SUSTAINABILITY: ADIDAS/AQUAFIL

The German sportswear brand has set an ambitious target for recycled polyester.



Adidas joins fight to clean up the oceans

At a United Nations-hosted conference, adidas made a bold claim. All polyester the German sportswear brand uses from now on will be made from recycled plastic, taken from the oceans. The company's head of global brands, Eric Leidtke, said this equates to 260 million t-shirts per year. "Not only will we be taking 260 million t-shirts out of the oceans, we would not be creating 260 million t-shirts worth of new polyester every year," he says.

The ambitious idea appears to be an extension of a partnership with music producer and singer Pharrell Williams, and a textile company he has invested in, Return Textiles, which makes Bionic Yarn. Last summer the singer launched his first collection for adidas made with Bionic yarns, after signing a multi-year contract with the brand. "From the classic track suit, to growing up in Virginia wearing Stan Smiths, adidas has been a staple in my life," said Mr Williams at the time. "This is an exciting partnership for both me and for Bionic Yarn."

But from a limited-edition range of t-shirts to 260 million is quite a leap, and there will be questions over how adidas is going to pull this off. Return Textiles was established in 2008 to focus on repurposing plastic bottles – broken down, the polymer is the same (polyethylene terephthalate), so it can be restructured into a weavable yarn.

The 'Bionic' yarn is made with up to 46% recycled material blended with cotton, wool or other fibres. Moncler and Gap were early adopters, and after agreeing to the fabric quality, Timberland created displays in stores to show how it was made.

Return Textiles co-founder Tyson Toussant explained they were approached by environmental campaign group Parley for the Oceans. "It never crossed my mind to think of recycled plastic from oceans, I saw it as a land problem," he admits. "I usually get the recycled fibre from where I manufacture, because I don't want to increase the carbon footprint by shipping plastic bottles from New York to Asia."

Adidas' recycled plastic concept shoe, billed as 'from the sea to the street'.

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The plastic collected from the beaches is difficult to repurpose, adds Return's other founder, Tim Coombs. "But we were inspired to change our company and take on the challenge. Our production staff and our engineers finally commercialised a yarn made from the oceans, we are proud to be part of the solution."

Earlier this year, Bionic announced a deal with menswear brand G-Star Raw for a denim collection made with the ocean plastic, Raw for the Oceans, and which is now on sale.

Concept shoe

As part of adidas's new tie-up with Parley, it launched a concept shoe at the UN event in New York. Made entirely from yarns and filaments recycled from ocean waste, the shoe illustrates "the direction adidas and Parley are taking".

The yarns are made from nets that partner organisation Sea Shepherd retrieved after a 110-day expedition tracking an illegal poaching vessel off the coast of West Africa.

"I love environmentalism but it is failing," said Mr Liedke in his address. "Environmentalists have brought great knowledge to the conversation, they've educated us all but they've not stopped the destruction. Industry is waiting for the consumer, to see if they care enough to pay a little bit more to stop the destruction. It's become a waiting game but we can't afford to wait any more. We didn't partner with Parley to take small incremental steps, we want to take big, bold steps. We want to fix the problem of plastic in the oceans, whether it be beach plastic or micro plastic, it all must go and we must find some solutions."

Healthy Seas

The concept of recycling ocean waste is not new. In October 2013, Italian yarn maker Aquafil launched its Healthy Seas initiative, in partnership with the European Centre for Nature Conservation (ECNC) and sock manufacturer Star Sock. Aquafil was already producing recycled nylon 6 at its factory in Slovenia, with the end product, Econyl, mainly used for carpets. "Forty years ago, when we started producing nylon 6, we were not aware of its ability to be recycled, so we were lucky," says Aquafil's CEO Giulio Bonazzi.

