



TREESON, INC.

BUSINESS PLAN



A WASTE TO ENERGY PLANT BASED PACKAGING COMPANY THAT WILL ESTABLISH ITS BRAND IN THE BEVERAGE INDUSTRY AND THEN WILL EXPAND TO OTHER PRODUCTS AND INDUSTRIES | THE WORLD'S FIRST ECO-FRIENDLY, TOXIN-FREE, TRASH ELIMINATING, CLEAN ENERGY MAKING, GREAT TASTING, NATURALLY PURE BEVERAGES!



## Table of Contents

<b>Confidentiality Agreement</b> .....	<b>4</b>
<b>Executive Summary</b> .....	<b>5</b>
<b>The Enterprise, The Business, &amp; Model</b> .....	<b>11</b>
<i>Overview</i> .....	11
<i>Legal Structure</i> .....	11
<i>Founded</i> .....	11
<i>Company Ownership</i> .....	11
<i>Location</i> .....	11
<i>Highlights to our McCloud Millwork's Lease</i> .....	12
<i>The Business</i> .....	13
<i>Products</i> .....	13
<i>Our Water</i> .....	14
<i>Packaging</i> .....	16
<i>Our System - Recycling 2.0</i> .....	17
<i>Eco Preservation Technology</i> .....	18
<i>IP Scope &amp; Strategy</i> .....	19
<i>The Business Model</i> .....	20
<i>Revenue &amp; Pricing</i> .....	21
<i>Opportunity</i> .....	23
<i>Objectives</i> .....	23
<i>Competition</i> .....	24
<i>Competitive Advantages</i> .....	25
<i>Unique Value Proposition</i> .....	25
<b>The Market Opportunity</b> .....	<b>26</b>
<i>Markets and Scope</i> .....	26
<i>U.S. BEVERAGE MARKET</i> .....	27
<i>U.S. PACKAGING MARKET</i> .....	33
<i>Water</i> .....	38
<i>Cannabis-Infusions Open New Opportunities for Beverage-Makers</i> .....	42
<i>U.S. BIO FUEL MARKET</i> .....	57
<i>The World's Oceans &amp; Plastic</i> .....	60
<i>Hemp</i> .....	63
<i>M&amp;A Transactions</i> .....	65
<i>Target Market</i> .....	65
<i>Eco-Conscious Consumers</i> .....	65
<i>Average Annual Expenditures in the US</i> .....	67
<i>Demographics - United States (People &amp; Businesses)</i> .....	67



<b>Industry Reports &amp; Market Analysis</b> .....	<b>69</b>
<i>Bottled Water Production in the US - IBISWorld Industry Report (\$7.2bn)</i> .....	69
<i>Snapshot of Energy Drink Production in the US - IBISWorld Industry Report (\$8.9bn)</i> .....	83
<i>Plastic Bottle Manufacturing in the US - IBISWorld Industry Report (\$13.1bn): For Comparison or Market Share</i> .....	84
<i>Snapshot of Recycling Facilities in the US - IBISWorld Industry Report (\$6.6bn)</i> .....	95
<i>Snapshot Retail Trade in the US - IBISWorld Sector Report (\$5.5tr)</i> .....	96
<i>E-Commerce &amp; Online Auctions in the US - IBISWorld Industry Report (\$512.9bn)</i> .....	97
<i>Snapshot of Internet Publishing and Broadcasting in the US - IBISWorld Industry Report (\$124.7bn)</i> ..	98
<b>Marketing Strategy</b> .....	<b>99</b>
<i>Marketing</i> .....	99
<i>Web Plan Summary</i> .....	100
<i>Strategic Alliances</i> .....	101
<i>Branding &amp; Corporate Literature</i> .....	101
<i>Positioning Statement</i> .....	101
<b>Key Members of the Company/Management</b> .....	<b>102</b>
<i>Management Team</i> .....	102
<i>Carlton Solle, Founder, CMO, &amp; Owner</i> .....	102
<i>The Treeson Story: as told by Carlton Solle</i> .....	102
<i>Mark Tillemans, CEO, Owner</i> .....	105
<i>Brian Whalen</i> .....	105
<i>Taylor Woods</i> .....	105
<i>Mark Levitan, Legal, Key Consultant</i> .....	105
<i>Management</i> .....	105
<b>Funding</b> .....	<b>107</b>
<i>Funding</i> .....	107
<i>Use Of Funds</i> .....	107
<i>Exit Strategy</i> .....	107
<b>Conclusion</b> .....	<b>108</b>
<b>Pro Forma - 5 Year Financial Forecast</b> .....	<b>109</b>
<i>Start-up Summary/Use of Funds</i> .....	109
<i>Assumptions</i> .....	110
<i>Pro Forma Summary Chart</i> .....	110
<i>Income (Revenue) Statement</i> .....	111
<i>Profit &amp; Loss Statement</i> .....	112
<i>Cash Flow Statement</i> .....	114
<i>Financial Indicators</i> .....	114
<i>Breakeven Analysis</i> .....	115
<i>Personnel</i> .....	115



*Balance Sheet* ..... 117

*12-Month Revenue Projections* ..... 118

*12-Month Profit & Loss Statement* ..... 119

*12-Month Cash Flow Statement* ..... 120

*12-Month Balance Sheet* ..... 121

*Financial Highlights* ..... 122



## Confidentiality Agreement

---

This agreement is to acknowledge that the information provided by Treeson, Inc. (also referred to as “The Company”) in this business plan is unique to this business and confidential; therefore, anyone reading this plan agrees not to disclose any of the information in this business plan without the express written permission of Carlton Solle & Mark Tillemans, Owners.

It is also acknowledged by the reader of this business plan that the information furnished in this business plan, other than information that is in the public domain, may cause serious harm or damage to Treeson, and will be kept in the strictest confidence.

Upon request, this document is to be immediately returned to Carlton Solle & Mark Tillemans, Owners.

---

Signature

---

Name (typed or printed)

---

Date

*This is a business plan. It does not imply an offering of securities.*



## Executive Summary

---



### Treeson, Inc.

909 Mill Rd,  
McCloud, CA 96057  
Co-packer in Colorado  
treeson.us

### Ownership

Co-founder equal partners.

### Revenue Forecast

Year 1: \$6,700,000  
Year 2: \$62,900,000  
Year 3: \$233,800,000  
Year 4: \$315,630,000  
Year 5: \$426,100,500

### Profitability Forecast (EBITDA)

Year 1: \$1,255,392  
Year 2: \$16,178,472  
Year 3: \$73,310,629  
Year 4: \$124,959,466  
Year 5: \$169,101,767

**Funding Needed:** \$14 million

### Purpose

The purpose of this plan is to provide investors with the information necessary to evaluate the merits of the value proposition and growth strategy of Treeson. The Company will demonstrate that there is a large enough market to service; Treeson has the effective sales and marketing strategies to establish, grow and expand the Company. Treeson will also demonstrate that the Company has eliminated or reduced as many variables of risk as possible.

### Introduction

**Treeson, Inc.** (also referred to as “The Company”) is a closed loop<sup>1</sup> waste to energy plant based packaging start-up company that will establish its brand in the beverage industry and then will expand to other products and industries.

The Company offers Treeson branded and packaged Bio Bottle beverages that are made from plant based materials. The Company will license the packaging, system, and technology to other brands, and later other consumer products in the beverage, packaging, recycling, energy, and technology markets.

The Company has identified a number of critical approaches to strategic development and marketing start-up efforts, assessed alternatives, and developed a series of executable, and cohesive but independent, categories of action to aid the business in its core, overarching goals.

Many of these strategies will require an investment of time and human resources over several months to achieve their intended outcome. Projections are provided to create a framework for developing actual implementation, based on the business and marketing plan, and ultimately assessing the potential impact to the revenue streams in the plan. It is imperative that analytical tools be engaged to accurately and appropriately assess each component of the integrated

---

<sup>1</sup> A closed loop control system is a set of mechanical or electronic devices that automatically regulates a process variable to a desired state or set point without human interaction. Closed loop control systems contrast with open loop control systems, which require manual input. - <https://whatis.techtarget.com/definition/closed-loop-control-system>



development effort in order to evaluate expected return on the strategic investment against actual results.

As summarized in the following plan, the core strategies and specific tactical approaches address the major requirements of a comprehensive strategic development and start-up initiative to grow the business. This business plan encompasses both the spirit of the Company, as well as the functionalities of the Company plan to map out specific strategies and tactics for development and the marketing strategies.

### **Problem/Need**

No one wants to stumble across discarded packaging on a hike or to see plastic water bottles washed up on their favorite beach. Awareness of the environmental impact of trash continues to grow and, while the demand for convenience shows no sign of slowing, people seek new products that provide innovative solutions. People want products that are not only healthy for them and their families, but also better for the planet.

People identify with brands aligned with their own values. Brands that are authentic built by people passionate about creating incredible products yet equally committed to making a positive impact. They believe in brands that take a stand and they want products to deliver revolutionary, compelling solutions.

No one brand has harnessed all of the above with a simple, powerful identity. An identity that not only helps reinforce and educate consumers about the origin and quality of its products, but also captures the driving force and passion behind the brand.

### **Solution**

Our brand does exactly that and much more. We produce beverages using only the best natural ingredients formulated to always deliver on our natural, healthy promise. As part of our commitment to end to the pollution caused by single use bottles, our products come in revolutionary new packaging. Our packaging won't end up in a landfill, a river, or the ocean but instead gets converted into green energy. To give consumers a way to experience it all firsthand we have created the first Eco Preservation Technology. Our technology allows customers to track their bottles and see how much clean energy they helped create and gives them a way to see the real time impact of their actions along with options to improve their footprint and get rewarded for doing so.

Our plan is to start with the beverage industry and then license our packaging and technology to other beverage brands and then do it all over again with other consumer products.

Our brand can become an icon, which people will be proud to carry because it says "I'm taking a stand". People are ready for change and our brand is here to lead the charge!



