

Sustainable Beverages

Industry Outlook and Investment Opportunities

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Introduction

The beverage sector grapples with multiple challenges in the impact space including production waste, packaging materials, water usage and the sustainability of its supply chain and process inputs. Established firms like Coca-Cola Company as well as start-ups, are financing improvements in these areas. While much of the sector's sustainability focus has been on packaging, companies have begun to concentrate on other aspects like improving water waste, creating products with novel technologies (hydrolysis and carbon dioxide transformation), and finding ways to recycle waste and leftover product to make new consumer offerings. Buyer interest for improved sustainability is consistently growing and could emerge as the latest battleground for companies hoping to capture increased market share.



Highlights

Alcoholic beverage firms have spearheaded state-of-the-art, environmentally friendly production and distribution methods.

- Beer producer Carlsberg rolled out its "Snap Pack," which uses innovative glue technology to keep its beer packs together an innovative alternative to a plastic holder. The improvement is estimated to save 1,200 tons of plastic each year.
- To produce their beers and reduce food waste, Seven Bro7hers Brewery uses rejected Kellogg's Cornflakes, and Toast Ale utilizes excess bakery bread.

More sustainable packaging has been released across the industry.

- Dasani unveiled its recently developed 'HybridBottle' the next generation of its 'PlantBottle.' The HybridBottle uses recycled, renewable, and virgin PET (Polyethylene Terephthalate) plastic.
- Sustainable package creator TetraPak launched an online platform, which uses codes placed on parcels, that provides product and packaging information to retailers and consumers.
- The bioplastics sector got a significant boost when London Marathon runners were served sports drink within edible seaweed pouches instead of plastic water bottles or cans.

Packaged Water

Packaged drinking water has a long, controversial history for its lack of sustainability. Sustainability concerns revolve around water use itself, as well as the containers packaged water comes in. Much of the industry's current innovations involve creative packaging that's easy to recycle, biodegradable and that uses post-consumer materials. These trends are seen in all types of water companies, from smaller firms like Boxed Water is Better to larger beverage groups, like Dasani, a Coca-Cola Company brand.

Several of the sectors' key transformations and successes come from inputs, processing, packaging, and supply chain.

Inputs

As consumers look for healthier beverages and up to date offerings, companies have aimed to find
the purest water. Refresh in Australia is selling highly oxygenated bottled water with Himalayan salt
and 700% more oxygen compared to other waters.

Processing

• Membrane filtration is slowly replacing physical and chemical treatment for potable water, and this segment is expected to be the fastest growing area of the bottled water equipment market.

Packaging

• Coca-Cola has made its PlantBottle technology, used in Dasani products, available to its competitors.

Supply Chain

- Water sourcing and stewardship are the primary focus areas within packaged water supply chains.
- Water stewardship reforms vary across companies. For instance, Nestlé Waters is committed to having all of its sites meet Alliance for Water Stewardship standards by 2025.

Emerging Companies

• Boxed Water is Better (US)

Boxed Water is Better is a water company that offers a boxed alternative to bottled water. The Boxed Water carton is entirely recyclable down to the cap. More, 76% of the product is made using paper from certified, sustainably managed forests.

• Flow (US)

Flow Water is sourced from natural springs in both the U.S. and Canada, and is currently packaged with a combination of aluminum, plant-based plastic, paper, and BPA-free plastic film. The company hopes to have 100% compostable packaging by 2025.

Just Water (US)

Just Water is spring water with naturally occurring minerals. It is sustainably collected from Glens Falls, NY. The company's recyclable packaging is made up of 54% paper, 15% BPA-free plastic, 28% plant-based plastic and 3% aluminum. It is overall about 88% renewable. In 2019, the company was valued at \$100 million.

Nonalcoholic Beverages

In the soda and juice sectors (which have both received backlash for their negative health and environmental effects), both mainstream and craft companies have made improvements to their inputs, processing, packaging, and supply chains. Even producers selling only-recently-popular beverages, like kombucha and yerba mate, are going through interesting shifts to improve sustainability.

