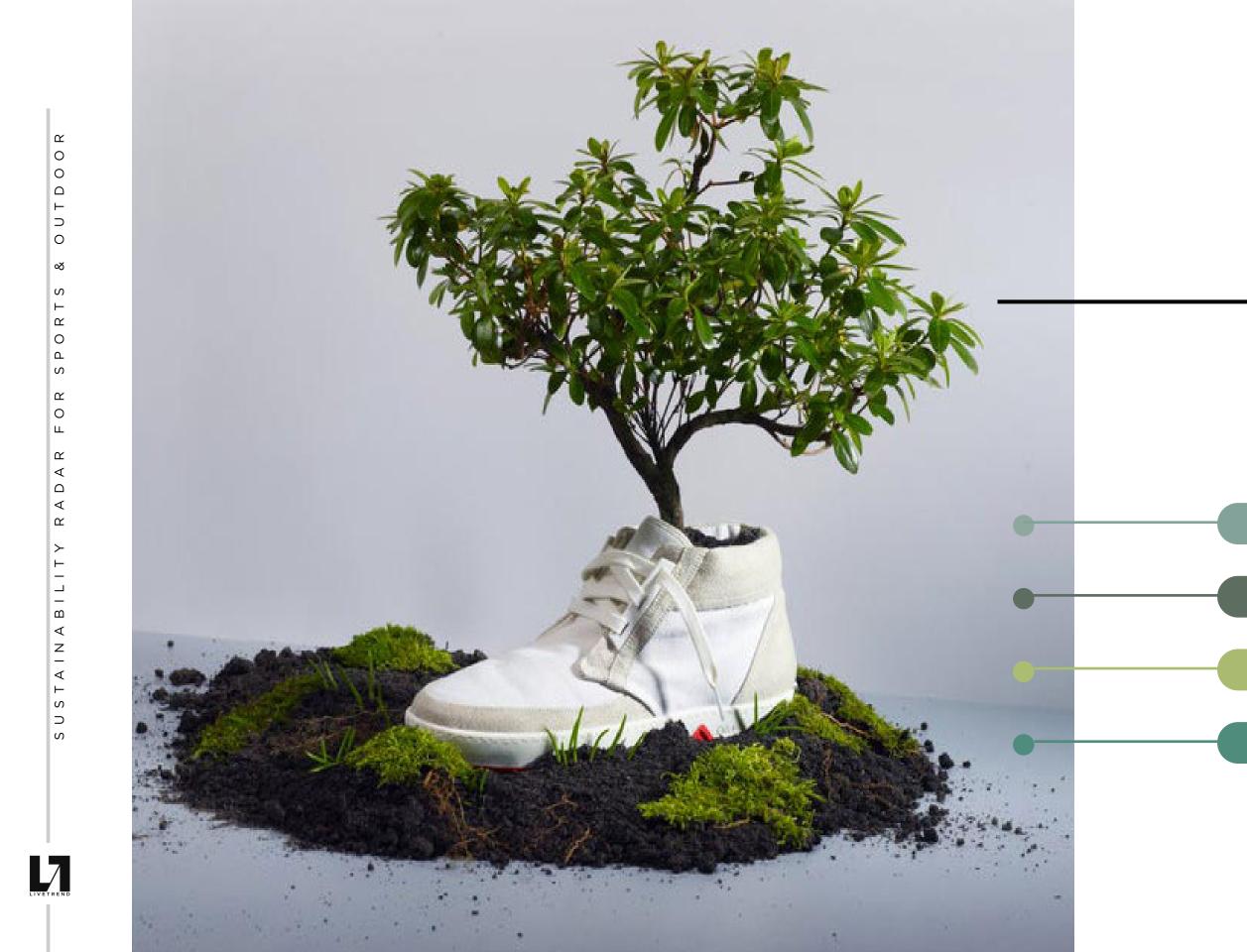




LIVETREND SUSTAINABILITY RADAR activewear & outdoor





OVERVIEW

INTRO

SUSTAINABLE HERITAGE

ECO - INNOVATION

SMART SOLUTIONS

NATURALS vs CHEMICAL risks and benefits

FASHION & CHEMISTRY... a dangerous liaison?

The impact of chemical substances allergenic, irritant, endocrine disruptor, carcinogenic...Under the Greenpeace Detox initiative, numerous companies committed to reducing 11 classes of substances. This approach invites the industry to transform itself, to control the management of substances identified as hazardous and to exclude them from its value chain.

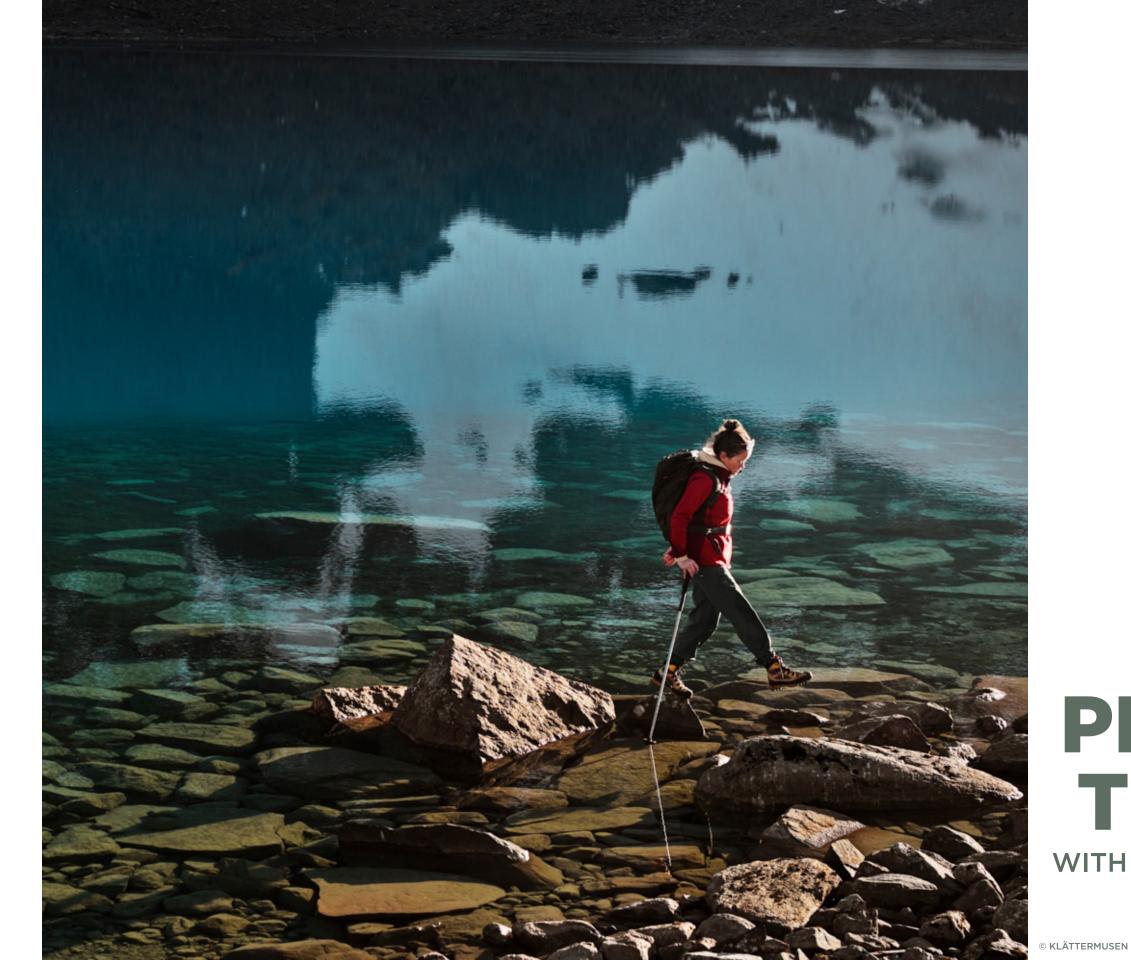
What are chemistry's actual risks and benefits? Can we successfully and safely combine eco-responsibility and chemistry?



