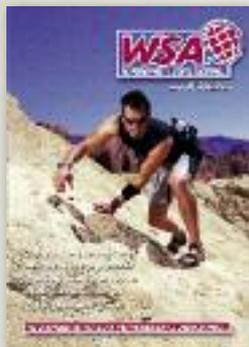


WSA THE SECOND 10 YEARS : A brief timeline



2005

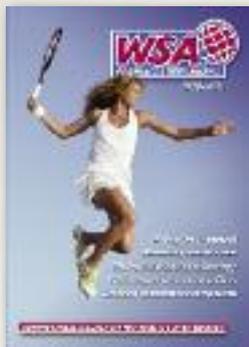
Rhodia Silicones develops water-resistant finish Advantex based on silicone that penetrates the fibres, guaranteeing durable water and abrasion resistance; first used exclusively by Salomon on soft shell garments.

Britain's Ellen MacArthur becomes the fastest person to sail solo around the world.

With Japanese fibre producer Teijin, Patagonia launches Common Threads, collecting used garments, sending them to Japan for Eco Circle recycling. This virtuous circle was later expanded to include fleece clothing.

Steve Fossett is first to fly an aeroplane around the world (40,234km) solo, non-stop, without refuelling.

Jamaica's Asafa Powell sets men's 100 metres world record of 9.77 seconds at the Athens Olympic Stadium.



2006

DuPont starts production of its corn-based derivative Sorona, a biosynthetic 3GT polysaccharide.

Italy beat France 5-3 on penalties for football's 18th World Cup.

French inventor Jacques Caspar patents a bioceramic membrane called Solar Res. First integrated into a polyurethane membrane, the concept, based on a mineral (or ceramic) alloy, is later available as a coating or print. The ceramic additive reflects infrared radiation. This is said to accelerate blood flow and increase body temperature.

95th Davis Cup: Russia beats Argentina.

French company Blondel optimises a technique to bond cosmetic-filled microcapsules to textiles, and wellness brand Lytess presents the first slimming jeans impregnated with microcapsules containing a slimming agent.

Carolina Hurricanes win their first ice hockey's Stanley Cup.

Phil Mickelson wins golf's 70th Masters.



2007

Zegna explores smart devices that target uses other than the data-hungry athletic market and releases a jacket with solar panel inlaid collar.

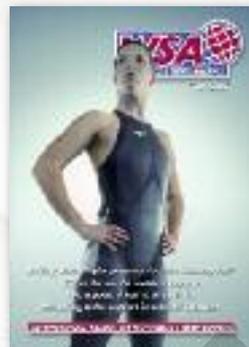
Barry Bonds breaks baseball great Hank Aaron's record, hitting 756th home run.

Chargeurs develops method of grafting thermo-regulating microcapsules containing a paraffinic substance to a wool ground.

Jason Lewis completes the first human-powered circumnavigation of the globe after a 4,833-day expedition, travelling 74,842km.

Brochier Technologies develops technique to weave optical fibres. Its Lightex light-emitting fabric is used for phototherapy. Research is also focusing on medical applications, embedding the fibres in skin-close garments to monitor and collect data.

Tom Brady sets a NFL record, throwing his 50th touchdown pass; New England Patriots become the first team to finish season 16-0.



2008

Miroglio develops mechanically recycled polyester yarns, Newlife, and finds local waste management companies as partners. Newlife focuses on finer counts and easy care properties, in addition to the already available thermal, UV protective and odour control functions.

Usain Bolt sets a 100 metres world record of 9.69 seconds at the Beijing summer Olympics.

Teijin Fibers starts commercial production of Nanofront, a high-strength polyester fibre with a thickness of just 700 nanometres, 7,500 times thinner than a strand of hair, and targets golf glove market. The nano-sized bumps on the surface create a higher frictional force, giving the material outstanding slip resistance.

Swiss pilot/inventor Yves Rossy becomes first person to fly a jet engine-powered wing across the English Channel.



2009

Columbia Sportswear Omni-Heat Thermal Reflective dot-matrix aluminium-lined jacket introduced, acting as a conductor and temperature regulator.

116th Wimbledon: Serena Williams beats sister Venus.

Colorep patents AirDye, a waterless dyeing process based on supercritical carbon.

Golfer Yang Yong-eun wins 91st US PGA Championship.

e-textile specialist Smartex markets Wearable Wellness Shirt that includes ECG and respiratory and body movement sensors.

Michael Phelps sets his 39th world record.

Sofila launches Greenfil, a polyamide 11 derived from a Rilsan polymer from Arkema, in a joint collaboration with Radici Yarn. Rilsan, the original polyamide 11, was first synthesised in 1944, and its first applications were in textiles.

