 million over the five months and by 8.8% in value to €82.4 million.

"Nevertheless," the association concedes, "there were tentative signs of slow but steady improvement in the first half of 2015." It said its member companies deserve credit for being responsive to changing fashion demands and market needs. It also said improvements in some aspects of Italian footwear's export performance, as outlined above, bear witness to the enduring appeal of Italian-made shoes. "The hope is that the signs of improvement in the domestic economy and the improving climate of confidence in Europe will be confirmed in the coming months," it concludes.

First lady

Encouraging a continuation of these improvements is the number-one priority of the new president of Assocal, Annarita Pilotti, but she has also said she believes the role will be more difficult for her than for her predecessors simply because, on being elected in June this year, she became the first woman to take up the role.

Ms Pilotti, who founded the Lorbilu footwear brand in her native region of Le Marche in 1995, still runs the company with her husband and co-founder, Graziano Cuccù. Before entering the footwear industry, she worked as a police officer and as a nursery school teacher.

Speaking at the most recent Micam exhibition in September, she said: "I'm grateful to have the opportunity now to be in the position I'm in, but it's much harder for a woman. Women in leadership positions such as this one encounter more obstacles. Believe me, it's not easy."

She said she felt that her life had been far from easy because she comes from a village of only 800 inhabitants in which there were few opportunities. "But inside, I always believed in myself and in my own ability."

The Assocalzaturifici president said she was a democrat and respected people for who they are. "In the same way, though, I would like people to respect me," she said. 



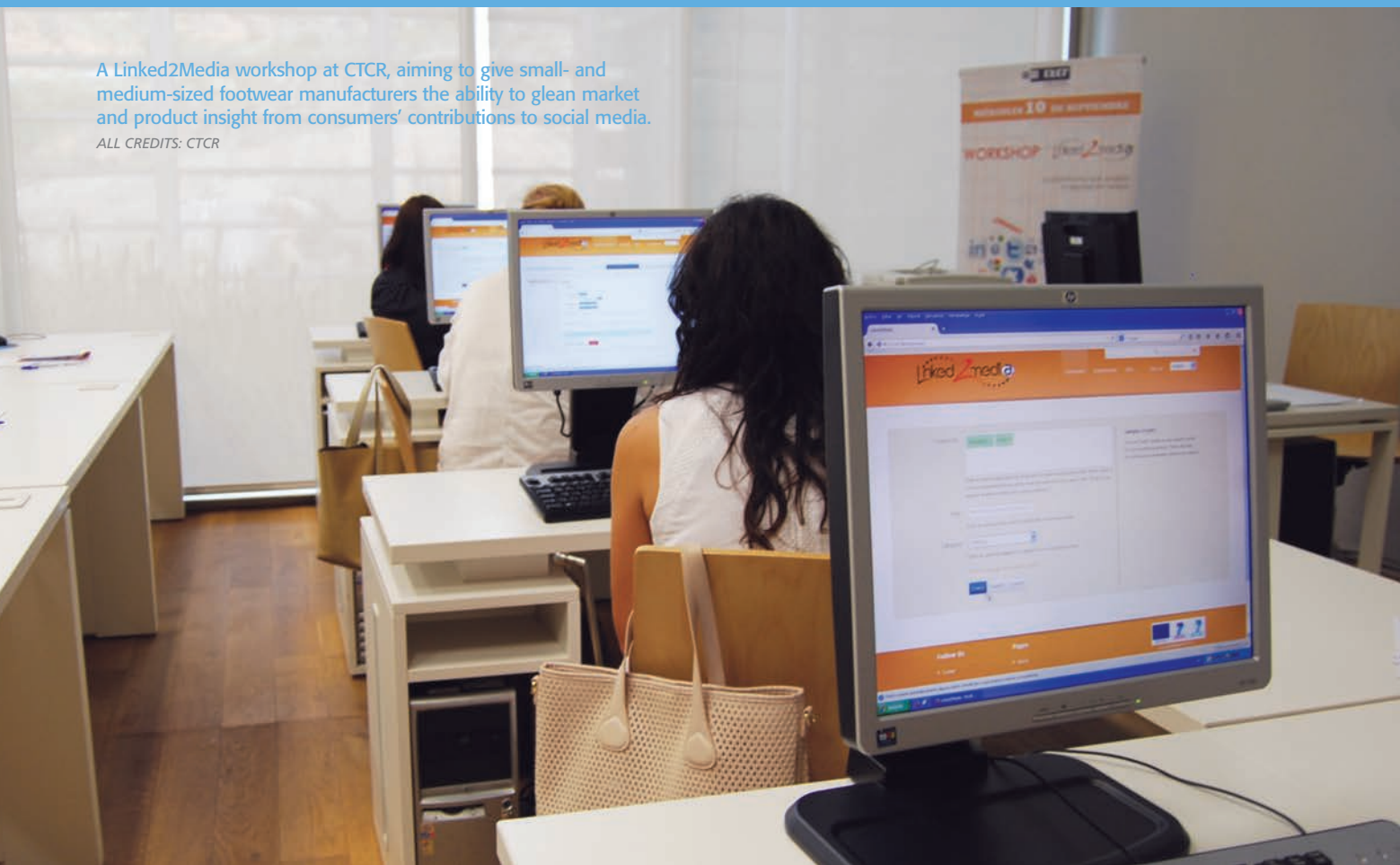
Assocalzaturifici president, Annarita Pilotti, says all she wants to do is to help Italian footwear brands to achieve success in the global market.



Best foot forward. In the first five months of this year, Italian shoe companies increased their average price per pair in export markets by 8.7% to €37.59.

A Linked2Media workshop at CTCR, aiming to give small- and medium-sized footwear manufacturers the ability to glean market and product insight from consumers' contributions to social media.

ALL CREDITS: CTCR



When La Rioja's centre for footwear technology opened in 2007, the region's president said he hoped the facility would help the industry in this part of northern Spain not just survive but stand out. More than 150 projects later, the centre is now providing new ideas and new technology for footwear companies in La Rioja, across the whole of Spain and throughout the global industry.

A hotbed of innovation

The centre for footwear technology in La Rioja in northern Spain, CTCR, situated in the footwear manufacturing hub of Arnedo, has said it is currently engaged with shoe companies in 29 different innovation projects and has been involved in more than 150 projects in all since its inception in 2007.

Participants in the memorable international footwear congress that La Rioja hosted in April 2007 may recall an excursion to Arnedo one day to visit the CTCR to celebrate its opening. At the time, the region's president, Pedro Sanz (who continued in that role until July 2015), said: "La Rioja certainly has a future in footwear. We don't just want to survive, we want to lead, to stand out."

Investment in research and development has been a key factor in the local footwear industry's attempts to live up to Mr Sanz's statement. These up-to-date figures on research projects came to light during a visit to the centre in mid-September this year by the current Rioja regional government

minister for economic development and innovation, Leonor González Menorca.

CTCR president, Basilio García (who also runs the Hergar footwear group in Arnedo, and who presided at the centre's opening in 2007) and director general, Javier Oñate, said on showing Ms González Menorca the facilities that current projects include ideas looking at how footwear production can be enhanced by nanotechnology, electronics, automation and fast prototyping, as well as ways of improving the industry's environmental footprint and its use of up-to-date communications and IT.

Local, continental, global

Six of the current projects focus on Spain, one on the global industry and 22 on the European shoe sector. Among the European projects are three for which CTCR aims to secure funding as part of the European Commission's 2015 LIFE (Financial Instrument for the Environment and Climate Action)

programme. LIFE is the EU's "funding instrument" for the environment and climate action. The general objective is to contribute to the development of environmental and climate policy and legislation by co-financing projects that appear likely to add value to the European economy.

LIFE began in 1992 and to date there have been four complete phases of the programme, with the fourth, LIFE+, that ended in 2013. During this period, almost 4,000 projects received co-funding, with EU grants exceeding €3 billion in total. There were question marks over the life of LIFE beyond 2013, but new budgets to provide grants of €1.3 billion for projects on the environment and of €450 million for projects on climate action are now in place for the period spanning 2014-2017. A further €1.65 billion will be available to help fund projects between 2018 and 2020.

Safe as houses

So far, projects that CTCR has worked on include one to develop an innovative soling system for use in safety footwear, specifically aimed at protecting wearers from live electric charges. Based on a proprietary sole injection formula, the system is suitable for use as an additive to a wide variety of soling materials and in a range of production processes. Early adoption by a local safety footwear manufacturer, Garmaryga, has produced positive results and the company is now working on a range of protective shoes and boots that it believes will meet the needs of workers who come into contact with electrical hazards.

In a similar vein, CTCR also worked on a project to help Arnedo-based soling materials manufacturer Cauchos Ruiz-Alejos find a solution to the problem of the presence of toxic materials in flame-resistant soles. Traditional methods for making the soles of safety footwear flame-resistant have used products containing volatile organic compounds (VOCs) and this particular CTCR project set about finding a viable non-toxic alternative using nanotechnology and inorganic solids. Cauchos Ruiz-Alejos believes the new products it is able to make as a result of this project will open up new export possibilities for it because the company will have a flame-resistant offering that will meet the VOC-restriction requirements of even the strictest markets.