Though often viewed as harmful and the opposite of 'natural', chemistry is the art of transforming material, by altering its characteristics. Chemical substances are added to give a new look, a new handle or special performance features to a material. Preparation, pre-treatment, dyeing, finishing, tanning: the chemical transformation of a material requires many steps before it takes on its final appearance and characteristics. Today, chemistry is a key component of our clothing and accessories.







PRESERVING TRADITIONS WITH CONSCIOUS USAGE OF NATURAL

SUSTAINABLE HERITAGE natural fibers : COTTON



Hilltrek ORGANIC COTTON +10% VENTILE® WEATHERPROOF **100% COTTON**

FINEST, LONG STAPLE FIBRES

After gentle spinning and doubling, the yarn is woven into a very dense weave, using up to 30% more yarn than conventional woven fabrics, plus a PFC free DWR system which enhances the fabric's water resistant properties and increases performance. The Eiger by Mission Workshop

Halley Stevensons®

WAXED WEATHERPROOF 100% COTTON

GUARANTEED FOREVER

The silhouette of the classic M65 parka and the long history of Scottish waxed canvas come together here in crisp, clean lines and a refined fit. Made in Dundee, Scotland, the 280g/m2 outer shell fabric is durable, waterrepellent, and timeless. Hilltrek

ULTRA DENSE CONSTRUCTIONS IN 100% ORGANIC COTTON

IN 100% COTTON

Windproof, fully waterproof and is highly breathable thanks to a double layer in a high density organic cotton weave and a a PFC free DWR system.





Patagonia

PATAGONIA

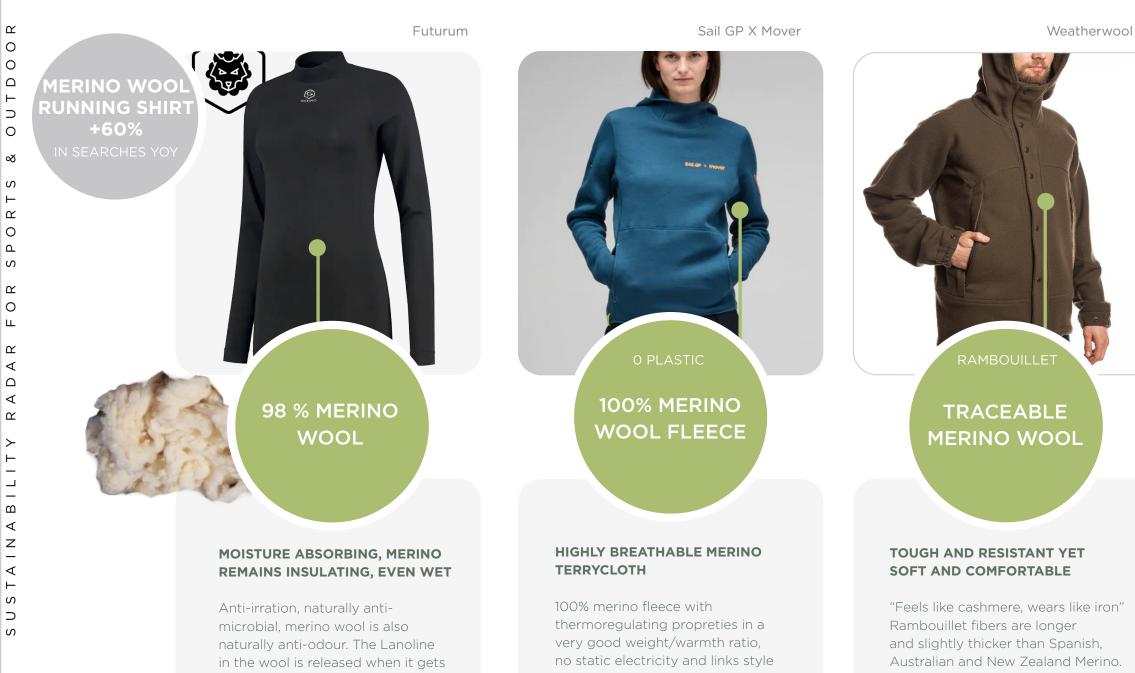
INSULATED

THICK AND DENSE INSULATED ORGANIC COTTON

An insulated, heavyweight 100% organic cotton flannel jacket that makes a great overshirt when temperatures drop. Made in a Fair Trade Certified[™] factory.

PATAGONIA Insulated Cotton Shirt INCREASED BY +355%

SUSTAINABLE HERITAGE natural fibers : MERINO



damp to make sure the garment will stay fresh.

L7

& performance, for outdoors and everyday use.

"Feels like cashmere, wears like iron" Australian and New Zealand Merino. Moreover, the traceability is certified as the ranchers are all listed.

Hestra



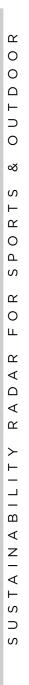
MERINO WOOL LINER

THERMOINSULATE MERINO

A thin, soft liner that acts as an extra warming jersey base. Sewn in a practical mix of merino wool and polyamide where the wool is warming even when damp and the synthetic material adds extra durability.

HESTRA MERINC WOOL LINER +36%

SUSTAINABLE HERITAGE natural fibers: OTHER WOOL



ALPAC

WOOL

+70%

Paka Apparel

Appalachian Gear Company

ULTRA LIGHT ALPACA

SUPER LIGHTWEIGHT, BREATHABLE AND PACKABLE

All-Paca[™] Fleece from Appalachian Gear Company is designed to be worn with one layer or multiple layers under it. Quick-dry, perspirating, warm, insulating even when wet, alpaga is one of nature's high performance fibers.



Kora Outdoor



YAK WOOL FOR MULTI-DAY RIDES

Exceptional warmth-for-weight and moisture management in a terry loop construction, made with 56% yak wool, 42% DuPont[™] Sorona®biopolymer for a smooth external surface, 2% EA. Recycled YKK zip and a 100% yak wool inner collar for super-comfort.





100% ALPAGA

EVEN SMOOTHER AND WARMER

One of the most susatinable wool,

finest with diameters of less than

21 microns, feeling ultra soft on

the skin and perfect for outdoor

clothing, hiking socks and even

royal and baby alpaca are the

THAN MERINO

underwear.

