This report has been produced for P&G by Kathleen Baird-Murray. It provides background and information on the key trends and topics from the P&G Future Fabrics 2015 forum in Barcelona, a partnership between P&G Fabric Care – and its global brands Ariel, Tide, Downy and Lenor – and Giles Deacon, Première Vision, Susie Bubble, Jonathan Saunders, Pollini Reed, Groupe Carlin, Professor Lawrence Rosenblum, Gianluca Longo and Schoeller Textiles.

FABRICS IN MOTION:
NEW FRONTIERS IN THE CARE OF ATHLEISURE WEAR

P&G
FUTURE FABRICS
THE SCIENCE OF THE BEAUTY AND CARE OF CLOTHES
“Active-inspired wear; sports-luxe; fabrics in motion; whatever you choose to call it, is a long-term trend, boosted by consumer obsession with healthier lifestyles and functional wardrobes. At P&G Fabric Care we are focused on ensuring our fabric care products keep pace with the changing fashion and fabric trends. We are joining forces with fashion and fabric experts to work together and take on the challenge of this new world of fabrics to be able to innovate in a meaningful level so our products progress hand-in-hand with fashion and fabric trends.

In our over 100 years of innovation, P&G Fabric Care has had the consumer and their wardrobe at the heart and soul of our research, and development. This is because we are on a mission to provide people with the best care to enjoy and prolong the life of the clothes they love – helping preserve the meaning and value that clothes bring to people’s lives.

With new standards of comfort, style and performance in clothing at the centre of the growing sales in athleisure wear, and new research hinting at wider implications behind it, this is an exciting time to be at the heart of this journey, and an opportunity to redefine what cleaning and caring for our clothes means.”

Robert van Pappelendam, Vice President of P&G Fabric Care, Europe

A boundless energy.

Something that moves when you move, where you move, how you move. And still manages to retain its shape and colour, wash after wash.

The appeal of athleisure garments to today’s consumer, is more than just a key macro trend for 2016. It’s a game changer, ticking the boxes for the modern clothes-buyer by providing comfort, style and performance, all in one.

Athleisure wear – featuring textiles that capture the creative energy on the world’s catwalks using natural-meets-high-tech materials - is a trend that is here to stay. Moulding to our shape, or fulfilling our desires in freedom and functionality, it has been a holy grail for designers ever since they first started looking at sportswear trends. Lifestyle and wardrobe are now as one, with the consumer being the chief beneficiary.

This ultimately presents new challenges. Ostensibly these are clothes that are meant to look effortless, to be treated casually – but if we’re wearing them more often, then we’re also washing them more often. Through its global brands - Ariel, Tide, Downy and Lenor - P&G is constantly looking for new ways to redefine the science that addresses comfort, style and performance – to protect the new look and feel of clothes.

“TODAY’S FABRICS SUPPORT OUR MODERN MOBILITY, THANKS TO THEIR LIGHTNESS, THEIR ELASTICITY, THEIR CAPACITY TO BREATHE, AND THEIR ABILITY TO MAKE THEMSELVES COMFORTABLE WHATEVER EACH DAY BRINGS.”

Sabine Le Chatelier, Deputy Fashion Director, Première Vision
FROM RUNNING TO RUNWAY: THE RISE OF ATHLEISURE WEAR

THE SPORTSWEAR REVOLUTION: WHERE FASHION MEETS FUNCTION

“In the last five years we’ve seen athleisure wear become a genre in its own right. It’s a good umbrella term for anything that you feel you can do more in than most conventional fabrics. Maybe it’s a cotton that has a good stretch to it, or a water repellent jersey, or any kind of waterproofing like neoprene. It’s fabric with functionality, in a silhouette that isn’t necessarily sportswear”, Susie Bubble, Fashion Commentator and Trends Expert

Ever since the late 1960s designers have been making in-roads into how they can meld comfort with style and performance. In America, Ralph Lauren introduced sporty looking separates to the world, closely followed by Issey Miyake in Japan; while in Paris, the forward-looking Courreges opted for simple silhouettes.

As fashion evolves, it has never strayed far from the physical condition of the human form, be that via streamlined body-conscious clothes, to garments that allow freedom of movement and a lightness of being. Even jeans – the wardrobe staple synonymous with comfort, style and performance - have had to evolve to accommodate the need for fit, fashion and function even more. Levi’s responded to a fall in worldwide sales by looking at form-hugging athletic-inspired wear for inspiration, conducting hundreds of interviews and over 60,000 body scans in order to create a more comfortable jean.

