

# HAVE WE SOLVED THE PROBLEM OF COFFEE PODS THAT HARM THE PLANET?

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A new wave of compostable Nespresso-compatible pods are here, offering great coffee in a convenient and environmentally sustainable package. But is it really that simple? **David Burrows** digs through our bins to look for the story beneath the hype

In February, Halo launched “the world’s first fully compostable coffee capsule”. “We are on a mission to give people the world’s best coffee, in a way they want it, that’s best for the world,” says the start-up’s co-founder, Nils Leonard. The pods are compatible with “any leading machine” as well as being environmentally friendly. What’s not to like?

But beneath the positivity, there’s a more ruthless side to the company’s strategy: it’s pitching itself as the green angel to Nespresso’s aluminium-encased corporate eco-demon – and is prepared to go for the jugular. “So many of the brands on our shelves don’t have a real mission in the world; they don’t stand for anything outside profit,” Nils told *Metro* recently “Capsule coffee is an environmental crisis.”

On both counts, he has a point. Debating the pros and cons of capitalism in a coffee magazine is a big ask, so we decided to focus on the bit about the “environmental crisis”. It turns out this wasn’t necessarily the easy option.

Single-serve coffee machines are incredibly popular – according to a 2015 Mintel survey, one in five UK consumers has one. It’s easy to see why: they offer the convenience of instant alongside the quality of a barista-made cup. “Every cup is perfect in terms of grind and freshness,” says Maxwell Colonna-Dashwood, UK barista champion and co-owner of Colonna & Small’s in Bath. “A lot of work goes into them and we should be looking at this as a superior way to drink coffee at home.”

As *Caffeine* reported in April last year, more of those at the speciality end of the spectrum – including Maxwell – are spying opportunity in the convenience of capsules. Good news for

coffee lovers maybe, but bad news for the planet. Indeed, disposable carrier capsules (and cups) have ousted carrier bags as the pin-up items in our make-take-dispose lifestyle. “Green George Clooney’s trendy Nespresso coffee pods are damaging the planet” is the thrust of the coverage.

#### Buy it, brew it, bin it

Clooney began pushing pods back in 2006. A decade on, these leading lights of single-serve coffee are burning brighter than ever. In western Europe, pods and capsules make up one-third of the coffee market (£13.9bn) and this sector is growing at an impressive rate – 9% a year since 2011, compared with the 1.6% the coffee market at large mustered, according to retail analyst Rabobank.

Sales in the UK were £112m in 2015 and will probably be three times that by 2020. But sustainability concerns have put a (small) spanner in the works. “It’s something we all need to think about,” says Maxwell.

“What we are seeing with coffee pods is a disturbing example of the linear, throwaway, mono-use society that many of us would like to see become circular,” says David Newman, an international expert on waste management and MD at the Bio-based and Biodegradable Industries Association. “They will always need to be disposed of in one way or the other,

[but] it is difficult to think we can re-use a coffee pod or even recycle it.”

Herein lies the problem. Coffee capsules and pods tend to be made from materials such as aluminium and polypropylene that are recyclable (in the case of aluminium, infinitely so) but often aren’t recycled. That means they end up in a black sack, buried or incinerated. While they’re only a small proportion of our overall waste, figures compiled by Halo are nonetheless attention-grabbing.

#### Piles of pods

Halo says 39,000 capsules are produced every minute globally and up to 29,000 of these end up in landfill. It’s an “insane” state of affairs, Halo’s other co-founder, Richard Hardwick, says. He questions whether selling coffee capsules that aren’t recyclable should even be legal. “I genuinely think you shouldn’t be allowed to put coffee in plastic capsules,” he says.

Rule-makers in Hamburg agree. The German city’s guide to green procurement claims coffee pods cause “unnecessary resource consumption and waste generation, and often contain polluting aluminium”. The fact that they’re often made of both plastic and aluminium also makes them hard to recycle, officials told the *Telegraph*. Sound familiar? It’s a similar story for disposable cups, where the fusion of two different materials also creates a headache for recycling companies. Councils by and large won’t collect cups or capsules, so it’s been left to producers to come up with alternatives.

Nespresso, which has taken the brunt of the capsule-related criticism given its considerable market share, launched its own recycling scheme 25

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## COFFEE CAPSULES

years ago. Customers in 39 countries can now take their used capsules to any of 100,000 global collection points and in 15 countries, there are even doorstep collections. The UK's scheme has been running for six years, so how's it going?