Usain Bolt sets a 100 metres world record of 9.58 seconds.

in textiles and sports



2010

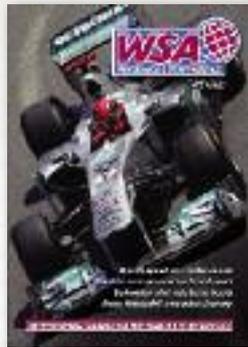
Marithé and François Girbaud, with laboratory Jeanologia, develop a waterless finishing process for denim called Wattwash that abrades denims using lasers and can create patterns and weave textures.

New Orleans Saints win their first Super Bowl.

Radici launches CornLeaf sustainable fibre made from Ingeo polylactic acid, and R-Starlight, made from post-consumer polymer produced by Noyfil, Switzerland.

Australian Jessica Watson becomes the youngest person at 16 years old to sail, non-stop, unassisted around the world.

Nylstar introduces Nylgold, later known as Meryl Hyaluronan, a polyamide 6.6 yarn enhanced with 24-carat gold nanoparticle core to which hyaluronic acid (HA) molecules are grafted, said to moisturise and improve skin elasticity. In tests, the fibre emits 0.6% of the particles over 48 hours, releasing HA molecules directly on to the skin.



2011

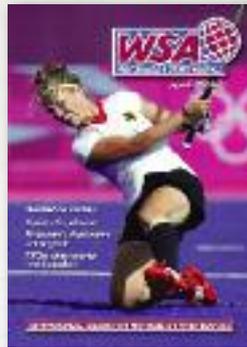
Swiss R&D institute EMPA develops a metallisation method via plasma (applied bobbin to bobbin) with potential in electro-textiles by creating high conductive yarns that can then be woven like conventional yarns. The fine, 50nm gold plasma-coated yarn does not alter the fabric's properties.

Lionel Messi wins inaugural FIFA Ballon d'Or for being the best football player in 2010.

Swiss company HeiQ launches Adaptive, which is said to work in two ways. Between 30°C and 35°C, it spreads moisture over the fibres, accelerating evaporation. Below 30°C, the polymer regains its initial state and is dry to the touch.

Boxer Zach Daniels defeats Rick Michaels to become the new TNT world heavyweight champion.

Rory McIlroy wins 111th US Golf Open with a 268 total.



2012

First official release of the Higg Index section for fabrics. Called the Materials Sustainability Index, it assesses the impact of each fabric group and was originally a collaboration between the US-based Outdoor Industry Association and Nike. It is said to propose relative material scores for more than 80,000 materials supplied by 1,400 companies.

Indian batsman Sachin Tendulkar becomes first cricketer to score 100 international centuries.

NIRI, a UK tech-textile lab, and microwave specialist C-Tech register patent for a bicomponent thread enabling removal of embroidery from fabrics without damaging the base fabric. "The bicomponent thread has a moderately conductive core that is 'fried' when heated. The operation also weakens the surrounding thread but does not damage the fabric," says Andrew Hewitt, a textile engineer at NIRI.

45-year-old Felix Baumgartner achieves world freefall record of 128,100 feet (39km).



2013

Production of bast fibre Crailar, developed by Naturally Advanced Technologies, begins. A new enzymatic process breaks down lignin in flax to produce a single-filament staple yarn with micronaire of 5.7 to 6.2.

Lionel Messi wins FIFA Ballon d'Or for third consecutive year.

Damart introduces Ocealis, a fresh-effect micro-encapsulated hydric PCM textile based on xylitol, invented by Gauthier Bedeck. When moisture penetrates the semi-permeable membrane of the microcapsules, it dissolves the xylitol, absorbing heat.

Yuichiro Miura is oldest person to climb Mount Everest at 80.

Organoclick develops a plant-based water-repellent, biodegradable finish, Organotex, for textiles. It is based on its "organo-catalytic click chemistry", a method that bonds alkyl-functionalised polymers to a substrate.

127th Wimbledon: Andy Murray becomes first British man to win title since 1936.



2014

Launch of a bio-derived Lycra yarn, the new greener Lycra that had been in development for two years. As one of the components that make up spandex, Invista now produces a bio-based glycol, which is said to make up 70% of the finished yarn. Lycra T162R is partially bio-derived thanks to plant-based butanediol (BDO) obtained via the fermentation of corn dextrose.

Yaya Toure wins African Footballer of the Year.

A pilot plant to manufacture Qmilk, a casein fibre made from milk which is unfit for consumption, is set up in Germany.

Li Na defeats Dominika Cibulková to win the Australian tennis open.

Seattle Seahawks win Super Bowl XLVIII, the most viewed TV event in US history with over 111 million viewers.

TIMELINE PART I
1996 - 2005 WAS COVERED IN WSA MAY/JUNE