Affordable insights

CTCR has also taken part in projects to help the footwear industry improve its use of information and communications technology. One example is its participation in an international project called Linked2Media, which will enable companies to learn from what the public is saying about their products or products like theirs on social media. The CTCR signed up to take part because it is convinced the ability to glean relevant information from this user-generated online content will help small- and medium-sized shoe producers gain valuable insight into markets and trends. This has traditionally been the preserve of bigger companies that can afford to invest money in their own market research.

La Rioja has reported footwear exports with a value of €114 million for the first six months of 2015. This represents growth of 15% compared to the same period last year. Clearly, the industry there is doing much more than just surviving. 🌐



An "intelligent" cycling boot is one of the recent developments at La Rioja's centre for footwear technology.



Soles that local safety footwear manufacturer Garmaryga is using on special shoes and boots for workers that deal with electrical hazards.

Insocks come in diverse materials and designs.

ALL CREDITS: SATRA



Insocks and comfort

STEVE ROSE, SATRA TECHNOLOGY CENTRE

Insocks are extremely versatile components made from many different materials. They can have a wide range of attributes and offer a variety of benefits to the wearer, including enhanced comfort and helping control odour. The underfoot environment is however very demanding, so quality and durability are essential for customer satisfaction. But first, we should perhaps define what is meant by the term insock. Many consumers use the terms 'insole' and 'insock' synonymously. Insole is a term applied to the rigid or semi-rigid backbone of a shoe which is not removable. Insocks generally lie on the surface of the insole and may or may not be removable. Moulded insocks are often also called footbeds.

Insocks are produced in a wide variety of constructions. They can be thin sheet socking material covering whole or part of the insole, full-length

sheet foam insocks with a top-covering material or moulded polymeric components. Replacement insocks or footbeds are nevertheless commonly marketed as insoles to replace worn-out components or customise the footwear to a customer's particular preference. This may be to improve cushioning, add odour control or change the fitting properties. Footwear fit and underfoot comfort are generally the two most important factors for both short- and long-term comfort. Insocks play a key role in influencing customer choice and in maintaining comfort levels throughout the day as well as after long periods of wear.

MODIFYING FIT

Fit is undoubtedly the most important factor controlling foot comfort. An insock takes up volume inside the shoe, thus reducing the space available to the foot. It is therefore essential that the last

is designed with an appropriate allowance to accommodate the thickness of the insock to be inserted during shoemaking. This is a fundamental design consideration and can be compromised if the insock specification is changed at a later stage.

Conversely, changing the insock specification can be used as an easy and economical means of correcting fitting problems. At SATRA, we frequently see prototype shoes sent in for fitting trials which have overly deep and generous foreparts, causing excessive creasing of the vamp and discomfort when the foot is flexed. While ideally the last and/or the upper patterns should be modified, an increase in insock substance by a few millimetres can often resolve these problems.

Indeed, some footwear brands supply several different insocks with new shoes to allow purchasers to customise

the fitting properties to their individual liking. Some children's shoes are sold with a selection of insocks, enabling parents to adjust for different size or shape of left and right feet, and providing additional growth allowance when a thinner insock is used.

CUSHIONING AND SHOCK ABSORPTION

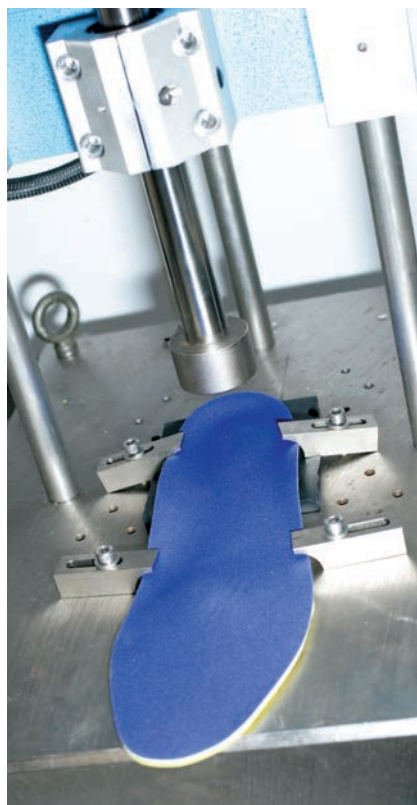
Cushioning is the ability of the insock to distribute pressure more evenly over the sole of the foot while standing, walking or running. Cushioning insocks can help to minimise high pressure points underfoot, reducing discomfort, soreness and development of blisters and areas of hard skin. However, selecting the correct insock for a specific shoe is not simply finding one with the most cushioning as too much can introduce a sense of instability. The goal should be to achieve the optimum level of cushioning and hence comfort required by the customer for the particular type of footwear involved.

Shock absorption is the reduction of impact forces which occur at heel strike in walking and running. These repeated impact forces send shock waves through the ankle, knee and hip joints and can cause long-term joint damage. Insocks alone cannot provide the higher levels of shock absorption required due to their limited thickness as, for example, in high-performance sports shoes. To achieve the highest levels of shock absorption, all the underfoot materials (insock, insole, midsole and sole) in the seat region must be able to contribute. Many sports shoes therefore incorporate much thicker cellular midsoles which provide the greater proportion of the shock absorption properties.

Nevertheless, in dress shoes and other formal footwear that have low inherent shock absorption in the bottom construction, such as those with leather soles, a high performance insock or footbed can significantly improve shock absorption and hence comfort.

COSSETING AND FRICTION

The term 'cosseting' encompasses several factors, including softness (compressible under low pressure), friction (slipperiness or grip), thermal impression (feeling warm or cold), texture and roughness. Each of these factors influences the customer's tactile perception of the inside of the shoe and



Testing shock absorption.

can help to sell shoes by adding a cosy feeling at the point of sale. During subsequent wear, however, the wearer generally soon loses awareness of cossetting factors unless something specific occurs such as excessive pilling (bobbles) due to abrasion which creates feelings of roughness.

Surface friction is an element in cossetting, but its importance increases if the friction level is inappropriate for a given shoe. Surface friction can in fact be a source of major discomfort and foot injury. Studies at SATRA have indicated that the optimum level varies according to the particular characteristics of the shoe as for example in the case of fit. In very generous, loose-fitting footwear, low friction can detract from comfort and give a sense of insecurity. The foot may slide inside the shoe and rub against the upper which is likely to lead to blisters and skin damage, particularly around the toes.

During wear, the level of friction should not change significantly, so that comfort levels remain close to the optimum. A significant increase or decrease in friction as the insock becomes damp—such as with sweat—or as abrasion causes it to become either rough or smooth, will

compromise comfort. Therefore, it is particularly important to compare dry and damp friction levels as they can significantly change some materials.

SWEAT MANAGEMENT

The plantar (underside) surface of the foot does not sweat as much as the dorsal (upper) surface. Nevertheless, the insock may still accumulate significant quantities of moisture. If the top cover material is non-absorbent, the moisture will sit on the surface. From there, it can be readily re-absorbed back through the hose into the skin, so that the latter becomes macerated (softened), increasing the risk of skin injuries such as abrasions and blisters.

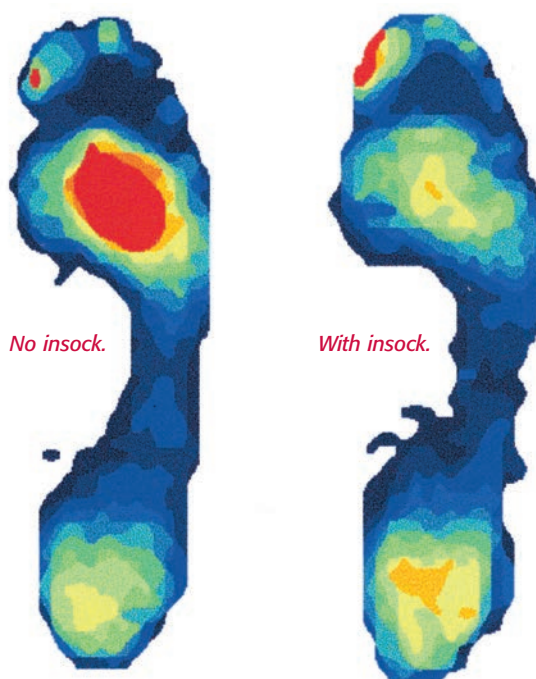
The best insock is a highly absorbent one that will also desorb moisture quickly, allowing it to dry out overnight when the shoe is not being worn. However, high absorbency may work for a few hours' wear only. Over longer wear periods or under very heavy exertion and high sweat rates, there is a danger of saturation. In this case, the moisture must be expelled by permeation through the upper or by ventilation (air circulation). A highly wicking insock top cover material can move moisture away from under the forepart of the foot in closed upper-style footwear and toward the linings and upper or to the back of the shoe where it may be expelled by the pumping action of walking or running.