>60% of US shoppers agree “the wash clean factor is a very important consideration when purchasing athletic wear” (2014 consumer research by Cotton Incorporated, the US cotton industry body)

04% is how much the global sports apparel market is predicted to grow YEAR-ON-YEAR, REACHING 178 BN BY 2019 (according to US research firm Trefis)

45% represents the rise in sales of yoga apparel in the US, showing a year on year increase to 2013; but actual participation in yoga only rose by 4.5% (SportsOneSource)

50% of consumers say they wear active wear more or as much as their normal clothes (P&G Future Fabrics 2015 research)

42% of consumers say that COMFORT is the most highly prized quality in their favorite active wear item (Consumer research by Cotton Incorporated)
"PEOPLE LONG TO FEEL WELL IN THEIR CLOTHES, AND WITH ALL THE STRETCH AND SECOND SKIN BENEFITS THAT TECHNICAL FABRICS PROVIDE, THERE IS ALSO A NOTION OF FREEDOM. IT IS THE FUTURE OF FASHION."
Paola Fabbri, Head of Ready To Wear Marketing Project, Groupe Carlin

WHERE FORM MEETS FUNCTION IN EVERYDAY LIFE

Just as our lives cross from office to gym to social commitments to home, designers have brought us crossover fabrics that fuse technology, tradition and technique from sportswear design and other industries, and bring comfort, style and performance to the everyday garment.

ACHIEVING COMFORT AND STRETCH

ELASTANE

Like the elastin fibres that keep our skin supple (elastic fibres in the skin are five times more extensible than an elastic band); elastane is what gives a fabric its shape and stretch. Made from elastic polyurethane fibre it is responsible for making our hosiery, underwear, and most form-fitting clothes feel comfortable and retain their shape.

Its uses today are almost too numerous to count, but under its brand name, lycra, it is very much a household name, having been at the forefront of a generation of high-performance fabrics that shape and smooth figures. Its popularity shows no sign of waning; industry estimates put the global Spandex market at 800,000 tonnes annually (The Fiber Year GmbH); while the top denim fabric trends for Spring/Summer 2017 are focused on greater use of stretch fabrics (Kingpins Amsterdam trade show).
VERSATILITY IN LOOK AND USE: MIX OF SYNTHETICS AND ORGANIC FIBRES

POLYAMIDES (NYLON)
Polyamides were created in 1935 when an organic chemist developed a substitute for silk. More commonly known by its brand name Nylon, the first item to be manufactured was women’s stockings, but the light-weight yet strong material is also loved for its ability to resist dirt – even chemicals and sweat - making it a popular choice for athleisure wear. Easy to dye, highly elastic, perhaps its one downside is that most types are unable to withstand high temperatures, melting under the iron. It’s fortunate then that for the most part, polyamide is also crease-free.

POLYESTER
A marvel of modern science, polyester is entirely man-made from acids, alcohol and petroleum, and is extremely strong, long-lasting, and impervious to stretching or shrinking. A common fabric for sweaters and t-shirts it’s wrinkle-resistant and can be used for insulation, but also for protecting against the elements, as it is quick drying and water-repellent by nature. While its popularity in the 1970s in the form of the polyester suit was later ridiculed, it has long been back in fashion with designers like Lanvin, Nina Ricci and Narciso Rodriguez, sending collections down runways with polyester as a starring fabric. It is adored for its featherweight lightness, as well as its softness and modernity, which is a world away from its 1970s predecessors.

POLYCOTTON
Blend polyester and cotton together and the result is polycotton, most commonly used in iron-free shirts, but also found as a key fabric in everything from loose shift dresses to pants and leggings. Adored for its practicality, it is the ultimate in comfort, as it doesn’t cling to the body and is woven to allow air to circulate more freely in comparison with thicker cottons. It’s always stylish, thanks to its crease-free finish, and it is long-lasting, the polyester fabrics giving a strength and durability not found in uniquely cotton garments.

GETTING THAT SECOND SKIN SOFTNESS

CHANGING THE NATURE OF FABRIC THROUGH CHEMICAL AND MECHANICAL FINISHES
These finishes are applied to fabrics to create new textures for designers to work with. Techniques like Sueding, where a type of sandpaper is used on the surface of the material to raise a short pile, making it look like suede, allow greater versatility with existing fabrics. For a deeper pile than sueding, the technique of Napping is used, where small, fine wires catch fibres on the surface and pull them up – to create flannel shirts for example.