Inputs:

• Coca-Cola has met the goal of being water-balanced and has gone even further by treating and returning water to communities that are affected by its beverages.

Processing:

- Oregon-based Kombucha producer Brew Dr. uses an innovative alcohol extractor that removes trace alcohol from its fermented tea and turns it into distilled liquor, reducing waste.
- Ocean Spray announced a commitment to engage in "regenerative agriculture," which aims to improve biodiversity and leave surrounding areas healthier and more sustainable than before cultivation.

Packaging:

• The European Union funded research to make juice bottles (PHBOTTLE) created from the juice industry's own wastewater. In particular, fermentable sugars lend themselves well to package creation.

Supply Chain:

 A juice brand coalition based in Europe has committed to supplying 100% sustainable juice and purée by 2030. This means working on various supply chain issues like, including smallholder suppliers, improving working conditions, and conducting a supply risk analysis with the World Wildlife Fund to identify areas needing further advances.

Emerging Companies:

• Naked Juice (US)

Naked's reNEWabottle® is made from 100% recycled bottles and can be recycled into another bottle after usage. Naked's products are Rainforest Alliance Certified, which means that they are grown and harvested on farms and forests that follow sustainable practices.

Brew Dr. Kombucha (US)

Brew Dr. uses an innovative alcohol extractor which removes trace alcohol from its fermented tea, turning it into distilled liquor to reduce waste. The alcohol extractor is called a "Spinning Cone Column." This uses atmospheric pressure to remove alcohol from liquids without heat. This also reduces the heat necessary to extract alcohol in the process.

• Guayaki Yerba Mate (US)

Guayaki Yerba Mate implements sustainable practices throughout its production process and employs native workers to organically harvest the herbs needed for its mate. Guayaki Yerba Mate has secured 60% of the yerba mate market in the U.S.

Alcoholic Beverages

In recent years, more attention has been paid to the environmental impacts of alcoholic beverage production. Suppliers have responded to consumer interest for sustainability in various ways. Approaches span the technological and innovation continuum — everything from updating production facilities and employing solar power to revolutionizing ways to create traditional alcoholic products.

Inputs:

- New York City-based Air Co. Vodka is creating a "carbon-negative" vodka by producing ethyl alcohol from carbon dioxide in the atmosphere.
- Dairy Distillery, based in Ontario, is taking unused milk permeate from a nearby dairy to make a sugar- and lactose-free spirit.

Processing:

• Beam Suntory is switching up a typically resource-intensive production process by making the first ever tequila that draws on hydrolysis to decrease waste and water usage.

Packaging:

- Packaging will likely be competitive among premium alcohol brands. A recent poll showed that 71%
 of consumers find sustainable or renewable packaging to be "quite" or "extremely" important.
- In addition to its Snap Pack glue technology, Carlsberg Group has released noteworthy sustainable prototypes like the paper beer bottle, which is made from sustainable wood fiber and is 100% recyclable.

Supply Chain:

• The alcohol sector takes a holistic view of supply chain sustainability. This includes instituting fair treatment and pay for both employees and raw material suppliers. Neil Grosscup of Tanteo Tequila is a vocal advocate for better practices.

Emerging Technologies:

• Air Co. Vodka (US)

Each bottle of Air Co. vodka removes one pound of carbon dioxide from the air through its entire life cycle. Producing a typical bottle of vodka could create around 13 pounds of greenhouse gases. Air Co.'s technology splits water into hydrogen and oxygen, then combines the hydrogen with carbon dioxide to create alcohol and water, only emitting oxygen into the atmosphere.