Holes, perforations or open-foam cell structures can also be beneficial if they lead to an external outlet, so providing a continuous circulation of air to the outside of the shoe. Holes that lead only downward onto the insole board or midsole simply trap moisture inside the shoe. Alternatively, well-designed underfoot air-pumping systems can be effective in improving ventilation.

Sweat management includes keeping the foot cool so that sweat rates will be lower. Foam insocks are not ideal for this as they entrap air—still the best insulating material available. Of course, sweat management is not always the problem and, sometimes, the need is for thermal insulation to keep the feet warm. Air-entrapping insocks can play an important role in this instance.

QUALITY AND DURABILITY

Of equal importance to the fit and comfort aspects are quality and



Cushioning insocks reduce peak pressure values (red areas).

durability. Will the product maintain performance throughout its expected life? Will comfort performance be retained or a discomfort problem perhaps develop? Firstly, it is important to appreciate the range of materials used. Most insocks will comprise at least two layers, a surface or top covering which contacts the foot or wearer's hose and a backing on the underside, lying against the insole or midsole.

Many materials are in fact used for covers, including leather (such as pigskin), woven cotton/polyester blend fabrics, PVC- and PU-coated fabrics and nonwovens. In some instances, materials such as PVC and PU foam, cork, coconut fibre and felts are used as insocks without any top covering and are therefore in direct contact with the foot or hose.

The quality of the covering material is particularly important, because it comes into contact with the foot or hose and is also visible. The wearer can see if it becomes damp or wet in wear, if any print or label rubs off, if the colour bleeds or fades or if the surface starts pilling or delaminating. Therefore, from a durability and aesthetic viewpoint, physical properties such as abrasion resistance and colour fastness become critical.

ABRASION RESISTANCE AND COLOUR FASTNESS

Poor abrasion resistance of top coverings is unsightly and a potential cause of discomfort if they become rough or uneven. While premature abrasion during wear does not always give rise to returns, it does not leave a good impression of product quality. Most problems occur in damp conditions and it is surprising just how damp insocks can become from sweat, even in open sandals. Indeed, there is more likely to be complaints about abrasion occurring in sandals, since any wear is more noticeable, especially at the toe end of open-toed styles. Metallic finishes on leathers and coated fabrics seem to be a particular problem as the

metallic finish can come off quite readily, revealing a contrasting colour underneath.

Colour bleed and/or colour transfer to adjacent materials may be the result of the physical rubbing action of the foot against the insock or extraction by leaching out of the colour by foot perspiration or water. Not surprisingly, the worst offenders are suedes, nubucks and natural textiles which are often deeply dyed in colours such as navy blue, red and dark green. Finished leathers and man-made textiles are generally better but should still be tested.

The most common form of backing material for insocks is a polymeric foam, incorporated to provide the wearer with cushioning and shock absorption properties. In addition to foam, various solid polyurethane materials are on the market as well as a range of gels. The main characteristic of both these compared with traditional foams is that they have very pronounced viscoelastic properties causing them to behave differently under compression and shearing. In particular, viscoelastic materials compress and recover their thickness after compression more slowly. Backing materials have their own durability requirements, including compression set resistance and adhesion bonding strength. Their properties may also influence the durability and wear properties of the covering material itself.

OTHER KEY PHYSICAL PROPERTIES

Keeping the cover well bonded to the backing material is critical to continued good performance of the insock as peeling off of the top cover will cause significant discomfort to the wearer. The adhesion of the insock itself to the insole (or midsole) is also important for its security in the shoe. A poorly secured one could slide towards the toe, again giving discomfort problems. Moulded footbeds, however, although generally loose fitted, are less likely to suffer such problems as they are stiffer and perhaps even semi-rigid.

Repeated wetting and drying by whatever cause—ingress of rain water, heavy sweating or washing—can lead to shrinkage of the insock, deterioration of bond strength and possible breakdown of foam materials. A simple washing test quickly reveals potential shrinkage or curling problems.

A new insock is intended to give a certain level of comfort and it is desirable that this same level of performance is maintained over the life of the product. This means that it requires good compression set resistance so that it retains



Measuring thickness change as a result of compression set.

its fitting, shock absorption, cushioning, shear absorption and thermal insulation properties. Each of these properties will be diminished if the structure or substance of the backing material collapses and the thickness is reduced with wear. In foam materials with a closed cell structure, individual cells may burst under pressure, causing the structure to collapse. In open cell foams, the strength comes from the walls of the cells, which may weaken under the repeated fatigue loading of many walking steps.

ODOUR CONTROL

As well as comfort and durability, there is one final property which can either cause a problem or reduce it; odour production or control. Shoe odour is predominantly the result of microbial activity as they feed off dead skin cells, residual perspiration and other natural materials such as cotton in the shoe and insock. The warm and moist in-shoe environment provides ideal breeding conditions for microorganisms such as fungi, yeasts

and bacteria. The cellular materials used as insock backing materials may act as a reservoir for these organisms and their food, thereby exacerbating the problem. Manufacturers have turned this into a marketing opportunity and now many insocks claim to actively reduce the problem of foot odours.

There are two main approaches to preventing or controlling odour. One is the use of antimicrobial agents (biocides) to prevent or limit microorganisms from growing and producing the odour. The other is to absorb and neutralise the odour produced by using odour-absorbing materials such as activated charcoal. A combination of both approaches is likely to be most effective.

Any biocides or other chemicals incorporated into insocks must comply with any national or international restrictions on their use, for example, in Europe both the Biocidal Products Regulation and the REACH Directive will apply. The REACH Directive will also cover all other chemicals such as dyestuffs and polymer additives.

SAFETY FOOTWEAR

In addition to the properties of insocks for everyday footwear already discussed, it is also worth noting that there are specific quality testing and performance requirements for insocks used in some safety footwear. Certainly all safety footwear sold in Europe must have insocks tested for water absorption and desorption, and for abrasion resistance. Leather insocks also have to be tested for pH and possible chromium VI content. Other, optional, insock tests relate to properties such as electrical resistance and thermal insulation.

While developing and promoting comfortable performance insocks and footbeds is a key marketing strategy for many brands, the basics should not be overlooked. All insocks, whether high or low priced, should be fit-for-purpose, durable and not harmful to either the wearer or to the environment. Development of a new insock product is not complete until the required comfort performance aspects have been incorporated and quality and durability fully assessed. 🌀

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Are trends in foot health creating new markets?

PROF. CHRIS NESTER AND DR. CARINA PRICE

The simple answer to this headline question is yes. Changes in global foot health trends look set to underpin significant new opportunities for the 'healthy footwear' sector over the next few decades. Providing the right footwear to both retail and health service markets will have a critical role to play in maintaining good foot health globally. With the right input to innovation and design, footwear can help keep us fit and active and contribute to our overall wellbeing, creating exciting opportunities for the footwear market. There are three key issues driving this opportunity: the global increase in the number of people with diabetes, those who are obese and the fact we are all looking forward to living longer.

DIABETES

Diabetes has now reached epidemic levels, affecting almost 10% of adults globally. It affects how levels of glucose (sugar) in the blood are regulated and leads to very wide ranging changes throughout the body. Recent growth in numbers is due to excessive food consumption and a sedentary lifestyle. It is associated with increased mortality, too, accounting for some 3.4 million deaths and is the leading cause of lower limb amputations worldwide.

The poor control of blood glucose often goes undiagnosed for some time and so the complications of diabetes have often already started by the point of diagnosis. Without good control of blood glucose levels, the supply of blood to the foot can diminish and normal nerve function is lost, leading to numbness and dryer, more vulnerable skin. This can limit the ability to sense where pressure is placed under the foot, leading to foot calluses, which themselves create further pressure. In these cases appropriate footwear can have an immediate and life changing effect since, through appropriate materials and design choices, these pressures can be reduced and other areas of foot skin protected from damage.

The consequence of poor footwear in combination with changes in circulation and nerves is too often ulceration. Without appropriate wound care and pressure relief from appropriate footwear and orthotic inserts, ulcers can become infected and take months to heal. Even minor skin injuries such as blisters can lead to devastating ulceration if not properly treated. Remarkably, in many cases these lesions are not detected by the sufferer due to sensory loss and even significant ulcers can go unnoticed unless feet are regularly checked. These ulcers can be a precursor to foot or limb amputation if not properly managed by specialist health care professionals.

Footwear recommendations for people with diabetes are widely available and it is a rapidly growing consumer and



Understanding how feet move during the gait cycle can drive new innovation and development ideas better tailored to specific foot health problems.

CREDIT: SALFORD UNIVERSITY

health care market. A range of width fittings is certainly important, but it is not simply a case of scaling up the standard last shape, since the dimensional change is not uniform along the length of the foot. Adjustable fastening and width opening will encourage daily use of this specialised footwear and can be important if, due to obesity, reaching down to attach and fasten shoes is difficult.