Working with synthetic or man-made fabrics allows great scope and variety. On materials made from thermoplastic fibres, patterns can be permanently embossed; while burn-out designs can be created on cotton and polyester blends, where some fibres in the fabric are dissolved away to create a pattern.

FABRICS OF THE FUTURE

The athleisure trend is forcing fashion to evolve to create new fabrics that can meet this new demand. At Première Vision, two of the latest advances in tech-meets-naturals combine movement with beauty in unexpected ways:

EPHEMERAL NEOPRENE
For years, this water repellent, sturdy, structured fabric held its own in the arena of wet-suiting and scuba wear; now its aesthetic adaptability is beloved for its versatile properties in body-shaping and volumised lightness. Whether it comes backed with Lurex, or reduced in thickness, its roundness and suppleness has made it a must-have for designers in search of a sophisticated material with a dynamic density.

WATERPROOF GLAMOUR
Feather-light waterproofing takes on an extravagance, thanks to vibrant prints in houndstooth check, woven tweed, or ultra-feminine lace. Traditional meets modern, with these lightweight, malleable fabrics packing down into nothing, making them ideal for modern life and modern climatic change.

“Technical fabrics have become less threatening to the consumer in the last five years, illustrating the need for consumers to simplify their daily lives with easy lifestyle solutions. Easy laundry, clothes that don’t need ironing – these are benefits that will push a garment into a new dimension. It’s more than fashion.” Paola Fabbri, Head of Ready To Wear Marketing Project, Groupe Carlin

“THERE’S NO SUCH THING AS A TEXTILE REVOLUTION EVERY THREE MONTHS. IT’S SMALL IMPROVEMENTS STEP BY STEP SEASON BY SEASON, UNTIL FINALLY, YOU LOOK BACK A FEW YEARS AND YOU’RE CONSCIOUS THAT THERE HAS BEEN A BIG CHANGE.”
Sabine Le Chatelier, Associate Fashion Director, Première Vision
03
THE POWER TO PERFORM

"THERE ARE DEFINITELY COGNITIVE CONSEQUENCES OF WEARING FORMAL CLOTHES VERSUS CASUAL CLOTHES. OUR CLOTHING CHANGES THE WAY WE PERCEIVE OURSELVES, BUT IT ALSO CHANGES THE WAY THE BRAIN WORKS, HOW IT FORMS CONCEPTS, AND THE KIND OF DECISIONS WE MAKE AS A RESULT."

Dr Lawrence Rosenblum, Cognitive Psychologist, University of California, Riverside

ENCLOTHED COGNITION
The gradual shift towards dressing more casually has a deeper impact on us than previously thought, with 70% of consumers saying that active-inspired clothing makes them feel like they have more energy, and 62% saying it gives them more confidence (P&G Future Fabrics 2015 research). This supports previous American university studies that show that our style of clothes (whether formal or informal) influences how we perceive ourselves and that feeling at ease in our clothes is linked to how we perform.

Understanding the relationship between the wearer and their clothes is key to the future of washing laundry. P&G has embarked on a series of studies with leading Cognitive Psychologist, Dr Lawrence Rosenblum of the University of California Riverside to delve deeper into the phenomenon of “Enclothed Cognition”. This term describes the subconscious effects of our clothes on the way we perceive ourselves, the way we think, our moods and behaviour.

Existing research shows that people perform better when they are wearing clothes that are associated with the important aspects of the task they are performing. In addition, early experiments suggest that cognitive performance is improved when wearing clean, comfortable clothing. These fascinating findings invite more tests to determine whether making one’s clothes look and feel great could enhance brain function. This is one of the future research projects that P&G is currently investigating.

"KEEPING CLOTHES LIKE NEW, SO THAT YOU PERFORM AT YOUR PEAK, IS NOT JUST A QUESTION OF GETTING MORE MILEAGE FROM THEM. FOR A START, THERE IS THE EMOTIONAL DIMENSION THAT COMES FROM THE MEMORIES ASSOCIATED WITH WEARING CLOTHES. IN ADDITION, AND PERHAPS MORE IMPORTANTLY, IT’S ALSO ABOUT HOW CLOTHES IMPACT YOUR MOOD AND THE WAY YOU PERCEIVE YOURSELF."

Regis D’Hardemere, Associate Director, Europe Fabric Care at Procter & Gamble
When fashion goes active, what sort of life expectancy can we anticipate from athleisure wear? Consumers will often base a decision to purchase certain clothes on how long they think they will last, and how easily the garment can be cared for. P&G is constantly striving to help consumers retain the meaning and value that clothes bring to their lives.