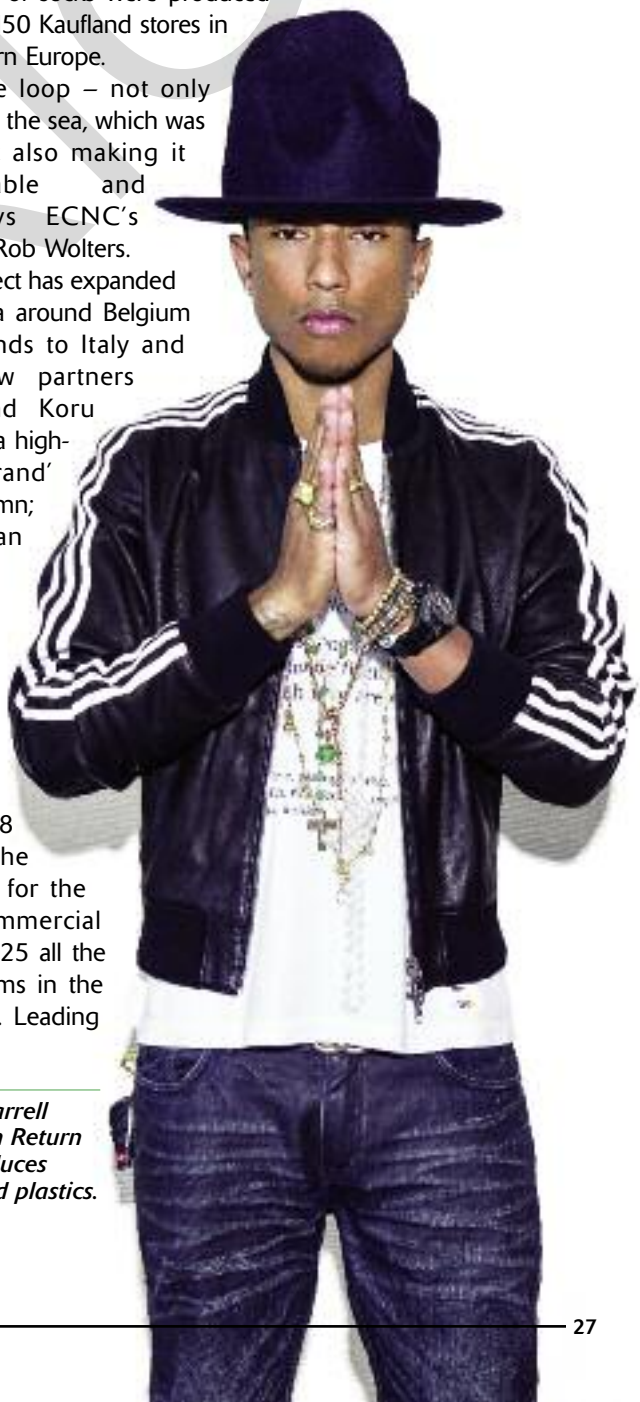
The target for Healthy Seas is to collect 'ghost' nets that float around in the ocean, catching and killing millions of fish that will never be eaten, as well as tens of thousands of seals, dolphins and sea birds per year. Volunteer divers have begun by cutting away nets entangled on ship wrecks in the North Sea. Forty Dutch fishing boats and 250 community boats in Ancona, Italy, have joined the scheme, and volunteers collected more than 31 tonnes of discarded nets last year, and increase on the 20 tonnes recovered in in 2013. The nets were recycled into 2.5 million kilometres of Econyl yarn last year and more than 800,000 pairs of socks were produced and sold through 1,150 Kaufland stores in Germany and Eastern Europe.

"It is closing the loop – not only removing nets from the sea, which was one problem, but also making it financially viable and sustainable," says ECNC's executive director, Rob Wolters.

This year the project has expanded from the North Sea around Belgium and the Netherlands to Italy and Greece, and new partners include US brand Koru Swimwear; Billy T, 'a high-end lifestyle brand' launching this autumn; and the European Commission.

New chemistry

Parley's scope is wider – encompassing all ocean plastic. It doesn't pull any punches in its rhetoric: "2048 seems to be the accepted deadline for the collapse of all commercial fisheries, and by 2025 all the coral reef ecosystems in the world will be gone. Leading



Music producer Pharrell Williams invested in Return Textiles, which produces blends with recycled plastics.
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Fishermen off the coasts of the Netherlands and Belgium haul up tangled old nets made with valuable nylon 6.