The material and structure of the midsole should be able to withstand increased repeated loading and disperse increased shock/loading. However, stiffer curved soles (so called 'rocker' shoes) have also proved effective in reducing pressure under the ball of the foot. These are used in combination with soft yet supportive orthotic inserts. Made correctly these can offer very effective redistribution of pressure under the foot. Custom made inserts that create a specific fit to the shape of the foot can further optimise this relief of pressure. Nevertheless, in the absence of a foot deformity, many people will achieve sufficient benefit from an



Customised orthotic inserts can offer a bespoke fit to the foot and incorporate a combination of materials to support and cushion it.

CREDIT: SALFORD UNIVERSITY

appropriately designed mass produced product. Bridging health care and retail sectors is a particular opportunity here, especially if the advantages of mass and personalised production approaches can be blended to offer bespoke solutions at a viable retail price.

OBESITY

The prevalence of obesity in the world's population is increasing steadily and the latest estimate in the EU identifies 30-70% of adults as being overweight and 10-30% as being obese. Footwear sector strategies are needed to promote and maintain physical activity, prevent foot injuries and the risk of falls due to altered gait.

Changes in foot shape and the distribution of fat mean that obesity specific lasts are the foundation for appropriately fitting footwear. It is important to accommodate changes in width and, for boots, greater ankle and leg girth. The foot should also be supported and inserts might offer effective solutions in this respect and help to ensure the foot is stable inside the shoe. This can be especially useful since, as removable components, the design and features of the insert chosen can be varied even at the point of sale and so offer a means of fine tuning fit.

Materials and footwear components (particularly outsoles) should be designed for longevity and incorporate adjustable fastening to ensure quality of fit and an ability to alter fit when changes in foot shape occur as, for example, swelling in warm weather. Furthermore, since walking when obese

requires more energy, lower weight shoes could be an advantage. However, lighter materials are sometimes the least durable and least able to bear higher loads, presenting a useful materials science challenge to create lightweight, yet strong, flexible and durable footwear materials. Obese people also suffer more difficulties regulating their body temperature, so management of in shoe temperature and humidity can be important to avoid over hydrating the skin which, in turn, encourages bacterial growth and odour, and the risk of skin damage such as blisters.

Ease of putting footwear on and taking it off is critical to its regular use and also to ensuring a stable fit on the foot. It is common to see someone who is obese with unfastened shoes, since either their shape is incorrect or the fastenings no longer work effectively. In addition, as reaching down to the foot is more difficult, easy fastenings that remain in place for long periods are preferred. Boots could incorporate zips and also have tabs or loops at the back to help when pulling them on.

How we walk is also altered by obesity. Of relevance to footwear design are changes in the distance between feet when walking. Typically there is a wider base of support, perhaps due to excessive fat tissue at the top of the thighs preventing feet being placed close together or to improve general stability. This can pose different requirements for control of frictional forces on the sole, as the foot hits the ground at a different angle and trajectory compared to a normal person.

AGEING

It is news to no one that life expectancy has increased greatly and this is posing new health care challenges to better accommodate the inevitable effects that ageing brings. This is creating potential new markets in consumer sectors as the concept of health care and retail consumers becomes blended. Perhaps footwear is one of the best examples of where retail consumer products concerned largely with fashion will have a daily effect and impact on our health, mobility and sense of wellbeing.

The ageing foot experiences a wide range of changes with potentially important consequences for quality of life. Skin and other soft tissues such as ligaments, muscles and tendons that support the foot become stiffer with age. These changes can combine with simple foot deformities such as hammer toes or more significant ones such as changes in the arch that increase pressure at specific locations under and on top of the foot. Some reduction in walking speed, another consequence of ageing, can cancel out the greater pressures but, even so, painful feet are far more common among older people.

It doesn't stop there. Loss of muscle and bone mass, altered foot shape, lower flexibility, poorer co-ordination, lower physical activity levels, all interact to reinforce the gradual deterioration of the body and feet. When these are coupled with changes in vision or hearing, and perhaps loss of confidence to remain independently mobile, having healthy and pain free feet protected by suitable footwear can become central to a fulfilling life as an older adult. Perhaps the most critical consequence of getting footwear choices wrong is the greater risk of trips and falls since they are strongly associated with hospitalisation and mortality rates. It is well recognised that unsuitable or poorly fitting footwear is implicated in many instances.

Future footwear for older people needs to take greater consideration of the anthropometric measures of the ageing foot and profiling of physical activity and inactivity habits. This can create the right shoes for outside and inside the home and increase confidence to be more active. The correct shape and appropriate linings,



Old age brings with it a wide variety of foot problems, many of which can be alleviated by wearing suitably designed footwear.

CREDIT: SHUTTERSTOCK/RA3M

with well placed or absent seams, can avoid painful and often slow-to-heal skin lesions. Quality soles and insoles will offer pressure relief, an immediate sense of comfort and an orthotic insert shaped more closely to the varying arches of the foot can help stabilise it inside the shoe and further reduce pressures under the heel.

The soling is also critical in managing the risk of friction-related trips as well as general stability since over-complex curves, flares and too stiff soles can affect how the wearer transfers load forwards as they walk. Thermal and humidity regulation can also support improved comfort and avoid exacerbation of poor foot skin hygiene. Finally, fastenings and the dimensions of the throat and opening can mean the difference between wearing the shoes or not, especially if there is no help at hand.

SECTOR STRATEGIES

Convincing consumers to invest in footwear because of their foot health requires clear communication of the benefits the footwear can offer. The best platform for this is a 'health and benefits' driven approach to innovation and design, such that the benefits factor is in the finished product's actual DNA. This creates genuine messages for marketing to communicate and a blending of aesthetic and trend qualities with functional performance.

A benefits-driven approach relies upon an educated consumer base, built up through a foot health

education push from the health care sector and a complementary pull from the retail. This is a challenging area with so many public health messages now appearing for people to absorb and prioritise. However, acknowledging a foot health problem in the first place is an essential foundation for consumer intention to purchase and, if products more clearly deliver benefits that align with the consumers' perceived problems, then sales should be more achievable.

New models for accessing retail and foot health care consumers might also emerge as a consequence of national health care and government strategies to address the trends in foot health. Improved quality, benefits-driven and accessible footwear for specific populations would encourage physiotherapists, podiatrists and other health professionals to co-operate with retail stores in the provision of footwear and/or orthotic insoles. This might address some shortages in footwear provision by health services.

Health professionals are keen to ensure patients access the right care and footwear and yet there are often quite limited options for high quality healthy footwear designed with specific foot health issues in mind. Health professionals are also the guardians of foot health messages and aligning footwear product features with professional perspectives on foot health priorities will make for a more seamless understanding and of the purchasing behaviour for consumers.

A strategy to deliver 'shoes with

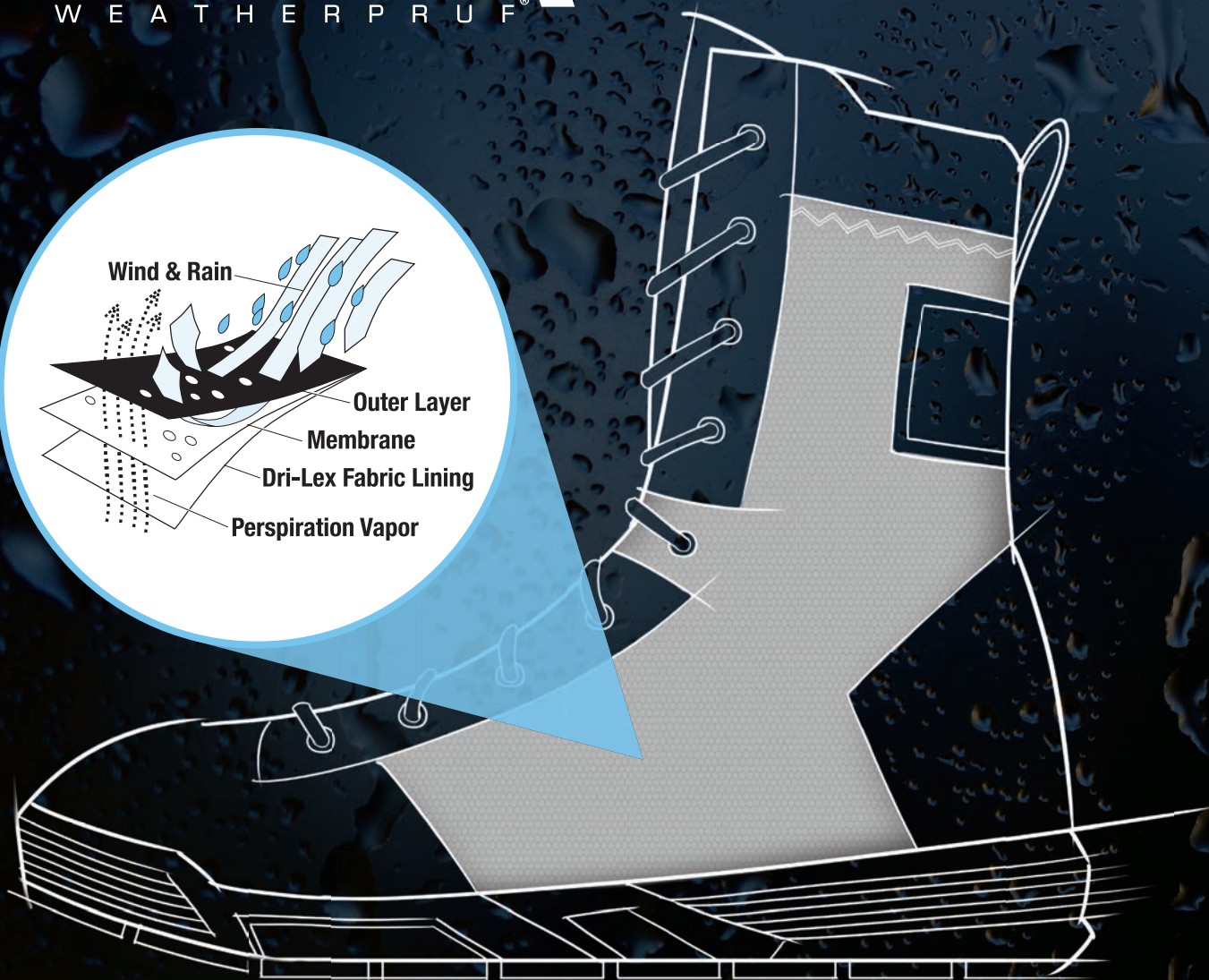
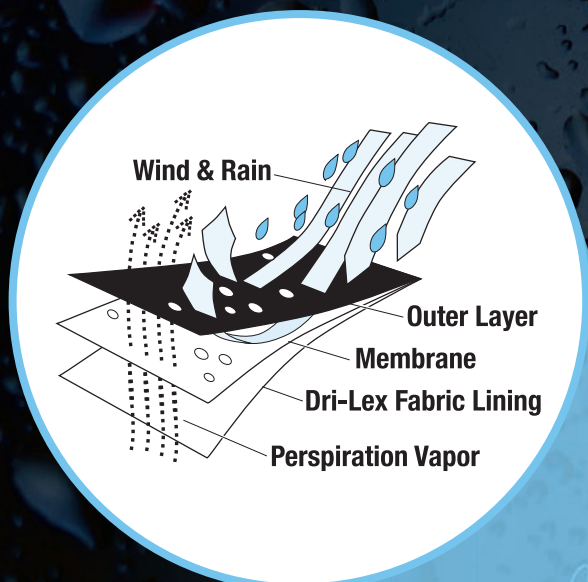
benefits' should integrate very well with the consumer trend of ever greater personalisation of products. However, to manage cost and price constraints, opportunities for integrating the advantages of mass production of some components with local and more personalised manufacture of the actual footwear might be required.