Klättermusen

WOOL-COTTON BLEND

FUNCTIONAL MIX FOR MIDLAYERS

In a soft and airy mix of 80 % Organic cotton, 20% Merino wool, for hiking and trekking days, thus fabrics stays dry and breathable while bringing warmth and comfort, PFC free.

YAK WOOL PRODUCTS +60%

SUSTAINABLE HERITAGE natural fibers





FOAM LINING, IT'S CE1078

CYCLING.

CERTIFIED AND SUITABLE FOR

ALTERNATIVES.

IT IS LESS WATER-CONSUMING, GROWS QUICKLY, AND DOESN'T RELY ON HARMFUL PESTICIDES. COMPARED TO COTTON, HEMP YIELDS MORE FIBER PER ACRE WHILE CONSUMING LESS LAND.



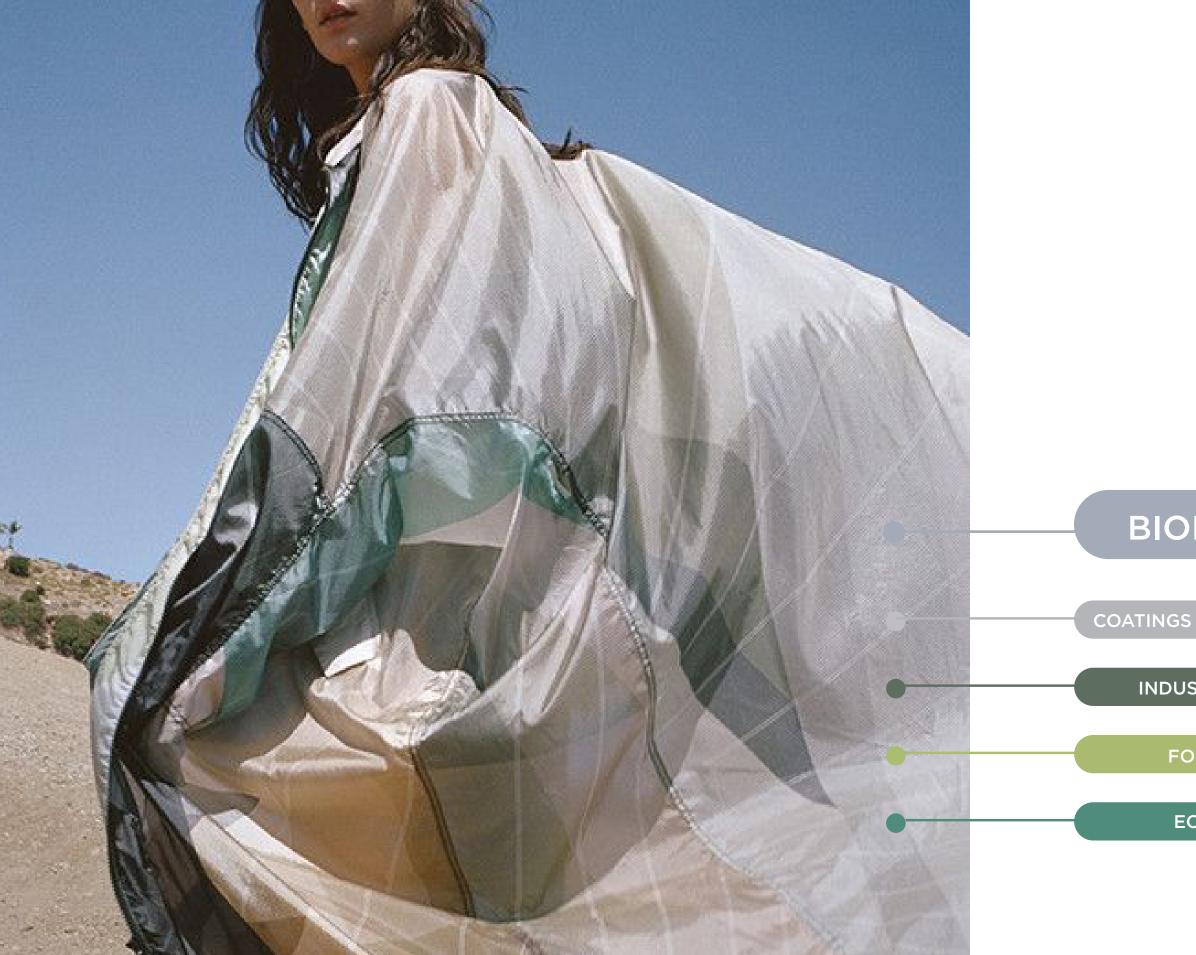
8000 Kicks

SUSTAINABLE ACTIVEWEAR +140%

HEMP FIBERS

HEMP IS A CHAMPION OF





ECO-INNOVATION WITH CONSCIOUS USAGE OF CHEMISTRY

BIOBASED ALTERNATIVES

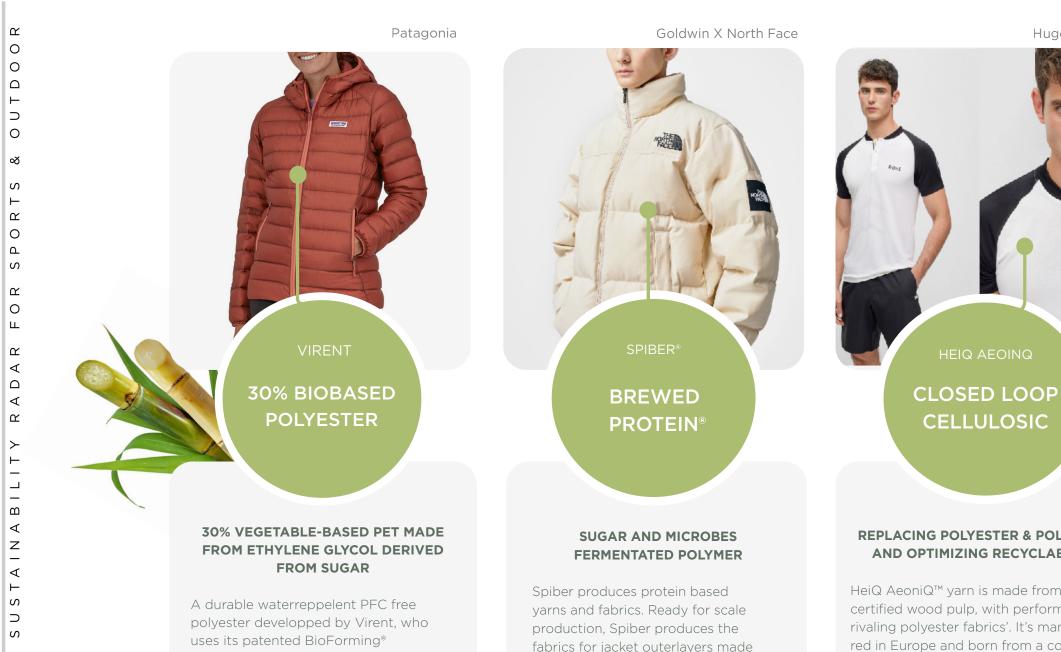
COATINGS AND TREATMENTS

INDUSTRIAL WASTE

FOOD WASTE

ECO DYEING

ECO INNOVATION bio-based alternatives to PL



technology to create the fuels and chemicals the world needs from a wide range of naturally occurring, renewable resources.

fabrics for jacket outerlayers made of 60% Brewed protein[®] and recycled down.