## Market Opportunity

### Markets And Scope:<sup>2</sup>

- U.S. Beverage Market \$315 Billion
- U.S. Packaging Market \$26 Billion
- U.S. Mobile App Market \$10 Billion
- U.S. Bio Fuel Market \$35 Billion

**The Bottled Water Production** (*the flagship product will be bottled water*) industry expanded over the five years to 2019, despite some difficult conditions. The industry adapted to changing consumer taste preferences and **consumer awareness of sustainable water sourcing and recyclable packaging materials**. Over the five years to 2019, industry revenue is expected to rise at an annualized rate of 1.0% to **\$7.2 billion, including a 1.6% increase in 2019 alone. Companies have focused on public relations efforts by pledging to use sustainable bottling materials and will likely continue to market bottling operations to emphasize its shrinking negative effect on the environment.** The Bottled Water Production industry will likely experience slow yet consistent growth over the five years to 2024; however, substitute products, such as water filters and reusable bottles, will continue to inhibit demand for bottled water products. Nonetheless, projected increases in per capita disposable income levels will drive consumers to make more bottled water purchases. IBISWorld estimates industry revenue will steadily improve over the five years to **2024, rising an annualized 1.2% to \$7.7 billion.**<sup>3</sup>

Business Insider citing Canaccord Genuity, says that the financial firm is predicting that cannabidiol (**CBD**) **beverages will become a \$260 million market by 2022.**<sup>4</sup>

**The Plastic Bottle Manufacturing industry** (*For comparison*) manufactures a range of bottles from various plastic compounds based on their end use. These bottles are then sold to beverage, food and chemical manufacturers to use as packaging for soft drinks, milk, condiments and household and automotive chemicals. As the economy continues to grow and consumers increase their spending, downstream customers will increase their demand for plastic bottles. Consequently, over the five years to **2024, industry revenue is forecast to increase an annualized 0.4% to \$13.4 billion.**

**The U.S. flexible packaging market** is projected to grow from USD 23.72 billion in 2016 to USD **29.64 billion** by 2021, at an estimated CAGR of 4.56%.<sup>5</sup> On a global scale, the packaging industry is an enormous economic generator. Statistics from the well-recognized Smithers Pica organization indicate **the world packaging industry's market value will reach \$1 trillion by 2020.** According to the **Flexible Packaging Association, the United States accounts for \$135 billion in the world's entire packaging industry.** Recycled packaging is part of the worldwide **sustainability movement.** Federal, state, and local authorities also promote and encourage packaging recycle programs. But the main thing driving the 2019 trend toward recycled packaging products is **consumer choice.** People avoid purchasing anything

---

<sup>2</sup> Client provided/internal data

<sup>3</sup> WWW.IBISWORLD.COM Bottled Water Production in the US March 2019

<sup>4</sup> <https://www.bevindustry.com/articles/91926-cannabis-infused-beverages-will-see-growth-through-2022?v=preview>

<sup>5</sup> <http://www.micromarketmonitor.com/pressreleases/u-s-flexible-packaging.html>





packaged in non-recyclable materials. **Today's consumers are far too aware of their environmental footprint.** More people than ever are joining the ecological fight and doing their part to protect their share of the world. **The packaging industry must recognize and respect consumers' desire to maintain a smaller carbon footprint.** They can do that by making smaller and greener packages.<sup>6</sup>

The **global Beverage Can Market (For comparison)** is expected to reach USD **63.24 Billion by 2026**, according to a new report by Reports and Data. **Growing concerns regarding the consumption of sustainable packaging materials are expected to fuel the market.** Recyclability of metal is one of the driving factors. Aluminum cans are 100% recyclable, and approximately 30% of it is used in the beverage market.<sup>7</sup>

The **global biofuels market** was valued at USD 168 billion in 2016, is expected to reach USD **218.7 billion in 2022**, and is anticipated to grow at a CAGR of 4.5% between 2017 and 2022. North America is anticipated to account for the leading share of the revenue pie throughout the forecast horizon. The rising awareness regarding the advantages of biofuels over conventional fuels, regulatory & political support and agricultural and economic support along with policies pertaining to environment conservation along with the increasing environmental concerns among the populace are contributing to the growth of the region.<sup>8</sup>

More than **40% of U.S. consumers participate in the \$300 billion conscious consumer market (CCM).** In the past decade, the growth of the CCM has not gone unnoticed by startups and established multinational corporations.<sup>9</sup>

The United States is a world leader in **consumer goods market** research, product innovation, manufacturing, and branding and marketing. The United States also has a highly skilled workforce in the consumer products arena. In 2019, the U.S. consumer goods market (defined as consumer-packaged goods) was the largest in the world, estimated at **\$635 billion**, based on a comprehensive study conducted by Statista.<sup>10</sup>

**The subscription model is a booming field.** In recent years, this market has grown by more than 100% a year, increasing from \$57 million in sales in 2011 to **\$2.6 billion** in 2016, according to one expert.<sup>11</sup>

**Mobile App Market** is the fastest growing segment in the mobile industry. The app industry has seen an immense growth in the past ten years and even has no end in sight. In the year 2012, mobile app's financial state was around \$53B and it grew up to \$63.7B by the year 2016. Various researchers even predict that mobile app economy will touch **\$188.9 billion** worldwide by the year 2020.<sup>12</sup>

---

<sup>6</sup> <https://www.yorksaw.com/packaging-industry-trends/>

<sup>7</sup> <https://www.reportsanddata.com/report-detail/beverage-cans-market>

<sup>8</sup> <https://www.globenewswire.com/news-release/2018/01/09/1285912/0/en/Biofuels-Market-Size-Will-Reach-USD-218-7-Billion-by-2022-Globally-Zion-Market-Research.html>

<sup>9</sup> <https://journals.sagepub.com/doi/abs/10.1177/0008125617722792?journalCode=cmra>

<sup>10</sup> <https://www.selectusa.gov/consumer-goods-industry-united-states>

<sup>11</sup> <https://www.gsb.stanford.edu/insights/why-every-business-will-soon-be-subscription-business>

<sup>12</sup> <https://www.knowband.com/blog/mobile-app/growth-of-mobile-app-market/>



If you invent a product that offers a benefit across many different categories, sells worldwide, and involves consumables, the royalties can easily earn you millions.<sup>13</sup> **Licensing is a \$270 billion-plus industry** that provides brands an additional stream of revenue -- in some cases serving as the primary income driver as well as a marketing staple. That's why licensing grew over 3 percent last year.<sup>14</sup>

## Industry and Market Reports

### Reports below in the plan:

- Bottled Water Production in the US - IBISWorld Industry Report (\$7.2bn)
- Snapshot of Energy Drink Production in the US - IBISWorld Industry Report (\$8.9bn)
- Plastic Bottle Manufacturing in the US - IBISWorld Report (\$13.1bn): For Comparison
- Snapshot of Recycling Facilities in the US - IBISWorld Industry Report (\$6.6bn)
- Snapshot Retail Trade in the US - IBISWorld Sector Report (\$5.5tr)
- E-Commerce & Online Auctions in the US - IBISWorld Industry Report (\$512.9bn)
- Snapshot of Internet Publishing and Broadcasting - IBISWorld Report (\$124.7bn)

## Competitive Advantages/ Unique Value Proposition

- Less energy, less CO2, less harm, less travel, no waste, no oil, and no GMO.
- A traditional water bottle takes an average of 12 total trips in its lifecycle before it is recycled or ends up in a landfill, river, or ocean around the world. Treeson bottles only take 4 total trips in their lifecycle before the Company converts them into clean energy that we use to make more bottles!
- There is nothing like it on the planet, the demand for plant based packaging is massive, and the industry is at its infancy.
- The Northern California location the Company has secured as our headquarters is acutely unique (*See Highlights to our McCloud Millwork's Lease*) with respect to its industrial zoning, water rights, and proximity to the West Coast marketplace.
- Treeson is one of the few companies out there that actually has a WHY.....a serious why.
- Closed loop plant-based packaging used to create clean renewable energy. Treeson will be able to duplicate concept for basically everything on the grocery/ c-store shelf and any consumer-packaged goods sold worldwide.

---

<sup>13</sup> <https://www.inc.com/stephen-key/where-big-money-is-made-licensing-product-ideas.html>

<sup>14</sup> <https://www.inc.com/jeff-haden/what-every-entrepreneur-should-know-about-brand-licensing.html>



### Key Members of the Company/Management

The Company is the vision of Carlton Solle, a beverage, entertainment, and eco-lifestyle entrepreneur. Supported by an advisory board of seasoned and successful entrepreneurs, the management team includes professionals in communications, design, engineering, sales, and technology.

#### **Owners: *Biographies below in the plan.***

- Carlton Solle
- Mark Tillemans

#### **Management Team: *Biographies below in the plan.***

- Brian Whalen
- Taylor Woods
- Mark Levitan, Legal

### Funding

Treeson is currently seeking funding in the amount of **\$14,000,000** for use in financing its start-up, equipment, construction, development, marketing, inventory, technology/return closed loop to renewable energy system, and general working capital requirements in the form of an investment to execute its business plan for the greatest potential to secure the most desirable (“highest and best”) return. The Owners have invested \$50,000 to date. *Details below in the plan.*

The Company appreciates your consideration of this executive summary.

**Continue reading the full business plan below.**





## The Enterprise, The Business, & Model

---

### Overview

### Legal Structure

The legal structure of the Company is a Delaware C Corporation.

#### Assets:

- McCloud Headquarters Lease (*copy available, see highlights below*)
- Trademarks & IP

### Founded

Incorporation in Delaware is May 2019.

### Company Ownership

Mark Tillemans and Carlton Solle are the owners of the company.

### Location

The Company's current offices and contact information is:

909 Mill Rd, McCloud, CA 96057.

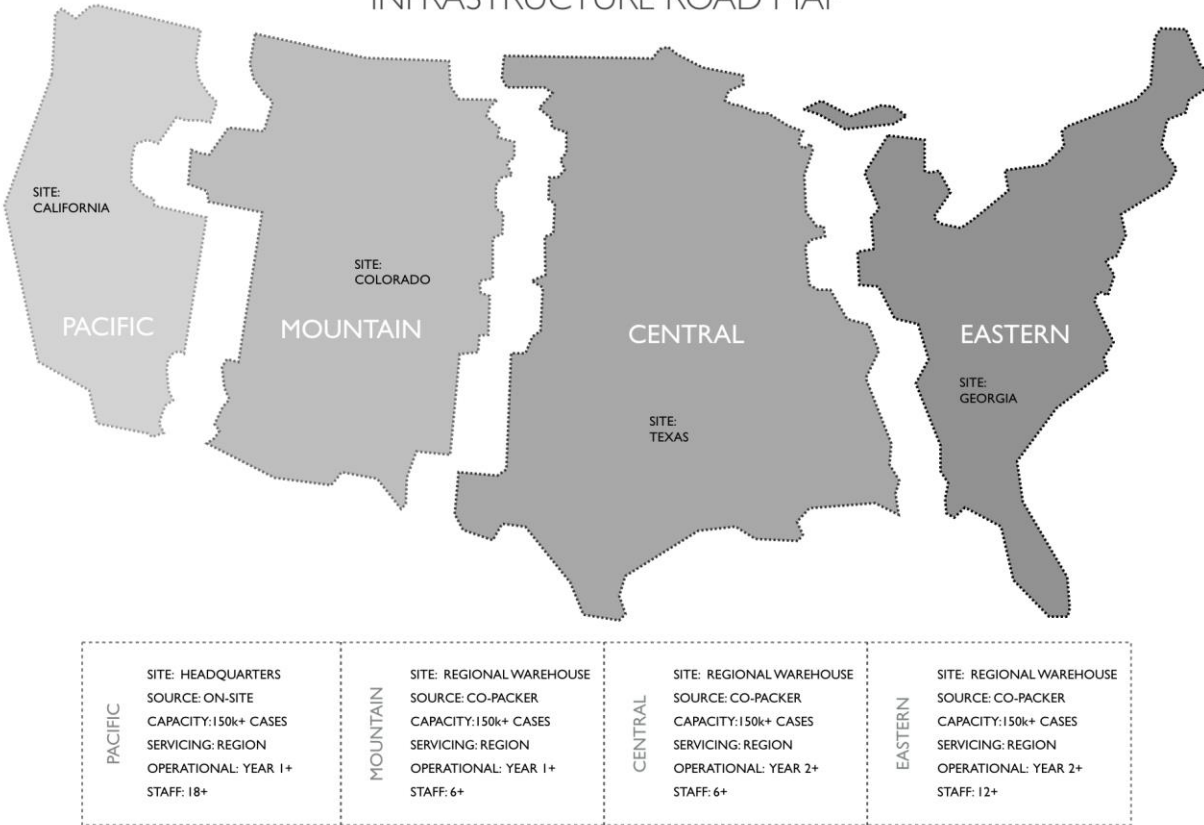
The Company has an 8,000 sq ft warehouse with unlimited expansion to house our return waste to energy system and future bottling plant.

*Headquarters: Map above.*



Unlimited expansion capabilities on 278 acre site in northern California. Zoned heavy industrial + power substation on-site with 3 billion gallons per year surface water rights.

### INFRASTRUCTURE ROAD MAP



**Map above:** This map is showing how the Company breaks-up the return and packaging centers by region, 4 regions in total, second it's showing the location of co-packers, third its showing where the Company will have warehouses that will be making the packaging for that region and also handle fulfillment of all direct to consumer orders, and can handle return for those orders.

### Highlights to our McCloud Millwork's Lease

#### **Option and Right of First Refusal to Lease Premises.**

*For the term of the Lease (27 years), Company has an option and right of first refusal to lease all buildings and parcels of the 278 acre heavy industrial zoned Premises.*

#### **Use of the Premises.**

*Company may use the property for any reasonable commercial purposes, including potentially, but not limited to: industrial hemp cultivation and refinement; plant-based packaging, recycling, and textile manufacturing; eco-beverage bottling; and green energy production.*

#### **Water Rights.**

*The Lessor owns two existing licenses for the diversion of water. License 5051 provides the right to divert 4,908.6 acre-feet of water per year. License 826 provides the right to divert 4,302.6 acre-*



*feet of water per year with a maximum direct diversion rate of 3 billion gallons. The terms of the McCloud Millworks Lease give the Company the right to use up to ten percent (10%) of these water rights. These are surface water rights. There is spring water locally available, but not contracted for or permitted at this time.*

## The Business

Treeson is a closed loop<sup>15</sup> waste to energy plant based packaging start-up company that will establish its brand in the beverage industry and then will expand to other products and industries.

Our plan is to establish our brand in the beverage space using our packaging, system, and technology, and then license them to other brands to use and to begin to branch out into other consumer products with the other packaging solutions the Company has already developed.

## Products

*Naturally Inspired + Naturally Engineered + Naturally Packaged + Naturally Harvested + Naturally Enriched = Naturally You*

**Types:** *Natural Spring Water - Energy Drinks & Energy Shots - CBD Infused Drinks & Shots - Ready To Drink Teas - Cold Pressed Juices - CBD Oils & Isolates - Beer & Wine*

### Flagship Product, Treeson Spring Water

Our flagship product, Treeson Spring Water, fulfills those consumer needs. It was inspired by the rainforest and features the finest natural spring water, enriched with electrolytes for balance and oxygen for some natural rainforest energy. It comes in a revolutionary new packaging that combines environmentally friendly materials with the world's first built-in return and recycling system.

With the Companies return system, packaging can be returned individually or in bulk. The returned packaging is instantly turned into clean energy that is used to make new bottles - starting the cycle all over again. Additionally, we offer consumers the opportunity to make an immediate positive environmental impact with every purchase through our "One Bottle One Tree" initiative. We plant one tree for every bottle sold to help ensure that there will be plenty of clean air and fresh water for generations to come.

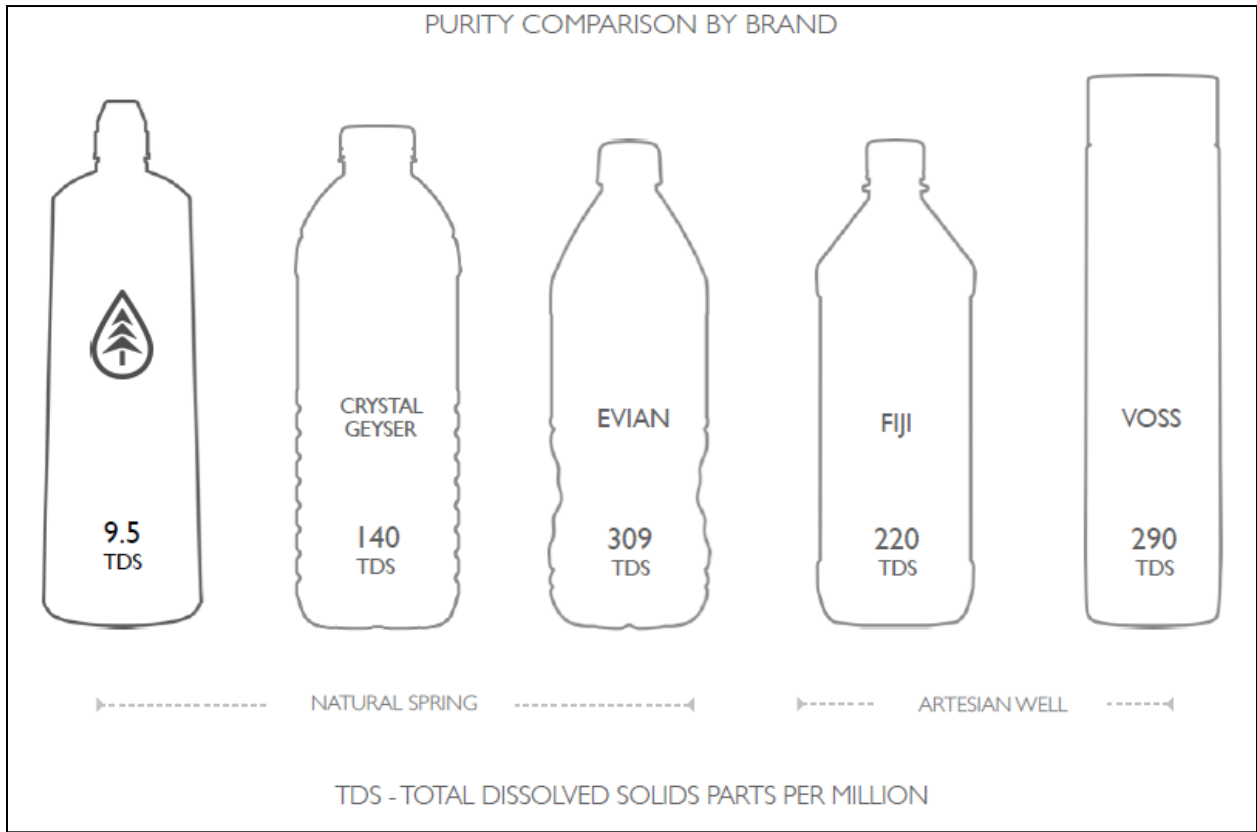
---

<sup>15</sup> A closed loop control system is a set of mechanical or electronic devices that automatically regulates a process variable to a desired state or set point without human interaction. Closed loop control systems contrast with open loop control systems, which require manual input.- <https://whatis.techtarget.com/definition/closed-loop-control-system>



## Our Water





The world's first eco-friendly, toxin-free, trash eliminating, clean energy making, tree planting, great tasting, natural spring water!



## Packaging

PACKAGING

INSPIRED BY NATURE

- ECO FRIENDLY
- +
- TOXIN-FREE
- +
- PLANT BASED
- +
- GMO FREE
- +
- COMPOSTABLE
- +
- BIODEGRADABLE
- +
- SUSTAINABLE



THE LEAF BOTTLE



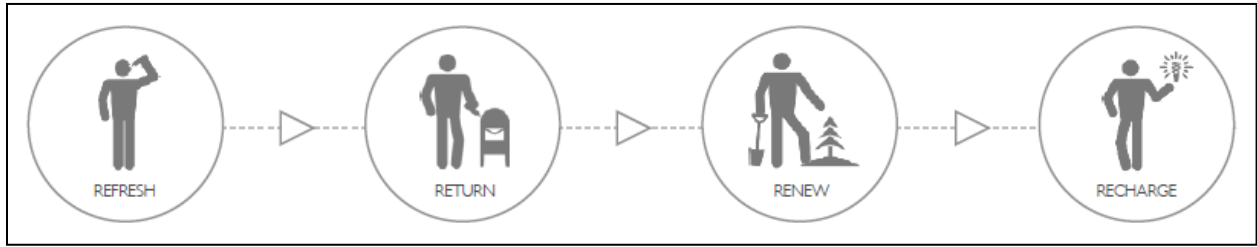



ENGINEERED TO MAKE A DIFFERENCE

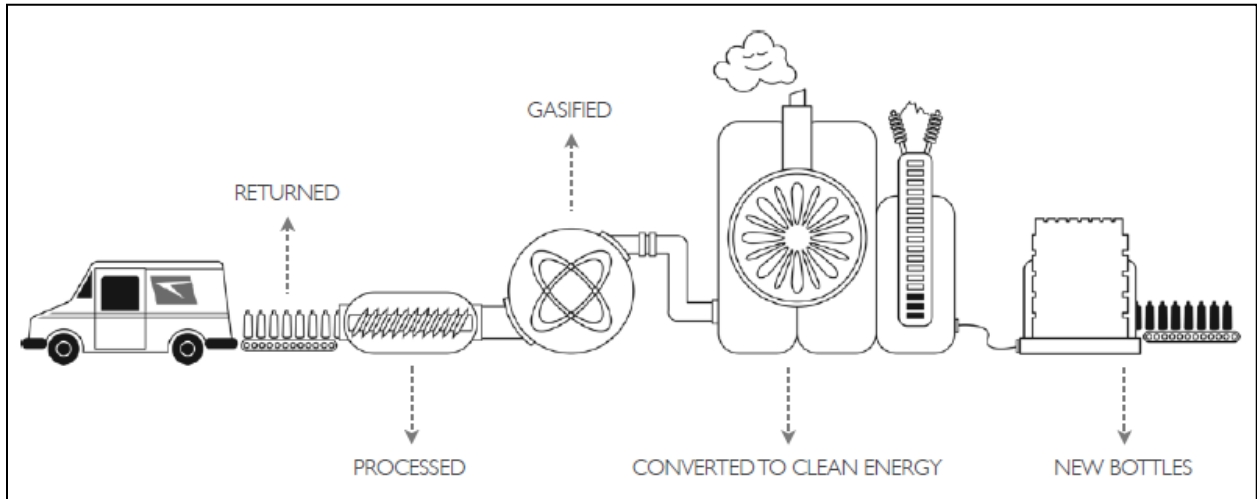




## Our System - Recycling 2.0



The first products with their return system. No trash, no landfills, no pollution!