Nespresso doesn't know. "We're trying to find a way to more accurately measure [the rates] as it is something I think we should be reporting," says the brand's corporate communications manager, Katherine Graham. This is difficult to comprehend, not least given that Nespresso has already divulged that 25 million Swiss francs (around £20.2 million) is ploughed into the scheme every year – and according to the Clean Ocean Project, "the recycled aluminium cannot be used for new capsules. Therefore Nespresso always needs primary aluminium."

It's a shocking oversight, economically and environmentally. Mark Hilton, an expert in resource use at the consultancy Eunomia has a term for it. "It's greenwash," he says bluntly.

Mark suggests it's a way to deflect attention and delay potential regulation, and he's not the only one who's suspicious. Others we spoke to suggest recycling rates are unlikely to be any higher than 5% and considered the scheme to be "utter nonsense". Without any statistics from Nespresso, it's hard to disagree – and those pushing compostables know it. "Surely they'd be shouting about it if it was successful," says Halo's Richard Hardwick.

### Cracking compostables

Nespresso's reticence has been a shot in the arm for those pushing other pods, including compostable ones. Many have been working on the concept for years, but it's far from easy. Not only does the capsule have to be resistant to the heat and pressure endured during brewing, it also has to break down within the timeframes set out in EU laws in order to be considered "compostable". The



Halo says you can throw its new compostable pods in your food bin

cost can also be prohibitive, says Yanko Kolevski of Cofico, which distributes "100% biodegradable" capsules made by the Ethical Coffee Company.

Richard at Halo admits that sweat, tears and a lot of caffeine-fuelled late nights went into creating its fully compostable capsules – not to mention its pursuit of certification for home composting. "It took us one and a half years, but we managed it," he says. "To me it's beautiful." It's hard not to be impressed by Richard's down-to-earth appeal, but it's also hard not to wonder if it's quite the breakthrough he claims.

One of the lines in the press release caught our eye. "Halo is made from a 100% natural blend of fibres including bamboo and paper that can simply be thrown in the home food bin when it's finished," it reads. The team also sends us a supportive quote from Terracycle, a firm that specialises in "hard to recycle" materials, that says this is the first capsule it has seen "where putting in a home composter or food-waste bin services by the council seems to be the appropriate course of action".

To find out whether this is true, *Caffeine* approached companies that collect food waste for composting or to feed into anaerobic digestion (AD) plants that generate energy. One, who preferred to remain anonymous, captured the prevailing mood: "I'm sure that those creating biodegradable packaging are very well intentioned, and if you had asked me my opinion a decade ago I would have said what a marvellous thing it was," he says. "However, actually finding a home for all biodegradable packaging presents challenges that make many AD and composting operators nervous about taking them."

There are two major issues: confusion and collection. Can the public be trusted to put packaging in the right bin? Waste companies don't think so.

Firms that run AD plants can't risk plastic capsules, cups or bags being fed into their machines, so most pull out any packaging – plastic or compostable – and send it to incinerators. You may say that's shocking – and it is – but it also makes sense. It's time-consuming, almost impossible, to sort the compostables from the rest.

### Dedicated recycling

One option is to have sites dedicated to recycling compostable packaging. That would be expensive, but it's a "deeper discussion" that needs to happen, according to Michael Cleland at Volcano Coffee Works, a small-batch speciality coffee roaster based in London.

Michael believes the availability of potentially "greener" compostable – as opposed to aluminium – capsules has opened the single-serve market to roasters at the premium end. But the potential environmental impact of such pods goes against many of the values speciality coffee makers hold. Using compostable materials also means companies have to overcome issues relating to shelf life and freshness.

That's why Nespresso has long been in favour of aluminium. But pitching one material against another is too simplistic, says Katherine Graham. "It's frustrating when the competition position their brands by attacking our credentials," she says, and it is "completely inaccurate" to say plastic and aluminium are bad and therefore compostable materials are the solution. Richard is surprised when we tell him what we've discovered. Mark Hilton isn't. "It often happens," he says. "We have a difficult material to recycle so everyone thinks, 'Let's make it compostable.'"

So where do we go from here? The aluminium capsules are recyclable, yet no one appears to be recycling them. Meanwhile, the compostable ones *are* compostable, but it's almost impossible to find somewhere that will compost them (unless you chuck them on your own heap). We're stuck, and it becomes clearer why the man behind the US coffee-pod revolution has regrets. John Sylvan reportedly admitted, "I feel bad sometimes that I ever did it."

But let's stay positive: after all, this storm is unlikely to blow over without changing something and it'll certainly make you think the next time you pop a capsule into your coffee machine.



Volcano at Home's range of compostable pods



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