REPLACING POLYESTER & POLYAMIDE AND OPTIMIZING RECYCLABILITY

Hugo Boss

BOSS

HeiQ AeoniQ[™] yarn is made from certified wood pulp, with performance rivaling polyester fabrics'. It's manufactured in Europe and born from a collaboration between HUGO BOSS and Swiss innovator HeiQ. Replacing Polyester and polyamide, this yarn mantains consistant fiber quality through recycling



Halti

SPINNOVA®

CELLULOSIC PERFORMANCE

BIO BASED AND INFINITELY RECYCLABLE

This parka in 74% Cotton and 26% SPINNOVA fibers, is a cellulose based fibre created without involving any harmful chemicals, minimal water use and emissions and zero waste. WR without PFC, has been dyed in a non

harmful process by swedish firm IMOGO, and it can be upcycled without losing quality, and without harmful chemicals.

POLYESTER **LTERNATIVES** +221%

ECO INNOVATION bio-based alternatives to PA



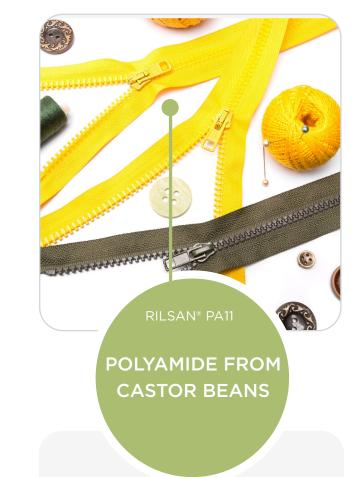
BIO BASED

+49%

Pangaia

Lululemon

Arkema



DERIVED FROM CASTOR OIL, RILSAN[®] POLYAMIDE 11 IS A HIGH PERFORMANCE POLYMER OF 100% RENEWABLE ORIGIN.

Since their inception, these biosourced resins have been synonymous with performance and durability. Additionally, Rilsan® PA11 textiles can be paired with buttons or zippers made from

the same Rilsan® PA11 polymer to increase recyclability.

BIO-BASED 1ULTIFUNCTIONAL FIBER

EVO[®] BY FULGAR IS A YARN MADE FROM CASTOR OIL

Ultralightweight, quick drying, more elastic than a 6.6 polyamid, built-in bacteriostatic and intrinsic thermal insulation properties, perfect for stretch soft sport garments.



RENEWABLY SOURCED, PLANT-BASED POLYAMIDE (Nylon 6.6)

PLANT-BASED

POLYAMIDE

ALTERNATIVE

Thanks to the fermentation of plant sugars, Genomica convert first plant based intermediate to planbased nylon fibers that can be used to produce petrol-free fabrics, that are lightweight, quick-drying and high-performant.



Arkema

TORAY

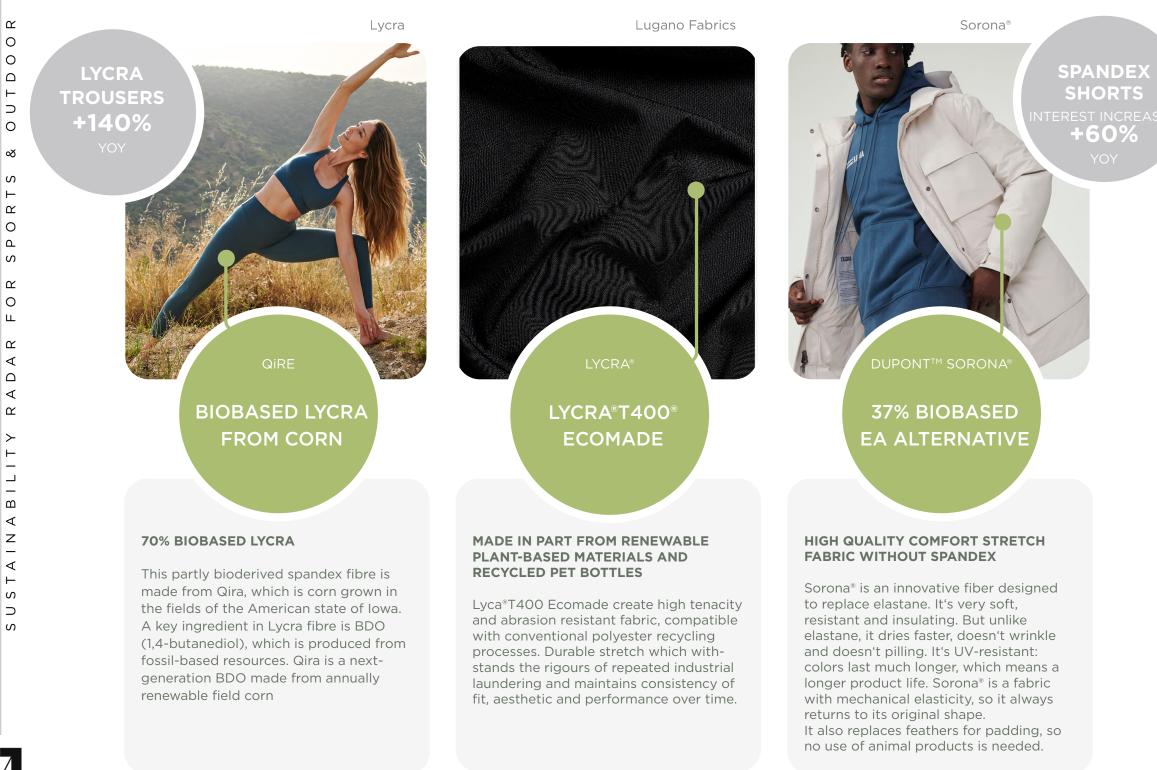
ECODEAR N510[®]

100% BIOBASED POLYAMIDE

Solid and resisant to heat as nylon 6.6, this promising fiber will be available end of 2024.

CASTOR OIL NTEREST INCREASED +144% YOY

ECO INNOVATION bio-based alternatives to EA and PE



Norda Run Shoes



ONE OF THE MOST RESISTANT FIBRES IN THE WORLD NOW EXISTS IN A BIOBASED VERSION

Bio-based Dyneema® fiber is the first ever bio-based ultra-high molecular weight polyethylene fiber. Sourced from renewable, bio-based feedstock, it excels in cut and abrasion resistance and has a high resistance to chemicals and UV.



SEC

ECO INNOVATION bio-based alternatives to LEATHER



 \supset

ø



Adidas

MUSHROOMS UNLEATHER

MYCELIUM IS AN INFINITELY RENEWABLE SOURCE.

THE MYCELIUM FOR MYLO LEA-THER IS PRODUCED WITHIN DAYS, UNLIKE THE RESOURCE INTENSE PROCESS OF RAISING LIVESTOCK. SEEN AT ADIDAS, LULULEMON, STELLA MCCARTNEY

ECO INNOVATION bio-based paddings

Photography is by Aalto University, Mikko Raskinen and Anna Berg., Dezeen

PLANT BASED PADDING

CREATED ROM PLANTS CULTIVATED ON REWETTED FINNISH PEATLANDS

Cattail ("Typha Latifolia") absorbs 66 per cent less water than down and dries twice as fast.