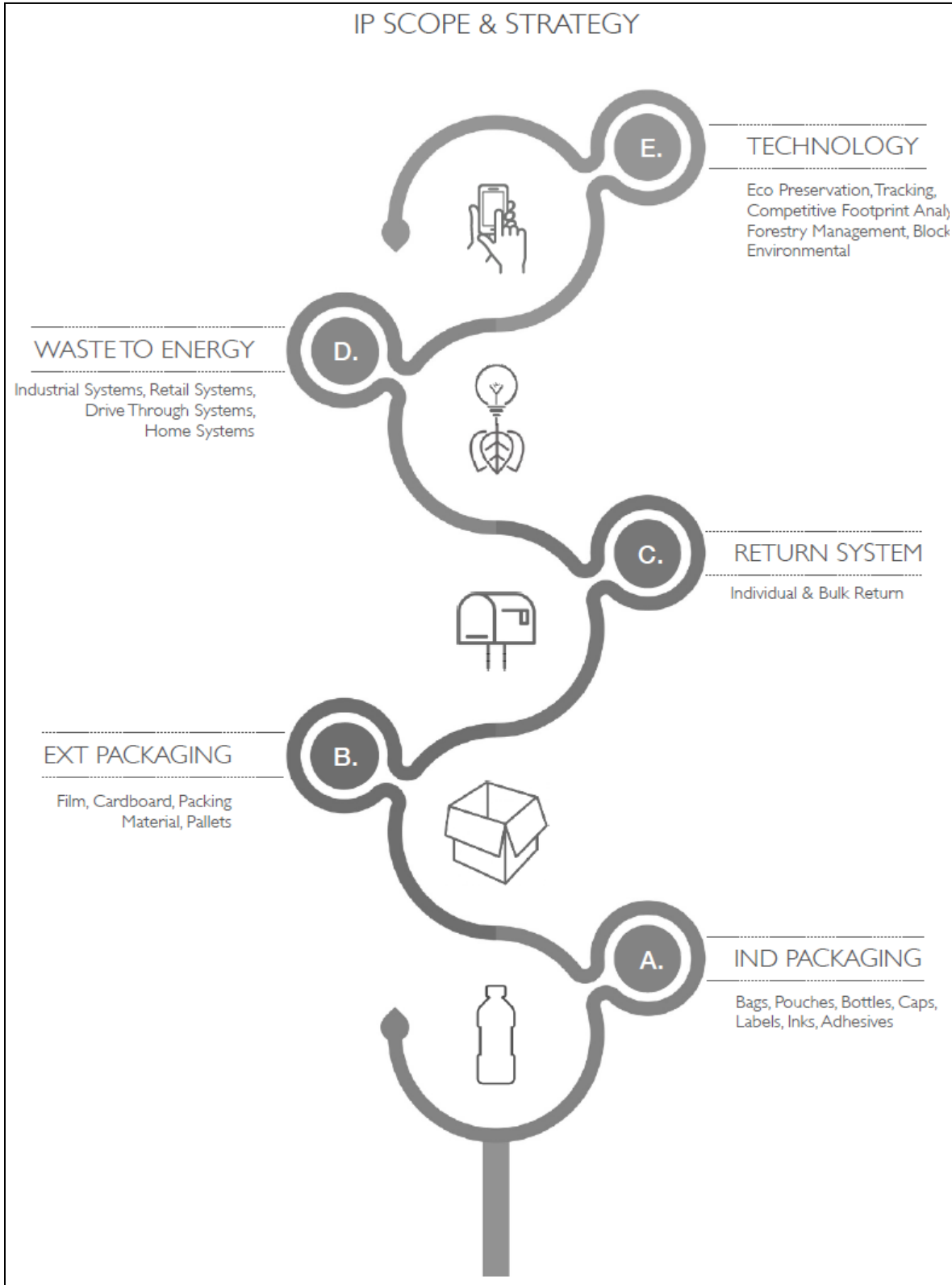
### Eco Preservation Technology

The world's first Eco Preservation Technology Data is gathered from several touch points that is used to determine a user's environmental footprint and then used to generate a real time environmental impact score for each user.

Once the initial score is provided the APP rewards its users for improving their score and provides in-app purchase options to offset and improve the users' environmental footprint.



## IP Scope & Strategy

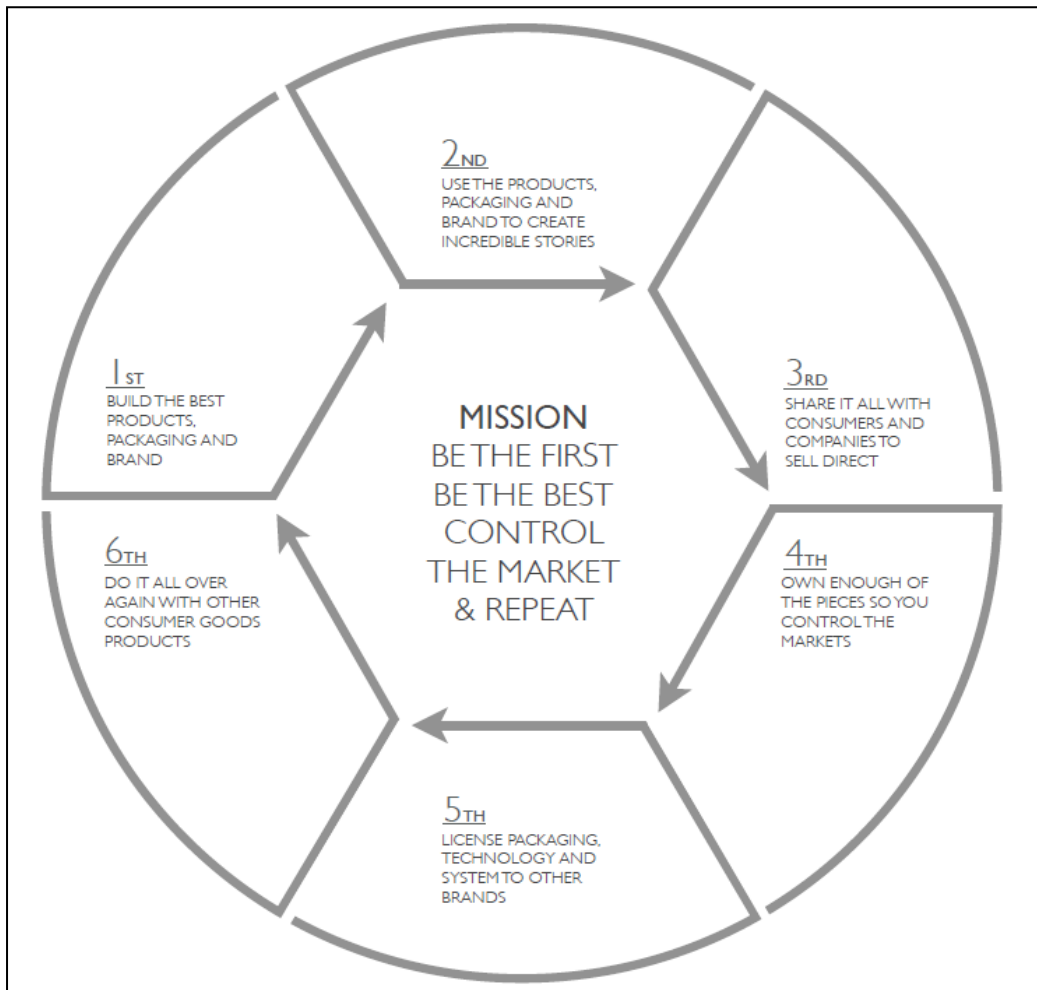


## The Business Model

### Mission

*Be The First. Be The Best. Control The Market & Repeat.*

- 1st:** Build the best products, packaging, and brand.
- 2nd:** Use the products, packaging, and brand to create incredible stories.
- 3rd:** Share it all with consumers and companies to sell direct.
- 4th:** Own enough of the pieces so you control the markets.
- 5th:** License packaging, technology, and system to other brands.
- 6th:** Do it all over again with other consumer goods products.





Use our products, systems and technology to educate and tell our story direct to partners and consumers, the more they know the better it gets and the more powerful the brand becomes, control as many pieces as possible, then license it to other brands and expand into other markets.

## Revenue & Pricing

The Company projects a gradual ramp up of sales and profits during the first year of transition to the business model.

The Company will sell products retail and on a subscription basis. *See pro forma for details.*

### Our Subscription Service: Direct To Consumer

Time is precious why lug home a case of water when you can have it delivered right to your door. Our subscription service creates a personal relationship with our customers and it allows them to see firsthand how our system is better for the environment & it also happens to be better for the bottom line. *Delivered right to your door = best for the environment & best for the bottom line.*

### Subscription Business Model <sup>16</sup>

The subscription based business model is a business model that charges customers a recurring fee — typically monthly or yearly — to access a product or service.

**Subscription revenue model:** A subscription revenue model helps you capitalize on the compounding value of customer relationships. That means that as long as your customers continually see the value your company provides for them, they'll continue to pay you for it. Recurring revenue models lead to higher revenues and stronger customer relationships. This compounding growth is what makes customers so powerful here. Through subscription, customers become more valuable the longer they use your product.

