

Freshness and variety rule in coffee markets

Coffee is Europe's favourite hot beverage with consumption growing steadily year on year. Consumers now expect a lot more than a jar of instant coffee granules or a sachet of powder, they are looking for the barista touch! The demand is for freshness and variety, which the current generation of coffee capsules and pouches or 'sous vide' packs – many using aluminium foil – can offer.

Today coffee capsule machines or other systems, such as filter/soft pouch machines, are a familiar part of many European (and global) kitchens. So it is hard to believe that a decade ago they were not really a major feature of the domestic coffee consumption landscape. In 2020, even allowing for Covid-19's disruptive influence, the global coffee capsule market alone, looks to increase by 6-7% CAGR, by circa 2025, according to many estimates.

As 80% of coffee capsules in Europe are made from aluminium foil this is good news for the sector. Why is alufoil such a popular choice? Well, it holds the coffee in a protective vacuum which offers a strong barrier to the contents as well as maintaining its condition and flavour for long periods. In addition it looks attractive



and can be decorated to enhance the look of the product or identify different blends and, as ever, suggests the high quality of the contents.

Of course not all coffee comes in capsules and the market for

beans, powder and soft pouches remains significant, particularly in the foodservice, event and office sectors. While these markets have taken a battering during the pandemic they will assuredly see a strong recovery as cafes, bars, venues and workplaces re-open. Aluminium foil once again is an indispensable part of the packaging, locking in aroma, while ensuring protection from moisture, light and odours.

Whatever the pack format the aluminium foil industry looks to maximum resource efficiency and the best use of recycled or responsibly sourced materials. The latest developments on that are very encouraging. Certainly the ever more sophisticated and rapidly growing market for different coffee varieties, a totally fresh taste and aroma are all having a major impact on the marketplace in Europe.

In this issue of Infoil we take a look at some of the alufoil based developments going on in the coffee world, plus we examine sustainability and the growing number of recycling initiatives for coffee capsules across Europe. In addition, we take a quick dip into the dairy sector and how it is being affected by the 'new normal', such as the resurgence of home delivery models. This packaging using aluminium foil of course! ///

Aluminium foil rollers deliver solid performance

Despite major disruption to markets, supply chains and production during 2020, European deliveries of aluminium foil, to both domestic and overseas markets, ended the year only fractionally (0.2%) lower than the previous year. Total production was 930,700 tonnes, compared to 933,100 in 2019. Overall domestic deliveries were 0.5% lower, while exports showed an encouraging 0.8% increase, according to the latest figures released by the European Aluminium Foil Association (EAFA).

Production of thinner gauges, used mainly for flexible packaging and household foils, ended the year up by 2.1%, while thicker gauges, used for semi-rigid containers, technical or other applications, closed 4.3% down. These figures are accounted for by relatively strong demand for packaging, household foil and foil containers due to lockdowns, as well as increased retail sales plus take-away and delivery consumption. This was offset by a drop in orders for technical and industrial applications and some other foodservice uses, which underwent major upheavals in the pandemic. ///

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Coffee

Facts about coffee



Did you know:

- 70 tropical countries now produce coffee in commercial quantities
- Germany is the largest market for coffee in Europe by value
- Scandinavians consume far more coffee per capita than any other region with Finland and Norway by far the biggest coffee drinkers
- European countries dominate the consumer 'top 25' with only Brazil, Canada, Lebanon and USA in the list
- 500 billion cups of coffee are consumed globally each year, averaging 1.4 billion per day
- The global coffee industry is now worth over \$100 billion every year and will grow at CAGR of just under 7% for the next 5 years
- Europe accounts for the most consumption at 34% of all coffee produced
- Premiumisation is now embedded in the Western European coffee market, with significant product diversification and elevated consumers' standards
- In 2020/21 out-of-home coffee consumption declined dramatically during the pandemic as offices, cafes and restaurants were closed
- Overall coffee consumption has been very resilient in the pandemic with domestic consumption up as people work from home
- The industry expects a strong rebound in the out-of-home sector as the lockdown restrictions ease when bars, cafes and restaurants reopen



Krüger produces capsules for Coca-Cola

Coca-Cola is co-operating with the family-owned company Krüger to gain a foothold in the billion-dollar market for coffee capsules. Coca-Cola will sell these under the Costa Coffee brand. The German company has recently started producing aluminium capsules for the beverage maker that are compatible with the Nestlé Nespresso system.