BIO PUFF

PLANT-BASED FIBERFILL MATERIAL

A warm, lightweight and biodegradable insulation material; that's grown in wetlands through regenerative agriculture and alternative water sources.



8 by Yoox



PADDING MADE IN A COMBINATION OF WILDFLOWERS

Wildflowers without any pesticides or artificial irrigation, are combined with PLA and a patented cellulosic aerogel that bring out the thermalwarming properties, creating an innovative mix.

PATAGONIA NORTHFACE ECOPUFFEF

Ц

0

Ο

 \supset

Ο

σŏ S

СĽ Ο ٩ S Ц Ο LL.

Ц

∢ ⊲

Ľ

ш ∢ Z

_

⊲

⊢

S

 \supset

S

Imbotex

THE **IEATHERLANDS** PERFORMANCE PUFFER



ECO-INNOVATION WITH CONSCIOUS USAGE OF CHEMISTRY

BIOBASED ALTERNATIVES

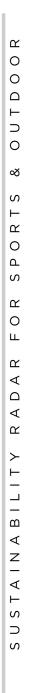
COATINGS AND TREATMENTS

INDUSTRIAL WASTE

FOOD WASTE

ECO DYEING

ECO INNOVATION coatings and treatments



EVERWAX

+245%

Bergans

Wonder Alpine

Satisfy



ENVIRONMENTALLY FRIENDLY WATER AND DIRT REPELLENCE

PFC-free highly functional, permanently odorless high-tech finish based on renewable primary products, mimicking the protective plant cuticle that repels morning dew and heavy rains.

NATURAL PLANT-BASED WATER RESISTENT TREATMENT

Using a blend of Olive Oil, Rapseed and castor beans, this 100% recyclable outdoor anorak (woven with Spinnova yarn, organic cotton yarn and Tencel yarn) has a significantly improved fabric that can successfully carry a performance surface finish.

HALLEY STEVENSONS

EVERWAX OLIVE





BEYOND

URFACE TECHNOLOGIES

MiDori® bioWick

The active ingredient is 100% dried microalgae biomass which has been grown in controlled, sealed environments and is GMO free. It provides excellent durability and fast-drying properties, ideal for performance wear. Volcom

TEFLON ECOELITE® NON-FLUORINATED TEFLON



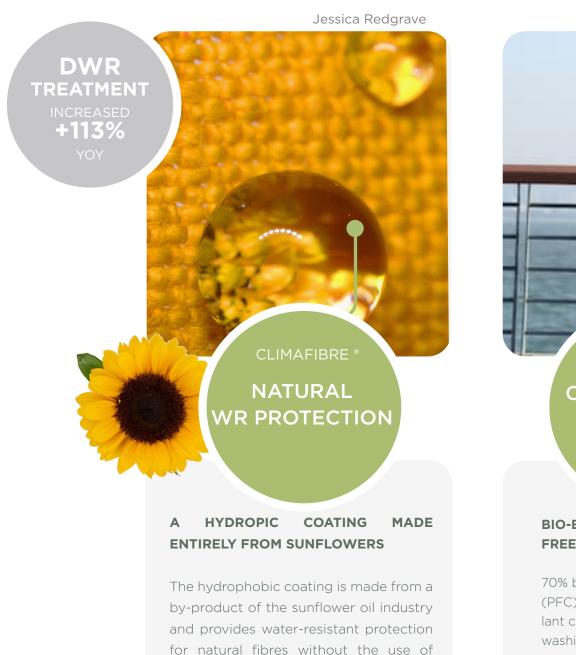
RENEWABLY SOURCED, NON-FLUORINATED REPELLENT FINISH

Biobased on 60 percent renewably sourced raw materials. Engineered for uninterrupted production process and compatible with commonly used finishing auxiliaries, including wetting agents and extenders. Maintains fabric breathability for maximum comfort.



ECO INNOVATION coatings and treatments

Ц 0 Ο \supset 0 ø S СĽ Ο ۵ S Ц Ο ш Ц \triangleleft ⊲ Ľ ш ∢ Z ⊲ S \supset S

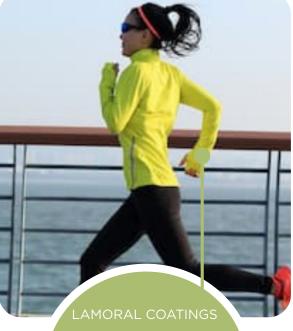


harmful chemicals. The fabric maintains

its breathable qualities with minimal

alteration to its aesthetics or hand feel.

Lamoral



CHEMICAL-FREE DWR FINISH

BIO-BASED, PFC- AND MEKO FREE WATERREPELLENT FINISH

70% bio-based and fluorcarbon (PFC) free durable water repellant coating that lasts for over 100 washing cycles with zero effect on hand-feel, breathability and wearing comfort.

> **OEKO-TEX**® STANDARD 100

AN INNOVATIVE, ECO-FRIENDLY AND NON-PFC BASED REPELLENT **TEXTILE TECHNOLOGY**

HeiQ Eco Dry is among the most effective non-PFC water repellent textile technologies on market, capable of achieving water repellency performance identical to or better than PFC C6 levels, providing protection against water and water-based stains.



HeiQ Barrier

NIK WAX +130%

HeiQ ECO DRY

64% BIOBASED **PFC-FREE DWR**





ECO-INNOVATION WITH CONSCIOUS USAGE OF CHEMISTRY

BIOBASED ALTERNATIVES

COATINGS AND TREATMENTS

INDUSTRIAL WASTE

FOOD WASTE

ECO DYEING

ECO INNOVATION recycling industrial waste : PL/PA

Thermore UNIQLO +60% RECYCLED POLYESTEI ECODOWN **FROM PLASTIC** BOTTLES **ECODOWN FIBERS FROM THERMORE**

ECODOWN FIBERS FROM THERMORE ARE MADE FROM 100% OCEAN BOUND RAW MATERIALS.

THEY ARE MADE EXCLUSIVELY FROM OCEAN CYCLE CERTIFIED PLASTICS, THE SAME OCEAN BOUND PLASTICS (OBP) THAT ACCOUNT FOR 80% OF THE CONTAMINATION OF SEAS AND OCEANS FROM LAND-BASED SOURCES Uniqlo

Klabu



PERFORMANT RECYCLED POLYAMIDE

RECYCLING WASTE

NEW CLOTHES MADE BY RECYCLING LIMITED RESOURCES ARE BECOMING INCREASINGLY VISIBLE IN UNIQLO'S PRODUCT LINE-UP, AIMING TO SWITCH APPROXIMATELY 50% OF ALL MATERIALS USED TO RECYCLED MATERIALS BY 2030.