**The state of subscription business models in 2019:** The subscription model continues to grow in popularity. According to our research, customer acquisition costs (CAC) are up more than 50% and willingness to pay for software has declined steadily for the past five years. There's never been a better time to start capitalizing on your customer relationships through subscription. And it's not going away any time soon. According to a survey by McKinsey & Company, 46% of customers already pay for an online streaming service and 15% have subscribed to an e-commerce service within one year of the survey. That's why companies such as GoPro and Adobe have pivoted to this business model; it's the most reliable way to continue adding value for customers. They understand how this pricing strategy helps position them for long-term success.

---

<sup>16</sup> <https://www.priceintelligently.com/blog/subscription-business-model>

## Pricing



### Licensing, Partnerships, & Co-Packing

We have had several companies express interest in co-branding and also licensing our bottle and technology. Our plan is to establish our brand as the first and the premiere and then begin to license our packaging and technology to other brands to use.

We have had several companies express interest in partnerships to utilize our system in their retail operations and or on their corporate campuses. Our plan is to strategically select a few of them to showcase our complete system while at the same time building our customer base and brand awareness.



Because of the strategic and high quality water sources we have secured we have had several other brands express interest in using our water and having us co-pack their beverages. Once we have built out and mastered our bottling operations our plan is to offer co-packing for other brands.

## Opportunity

To give consumers a way to experience it all firsthand we have created the first Eco Preservation Technology. Our companion mobile app allows customers to track their bottles and see how much clean energy they helped create. They can also get actual pictures of the trees they helped plant along with the GPS coordinates for where they are planted and watch them grow with our updates. Our mobile app incentivizes consumers to purchase planet positive products, gives them a way to see the real time impact of their actions along with options to improve their earth-score and get rewarded for doing so.

Our initial test market for Treeson Spring Water received international media attention. We not only caught the eyes of some of the industry's biggest players but also some of its biggest and most prestigious customers and they are ready to place significant orders. Our plan is to fulfill these first orders while putting in the necessary infrastructure required showcasing our system at scale. A full-scale launch of Treeson Spring Water and our Mobile App will follow shortly thereafter. All products will be sold direct through our e-commerce site, mobile app and via strategic partners in the U.S. We are already in talks with several established partners in a handful of countries outside of the U.S. including Central America and Europe where we will use both direct and traditional distribution models.

The Company's growth opportunities are excellent. License packaging, technology, and system to other brands; then do it all over again with other consumer goods products.

## Objectives

**Treeson has definite objectives in order to fulfill its desire to participate and achieve an ever-growing market share of the exciting industry that it is in. What follows is a brief summary of the key objectives of Treeson:**

- Penetrate the market in the business of a waste to energy plant based packaging brand in the beverage industry and then will license and expand to other products and industries.
- Continue to develop management and team capabilities to ensure a strong foundation for participation in the Company.
- Increase sales and revenue at the rates projected in this plan.
- License packaging, technology, and system to other brands.
- Expand into other consumer goods products and Countries.





## Competition

### Beverage

According to the Forbes Largest Companies Global 2000 list, **PepsiCo Inc. (PEP)**, **Coca Cola Co. (KO)**, and **Anheuser-Busch InBev (BUD)** are **the top three beverage companies in the world**, as measured by a composite score of revenue, profit, assets, and market value. The top 5 companies in the beverage sector had a combined market value of \$649.6 billion.<sup>17</sup>

### The world's biggest drinks companies in 2018:<sup>18</sup>

- Anheuser-Busch InBev – \$56.44bn
- The Coca-Cola Company – \$35.41bn
- Pepsico – \$29.85bn
- Nestle – \$28.53bn
- Heineken – \$ 26.21bn
- Fomento Economico Mexicano – \$23.38bn
- Starbucks Corporation – \$22.38bn
- Suntory Holdings – \$17.4bn
- Asahi Group Holdings – \$17.1bn
- Diageo – \$16.43bn

### Packaging

**North America is undisputed leader in global packaging market.** As per our research findings there are **nine U.S. based corporations who rank among top 15 packaging companies in world.** The ranking is based on annual revenue reported by companies in their SEC filings/ Annual reports.<sup>19</sup>

- WestRock : USD 14.8 Billion
- International Paper Company (IPC): USD 14.49 Billion
- Reynolds Group Holdings Limited (RGHL): USD 10.5 Billion
- Ball Corporation: USD 10.01 Billion
- Smurfit Kappa ('SKG'): USD 9.93 Billion
- Amcor Limited: USD 9.3 Billion
- Crown Holdings: USD 8.69 Billion
- Mondi Plc: USD 8.23 Billion
- DS Smith plc: USD 7.4 Billion
- Berry Group, Inc.: USD 7.0 Billion
- Owens-Illinois Inc.(O-I): USD 6.8 Billion
- Packaging Corporation of America (PCA): USD 5.3 Billion
- Sealed Air Corporation (SAC): USD 4.46 Billion
- Graphic Packaging International, LLC. (GPI): USD 4.4 Billion

<sup>17</sup> <https://www.investopedia.com/news/worlds-largest-food-and-beverage-players-2017-nestle-pepsi-coke-topple-peers/>

<sup>18</sup> <https://www.drinks-insight-network.com/uncategorised/the-worlds-biggest-drinks-companies-in-2018/>

<sup>19</sup> <https://www.marketresearchreports.com/blog/2018/09/12/top-packaging-companies-revenue>



- Stora Enso Oyj: USD 4.37 Billion

### Industry Major Players

Listed in the industry reports.

### Competitive Advantages

**Treeson will enjoy a number of significant, competitive advantages over its competitors, including the following:**

- Less energy, less CO2, less harm, less travel, no waste, no oil, and no GMO.
- A traditional water bottle takes an average of 12 total trips in its lifecycle before it is recycled or ends up in a landfill, river, or ocean around the world. Treeson bottles only take 4 total trips in their lifecycle before the Company converts them into clean energy that we use to make more bottles!

### Unique Value Proposition

**Treeson will differentiate itself by offering:**

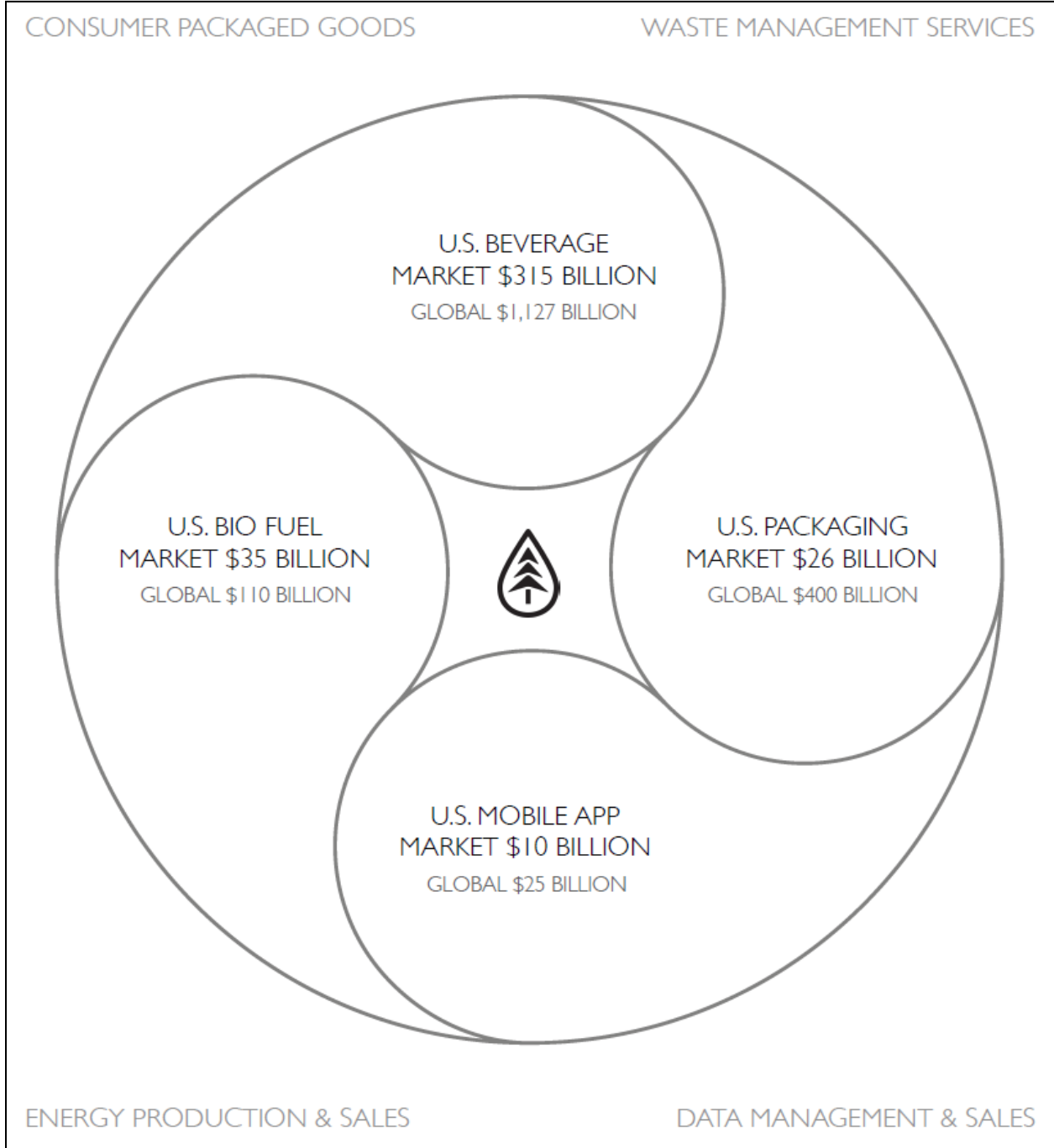
- Less energy, less CO2, less harm, less travel, no waste, no oil, and no GMO.
- A traditional water bottle takes an average of 12 total trips in its lifecycle before it is recycled or ends up in a landfill, river, or ocean around the world. Treeson bottles only take 4 total trips in their lifecycle before the Company converts them into clean energy that we use to make more bottles!
- There is nothing like it on the planet, the demand for plant based packaging is massive, and the industry is at its infancy.
- The Northern California location the Company has secured as our headquarters is acutely unique (*See Highlights to our McCloud Millwork's Lease*) with respect to its industrial zoning, water rights, and proximity to the West Coast marketplace.
- Treeson is one of the few companies out there that actually has a WHY.....a serious why.
- Closed loop plant-based packaging used to create clean renewable energy. Treeson will be able to duplicate concept for basically everything on the grocery/ c-store shelf and any consumer-packaged goods sold worldwide.