**THE SCIENCE OF THE BEAUTY AND CARE OF CLOTHES**

**HOW P&G MEETS THE CHALLENGES OF THE MODERN WARDROBE**

For as long as fabric detergents have existed, there has been a tendency to define ‘cleaning’ in terms of how many stains a detergent can remove, but cleaning is more than just stain removal – it means understanding the essence of fabrics, from how they are manufactured, to how they are used in the design process.

Working closely with designers like Giles Deacon and other "actors" within the fabrics industry, from textile manufacturers to washing machine manufacturers, P&G’s fibre science experts are charting new ground to bring a new focus on clothes care. In today’s environment of rapid fashion changes and fabric innovations, caring for our garments is like watering a plant or taking care of your skin and hair – nurture your clothes and they will last longer and look better. Much like skincare specialists, P&G’s scientists have asked, “What’s going on in the ageing process of textile fibres, deep within the fabrics, and how can we delay or even reverse it?”

“SINCE TAKING ON THE ROLE OF CONSULTANT, I’VE VISITED THE R&D CENTRE IN BRUSSELS AND BECOME MORE AWARE OF THE AMAZING TECHNOLOGY BEING PRODUCED. IT INSPIRES ME TO CREATE CLOTHES THAT WILL RETAIN ALL THE STRUCTURAL AND PRACTICAL PROPERTIES, THAT WILL ATTRACT SOMEONE TO BUY THEM.”

Giles Deacon, P&G Fabric Care Global Fashion Consultant

“We’ve learnt that the more we get all of the different industry players around the table, the more chances we will have to make a meaningful difference from the first wash.”

Margarita Bahrikeeton, Research Fellow, Victor Mills Society, P&G Global Fabric Care
Fibre Purification: Deep-down cleaning and capture of seen and unseen soils and odour-causing agents imbedded deep within the fibres can lead to fibre degradation and clothes that appear dull and dingy. Fibre purification of these soils is achieved through a P&G proprietary blend of targeted surfactants, enzymes, and cleaning polymers contained in our advanced cleaning products.

Fibre Preservation: Beginning with the optimisation of wash conditions, the prevention of dye loss and transfer, and redeposition of soils in the wash onto the fibres.

Fibre Restoration: Achieved through untangling, aligning and polishing of fibres to remove soil-binding parts that are a cause of fibre damage and fabric aging and dulling.

The benefits of Fibre Preservation and Restoration are magnified by the addition of fabric enhancers in the rinse cycle. Thanks to microscopic fibre lubricants and conditioners, P&G fabric enhancers prevent fibres from rubbing or abrading against each other, reducing the chances of pilling, which causes damage and premature aging of clothes. The end benefit is that clothes look, feel, and maintain their shape and colour like new for longer.

Fibre Beautification: The process of enhancing the colour vibrancy and brightness of clothes, as well as providing a fresh scent of ‘clean’.

This is achieved through P&G proprietary sophisticated optical brightness technologies to enhance whiteness and colour vibrancy, and perfumes with long-lasting freshness and unique personalities that can enhance moods.

The use of fabric enhancers improves colour radiance, resistance to dirt and wrinkles, softness, and freshness.

**05**

**STYLE, COMFORT AND PERFORMANCE**

**STEP 1: CLEAN**

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When it comes to maintaining the feel, look, and function of clothes, P&G scientists look to fulfill three benchmark requirements: style, comfort and performance, each of which is as important as the other. Retaining an “as new” quality is at the forefront of the research and development of all P&G’s clothes care products, with further benefits being added wherever possible to help consumers to continue to love their clothes as much as the day they first bought them.

**STEP 2: PROTECT**

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**STEP 3: ENHANCE**

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**STYLE**

**HOW TO KEEP MY ATHLEISURE WEAR CLOTHES LOOKING LIKE NEW:**

Whether you’re pulling on a Sacai sweatshirt; a pair of Stella McCartney leggings or a waterproof jacket lined with fleece, you expect it to keep its shape beyond the first wash, and to still appear streamlined, true to its original colour, and most importantly, snag and bobble-free.

**FIBRE SCIENCE CLEAN & PROTECT**

Ariel/Tide formulas provide outstanding cleaning and clothes care for the latest natural and synthetic fibre mixes, via a process of Fibre Purification (Clean) and Fibre Preservation (Protect). Thanks to its proprietary blend of advanced cleaning and care technologies, Ariel/Tide removes seen and unseen soils embedded deep within fabrics while also preventing them from re-depositing back on fibres to stop build-up and cause dull, dingy looks on whites, colours and fabrics with strong contrast. The advanced proprietary formula allows for washing at lower temperatures, protects the colours and the fibres of fabrics especially fibres like elastane which can be prone to damage as well as more fragile and thin lightweight fabrics.