• Dairy Distillery (US)

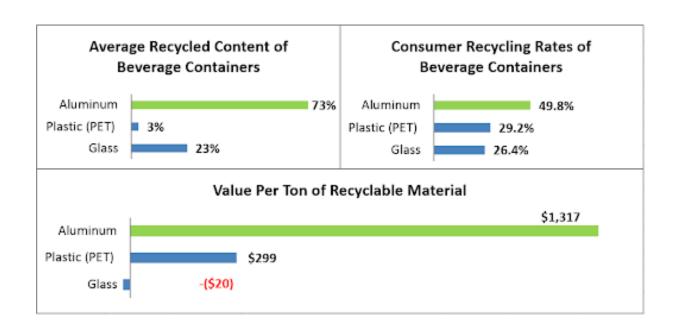
Vodkow, Dairy Distillery's signature product, is made using an innovative process that transforms unused milk sugar from Ontario dairy farms into a unique clear spirit that is both lactose and sugar free.

Absolut (Sweden)

Absolut practices a One Source production philosophy, meaning that all of their production takes place in and around the village of Åhus, Sweden. The water and wheat inputs are both sourced only from the village. Absolut also uses CO2-neutral distillation (carbon emissions offset by planting trees that absorb CO2 over their lifetime).

• Bulleit Distilling Co. (US)

Bulleit is opening a new distillery in Kentucky that is expected to be carbon neutral and powered by 100% renewable energy. This will reduce its carbon emissions by more than 117,000 metric tons.



Impact Measurement

Traditional beverage creation across all categories can be resource-intensive, particularly for those products that require fresh water sources. Alternative methods aimed at reducing the impact have seen varying levels of success.

- Aluminum has wide use in the beverage industry. While its more environmentally friendly than plastic, concerns remain about its environmental footprint (11.7 tons of carbon for every ton of aluminum produced). So, although its use is an overall positive (especially in conjunction with novel packing techniques like Carlsberg's Snap Pack for cans), its negative impact should not be forgotten.
- Bioplastics have dramatic potential to reduce the sector's negative impacts. Both seaweed (which can be eaten) and banana leaves (which breakdown quickly when disposed) have shown promise.
- Beverage companies are also improving the ways they process and recycle water. If water employed in production can be treated for reuse in communities, the industry's water waste would be dramatically curbed (It takes 35 liters of water to make every half-liter of Coca-Cola for instance).

Investment Outlook

The sustainable beverages sector presents a myriad of prospects for investing in companies at a variety of growth stages. The industry is quickly and consistently shifting to meet consumer needs and interest, and to address concerns about health and sustainability. The bottled water sector, in particular, will be important to watch since it is on the rise, with 5.7% growth in 2020, reaching total sales of \$18.1 billion. The Coronavirus pandemic has led to drastic increases in sales among many companies.

There are both opportunities and challenges within the industry, and although the field is crowded, health and sustainability have emerged as areas where companies can differentiate themselves from competitors.

- The pandemic has led consumers to be more concerned about the environment, with 11% saying they have shifted their purchases based on these values. Overall, 83% of food and beverage consumers say they consider the environment in their purchasing choices.
- The conventional food and beverage arena saw a negative growth rate last year, and producers need to address changing consumer tastes and waning appeal of traditionally packaged beverages.

A diversity of venture capital firms is investing heavily in the domain and are especially intrigued by emerging companies focused on health and sustainability.

Venture Capital Funds:

• Sherbrooke Capital

Sherbrooke Capital is a private equity firm focused on emerging consumer companies in the healthy, active, and sustainable living market. The offer close collaboration with management and cross-portfolio business opportunities.

Tate and Lyle Ventures

Tate and Lyle Ventures is comprised of two separate LP's. The first is a fully committed £25 million venture capital fund while the second is an active £30 million fund that invests in companies in food science and technology. They look to address diverse food challenges.

• First Beverage Group

First Beverage Group is based in Los Angeles and has 200 years of beverage industry expertise. They seek companies with \$1 million to \$15 million in revenues in all categories relating to beverages including brands, suppliers, retailers, and technology.

Distill Ventures

Distill Ventures is an accelerator dedicated towards building innovative alcoholic drink companies by bringing in their network of experts. Their investments range from £250k to £10 million.