**Ultimately, the value proposition will deliver tangible results impacting:**

- Steadily increasing revenues for the business
- Increased conscious consumers
- Steadily improving relationships for both business and consumers
- Steadily increasing market share for the business
- Strong customer retention levels for the business

## The Market Opportunity

### Markets and Scope





## U.S. BEVERAGE MARKET




### Food & Beverages United States<sup>20</sup>

- Revenue in the Food & Beverages segment amounts to US\$18,374m in 2019.
- Revenue is expected to show an annual growth rate (CAGR 2019-2023) of 11.0%, resulting in a market volume of US\$27,872m by 2023.
- User penetration is 49.7% in 2019 and is expected to hit 64.8% by 2023.
- The average revenue per user (ARPU) currently amounts to US\$112.41.
- Users by age in percent: 33.0% of users are 25-34 years old.
- Users by gender: 54.1% of users are male.
- Users by income: 37.7% of users have high income and 35.2% have mid-level/medium incomes.

### Global Comparison - Revenue:

Top 5	
China	US\$21,945m
United States	US\$18,374m
Japan	US\$16,618m
United Kingdom	US\$13,378m
South Korea	US\$9,372m

### Top 5 online stores by net sales:

-  amazon.com: Net sales (2018) US\$1,476.9m
-  walmart.com: Net sales (2018) US\$953.3m
-  ediblearrangements.com: Net sales (2018) US\$456.5m
-  costco.co: Net sales (2018) US\$398.2m
-  target.com: Net sales (2018) US\$241.1m

### Non-alcoholic Beverages and Soft Drinks - Statistics & Facts <sup>21</sup>

The non-alcoholic beverages industry encompasses liquid refreshment beverages (LRB) such as bottled water, carbonated soft drinks, energy drinks, fruit beverages, ready-to-drink coffee, and tea, sports beverages, and value-added water.

<sup>20</sup> <https://www.statista.com/outlook/253/109/food-beverages/united-states>

<sup>21</sup> <https://www.statista.com/topics/1662/non-alcoholic-beverages-and-soft-drinks-in-the-us/>- Aug 23, 2018



### Important key figures

#### Liquid refreshment beverages (LRB)

- Sales volume growth of bottled water in the U.S., 7%
- Sales volume of water in the U.S. (in 192-oz cases), 6,430m
- Sales volume of juice drinks worldwide, 14bn cases
- Volume sales share of sports/energy drinks, 3%
- Market size of soft drinks in the U.S., 98,429m USD
- Price growth of ready-to-drink tea in the U.S., 1.5%

#### Carbonated soft drinks (CSD)

- Carbonated soft drink volume of North America, 51.16bn
- Per capita consumption of soft drinks in the U.S., 39.25 gal
- Per capita consumption of CSD in the U.S. (in 8-ounce servings), 628
- Per capita consumption growth of CSD in the U.S., -2%
- Market share of cola-flavored CSD in the U.S., 50.7%
- Market share of Coca-Cola Co. in the U.S., 42.8%

#### Leading CSD brands

- Leading carbonated Beverage Company worldwide, based on market share, Coca-Cola Co.
- Brand value of Coca-Cola worldwide, 66,042m USD
- Global revenue of Red Bull, 6.28bn EUR
- Net operating revenue of the Coca-Cola Company worldwide, 31.86bn USD

### U.S. Liquid Refreshment Beverage Market Retail Dollars And Volume Growth Rates Accelerated In 2018, Reports Beverage Marketing Corporation <sup>22</sup>

<sup>22</sup> <https://www.globenewswire.com/news-release/2019/05/15/1825401/0/en/U-S-LIQUID-REFRESHMENT-BEVERAGE-MARKET-RETAIL-DOLLARS-AND-VOLUME-GROWTH-RATES-ACCELERATED-IN-2018-REPORTS-BEVERAGE-MARKETING-CORPORATION.html>



(GLOBE NEWSWIRE): The U.S. liquid refreshment beverage market grew again in 2018, with retail sales increasing by 3.8% and volume by 2.2%, according to newly released preliminary data from **Beverage Marketing Corporation**. By both measures, the market grew faster than it had the year before. Specifically beverage-related factors, such as the enduring robustness of the sizeable bottled water segment, as well as more general ones, such as continuing economic growth, contributed to the overall increase in liquid refreshment beverage volume, which neared 33.9 billion gallons in 2018. In terms of retail sales, the market approached \$180 billion, propelled both by the fast growth of small, niche segments as well as solid growth by bigger, established categories, including carbonated soft drinks. All but one segment of the liquid refreshment beverage market enlarged retail sales in 2018, with ready-to-drink coffee and tea, bottled water (conventional and value-added), energy drinks, sports drinks and carbonated soft drinks showing growth, and only fruit beverages declining.

Bottled water, which surpassed carbonated soft drinks to become the number-one beverage by volume in 2016, grew again in 2018 but at slower rates than in prior years. The category's essential qualities – healthful, natural, calorie-free, and convenient – reliably appeal to U.S. consumers. Volume enlarged by almost 5% and retail sales advanced by more than 7%.

While smaller in retail size, niche segments once again outperformed most traditional mass-market ones. With regards to both volume and dollars, value-added water, energy drinks, and ready-to-drink (RTD) coffee in particular moved forcefully in 2018. Indeed, value-added water outshined all other segments with a 15.5% increase in volume and a 16.6% increase in retail dollars. No other segment saw double-digit growth rates in either volume or dollars, but energy drinks and RTD coffee moved up with rates in the high single digits. Fruit beverages, in contrast, experienced contraction in both volume and dollars. Carbonated soft drinks' retail dollar sales grew by 2.4% even as volume declined slightly as beverage companies continued to downsize packages and introduce more no-sugar offerings in response to consumers' desire for less sugar.

Despite their growth, no energy drink, RTD coffee or value-added water brand ranked among the leading trademarks by volume. (No fruit beverage brand did either.)

Sports beverages, on the other hand, had Gatorade (including all brand variations) as the fifth largest liquid refreshment beverage trademark during the year with volume greater than 1 billion gallons.

Carbonated soft drinks continued to account for four of the five top beverage brands by volume. The rate of retail sales growth for carbonated soft drinks doubled from the prior year (up by 2.4% in 2018 compared to 1.2% in 2017) as pricing rose. Carbonated soft drink volume performance was essentially flat at 12.2 billion gallons – the category's best performance since 2005. Coca-Cola and Pepsi Cola retained their usual first and second positions among the 10 leading beverage trademarks in 2018, with Mountain Dew and Dr Pepper claiming third and fourth place. Coca-Cola and Dr Pepper both recorded modest volume growth during the year, while Sprite (ranked seventh) grew relatively quickly.

Bottled water had four entries among the leading trademarks in 2018, but only two of them grew, and they did so at rates slower than the overall liquid refreshment beverage category.



Four companies accounted for all of the leading refreshment beverage trademarks. PepsiCo had four brands. Coca-Cola had three while Nestlé Waters North America (NWNA) had two and the company that became Keurig Dr Pepper during the year had one.

“The beverage market’s accelerating growth in both volume and retail sales is a noteworthy development in a rapidly changing industry,” said Michael C. Bellas, chairman and CEO, **Beverage Marketing Corporation**. “The varied performance of the diverse segments, and the rapid growth of newer ones, is indicative of ongoing changes and beverage companies’ adept responses to consumer demands.”

New York City-based **Beverage Marketing Corporation** is the leading consulting, research and advisory services firm dedicated to the global beverage industry.

Year	Millions of Dollars	Millions of Gallons	Dollar % Change	Volume % Change
2008	\$148,361.6	29,873.3	—	—
2009	143,542.5	29,060.0	-3.2%	-2.7%
2010	145,751.3	29,462.5	1.5%	1.4%
2011	149,970.2	29,676.3	2.9%	0.7%
2012	153,288.1	30,042.6	2.2%	1.2%
2013	153,380.0	30,020.1	0.1%	-0.1%
2014	157,610.3	30,671.5	2.8%	2.2%
2015	163,956.8	31,514.7	4.0%	2.7%
2016	169,257.0	32,553.6	3.2%	3.3%
2017	173,268.4	33,154.5	2.4%	1.8%
2018	179,931.2	33,871.9	3.8%	2.2%

Source: Beverage Marketing Corporation

Trademark	Company	2018 Rank	Millions of Gallons		% Change 2017/18	Share of Volume	
			2017	2018		2017	2018
Coke	Coca-Cola	1	3,918.5	3,933.9	0.4%	11.8%	11.6%
Pepsi	PepsiCo	2	1,770.7	1,710.6	-3.4%	5.3%	5.0%
Mountain Dew	PepsiCo	3	1,281.8	1,250.1	-2.5%	3.9%	3.7%
Dr Pepper	Keurig Dr Pepper	4	1,173.5	1,175.0	0.1%	3.5%	3.5%
Gatorade**	PepsiCo	5	1,050.3	1,058.9	0.8%	3.2%	3.1%
Nestlé Pure Life	NWNA	6	1,112.6	1,033.4	-7.1%	3.4%	3.1%
Sprite	Coca-Cola	7	931.5	958.4	2.9%	2.8%	2.8%
Poland Spring	NWNA	8	857.8	866.6	1.0%	2.6%	2.6%
Dasani	Coca-Cola	9	729.7	734.1	0.6%	2.2%	2.2%
Aquafina	PepsiCo	10	598.7	596.5	-0.4%	1.8%	1.8%
<b>Subtotal</b>			<b>13,425.0</b>	<b>13,320.4</b>	<b>-0.8%</b>	<b>40.5%</b>	<b>39.3%</b>
All Others			19,729.5	20,552.9	4.2%	59.5%	60.7%
<b>TOTAL</b>			<b>33,154.5</b>	<b>33,873.3</b>	<b>2.2%</b>	<b>100.0%</b>	<b>100.0%</b>

\* Includes all trademark volume (e.g., all types of Coca-Cola, including Diet Coke, et al.; all types of Pepsi, including Diet Pepsi, etc.; and so on).  
\*\* Includes G2.  
Source: Beverage Marketing Corporation

**U.S. LIQUID REFRESHMENT BEVERAGE MARKET  
CHANGES IN VOLUME AND RETAIL DOLLARS BY SEGMENT  
2017 – 2018**

Segments	Volume	% Change	Retail Dollars
Value-Added Water	15.5%	16.6%	
Energy Drinks	8.6%	8.4%	
Ready-to-Drink Coffee	8.8%	7.9%	
Bottled Water	4.9%	7.3%	
Sports Drinks	2.8%	4.9%	
Ready-to-Drink Tea	-0.3%	2.7%	
Carbonated Soft Drinks	-0.4%	2.4%	
Fruit Beverages	-3.0%	-1.2%	
<b>TOTAL LRB</b>	<b>2.2%</b>	<b>3.8%</b>	

*Source: Beverage Marketing Corporation*

### Bottled Water

Bottled water remained the No. 1 beverage by volume, increasing by 7% to 13.7 billion gallons in 2017. Retail sales jumped 11% to \$18.5 billion. Annual per capita consumption of bottled water was over 42 gallons in 2017, which was ahead of 37.5 gallons for carbonated soft drinks. “Amid worries about obesity, diabetes, heart disease and other health matters, bottled water’s lack of calories and artificial ingredients, convenience and refreshing taste attracts health-conscious consumers,” said Joe Doss, president and chief executive officer of the International Bottled Water Association, Alexandria, Va.<sup>23</sup>

### U.S. Bottled Water Market - Statistics & Facts: Published by Jan Conway, Dec 7, 2018 <sup>24</sup>

Global bottled water consumption was characterized by a significant growth over the last decade and is still on the rise. Bottled water is drinking water packaged into plastic or glass bottles. It can further be categorized as sparkling and still water.



