

Shampoo bottle made from ocean plastics hailed as 'technological breakthrough'

Limited edition Head & Shoulders bottle to go on sale in France represents tiny proportion of global sales

Wednesday 25 January 2017 00.00 EST

Beaches strewn with plastic waste have become a graphic illustration of just how much plastic we use in everything from food packaging to cosmetics, and how much of it gets thrown away.

Consumer goods giant P&G has become the latest company to attempt to show it is tackling the problem, announcing [plans](#) for a limited run of Head & Shoulders shampoo in bottles made partly from plastic waste collected by volunteers on France's beaches.

It follows the likes of Adidas, which put 7,000 pairs of trainers made from marine plastics on sale in November, and Pharrell Williams, whose clothing line for G-Star RAW has featured denim containing plastic from the oceans.

Ecover, which sells cleaning products, has produced several limited edition bottles, using marine plastics from the North Sea and waste collected from Amsterdam's canals. Saskia van Gendt, head of sustainability for Europe at Ecover, says it plans to launch new packaging later this year with plastic

P&G expects to manufacture up to 170,000 of their special edition bottle, produced in collaboration with recycling business TerraCycle and waste management firm Suez.

That may be the biggest deployment of marine and beach plastic ever, according to TerraCycle CEO Tom Szaky, but it still represents less than 0.6% of the 29m bottles of Head & Shoulders P&G was [reported in 2011](#) to be selling every year.

However, Steve Morgan, technical director at plastics recycling network Recoup, says the level of recycled content in the beach plastic shampoo bottles – up to 25% according to P&G – makes the initiative a "technological breakthrough", despite its limited size.

"In the past when companies have tried to use plastics that have been sourced from oceans or beaches, it hasn't been technically possible because of the exposure to UV, and also the plastics degrade and don't recycle that well. What they've done here is make it technically viable, which is kind of the big thing," says Morgan.

That breakthrough – and its potential knock-on effects for recycling of challenging materials in general – is more significant than the origins of the waste plastic, says Morgan. "The bigger thing for me is the fact they're using recycled plastic. Whether it's from the oceans or not is kind of irrelevant."

“Once the technology is developed a bit more and economies of scale are made easier, it might become more mainstream,” he adds.

Solutions to plastic waste

Millions of tonnes of plastic are sent to landfill every year, and a large chunk of this ends up in the oceans: research suggests there could be [more plastic than fish in the sea by 2050](#).

Plastics production is expected to double in the [next 20 years](#) (pdf), but just 14% of plastic packaging is currently recycled globally, a figure that could be raised to 70% with concerted effort from industry, [according](#) to the Ellen MacArthur Foundation.

[Recycling](#) may be a first step but if companies want to show real leadership they should shift to more circular economy business models, says Sophie Unwin, director of Scottish social enterprise Remade in Edinburgh. That means zero waste. “Innovations in product design are to be welcomed, but they mean little if the company is contributing to a trend of generating more waste overall,” says Unwin.

Liz Goodwin, senior fellow and director of food loss and waste at the World Resources Institute, echoes this. While initiatives to remove plastics from the ocean are positive, she believes more needs to be done at an earlier stage: “In an ideal world we should be preventing waste plastic from going into the water in the first place and keeping waste plastic in use for as long as possible and recycling it.”

This may require a more dramatic shift in approach – in the words of Ecover’s Van Gendt, “rethinking the bottle in general to something that’s much more closed loop”. Ecover, for example, is trying to encourage greater reuse with refillable cleaning products: “The most sustainable way to use a bottle is by refilling it multiple times,” she says.

P&G has meanwhile pledged to boost its use of recycled content more broadly by using half a billion bottles made with 25% recycled plastic for European hair products by the end of 2018.