Krüger enables the Costa brand to enter this market without having to invest in setting up its own capsule production. The company has been producing aluminium capsules for the Nespresso system on behalf of several brand suppliers and retailers for some

time and senses great opportunities in the capsule market.

Costa Coffee originated as a café chain in Great Britain. Coca-Cola took over the company in

2018, and the soft drinks manufacturer has been using the brand in the UK, for example, for supermarket products such as coffee capsules for some time, as well as other markets.

Coca-Cola has now announced that it will use the Costa Coffee brand for products in German supermarkets for the first time in Spring 2021. This is for "ready-to-

drink" items, although whether this means the introduction of coffee capsules in Germany is, as yet, unclear. Nestlé is currently massively expanding its capsule business into supermarkets under the Starbucks brand. ///

Coffee

Aluminium capsules – a sustainable choice for coffee



The environmental impact of a cup of coffee goes from coffee sourcing and manufacturing to packaging and serving. Life Cycle Assessments (LCA) have found that generally the biggest contribution to the carbon footprint occurs with the consumer, when the coffee is prepared. Several factors, such as exact portion size, have shown that capsules are an environmentally friendly proposition for coffee drinkers. Many of the major suppliers, notably Nestlé's Nespresso brand and Jacobs Douwe Egberts (JDE) have been making efforts to continuously improve the sustainability of their product. As well as perfectly preserving the aroma of the coffee, capsules in aluminium have the potential to be widely recycled.

Coffee capsules made from aluminium have been around for three decades. Looking at their environmental performance, several levers have been used to increase the sustainability of coffee. Brands have worked to improve the efficiency of their machines, aiming to use the exact amount of coffee, energy and water needed for each cup, so no resources are wasted unnecessarily during preparation. Additionally, by brewing the exact the amount of coffee required by the consumer, capsules help to avoid excess use of coffee.

Recycling of aluminium capsules can further improve the environmental balance. Aluminium is well known to be fully recyclable, so the main prerequisite for recycling is the appropriate means of collection. Here are some examples of initiatives to increase the collection and recycling of coffee capsules in Europe:

Used coffee capsule collection gains momentum for increased recycling

Germany: Used aluminium capsules with coffee grounds can be disposed of via the yellow bag, the recycling bin and recycling collection points. This is due to voluntary licensing with the "Green Dot" the first German producer responsibility organisation for packaging. In addition, Nespresso accepts used capsules returned to its boutiques. Aluminium capsules collected and sorted together with other packaging containing aluminium are sent to pyrolysis where the aluminium material can be recovered.

Switzerland: Swiss Aluminium Capsule Recycling is an organization founded in 2020 by Nespresso and Delica, with the aim of increasing the recycling rate for coffee capsules made from aluminium in Switzerland. The scheme emerged from a private initiative, but has a non-profit character. It makes the recycling system for coffee capsules in aluminium accessible to all brands. This is intended to contribute to the responsible use of resources and to promoting the raw material cycle, say the members. It is open to all

companies that want to contribute to the recycling of aluminium coffee capsules. Barec Group has been commissioned to recycle them.

France: Since 2020 Nespresso and JDE have been working together by forming an Alliance for the Recycling of Aluminium Capsules to collect and recycle, not only capsules, but all small aluminium packaging, they say. This builds on the work in this area Nespresso has been undertaking for over a decade. The companies hope that more producers of aluminium capsules will join the Alliance. Juan Amat, managing director of JDE in France explained, "In a context of ecological emergency, we, as major agribusiness companies, have the responsibility to take action in order to reduce the impact our packaging has on the environment." Initially Nespresso France established collection points at its boutiques, delivery points, recycling centres, and within hotels, restaurants, and clients' offices. To make the recycling process easier, it even worked with Citeo to install additional eddy current separators in all French recycling centres that could separate small aluminium packaging from other materials.