RECYCLED

POLYESTER

PRE AND POST CONSUMER WASTE

RECYCLED POLYAMIDE FROM PRE-CONSUMER FABRIC WASTE, OR POST-CONSUMER MATERIALS LIKE INDUSTRIAL FISHING NETS, IS REGULATED BY SEVERAL STANDARDS THAT TRACK RECYCLED POLYAMIDE THROUGH THE SUPPLY CHAIN, INCLUDING THE RECYCLED CLAIM STANDARD (RCS), GLOBAL RECYCLED STANDARD (GRS) AND SCS RECYCLED CONTENT.



Angry Pablo

ECONYL®

REGENERATED POLYAMIDE

ECONYL® IS -50% OF CO2 EMISSIONS AND USES -50% ENERGY COMPARED TO VIRGIN POLYAMIDE YARNS.

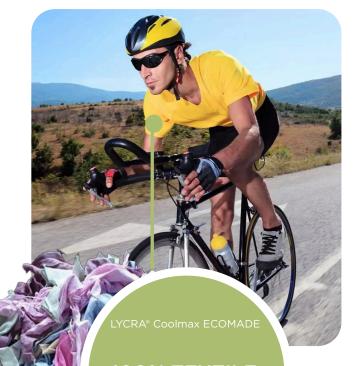
IT COMES PARTLY FROM NYLON FISH NETS FROM THE OCEAN, AND PROVIDES A CONSISTENT AND RELIABLE PRODUCT WITH THE SAME CHARACTERISTICS AS VIRGIN POLYAMIDE.

RECYCLED POLYAMIDE +171%

N SEARCHES YOY

ECO INNOVATION recycling industrial waste : textile

Lycra®



100% TEXTILE WASTE

THE MOST INNOVATIVE RECYCLING COMES FROM TEXTILE TO TEXTILE

LYCRA® COOLMAX® EcoMade technology is made from 100% textile waste and helps keep the wearer cool, dry and comfortable during any activity. CIRC® REGENERATED LYOCELL & POLYESTER

CIRC'S REGENERATED POLYESTER LOOKS, FEELS, AND PERFORMS JUST LIKE VIRGIN

Effortlessly integrating into existing manufacturing processes, Circ® polyester fibers are a true textile-to-textile solution – bringing us one step closer to a fully circular fashion economy. They developped a hydrothermal process recovers the original materials from polycotton blends, something that – until now – had never been done before.

Zara

Lagoped



RECYCLED POLYESTER FROM MEMBRANE CUT-OFFS

Pre-consumer polyester membrane offcuts reused to create PFC free membranes that are 100% recyclable.

MAJOR RECYCLING COMPANIES

DePoly Ioncell CuReTechnology (NL) Ioniqa (NL) Block Texx Protein Evolution Premirr Plastics Renewcell

Circ Re-lastane Ambercycle Worn Again Infinited Fiber Company Eastman Carbios

ECO INNOVATION recycling industrial waste : tyres



Schoeller[®] Ecorepel

RECYCLED Q-CYCLE NATIVA MERINO

TEXTILE INNOVATION NATURETEC ECO-REPEL[®]

Double-woven recycled Q-cycle polyamide with brushed interior made from sustainable NATIVA merino wool, a 4 way stretch quality fabrics, perfect for outdoor clothes in the transitional seasons, providing pinnacle functionnality, comfort and durability.