This would also lend itself to replaceable, maintenance or repair approaches which themselves offer better value and personalisation opportunities to consumers as is already the case with orthotic inserts. Indeed, it could also offer opportunities for collaboration between existing commercial operations as, for example, the often separate insert and footwear sectors. Combining product strategies and technologies might enable the best of both domains to be integrated in order to offer wearers products that become greater than the sum of their parts.

There is evidence of significant changes in foot health across the globe. Foot health problems are already well understood by professionals and are becoming increasingly better understood by consumers. The opportunities are therefore real but require the sector to align product innovation, development, and marketing to the right foot health issues and ensuring products deliver real benefits. The individual pieces of the jigsaw required for this are already in place. Collaboration between the various knowledge stakeholders, clinicians, designers, academics and production and sales specialists is now needed to create a coherent approach to providing real and commercially distinctive solutions to consumers with foot health needs. 🧠

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Understanding feet

How much do you really know about feet other than they are the oddly shaped things attached to the bottom of legs that help you to move around? Most people don't know very much and do not care until the day something starts to go wrong.

The foot is in fact a highly efficient mechanism which uses energy from the body to power the muscles and levers that allow us to perform a range of complex functions.

It is also extremely complicated, containing no less than 26 bones joined by 107 ligaments and linked to 19 muscles by a series of tendons in order to create movement. In addition, there are nerves that link it to the brain which tells it what to do and blood vessels that carry the minerals and proteins

that maintain the tissues protecting the central bone structure.

Understanding how this complex structure operates is an essential element in shoemaking. Unfortunately, too many shoes are still produced that ignore fundamental principles and this, coupled with consumers buying shoes that clearly do not fit, is why so many people have foot problems. It is particularly true where women are concerned who, when young, are far more concerned with appearances than comfort. The balance between the anatomical demands of feet and those of fashion has long been a headache for shoemakers.

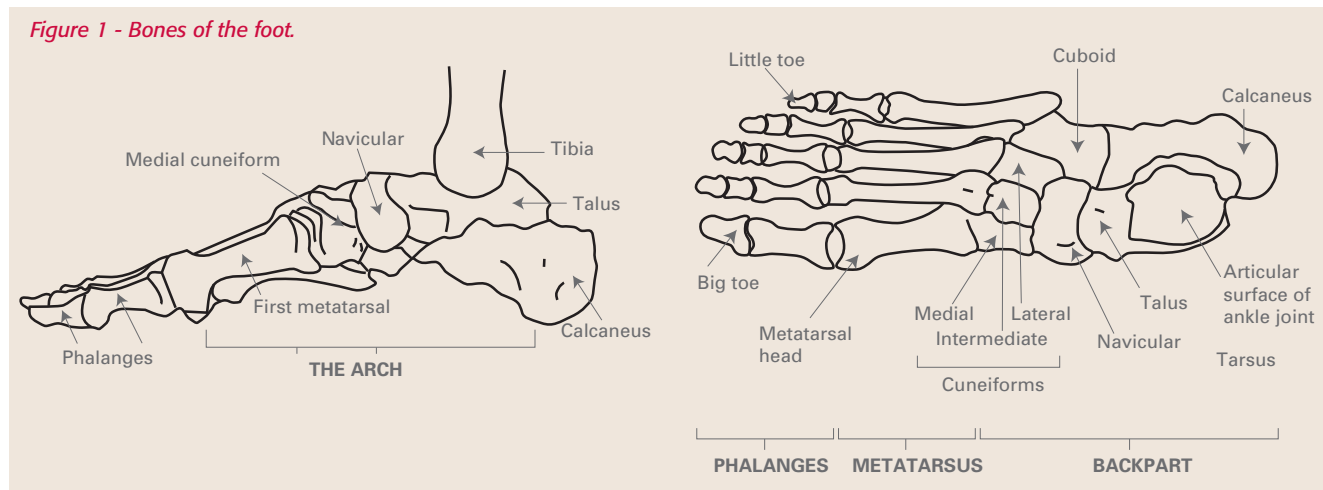
FEET AND BONES

The bone structure of the foot is divided into three groups (*Figure 1*);

Tarsus with seven bones including the calcaneum or heel bone, Metatarsus with five bones and comprising the middle of the foot and Phalanges with 14 bones which make up the toes. The bone itself is formed by the deposit of calcium phosphate which forms a strong, light, honeycombed structure.

This is a long process which continues into the late teens. Children's feet therefore have little real structure and cannot detect any discomfort resulting from pressure, so correctly designed lasts and carefully fitted shoes are essential if deformities are to be prevented. They are at their most sensitive between the ages of 9 and 12 months when children take their first tentative steps. Once walking is mastered, they begin to run around learning about the world around them.

Figure 1 - Bones of the foot.





It is therefore vital that their shoes do not hinder this key stage of development in any way.

Furthermore, the feet are growing and, because the bones are only partially calcified, this places certain constraints on the shoe. While it cannot be too tight, it must nevertheless still offer protection in terms of support to the anklebone for children aged from one to three. Although very few children are born with malformed lower limbs, only some 40% of adults have healthy feet and this is mainly due to wearing inappropriate shoes during childhood. Once the damage has been done, it cannot be undone, so the accurate fitting of children's shoes cannot be over emphasised.

The bone structure also forms two arches. The longitudinal arch falls

between the heel bone and the head of the first metatarsal. Its height varies from person to person and its absence on some is the cause of flat feet and many other foot problems. The height also varies ethnically, with Italians and Japanese, for example, tending to have particularly high arches and insteps. Beyond the age of 80, the foot becomes more flexible and the arch much weaker. The transverse arch lies across the base of the metatarsals when the foot is relaxed. Under load, it flattens out and the foot becomes wider as the bones spread.