Belgium: AREME, the association for the recycling of light metal packaging and related items, involves Nespresso, JDE and other stakeholders within the aluminium foil value chain. Its goal is to divert small aluminium packaging and other items, which are currently not selectively collected, towards recycling waste streams. It hopes that this will optimise the packaging collection and recycling schemes already in place by helping to recover additional aluminium items. Coffee capsules are an integral part of the scope.

UK: Podback is a first of its kind recycling programme for coffee capsules (or pods) set up by the two major suppliers in the UK coffee industry, Nestlé and Jacobs Douwe Egberts UK. Consumers can now recycle their Nespresso, Nescafé Dolce Gusto, Tassimo, L'OR and Starbucks at Home coffee pods in two ways: Collect+ which is delivered by Yodel. Consumers can take used coffee pods to their nearest drop-off point, using recycling bags which can be collected or ordered on line. Kerbside collection pilot: Next, over 200,000 people living in two UK Council districts will be able to sign up to use kerbside recycling for their coffee capsules. The companies hope other local authorities and retailers around the UK will join the scheme.

Dairy

Premiumisation drives dairy growth

While premiumisation is a major factor for increased coffee consumption so too, in the dairy sector, products offering 'something different' or added health benefits are winning new customers.



Traditional yogurts, such as the flavoured varieties, are declining in many segments across Europe. But new products such as drinking yogurts and plant-based variants are showing great results. Much of these are sealed with aluminium lids to offer maximum barrier protection plus convenient and easy opening.

With less frequent visits to the shops during the pandemic new, or re-invented old, methods of purchasing such things as milk are being discovered by a new generation of consumers. So doorstep deliveries of fresh milk are seeing resurgence in many European markets. The glass bottle, with an alufoil cap, is once more becoming a familiar sight.

Such deliveries are not restricted to milk, but include other dairy and juice products, many benefiting from the protection, security and puncture resistance of aluminium lids and closures.



So the milkman and other direct-to-consumer models, hold opportunities, as many local initiatives from foodservice wholesalers to farms and the on-trade beverage sector, indicate.

Finally we should not forget the humble single-serve coffee creamer with its easy-peel alufoil lid. Sometimes it is maligned but remains popular with both 'at home' coffee consumers and foodservice outlets, thanks to the reduced food waste potential and convenience. ///

Source: Euromonitor International

Capsules become Covid 19 test kits

In a highly novel use of used aluminium coffee capsules Wageningen University & Research in the Netherlands has transformed them into the "CoronaExpresso" home test device for Covid 19.

The device uses coffee capsules that are turned into mini chemical reactors, in which heated enzyme-loaded saliva vials change colour to indicate the presence of COVID-19. By heating samples using Phase Changing Materials (PCMs) like cheap commercial wax, the scientists say these reusable kits could be used for testing in developing countries as they are both simple to construct and cheap at only about €0.20 each.

"We designed a 3D printed plastic holder that fits four Eppendorf vials to perform the tests, and we get the results in just 30 minutes," lead researcher Vittorio Saggiomo explained. "The



wax is like paraffin. Moreover, the same capsule can be used many times, without generating any unwanted waste."

How does it work? The device can handle both LAMP (loop mediated isothermal amplification) and PCR (polymerase chain reaction) tests. The paraffin-based PCM is placed inside the capsule which is then covered with the 3D printed sample holder (four samples). A tube is inserted with enzymes and chemicals to which the test samples are added. The unit is then placed in near boiling water and heated to 65 degrees and kept at constant temperature for 25 minutes. This enables the LAMP reaction to occur and the result obtained from colour changes in the sample.

"The thin aluminium is perfect for the temperature increase which allows the reaction to occur," said Dr Saggiomo. The capsules can be re-used or recycled, "A huge improvement on single use plastics," he added. ///

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The international body representing aluminium foil rollers and converters of aluminium foil.