ECO-INNOVATION WITH CONSCIOUS USAGE OF CHEMISTRY

BIOBASED ALTERNATIVES

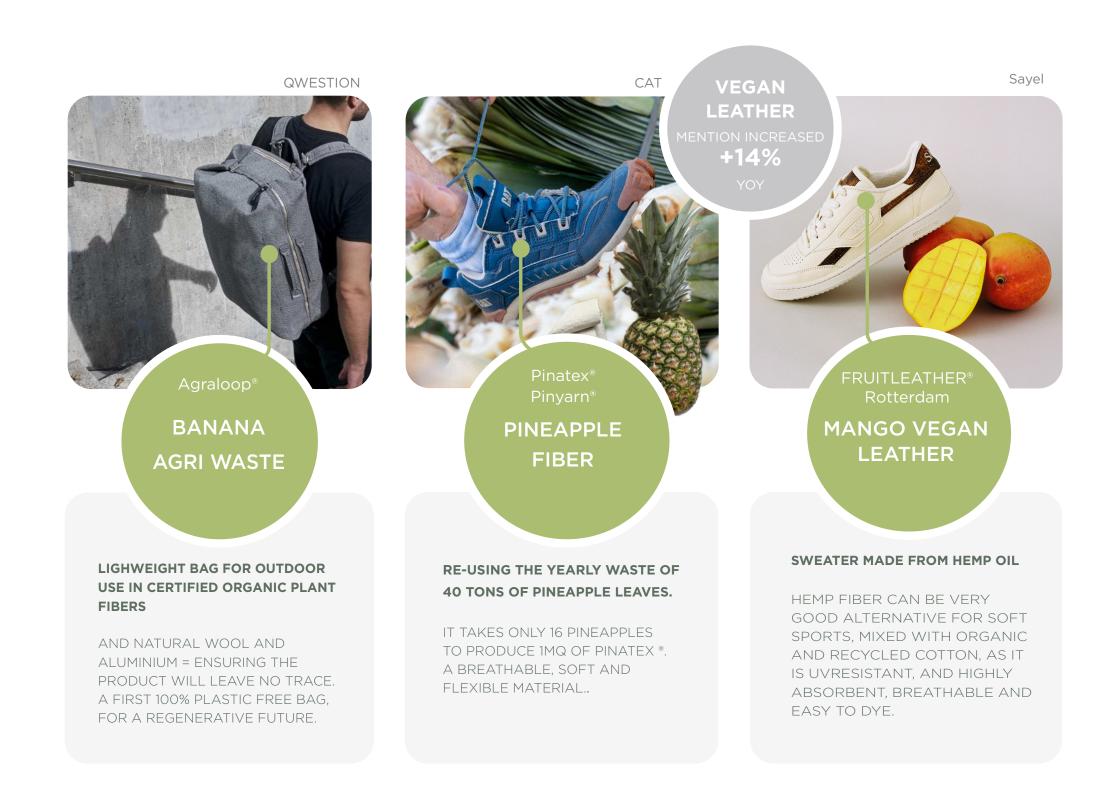
COATINGS AND TREATMENTS

INDUSTRIAL WASTE

FOOD WASTE

ECO DYEING

ECO INNOVATION recycling food waste



NAT-2

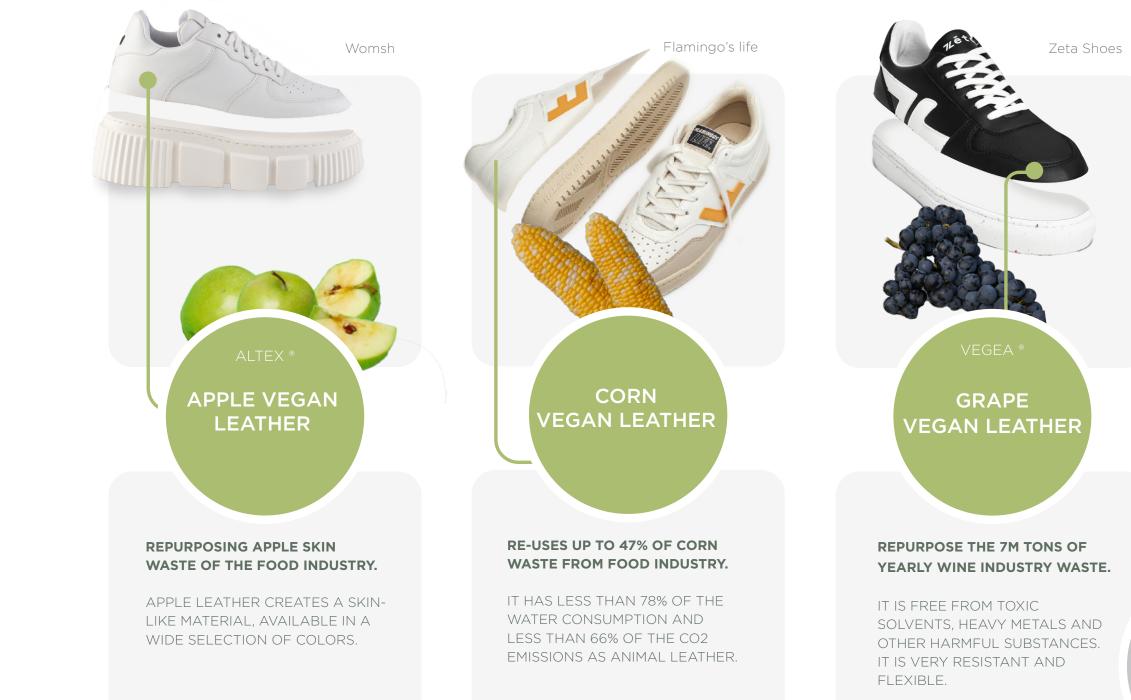
CULTHREAD

COFFE-CYCLED VEGAN LEATHER

UPCYCING COFFEE WASTE

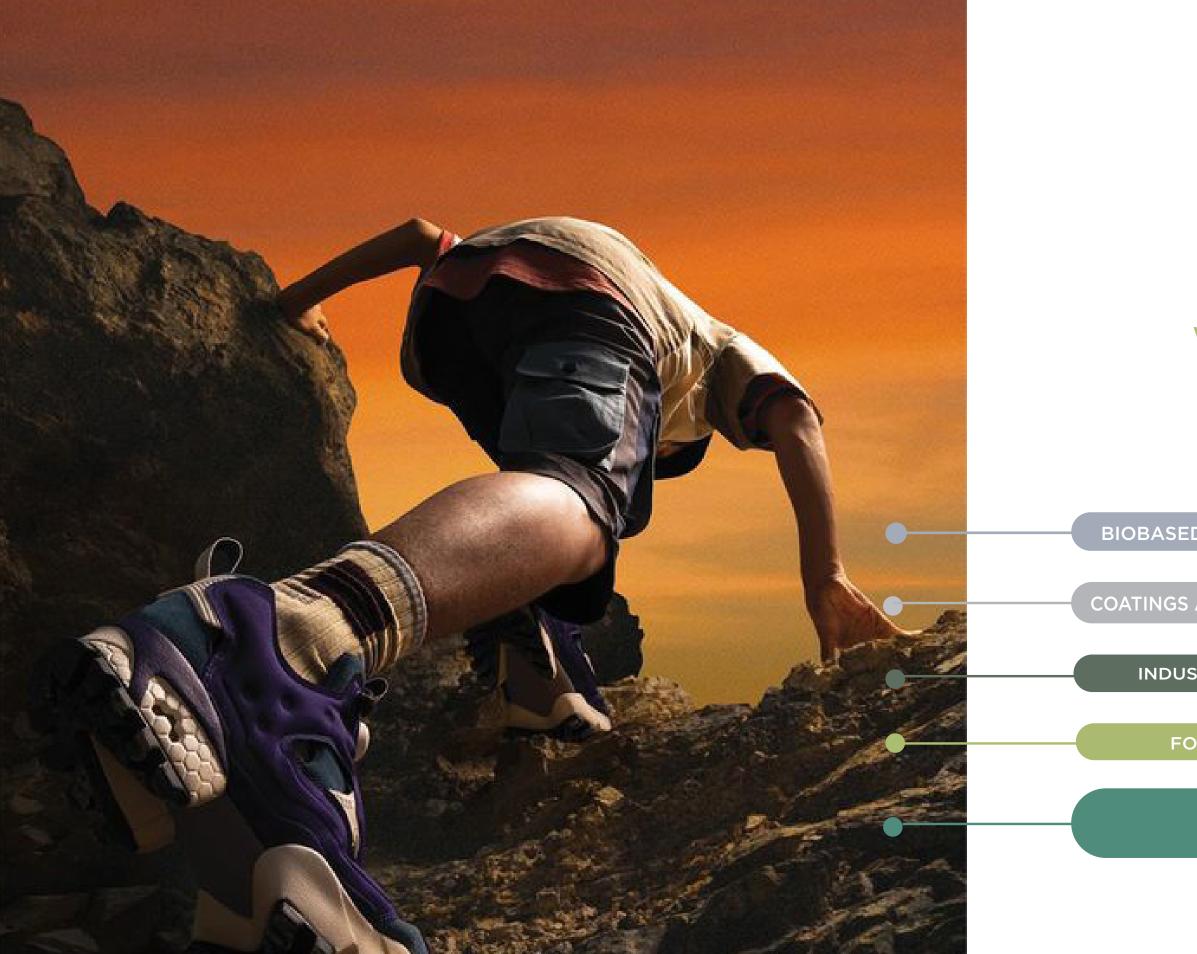
A NEW RECYCLED VEGAN LEATHER. 30% OF COFFEE-CYCLED VEGAN LEATHER IS MADE FROM RECYCLED COFFEE GROUNDS, AND 70% RECYCLED WATER BOTTLES.

ECO INNOVATION recycling food waste





VEGAN RUNNING SHOES +200%



ECO-INNOVATION WITH CONSCIOUS USAGE OF CHEMISTRY

BIOBASED ALTERNATIVES

COATINGS AND TREATMENTS

INDUSTRIAL WASTE

FOOD WASTE

ECO DYEING

ECO INNOVATION eco dyeing



С С

0

ΟUΤ

FOR SPORTS &

Ц

∢

 \Box

 \triangleleft

മ

ABIL

Z

_

∢

S

 \supset

S

PIGMENT CREATED VIA DNA ANALYSIS AND MICROBIOLOGY

These microorganisms grow on renewable feedstocks such as sugar, yeast, and plant-byproducts. They divide every 20 minutes, creating a large quantity of colourful dye liquor within just one or two days. Compatible with standard dye machines, without additional special equipment nor toxic chemicals.

15X LESS ENERGY CONSUMPTION WITH NO HEAT TREATMENTS

EVE DYE

ELECTROSTATIC

DYES

By combining pigment with an organic polymeric binder of biological origin, it offers perfect electrostatic fixing without heat and in a short time. In addition, this technology facilitates water cleaning with a simple mechanical filter to allow water to be released into our ecosystem without damage.