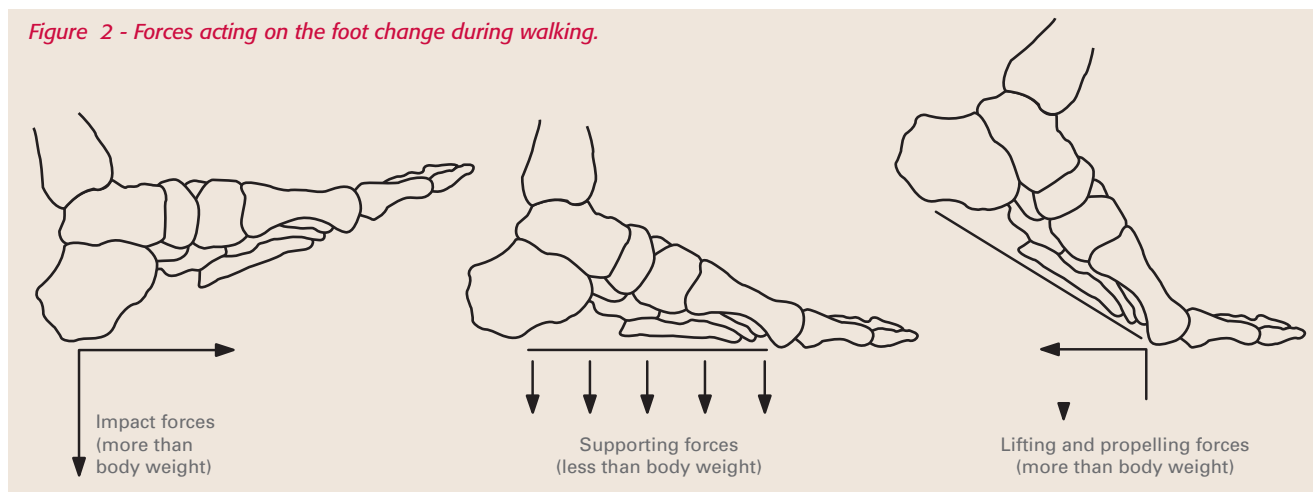
GAIT

When walking, our feet have to support the body and, at the same time, provide propulsion to move it forward. They work in a rolling fashion where

the outside of the heel hits the ground first, the forefoot contracts, the foot rolls inwards and the point of greatest pressure follows the outer edge of the foot up to the outer joint. As the heel lifts to flex the foot, the pressure is transferred over to the inner joint and thence to the big toe. This then acts as a lever to propel the body forward. It is also why it is so difficult to walk with a damaged or missing big toe.

An average day may involve up to 10,000 steps and the transmission of surprisingly large forces through very delicate and fragile areas. Excessively long periods of standing or running, jumping and walking on uneven surfaces can therefore create problems particularly if a person is overweight. When walking, feet come under the impact of one and quarter times body

Figure 2 - Forces acting on the foot change during walking.



weight, so extra weight means ankles, bones and joints in the feet are under increased pressure (Figure 2). They also need to provide more shock absorption for the body. That in turn means more wear and tear and a greater likelihood of foot or ankle pain. In addition, the bones of the foot are held together by ligaments, so extra weight can force the joints apart and make these ligaments stretch. This can change the shape of the foot so that it starts to splay, become wider and the arches to begin to collapse.

SHOES

Footwear should be functional in order to work with the foot rather than against it. Although this might appear to be common sense, fashion all too often tries to ignore this fundamental truth leading to lasts and the shoes made on them to cause considerable harm to people's feet (Figure 3). It is therefore essential that as well as providing good fit and comfort, a shoe must cause as little disruption to foot function as possible.

A factor that few people seem to be aware of is the degree to which feet can change shape and size during the course of the day, expanding in girth by over one and even up to two sizes. There is no way that a relatively static object like a shoe can adapt itself to keep up with the dynamics of the human foot from early morning to last thing at night, so the best time to buy a pair of new shoes in terms of fit is in the afternoon.

Needless to say, it is the last shape that is the key factor here and should therefore take into account the type of person who will wear the finished shoe and the purpose for which it will be worn. Sports shoes, for instance, require a different set of parameters to dress shoes as do children's to adults and men's to women's. In addition, today's global market means that lasts must also vary in order to fit a wide range of ethnically diverse feet as these vary physically in both size and shape across the world as indeed do their owners.

LASTS

Previously shoemakers would measure a person's feet for the handmade shoe and make a pair of lasts to match so that the shoes made



Figure 3 – Too tight a fit on a pointed toe can distort the foot leading to health problems in later life.

CREDIT: SATRA

on them were a good fit. While today's last makers have to make compromises for mass production, they must nevertheless still take into account the mechanics of the foot to ensure the shoes that will be made on their lasts are functional as well as aesthetically pleasing. While the design of shoe lasts is highly complex, there are some basic facts that apply to any last and govern its relationship with the foot:

The last needs to be longer to allow for elongation under pressure. This will vary with the weight of the person concerned and the physical condition of their feet. For instance, a weak foot will elongate more than a well-developed one and a child's less than an adult's. The foot also tends to move forward in walking regardless of fit, so in the case of narrow-toed lasts extra length is also needed to prevent pressure on the toes as seen in Figure 3. Many women still refuse to acknowledge the actual size of their feet and buy shoes a half or even a full size smaller just so that their feet also look smaller. It is why so many suffer from corns and even more serious foot problems such as bunions.

A normal last will not reproduce any

of the foot's irregularities as this would look unappealing and also cause manufacturing problems. The exception occurs with orthopaedic footwear where physical deformities must be accommodated by special lasts and hand lasting (Figure 4).

When placed on a level surface to the correct heel height, the toe should be raised. This is called 'toe spring' and is essential in helping the rolling motion of the foot and preventing undue creasing across the top of the shoe. Finally, the top or 'cone' of a last is narrower than the foot itself. This is because the sides of the quarters are not held together in any way and this narrowness prevents gaping when the shoe is worn.

While a last's border outline corresponds fairly well with that of the foot—except at the toe—it is straighter and the inside joint position further forward. The former allows for a natural inward turning of the big toe when the heel's height or 'pitch' is increased and the latter is because the foot's contact point with the ground also moves forward as heel height increases. The bottom shape is also different due to a last having a defined 'feather' edge whereas the foot is rounded.

HEELS

Heel height has a marked impact on foot function. When standing or walking barefoot (our natural condition), more of the body's weight is taken by the heel than the forefoot. As the heel is raised, so more weight is progressively transferred to the forefoot and also influencing the way we stand and walk.

In its normal state, the foot bends some 50 degrees during the 'take-off' phase of walking. If the shoe restricts this by being too stiff, it causes discomfort and fatigue. This can be offset to some degree by adding more toe spring. However, if the heel is high, less toe spring is needed as the foot is already partially flexed and, in general, the higher the heel the less the toe spring. If a high heel is matched to a platform forepart, the latter must have extra toe spring built into the platform itself in order to restore sufficient rolling motion. Similarly, in sports or casual footwear with thick soles, sufficient toe spring must again be included.

A high heel is considered to be one that raises the back of the foot above the metatarsus and phalanges. The degree of height depends on the height of the heel and the pitch of the last. Typically, a high heel is raised more than 5cm, causing the metatarsals to slant towards the phalanges at an angle of between 40 and 55 degrees. Without exception, they are bad for the feet and the cause of many problems, including pain in the toes and balls of the foot, ankle instability, and pain in the muscles of the legs and lower back. Almost 85% of women list one or more of these as a regular occurrence with high-heeled shoes.

The reason for all this can be easily explained. The standard high-heeled shoe construction creates an angle of the heel seat to the ground surface referred to as heel pitch or wedge angle. This creates a ramp effect so that the foot slides forward into the toe which, if narrow, prevents this forward motion and so creates continuous pressure on the toes. Extra pressure is also applied to the metatarsal heads, particularly the second and longest metatarsal. Studies have shown that women who go from flat athletic type shoes to ones with 5cm heels undergo nearly 64% increased pressure to the forepart of the foot. In addition, while the ideal normal barefoot distribution is 50/50 between forepart and heel, exaggerated 75cm plus heels change this dynamic to nearer 80/20 towards the forepart thus exacerbating the situation.

FEET AND RESPONSIBILITY

The foot is clearly a highly complex mechanism and properly manufactured and correctly fitting footwear is a vital factor in our everyday comfort and long-term health. Anyone involved in the specifying, sourcing and manufacture of footwear for the global market should therefore do their utmost to ensure the lasts used in the manufacture of the shoes involved are suitably modelled to permit proper functioning of the foot during the end use for which they are intended. There are several testing and research organisations such as SATRA, CTC and PFI which have extensive data on national foot fitting characteristics, so there is really no excuse for badly fitting lasts. 🚫



Figure 4 – Hand lasted orthopaedic shoes for a customer with badly twisted feet.

CREDIT: JANE SAUNDERS & MANNING

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Heel height limits for older people

French consulting, research and testing organisation CTC has been working with the French Footwear Federation on ADOCS, a programme of projects to improve the suitability of footwear on offer to older consumers. One of the studies so far concerns heel height and makes specific recommendations on the heel-heights that women can continue to wear safely and comfortably in their senior years.

A programme to try to find ways of making shoes available that better meet the particular physical needs of older consumers has been under way in France for five years now. Called ADOCS (Amélioration de l'Offre Chaussure Senior), the idea came from the French Footwear Federation and from Lyon-based technical research and testing organisation CTC.

The starting point was a detailed set of studies that CTC began to carry out in 2010, analysing the biomechanics of the steps that older people take when walking. Aims included working out the modifications that older people feel forced to make to their steps to maintain their posture while wearing different types of shoe. Other strands of ADOCS have included new ergonomic studies of older people's feet and of trends and fashions in footwear for this age group. Around 15 French footwear manufacturers have taken an active part in the studies so far.