The addition of Downy/Lenor as a fabric conditioner will help keep clothes with high concentrations of cotton fibres intensely bright and pill-free, while maintaining the body conscious shape of the latest knits. The formula is specially enriched with lubricating agents for Fibre Preservation (Protect) which keeps the fibres smooth to reduce the chances for, stretching, fading, pilling and static cling. Like a hair conditioner it conditions fibres in the rinse to protect and realign them to help preserve and keep your clothes looking stylish for longer.
**COMFORT**

**HOW TO PROTECT THE FEEL AND COMFORT OF THE ATHLEISURE CLOTHES I LOVE:**
Comfort is becoming more and more the most highly prized quality in consumers’ favorite athleisure items designed to aid movement with stretchy composition, closely fitted to the body, or loose and flowing shapes.

Second-skin fabrics need to feel light, easy to manoeuvre and breezy on the skin, and as natural as possible, even if they’re made from artificial fibres. Some detergents and fabric enhancers are unable to meet the demands of a consumer who wants their athleisure clothes to feel as soft and fresh with each wash as they did when they were new.

**FIBRE SCIENCE – PROTECT & ENHANCE**
Both Ariel/Tide and Downy/Lenor contain Fibre Preservation (Protect) technologies to help keep your athleisure clothes feeling softer and looking new with each wash.

The Ariel/Tide formula contains water conditioning agents to prevent hard water mineral forming encrustations and damage by chlorine, and does not leave residues, leaving the fabrics feeling soft on your skin.

Downy/Lenor condition and deep-treat fibres with microscopic fibre lubricants and other components to help maintain the soft feel of new fabrics, like washable wool and cashmere, so that your clothes make you feel even more amazing. And bring a luxuriously soft feel to synthetic fabrics like acrylic.

Additionally, informed by a knowledge of human cognitive responses to scent and perceptions of freshness, Downy/Lenor enriches (Enhance) garments and moods with sophisticated scent technology and perfume oils. This scent technology combines top, middle and base perfume notes to provide an irresistible, fresh experience and long-lasting fragrance through all day wear.

“We HAVE BECOME EXPERTS IN THE FRESHNESS ARENA, AND KNOW THAT BY GETTING JUST THE RIGHT DEPOSITION OF A FRESH FRAGRANCE ONTO THE SURFACE OF CLOTHES, WE ARE ABLE TO DRAMATICALLY CHANGE THE EXPERIENCE OF WEARING THEM. ENCAPSULATING FRAGRANCES IN THIS WAY HAS BEEN REVOLUTIONARY.”

Regis D’Hardemere, Associate Director, Europe Fabric Care at Procter & Gamble

**PERFORMANCE**

**HOW TO CARE FOR ATHLEISURE WEAR’S FASHION FORWARD FABRICS:**
Athleisure wear sees the rise of special performance finishes and weaving technologies that are often applied to the fabrics to enhance or add special properties e.g. water repellency or extra softness. When not washed or cared for properly, these finishes and performance properties can be damaged or completely removed from the fabrics.

**FIBRE SCIENCE – CLEAN & PROTECT**
Through its process of Fibre Purification (Clean), Ariel/Tide formulas are designed to remove visible and invisible stains that can cause malodor.

Ariel/Tide’s surfactants and cleaning boosters remove greasy stains and body soil plus malodor molecules that can cling onto the hydrophobic fibres such as polyester and elastane. At the same time, Ariel/Tide Fibre Preservation (Protect) technologies are able to offer performance-protection for the fibres like elastane (which can be prone to damage) and more fragile and thin lightweight performance fabrics, as well as fabrics with added extras like water repellency finishes, or easy ironing - ultimately helping wearers perform better in these clothes.

“Our GOAL IS TO HELP IN THE GLOBAL CARING OF CLOTHES, FROM START TO FINISH. IT’S HELPING CONSUMERS TO ENJOY THE CLOTHES THAT THEY FELL IN LOVE WITH, TO EXPERIENCE THAT SAME FEELING WHEN THEY FIRST BOUGHT THEM. THAT’S VERY ASPIRATIONAL, AND SOMETHING THAT P&G ARE PROUD TO BE CHAMPIONING.”

Regis D’Hardemere, Associate Director, Europe Fabric Care at Procter & Gamble
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