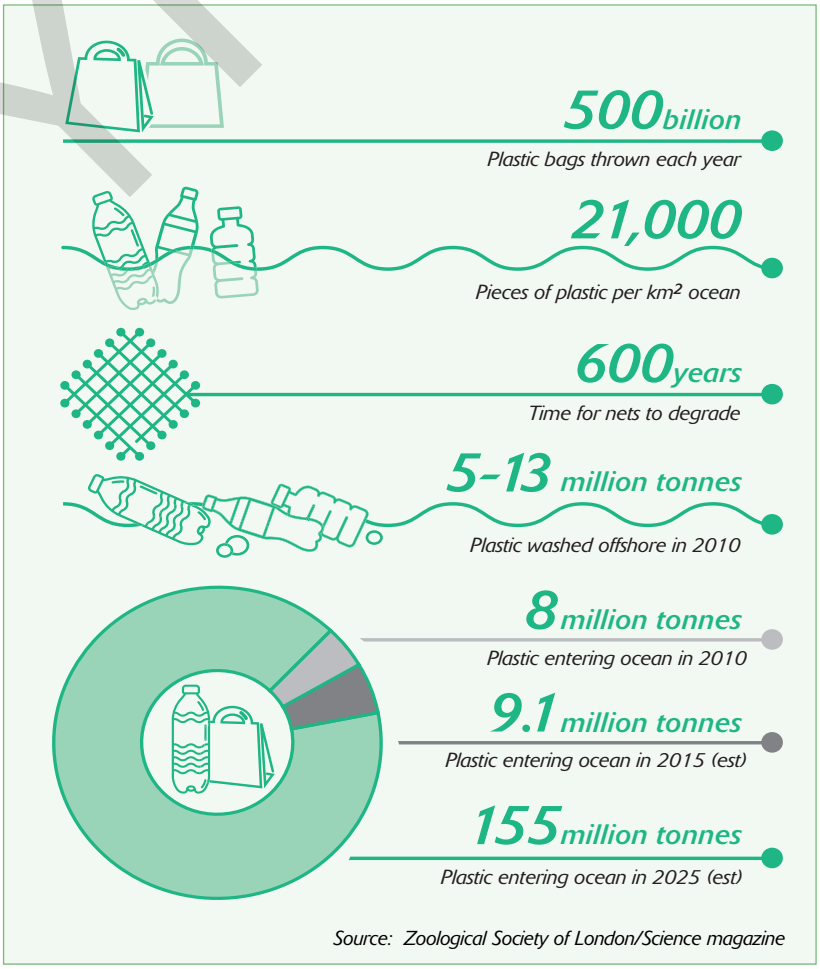
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environmentalists see the end of most sea life happening in six to 16 years," it says, and the starker still: "Diminishment of biodiversity in our ocean is the single greatest threat to the survival of humanity."

Like adidas, the organisation is seemingly tight-lipped on the details, such as how the rubbish will be recovered and processed and what the targets are, but rather is hoping to inspire by gathering a team of experts to take its talks to various events around the world. Cyrill Gutsch, who worked at 'all the big brands' but founded Parley in 2012 after being inspired by a captain, says, "It's the creatives' responsibility to get us out of this problem because we pretty much caused it in the first place. It was not even with bad intentions, we just didn't think it through. We have to think of new ways to do things. We need to make it more lucrative to protected the oceans rather than destroy it."

John Warner, an industrial chemist and speaker at the Parley event, thinks one of the reason for the proliferation of plastic is that chemists are not taught about toxicity or environmental impacts at university or when they move into industry. "Have you ever asked yourself why there are red dyes that cause cancer, that there are plasticisers that cause birth defects, that there are monomers that are endocrine destructors, or that there are plastics that live eternal lives and cause havoc in the oceans?" he asks. His view is that the way science has evolved, chemistry has remained outside of the environmental discussion, something which "has to change now". "Scientists documenting all the problems now are writing the text books for the next generation of chemists to help them understand at the molecular level what is going on, and so when they make the next material, they also know how not to do it," he says.

Adidas' concept shoe was billed as 'from the sea to the street' and a commercially available range is promised later this year, as well as an extended apparel collection using Bionic Yarn. "This is a collective issue," adds Mr Liedtke. "The key is collaboration – environmentalists, industrialists, scientists and filmmakers. Adidas knows how to make the products but we need everyone's help in collecting plastics and finding plastic alternatives. Working together is the only way to solve big problems."



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