A total of 36 men and women have participated in formal tests in CTC laboratories, wearing different sorts of shoes and having their walking patterns analysed with

each one. The tests also took measurements when the subjects were walking barefoot to draw contrasts between the performance of shod and unshod feet. This group has comprised 24 women with an average age of almost 68, an average height of 1.59 metres, an average weight of 63.6 kilos and an average shoe size of 38. There are 12 men in the group, the averages for whom were 68.3 years, height of 1.74 metres, weight of 80.4 kilos and shoe size of 42.

CTC's analysis focused on measuring pressure points to see how well balanced subjects were when walking in different types of shoe, always under the same test conditions, with measurements taking place both during periods in which the subjects stood still (with their eyes closed) for a minute at a time, and during sessions of



CREDIT: T-DESIGN / SHUTTERSTOCK

walking on a specially adapted treadmill fitted with sensors. These sensors allowed CTC to measure data such as the angle at which each subject was holding knees and ankles at the moment of foot-strike. They were also able to measure flex movements at different points of the walking-step cycle. Special sensors were also placed on the heel and on the leg at the level of the tibia to measure the shock waves imparted to each person's limbs by their heel-strike. Participants also completed a questionnaire about comfort at the end of each test, asking them to give each type of shoe a comfort rating ranging from 1 to 20, which, when all the results were examined together, allowed CTC to give each type of shoe an overall score for comfort.

Arch height was a critical factor throughout, with a height of 3 centimetres (between the highest point of the sole of the shoe and the ground) emerging as the recommended limit, owing to CTC's conviction, based on "numerous studies", that walking rhythm and balance start to suffer with heel heights of 5 centimetres and above. It concluded that similar negative effects might be visible from 3 centimetres onwards in older people. In presenting the results, CTC said it wanted to show measurements for each shoe style, drawing comparisons between a Derby style shoe, a similar shoe but with a 3 centimetre heel, a shoe with a high upper and finally barefoot walking. Women scored the (almost flat) Derby at 16.4 out of 20 for comfort while giving only a slightly less positive score (15.6 out of 20) for the shoe with the 3 centimetre heel.

CTC's conclusion from all of this analysis is that older people lose nothing in terms of stability and balance if they wear heels, as long as the heel is no higher than 3 centimetres. According to the study, heels of a height above 3 centimetres make it difficult for older consumers to adjust their ankle movements sufficiently to be able to keep walking comfortably. CTC has even said that women who are used to wearing heels can find heels of 2 or 3 centimetres more beneficial than heels of a lower height, although it points out that long-term use of heels can also make people



Varying heel heights.



Varying upper heights.



Measuring joint angles.

ALL CREDITS: CTC GROUPE

more susceptible to health issues, such as Achilles' heel problems.

On the whole, though, CTC concludes that senior women with good foot health can continue wearing heels of 3 centimetres or less

without any great difficulty. Its studies show, however, that 3 centimetres is a cut-off height for arches and that older people who want to avoid foot health issues should avoid going beyond this limit. 📌

Artisans provide inspiration for new-season shoes



The resurgence of the craft movement, the artisan and the idea of handmaking are set to have a big influence on fashion and footwear styles for autumn-winter 2016. New public collectives such as Makerversity in London are tapping into the public swell of interest in making custom products. "Craft is moving in innovative ways, thanks to the can-do DIY attitude that's being adopted," says Helen Sac, trends forecaster at WGSN. "We're never stopping this idea of making and learning, uncovering the urge to discover."

Tactical aging of materials will be important: tarnishing, fading and wearing-in. "For country styles, designers will be inspired by the farmhand simplicity and soft, comfortable natural-looking materials while in the city, the inspiration will be factory workers for a more casual, relaxed approach. For footwear we're looking at simple lines, minimal detailing and purity."

Colours have character and authenticity, this palette works with denim blues, lumberjack reds, woody tones, khaki green and stony grey. It will be quite a rustic palette and combines tones with pine greens, with terracotta bringing through the autumn tones.

- **The utility boot.** Workwear is very important for the season, designs will hint at the 1920s and 1940s but with a contemporary twist. Eyelets will tap into the retro feel. "You could execute the shape with a soft leather on a mid-height heel; detailing is key," says Vanessa Belleau, senior consultant at WGSN. "You could push the shape as a mid-calf length boot in patent or high-shine leather upper with a small kitten or a mid-high heel. It will be about playing on the proportions."

Autumn-winter 2016 will see burnished leathers and military looks inspired by the craft movement, styles will be updated with new material combinations and athleisure will have established itself as a sector in its own right.

- **The wet-weather shoe for women.** Tapping into the working aesthetic, this shoe will have an artisan feel because the focus is on the material. There will be a relaxed approach to design there with not much detail but a sense of femininity.
- **The elevated workboot.** Length is important for women's styles. "The Ecco-style boots are here to stay but how do we take the boot category forward? Knee-high boots were not very successful for a while as they are not transitional or easy to style," explains Ms Belleau, "but here it will be about updating the knee-high boot with the sense of craftsmanship and working with the great materials; the leather could be distressed, it's all about attitude."
- **The men's workboot.** A traditional workboot will be a key style, the focus will be on the materials.
- **Artist's brogue.** The brogue will be updated with an exaggerated wingtip or unusual construction and could be made with very soft, unlined leather. "This pair of shoes won't appeal to everybody because the leather will be tarnished or burnished, it's very distressed," adds Ms Belleau.

CRAFT



OPPULENCE



Away from the craft movement, bringing together the old and the new will be key. Plush surfaces will be important for autumn-winter 2016; the season before it will be about heavy adornment and embellishment and this will continue, with faux furs with a beautiful hand feel and an extra level of luxury. "The idea is of moody opulence which holds on to the historic beauty of old libraries and old tapestries. We are still talking of opulence but it's moving into a casual market," says Ms Sac. "Before, we had ideas of ornateness in couture and high-end labels but now we're seeing streetwear labels adopting the decoration, beading and embellishment. Modern nobility, decorated with jewels, a mix of beauty, fairy-tale, romance but coming together in a modern way will be one of the key looks of the season."

The military theme will continue from previous seasons, but taking a smarter approach. "We're using military styling in a functional way, not just in an aesthetic way but making it more useful, making it more practical."

In footwear there will be formal silhouettes in this trend, with oversized panels that wrap around the foot. "For women's footwear it will be about the connection between the vintage detail and the classics," says Ms Belleau. "We are going back to a feminine look, there have been a lot of genderless-looking shapes recently so now we are embracing feminine empowerment. Nowadays it's acceptable to have the smart-casual look, but it will be about rethinking the formal silhouette which got forgotten and giving it a casual spin."

- **Formal sling-back mule.** Mules have been trending for a while and it will remain an important item. It will be updated as a sling-back, which carries the idea of the genderless

aesthetic. Consumers will be looking for comfort. The design could be made more feminine but with sharp lines. Variations would be a leather upper with contrast detail on the leather outsole, or a more artisan feeling could be created by mixing materials such as leather with textile on a rubber outsole.

- **Peep-toe bootee.** "It is fearless and very feminine, it's all about that empowerment through footwear. It's about achieving that perfect transitional style for night-time dressing, but not too formal. A peep-toe is a great way to achieve that mix between the stiletto heel and the block shoe." It will be made in glossy leathers or plush fabric, or with a slightly curved heel. "This season there will be a lot of emphasis on the heel."
- **Retro Mary Jane.** This is a style that taps into the 1960s but can be reinvented with high shine and a toe cap, colour blocking or playing with the height of the heel.
- **Architectural shoe.** "It's about contrasts and it's very graceful, and it's a way to push texture and form. The consumers are ready for it," says Ms Belleau.
- **Slip-on leather boot.** For men, this strong trend will continue. The leather or suede upper will be updated with contrast piping detailing or a thick rubber sole, or perhaps with a graphic printed upper and raw edges.
- **Urban military shoe.** Military shoes will continue to be a very good commercial option for men and women. It is still androgynous but could be balanced with a feminine aesthetic.



- **Modern monk strap.** For this style, the key will be the high-shine, almost mirror-like leather, perhaps with a traditional buckle fastening or a more rounded toe shape or toe cap.

Designers will also be inspired by nature and reflection. "It's an era of self-examination, with a growing number of people reporting to have no religious affiliation, so design will be driven by societies' need for a new meaning, exploring the boundaries of religious spirituality," says Ms Sac. "It's inspired by epic outdoors, and at the same time it's an inward trend getting to know yourself and the longing for quiet."

Here, the colour palette sweeps from the pale, breezy neutrals to the heavier moodier greys, which are important for the winter season. Emphasising softness will be key. The greens greys and sandy bases will be set with off-white and pearly metallics that add the soft, wintery glow.

"The idea is comfort and protection with soft, padded materials and this can be achieved in footwear by adding small panels, or embellishing the buckles with padding or felt or soft surfaces," says Ms Sac. "Oily, reflective surfaces are key, moving away from the highly lacquered shine and the heavy coatings; we're looking for a more subtle oily reflection, whether as a coating or on leather. In footwear, the traditional wet-weather silhouettes will be updated with utilitarian simplicity, you've got simple leathers that are lined and coated with the protective surfaces, and that's really highlighting a Spartan sense of modernity. The traditional materials are layered with coatings that offer protection against a hostile climate. And the simple silhouettes are prepared with semi-glossy suedes for a clinical take on streetwear."