<sup>23</sup> <https://www.foodbusinessnews.net/articles/12935-state-of-the-industry-beverages>

<sup>24</sup> <https://www.statista.com/topics/1302/bottled-water-market/>





## Important key figures

### Brand and retail facts

- Value of U.S. product shipments of bottled water, 6.88bn USD
- Sales share of bottled water in U.S. grocery stores, 25.6%
- Sales volume of bottled water in the U.S., 13.7b gal
- Sales volume growth of bottled water in the U.S., 7%
- Sales of Dasani bottled still water in the U.S., 1,088.2m USD
- Sales of Nestlé Waters North America's bottled water in the U.S., 2379.78m USD
- Market share of Dasani's bottled still water in the U.S., 9%
- Sales of Perrier sparkling water in the U.S., 277.93m USD

### Consumption

- Per capita consumption of bottled water in the U.S., 42.1 gal
- Share of Americans who buy name-brand bottled water, 26%
- Share of Americans who drink water every day, 88%
- Share of Americans who drink mineral water/water while watching the Super Bowl, 30%

### More Statista

- The volume of bottled water in the U.S. amounted to about 13.7 billion gallons in 2017.<sup>25</sup>
- The per capita consumption of bottled water amounted to 42.1 gallons in 2017. Bottled water is drinking water sold in plastic or glass water bottles. It can be carbonated or still. The bottled water brand Dasani was ranked among the leading bottled still water brands in the United States that year. The United States was also one of the largest consumer markets for bottled water, based on per capita consumption.<sup>26</sup>
- For the 52 weeks ending August 12, 2018, private labels of bottled still water in the United States generated about 2.78 billion U.S. dollars in sales.
- 88 percent of the respondents answered that they drink water every day.<sup>27</sup>
- 24 percent of respondents indicated that their ideal bottled water would be GMO-free.<sup>28</sup>

### U.S. Bottled Water Market

The United States has the biggest consumer market for bottled water worldwide. The widely consumed beverage is regulated by the U.S. Food and Drug Administration (FDA). According to the FDA, bottled water is intended for human consumption and comes sealed in a bottle or similar containers with no additional ingredients. Bottled water can be either carbonated or not.<sup>29</sup>

Still water has no added carbonation. The non-bubbly beverage is mostly found in larger containers in the retail aisles, but smaller bottles or containers are also available. Bottled sparkling water combines convenient and healthy characteristics for consumers in the United States. These characteristics were

<sup>25</sup> <https://www.statista.com/statistics/237832/volume-of-bottled-water-in-the-us/>

<sup>26</sup> <https://www.statista.com/statistics/183377/per-capita-consumption-of-bottled-water-in-the-us-since-1999/>

<sup>27</sup> <https://www.statista.com/statistics/679800/frequency-of-water-consumption-us-consumers/>

<sup>28</sup> <https://www.statista.com/statistics/659199/main-criteria-or-ideal-bottled-water-us-by-type/>

<sup>29</sup> <https://www.statista.com/statistics/188312/top-bottled-still-water-brands-in-the-united-states/>



supported by marketers and advertisers trying to set up the image that bottled water is safer than its counterpart tap water. Mostly unknown to the public is that some bottled waters also come from municipal sources. Before it is bottled, it will be treated by distillation, reverse osmosis, filtration, or ozonation.

Top selling still bottled water brands competing in the U.S. market are Dasani, Aquafina, Nestlé Pure Life, and Glaceau Smart Water. Those brands can be easily attributed to the biggest bottled water companies such as PepsiCo, the Coca-Cola Company, and Nestlé Waters. Apart from private label products, these three key players captured all sales in the top five ranking for bottled still water in 2016. The bottled water brands Dasani and Glaceau are owned by Atlanta-based Coca-Cola.

## U.S. PACKAGING MARKET

**U.S Flexible Packaging Market worth \$29.64 billion by 2021.** The Report “U.S Flexible Packaging Market by Material (Plastic Film, Aluminium Foil, Paper, Bioplastic), Type (Stand-Up Pouches, Retort Pouches, Gusseted Bags, Others), Printing Technology (Flexography, Rotogravure, Digital, Others), Application – Analysis and Forecast to 2021” is estimated to reach \$29.64 billion by 2021, growing at a CAGR of 4.56% from 2016 to 2021.<sup>30</sup>

The U.S. flexible packaging market is projected to grow from USD 23.72 billion in 2016 to USD 29.64 billion by 2021, at an estimated CAGR of 4.56%. This growth is due to the increasing demand from various end-user industries such as food & beverages, healthcare, cosmetics & toiletries, and others (oil & lubricants, household products, agricultural products, and sporting goods). Factors such as growing consumer preferences towards convenient packaging, ease of use, and its lightweight characteristic are driving the demand for flexible packaging in the U.S. Manufacturers are shifting towards flexible packaging as it produces less waste due to lower consumption of raw materials, requires less storage space, is easy to transport, and has excellent barrier properties.

### Northeast region to play a key role in the market for U.S. flexible packaging

On the basis of region, the U.S. flexible packaging market is segmented into Midwest, West, Northeast, Southeast, and Southwest. The Northeast region accounted for the largest share among all regions in 2015. However, Southwest region is projected to grow at the highest rate from 2016 to 2021, owing to the increasing demand for flexible packaging in this region, coupled with the growing food & beverage and healthcare industry. With increasing disposable incomes, the urbanized population is shifting towards packaged foods which are healthy and safe. Therefore, rising income and consumption levels would also lead to the growth of flexible packaging market in this region.

The key players in the U.S. flexible packaging market are Bemis Company, Inc. (U.S.), Sonoco Products Company (U.S.), Sealed Air Corporation (U.S.), Berry Plastics Group, Inc. (U.S.), and Coveris Holdings S.A.

---

<sup>30</sup> <http://www.micromarketmonitor.com/pressreleases/u-s-flexible-packaging.html>



(U.S.). Other players include Ampac Holdings, LLC (U.S.), Tredegar Corporation (U.S.), Printpack, Inc. (U.S.), American Packaging Corporation (U.S.), and Glenroy, Inc. (U.S.).

### **Packaging Industry Trends** <sup>31</sup>

On a global scale, the packaging industry is an enormous economic generator. Statistics from the well-recognized Smithers Pica organization indicate the world packaging industry's market value will reach \$1 trillion by 2020. That's up from \$839 billion in 2015. Consumer trends and industry trends for packaging drive this gigantic growth rate. To understand this phenomenon and appreciate where it's heading, it's necessary to examine the top packaging industry trends for 2019.

Packaging is an all-encompassing industry term for the technology and design work going into protecting or enclosing every sort of product destined for storage, shipping, and sale. Packaging also takes in the product manufacturer's marketing efforts. For leading manufacturers, the way they package their products signifies their brand. They view packaging as an essential part of their business model. That's next to producing an excellent product, of course.

Every industry has megatrends. That means overall changes in the marketplace that affect manufacturers' product placement and presentation. At the forefront of today's market change from brick-and-mortar stores to e-commerce is a definite swing in how every type of product is getting packaged, labeled and offered for sale. Here are the top packaging trends for 2019.

### **Transparency and Clean Labels**

Presenting product information in a clear and transparent way is another strong packaging industry trend for 2019. This trend is all about trust and honesty. In today's world where consumers have so much access to information, they can better educate themselves about product choices. At the top of smart consumers' interest list are what their product choices contain and the packaging methods they use.

"Transparency" refers to manufacturers being completely open and honest about what the products contain. "Clean" means products are safe and don't contain harmful ingredients. When a manufacturer packages their product in a way that makes content information clear, concise, and open, it promotes trust in the company's brand name.

Clean and transparent labeling strongly affects the packaging industry's food sector. Reports from a new Mintel study into packaging transparency and clean foods found more than 50 percent of U.S. consumers have an interest in scanning food packages with their smartphones to find out exactly what they contain. Part of the clean and transparent trend in 2019 is the rise of the Smart Label™. The label code immediately connects consumers to a landing page with transparent information about how clean this choice may be.

---

<sup>31</sup> <https://www.yorksaw.com/packaging-industry-trends/>



## **Private Labels and Store Brands Dominating**

### **Bold Colors and Effects**

### **Growth in Flexible Packaging**

Flexible packaging is a trend that's gaining great popularity, and there's a good reason for it. Technological advancement in flexible packaging materials makes them suitable to far more consumer products today that were once restricted to rigid and hard materials.

According to the Flexible Packaging Association, the United States accounts for \$135 billion in the world's entire packaging industry. Out of all the packaging material options, flexible packaging materials are the second-largest form in existence. Flexible packaging takes in all non-rigid materials. The most popular flexible packages are wraps, bags, pouches, and envelopes.

Flexible packaging has many advantages over rigid packages. They're easier to store, more convenient to open and highly practical to close or reseal. Products in flexible packaging have attractive shelf appeal, use less material, and have better shipping characteristics, which is an essential point in e-commerce.

Part of the reason flexible packaging is such a prominent 2019 trend is material advancement. For years, most flexible packaging materials were polyvinyl chloride. This plastic wouldn't break down or decompose, which made it environmentally hostile. Today, most flexible packaging uses materials made of polyethylene, polyethylene terephthalate, or polypropylene. These high-tech plastics are durable when in use but deteriorate when discarded.

