

Waste warriors: fighting the plastic problem

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In a circular economy, materials are put to maximum use according to the 3 Rs concept: reduce, reuse, recycle. We spoke to three warriors in the fight against plastic to see how they approached the problem: Vanessa Debruyne, environmentalist and founder of Billie Cup in Ghent, Belgium; and Ann Skougaard Dyhr, department manager for purchasing and tendering at Hjørring municipality in North Jutland, and Julie Bastholm, project manager at Network for Sustainable Business Development Northern Denmark.

[Billie Cup](#) was founded in Ghent by Vanessa Debruyne and Ineke Van Nieuwenhove with the help of a 100,000 euro grant from the Flemish government. Billie Cup is a deposit system similar to the ones used at many festivals. The cups are made of 100% recyclable polypropylene. They're easy to clean and dry, can be used over 500 times and comply with food safety standards. Consumers pay one euro for a Billie Cup. They can keep the cup and reuse it or return it to reclaim their deposit.

That's the what, now the why. The why may seem obvious, because we've all seen the carpet of plastic cups and plates covering music festival terrains and the swells of plastic floating in our rivers and oceans. Then again, if it really is so obvious, why is the mountain of plastic growing instead of shrinking? Let's look at some numbers, because they're disconcerting. According to Billie Cup, three billion coffee cups are thrown away every year in France and the Netherlands alone. In the United States, the number is 158 million a day. To make matters worse, a lot of disposable cups can't be recycled.

Make it easy for consumers

One of the problems, according to Debruyne, is that previous 'campaigns put the responsibility on consumers by asking them to bring their own water bottles and coffee cups.' Another problem is that these reusable cups were always expensive. Consumers had to remember to bring their cups with them wherever they went. But if they forgot their cup at home, they weren't about to spend money on another one.

'It makes more sense to have the coffee bars make it easy for you,' Debruyne says. 'The great thing about Billie Cup is that it doesn't really cost anything for consumers. It's a one-euro deposit. So even if you're one of these chaotic people who forget their cup all the time, you can bring them all back whenever you want and reclaim your deposit.'

As for the coffee bars and restaurants that decide to stock Billie Cups, it makes financial sense for them too. Billie Cup's clients – which include universities, hospitals and municipalities – usually use a catering company to run their canteens. 'Billie Cup costs caterers about 240 euros a year per location. Plus, they can make a small profit on the lids. We sell the lids for 50 cents, and they sell them to consumers for one euro. Consumers can keep the lids and reuse them.'

Full Billie

A concept like Billie Cup works best when it becomes the standard. If you have dozens of small companies trying to do the same thing, the initiative becomes fragmented and is less likely to succeed. The French city of Chamonix, one of Billie Cup's clients, realised that when they decided to find a provider of reusable cups for their city. 'Our job was to convince the hospitality sector in Chamonix to use our system. They chose the best proposition because they didn't want to have four or five systems for reusable cups spread all over the city.'

Once Billie Cup is in somewhere, it's ideal if the client goes 'full Billie', as Debruyne likes to call it. 'Sometimes, coffee bars still have some Billie Cups, but they're not really actively promoting their use. So it's important that clients motivate their staff. But if a client goes full Billie and only uses our cups, then their employees don't have to keep explaining the system to customers.'

So, what does the future hold for Billie? 'We're trying out food bowls now,' Debruyne says. 'We've got the system in place, and we've got nine different models for food bowls. We've tried a few out at events already. The Vrije Universiteit Brussel has gone completely zero. They're using our Billy Cup and our food bowls. They don't use any plastic containers anymore. That's where we send people if they want to see how it can be done.'



Stronger together

The fight against plastic waste is in full swing in Hjørring municipality as well, the second largest municipality in the Danish region of North Jutland with 64,000 inhabitants. The 11 municipalities of North Jutland and the Network for Sustainable Business Development Northern Denmark, have established a community of practice consisting of municipal purchasers, environmental employees, waste planners and climate employees. The aim is to learn how to push procurement in a more sustainable direction, starting with the problem of plastic waste.

'Traditionally, our municipal procurement and environmental departments don't interact much. So one of the main goals of this initiative is to get these departments to work together, specifically on the circular agenda,' says Bastholm, project manager at NBE. The municipality's plan to recycle and reuse plastic, for example, requires the involvement of manufacturers and suppliers. 'The 11 municipalities in North Jutland are small, so they're not particularly attractive to suppliers. We needed to join forces in this network, because together we're stronger and have a better chance of pushing this green agenda,' says Dyhr, department manager for purchasing and tendering at Hjørring municipality.

Plastics course

Plastic is one of the most difficult materials to recycle because it consists of different polymer types, which cannot be recycled together. That's why the community of practice organised a 'plastics course' in 2021, which consisted of a visit to RenoNord, a waste management company, and three webinars.

'We visited RenoNord to learn about the different types of plastic and what the different recycling options are,' Dyhr says. 'This knowledge will help each municipality plan their strategy on how to reduce the use of plastic in their offices, but also how to recycle and reuse it.'

The three webinars focused on sharing knowledge, building capacity and sparring across municipalities, with a view to approaching this endeavour in a coordinated, professional way. There was a presentation by a lawyer and several companies, who discussed the legal and logistical challenges, as well as potential business models. 'After all that brainstorming, we managed to develop a toolbox that municipalities – and others – can use in the future, not only to tackle the plastic problem, but also to address other areas of circularity,' Bastholm says.

One of the next items on the agenda is textiles. 'We use textiles in uniforms in our different municipal departments, such as waste collectors, nurses, law enforcement officers,' says Dyhr. 'So from a procurement perspective, we're now looking at ways of sourcing textiles. Households in Denmark, for example, have to sort textile waste. We're looking into ways of using that.'



Interviewees

[Vanessa Debruyne](#) is an environmental activist and co-founder of Billie Cup in Ghent, Belgium

Ann Skougaard Dyhr is department manager for purchasing and tendering at Hjørring municipality in North Jutland, Denmark

[Julie Bastholm](#) is project manager at Network for Sustainable Business Development Northern Denmark (NBE).