- **High vamp court.** A relaxed shoe that will use contemporary constructions to update the classic silhouette. The lines will be almost minimalist and it will be about the purity of the shape. It will be made in soft leather with a rounded toe and a low-cut vamp. The heel could be flared to add interest.
- **The pointed toe.** This women's shoe hints at femininity, not in an obvious way. Following the theme of protection it will feature oversized panels at the front. "You can execute the shape in some luxurious material choices to give it a premium feel," says Ms Belleau. "Pointed toes are very important for this season, we are seeing it as a more general trend for women's footwear and especially heels."
- **Hybrid derby.** The shape will be updated with hybrid material combination or variations on the sole.
- **Heeled wellington boots.** The heel updates the boot.
- **Leather boots for men.** Will be made in a smooth, grained leather and will serve as a transitional product.

"Research suggests we need to invest more time playing and less time working, we yearn for time off, so play is set to grow in significance," says Ms Sac. "It offers a healthy dose of escape, a reprieve. There's a rise in immersive theatre and user-generated art, playfulness among the mundane."

This will be reflected in design: dense colour such as tomato red to sour green. Unlikely tones will be paired together, such as bright pink and gold, smoky hues with apple green, burgundy and browns with lots of depth.

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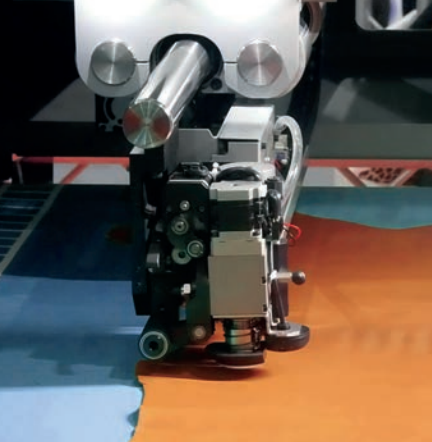
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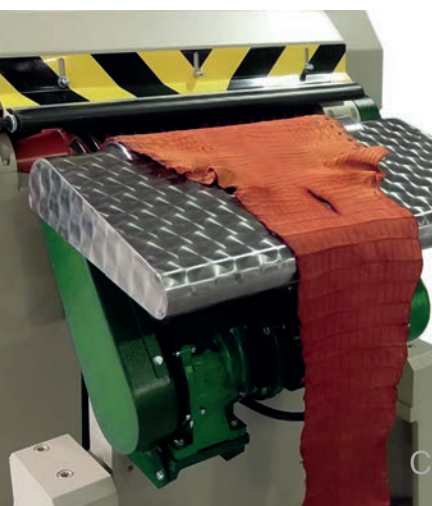


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Helen Sac from WGSN forecasts next year's looks.

"We had a season about six months ago where everything was black and white. It's still apparent but we're looking at exaggerated playful shapes. Brands are becoming more daring with their colour combinations and this colour palette was confirmed by the last Prada collection with really unusual mixes of colours. It might take a bit of education for the consumers to understand it but it's definitely something we see for autumn winter 2016."

The athleisure trend will no longer be a trend but a lifestyle. "Athleisure has moved itself off from a trend to something we wear every day," says Ms Sac. "You will see it in the sneakers we're wearing, the track pants, and for this season we will see crazy colours being injected into the athletic ranges. A fun take on shapes, proportions and colours."

- **Wedge-heel platform.** A traditional shape for the youth market but it will become more prolific across age groups. Traditionally this would be made with a leather upper on a moulded rubber platform, but we will see inspiration from sneakers and there will be two-tone patent leather uppers with contrasted rubber outsole, and injections of colour.
- **The track sole boot.** The emphasis is on the sole, which will be exaggerated but with a city shape. "It almost gives a sense of oddness but by 2016/17, consumers would be used to that," says Ms Belleau.
- **The slimline runner.** The runner will be refined and slimlined, and is a canvas to play with colour blocking and different materials.



A buyer at Micam, Milan, browses the displays.

- **The desert runner.** A classic will be updated with a sporty feel, in suede or leather with a lightweight Vibram sole, or with unlined leather upper with contrasted suede panels on a moulded rubber outsole.

"The main themes that will be influencing fashion in autumn-winter 2016 will be the idea that everything is connected, there are no boundaries, it's all about reinvention and new dynamics; looking at classics and thinking about how we update them," adds Ms Belleau. "In my job, day after day, I push my clients to think differently. It's going back to appreciating great leathers and great materials." 🌀





Around 80% of the footwear in the Blue Sole Shoes product range is from Italy. CREDIT: BLUE SOLE SHOES

Philadelphia story: small boutique flies the flag for Italy

Italy's footwear manufacturers' association Assocalzaturifici presented its prestigious overseas buyers' award for 2015 to Steve Jamison, owner of a small, independent men's boutique in Philadelphia. Mr Jamison, who runs Blue Sole Shoes in Philadelphia's Center City, travelled to Milan to receive the award during the Micam exhibition in September.

He told the audience that he has worked in the footwear industry for more than 30 years, having first taken a job at a shoe store while still in high school. He has been running his own Blue Sole Shoes boutique for eight-and-a-half years now.

"I opened at a time of economic meltdown," he told the audience in Milan. "The one thing that has helped me survive is offering mostly Italian product. This has allowed me to differentiate Blue Sole Shoes from its competitors; what I can offer is different from what they can offer because Italy does fashion, beauty and art in a way that nobody else can and that passion and art are in the shoes I sell to my customers."

Genuine passion

Speaking to *World Footwear*, Mr Jamison describes Blue Sole Shoes as a men's boutique specialising in mid-to-high-end shoes; it also sells socks and other accessories, but

Italy's footwear manufacturers' association, Assocalzaturifici, chose Blue Sole Shoes, a small, independent boutique in Philadelphia, US as the winner of its 2015 overseas buyers' award. Founder, Steve Jamison, travelled to Milan to pick up the award at Micam in September and spoke to *World Footwear* following the presentation.

shoes are its main focus and a genuine passion for the store's founder and owner. By working in shoe stores while still at school and then full time after university, he says he had the opportunity to cultivate this passion from a young age. It's something he was determined to bring into his own business when he decided to go it alone following the closure of the store that employed him previously. And to help communicate that passion to the buying public, Blue

Sole Shoes stocks mainly shoes from Italy.

"I try to have a sense in my store of what Italy has to offer," he explains. "That means not just showing product, but also the story I tell. I have learned from travelling regularly to Italy, not least twice a year to Milan for Micam, and by working hard to understand Italy's history and culture. My customers understand this: they know that Italian manufacturers are so much better at continuing to come up with something new. They come looking for shoes made in Italy."

Of the 50,000 or so pairs of shoes that Blue Sole Shoes sells each year, around 80% are imported from Italy, with some coming from Spain, Portugal and the US too. Mr Jamison describes the range as a broad selection of "updated classics", and his clients as an even broader mix of Philadelphia men who want to dress well and look smart from the bottom up. They range in age from retired business people in their 80s to 17- or 18-year-olds making their first serious investment in formal shoes. Brands that feature prominently on the shelves include Dino Bigioni, Roberto Cavalli, Aldo Bruè and Mauri, but Mr Jamison sources shoes from around 30 different Italian brands in all.

A battle to win

Ironically, lots of footwear retailers in northern Europe, who are much closer to Italy than the founder of Blue Sole Shoes, concentrate on sourcing their footwear as cheaply as possible, bringing most models from Asia, insisting that consumers in their markets "only care about look and price". This is convenient for the retailers because it means they can buy shoes for \$5 per pair and sell them for 20 times more instead of offering shoppers much more shoe for their money the way Mr Jamison does. "If Italy were to lose that battle and lose what it has that's so different, it would be very hard for me to go to another market and find the same type of product, the same quality and the same intricate design," he says. "But I just don't believe that will happen. I believe



Steve Jamison, founder of Blue Sole Shoes, believes the Italian footwear industry will continue to prosper because there are enough people in the world who refuse to compromise on the quality of their shoes. CREDIT: BLUE SOLE SHOES

Italy will maintain its leadership position in the global footwear market because I believe there are enough people out there who, like me, simply don't want to compromise on the quality of their shoes."

He says this is the reason why Blue Sole Shoes customers support him; they could easily go to another store and find shoes of lower quality for less money. "They don't want that," he concludes. "And there are enough of us around to keep this going." 🗣️



Left: A shoe from the spring-summer 2016 men's collection from Lombardy-based brand Mauri. Steve Jamison says Italian manufacturers are "so much better at continuing to come up with something new".

CREDIT: MICAM

Right: Dioni Bigioni from the province of Fermo in Le Marche is one of the Italian men's footwear brands that Blue Sole Shoes offers to discerning shoppers in Philadelphia.

CREDIT: MICAM



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