Ever dye

© Officina+39

RECYCROM ™ PIGMENTS OUT OF TEXTILE

SCRAPS

A DYEING SOLUTION MADE OF 100% RECYCLED CLOTHING, FIBROUS MATERIAL AND TEXTILE SCRAPS

Officina +39 has developed a system to reprocess the scraps and transform textile fiber into colored powder. In contrast to other dyes, Recycrom is applied as a suspension and not as part of a chemical solution – cutting environmental impact.

Ø ZDHC

DyeRecycle

DYERECYCLE®

RECYCLING DYES

EXTRACTING DYES AND REVERTING WHITE FABRIC.

A solution without toxic solvents, which extracts the colour from synthetics, and can then be reused as a dye bath for other garments. An ingenious way of creating a dye on the one hand, and reverting to white textiles on the other white textiles on the other, to generate a pool of uniform materials for recycling. (ISO 14.001 and 50.001 certified.)





SMART-SOLUTIONS THE KEYS TO ECO DESIGN

SMART SOLUTIONS improve biodegradability

Fulgar



CICLO® FIBERS BIODEGRADE AS NATURAL FIBERS

And is an eco-based solution to mitigate synthetic microfiber pollution. CiCLO[®] is garnering more attention as the topic of microplastic fragmentation increasingly resonates with consumers, as adding Ciclo technology to PE and PA is scientifically proven to accelerate biodegradabilty, without being toxic to marine life.



OEKO-TEX® ECO PASSPORT micals Tested and verifie

AMNI SOUL ECO **BIODEGRADABLE** POLYAMIDE

100% BIODEGRADABLE, 100% **RECYCLABLE AND REUSABLE POLYAMIDE FIBER**

Amni Soul Eco[®], the world's first polyamide yarn with additives to accelerate its decomposition in landfills, has now been improved to also reduce the environmental impact of microplastics generated in laundry that end up in marine environments.



Houdini



PRIMALOFT[®] BIO[™] FIBRES BREAK DOWN AT A VERY ACCELERATED RATE

In landfill, oceans and sewage because they were optimised to be more palatable to the natural microbes in these specific environments. They are made from recycled PET Bottles, and designed to return to materials found in nature. This helps reduce the long-term impact of microplastics.



Scott racing

BIODEGRADABLE

ELASTAN

IMPROVE BIODEGRADABILITY OF STRETCH FABRICS

Biodegradable elastane such as Roica™ V550 are innovatively designed to break down faster than their conventional counterparts, without leaving harmful substances into the environment.





ഷ



ECO DESIGN

taking into account the impact of each step of the process of production, from the fibre to the end of life of the product

LESS IMPACT ON THE ENVIRONMENT

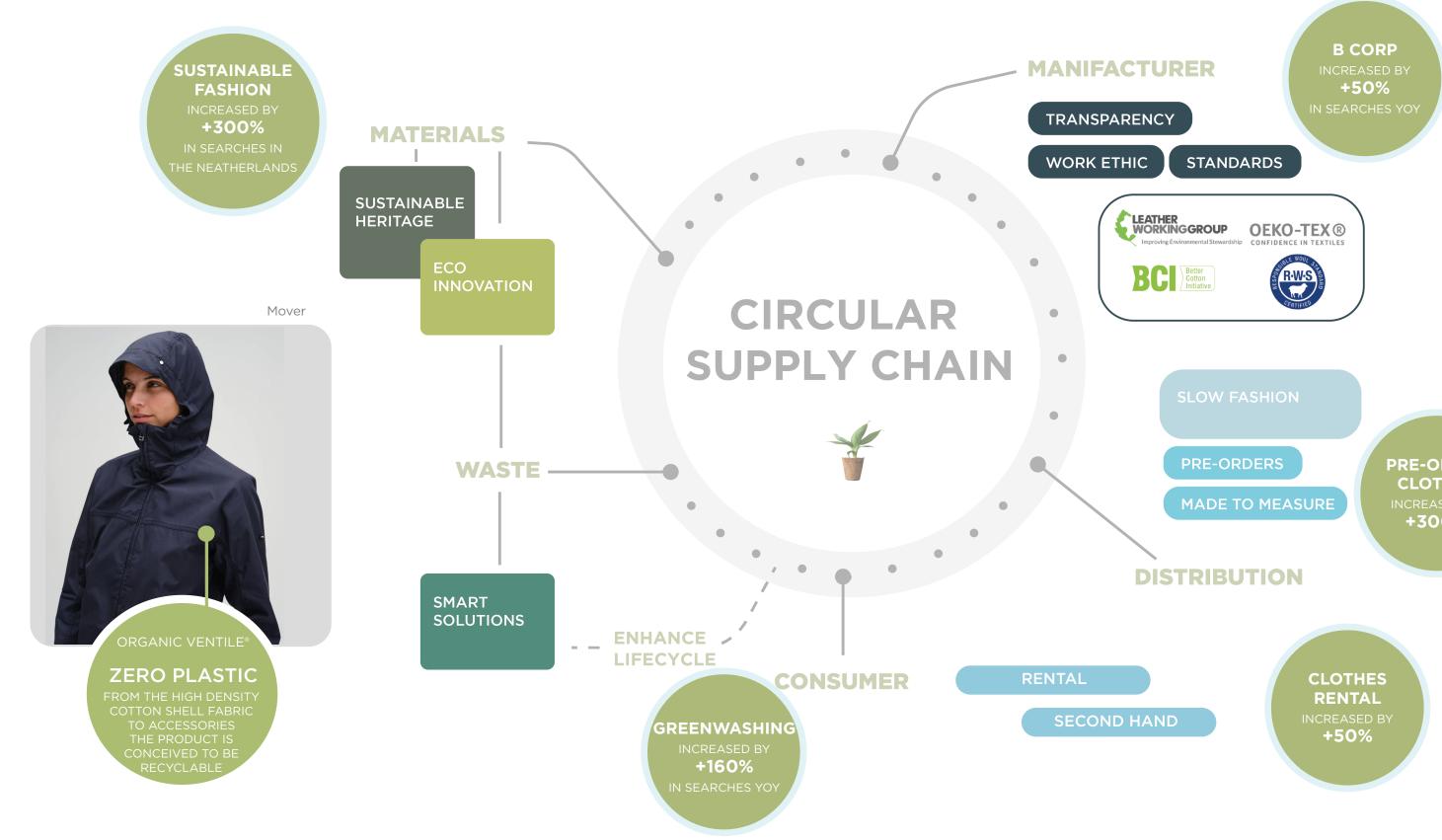
RESPOND TO CUSTOMERS DEMAND

RESPOND TO LEGISLATION

INNOVATE

SAVE MONEY

KEY TAKEAWAYS sustainable radar





PRE-ORDER CLOTHES +300%



SPORTS & OUTDOOR SUSTAINABILITY RADAR

Make sure to have the right data driven information to make the most sustainable decisions.

You may not copy, reproduce, distribute, publish, display, perform, modify, create derivative works, transmit, or in any way exploit any such content, nor may you distribute any part of this content over any network, sell or offer it for sale. You may not alter or remove any copyright or other noticefrom copies of the content on any Livetrend report.

7 LIVETREND **THANK YOU !**

BY LIVETREND

If you have further needs, please contact us via chat.