### **Recycled Packaging Products in Use**

The recycled packaging trend has never been so popular. The movement started a generation ago with the 3-R principle: reduce, reuse, and recycle. Today, the 3-R model creates a circular economy where it's a mainstay for how proper product packaging performs. Recycling has now become firmly embedded in the American psyche.

Recycled packaging is part of the worldwide sustainability movement. For years, the vast majority of packaging waste found its way to landfills. Worse yet is the mass of non-perishable plastics currently floating in the oceans. That mess is no longer acceptable, and most consumers now do their part to prevent it. They're choosing recyclable product packaging instead.

Technology is also improving the packaging material industry. Advancements in plastic and paper chemistry now allow recycling to be easier and more convenient than ever. Federal, state, and local authorities also promote and encourage packaging recycle programs. But the main thing driving the 2019 trend toward recycled packaging products is consumer choice. People avoid purchasing anything packaged in non-recyclable materials.

### **Minimalist Packaging of Products**



“Less is more” is an adage that’s true in many cases. It’s certainly true in 2019 packaging industry trends. Minimalist packaging around products is popular for trendy consumers who reject the idea that products must have excessive wrapping and protection around them.

Minimalist packaging works well because it’s simple. Consumers appreciate simplicity and economy, which is one reason brown paper wrappings are so popular. It’s a pushback to unnecessary excessiveness.

The minimalist trend also affects product labels. People resist information overload. Labels with fine print and too much detail are a turnoff. Packages with simple labels that tell consumers what the product is and what’s in it for them are today’s trendy move. Companies that ignore the minimalist message do so at their marketing peril.

### **Label Printing Over Stick-On Shipping Labels**

#### **Packaging for E-Commerce Purchases**

E-commerce isn’t a 2019 trend. Its here to stay, and will only grow as consumers get comfortable with online buying. But specialized packaging specifically for e-commerce is trending in 2019. Amazon is the giant of e-commerce, and there are some valid lessons to learn from Amazon’s e-commerce packaging.

Amazon is a pack-to-order company. Once they receive an order, workers pick and process the items. Amazon has automated every step of their process, including the physical packaging and digital printing. That includes some individual items and a multiple order in one shipping box.

Amazon might be big, but it’s not the only e-commerce player. Many companies find the trend to e-commerce purchasing effective and profitable. E-commerce packaging still reflects the same basic principles as real-time shopping. Products have to be professionally presented, protected and please consumer expectations.

#### **Smaller and Greener Packaging**

The green movement has only gained momentum in 2019. Every company that deals with packaged goods can’t ignore the green wave. It’s all about responsibility through sustainable goods and environmentally friendly products. The green scene also involves smaller packaging.

Reduce, reuse and recycle is part of the green commitment to being responsible in the world. Today’s consumers are far too aware of their environmental footprint. More people than ever are joining the ecological fight and doing their part to protect their share of the world. The packaging industry must recognize and respect consumers’ desire to maintain a smaller carbon footprint. They can do that by making smaller and greener packages.



### **Insight: Five Consumer Packaging Trends Shaking up the Industry** <sup>32</sup>

Smithers Pira provides 5 of the most important consumer packaging market trends in this insight feature. Make sure you are aware of these packaging industry trends.

Consumers are continually changing the way they view, interact with, and discard packaging. Whether you're a manufacturer or a product marketer, you know how important it is to keep up with packaging market trends and reflect the changing needs of the consumer in your products.

From convenience to traceability, here are five of the most important consumer packaging market trends you need to know about to maximize the potential of packaging your products in today's market.

#### 1. Sustainability

Consumers are becoming increasingly more aware of global environmental issues and are changing their buying habits accordingly. These days, it's 'cool to care', and consumers are actively seeking out semiotic signs on packaging that manufacturers have a green conscience (but are wary of green washing). Understanding how commitment to sustainability can be communicated in an engaging way on the packaging is key to attracting, relating to, and keeping consumers.

Sustainable Packaging: Myth or Reality, an expert white paper by PWC, explains how sustainable practice has become essential to the perception and identity of a brand. In line with their ambition to be the 'most sustainable and desirable sportswear brand', Puma worked with PWC to produce an environmental profit and loss account, highlighting a €145 million environmental impact across their supply chain. Recognition of this allows them to build a more sustainable and resilient model for the future, and to communicate their green achievements to consumers.

It seems that sustainability is no longer an optional add-on - it's an essential part of future business planning for those in the packaging industry. The complete story of a product is becoming a key factor in purchasing decisions - where does it come from, how was it made, what are its recycling credentials?

#### 2. Healthy Living

#### 3. Convenience

#### 4. Authenticity and Trust

#### 5. Cost-effective Shopping

---

<sup>32</sup> <https://www.smitherspira.com/resources/2013/september/five-consumer-packaging-industry-trends>

## Water

### Bottled Water Market - Global Trends, Competitive Scenario, and Forecast to 2023 <sup>33</sup>

#### Bottled Water Market

The demand for bottled water has been growing during the last decade, owing to health and wellness concerns. Beverage companies are improving their packaging due to environmental concerns. Coca-Cola has reduced its cap size in bottles that are 24 ounces or smaller in order to reduce the plastic intake by the company. The bottled water industry was valued at USD 185 billion in 2015 and is expected to reach USD 334 billion by 2023, growing at an 8.5% CAGR during the forecast period 2018-2023.

#### Market Dynamics

The bottled water industry is driven by the health concerns regarding drinking water. Changing lifestyles, preference for vitamin and minerals rich drinking water, and ease of handling and *portability of bottled water* are some of the factors driving the market. Bottled water manufacturers are introducing new products with health benefits and new flavors. It is resulting in several product launches in the bottled water market. The new products are offering functional benefits, convenience, and better taste which are preferred by consumers. The growth of PET bottles sector globally has also helped in the widespread supply of bottled water, through wide network organized markets as well as several grocery and club stores. These factors are expected to boost the growth of the bottled water market in the near future.

However, there are a few restraints slowing down the pace of the industry, such as the environmental pollution through plastic bottles. This issue has encouraged the initiation of several stringent government regulations regarding the use of recyclable packaging solutions and adopting ways to help reduce carbon footprint of the industry. An instance is the European Parliament and Council Directive 94/62/EC. It requires the member states to enforce regulations regarding increased use of reusable or recoverable packaging, volume to reduce hazardous substances and materials and reduction of packaging weight in the packaging, and meet packaging material recovery and recycling targets. Such regulations will hamper the overall development of the global bottled water market. Lack of awareness regarding the health issues associated with low-cost tap water is also a restraining factor.

The major opportunities identified for the bottled water industry are *innovative products* with minimum environmental and health hazards and penetration in developing markets.

#### Market Segmentation

The bottled water market can be segmented by product types, distribution channel, and geography. By product type, the bottled water market is sub-segmented into still water, carbonated water, **flavored water**, and functional water. Still water is the largest sub-segment of bottled water, accounting for more than 65% of the demand, followed by **carbonated water**. Product innovation in terms of flavor and

---

<sup>33</sup> <https://www.mordorintelligence.com/industry-reports/bottled-water-market>



packaging has triggered the flavored water demand. According to distribution channel types, this market can be segmented into hypermarkets, supermarkets, convenience stores, departmental stores, specialty stores, and online purchases. The segment of still bottled water has dominance in terms of both revenue and volume in the global market. The segment is expected to account for a share of 78% of market's overall revenue by 2022. Carbonated is the second largest segment of the bottled water market. Carbonated bottled water is expected to witness a slight decline in its market share in the years to come. The flavored and functional water segment is expected to witness rapid growth during the forecast period.

### **Regional Analysis**

Asia-Pacific is the largest market in terms of revenue and total consumption, accounting for 33% market share. It is also the fastest growing market for bottled water, covering more than one-thirds of the market demand, supported by the large population, high demand, untapped market and demography, and rapid urbanization. As a result, there is business expansion by almost all the big players in the market. Led by China and India, Asia-Pacific is expected to register the highest CAGR during the forecast period. Europe is the second largest market, with 28% market share. Other regions like North America, South America, and Africa have a significant share of the bottled water market. North America is a saturated market with steady demand and the highest per capita bottled water consumption currently. U.S. bottled water market has hit an historic high point in 2015, when volume exceeded 11.7 billion gallons.

### **Competitive Environment**

The **bottled water market** is fragmented due to the presence of a large number of private label brands and local bottlers. More than 60% of the global market is covered by regional and national level players. The competition is reported to be huge mostly in North America and Europe, where the markets are saturated with slow growth and steady demand. The growing demand for thirst crunching products, health and hygienic concerns, multiple market distribution channels, and social acceptance of bottled water are expected to help the market grow at a good pace. The competition is steadily increasing. The internal competition in the bottled water market is comparatively high owing to a large number of major providers of bottled water products and increase in the number of small domestic players in the market. The global bottled water industry is facing external competition from producers & distributors, which are adopting forward and backward integration strategies to develop their own facilities to produce bottled water.

### **The top players in the bottled water market are:**

- Ajegroup SA
- CG Roxane, LLC
- Coca-Cola Company
- Fonti Di Vinadio S.P.A.
- Groupe Danone
- HassiaWaters International GmbH & Co. KG
- Nestle Waters





- PepsiCo, Inc.

### **Water Bottle Industry Statistics, Trends & Analysis** <sup>34</sup>

When you take a look at the water bottle industry in the United States, the contrast this product has when compared to the trends governing soft drinks is quite striking. Water products are rising rapidly while its primary competition continues to lose its market share. According to data offered by the Beverage Marketing Corporation, the 42.1 gallons that consumers drink of water almost matches the 2012 levels of carbonated soft drink consumption.

People are changing their attitudes about water bottles today. Although there are still concerns about plastics in the bottles being recycled, the growing trend of purchasing reusable containers is helping the market continue to grow. With an increase in home and office deliveries to consider as well, consumers are finding more ways to make water portable, which may lead to societal health benefits in the coming years.

The sparkling bottled water segment grew by double-digit percentages for the fourth consecutive year in 2017, with over 5 billion gallons of new product consumed. With revenues soon topping \$20 billion, the water bottle industry is poised to reach new records in the coming years.

### **Important Water Bottle Industry Statistics**

- #1. Bottled water is the top beverage product in the United States by volume. Over 13.7 billion gallons were sold in 2017, which represents a 7% increase from the year before. (Beverage Daily)
- #2. The total revenues generated by the water bottle industry were \$18.5 billion, representing an increase of 8.8%. This occurs at the same time that carbonated soft drinks saw their 13th-consecutive decline in sales. (Beverage Daily)
- #3. The average person in the United States consumes 42 gallons of bottled water each year, compared to the 37.5 gallons of carbonated soft drinks that are also consumed. (Beverage Daily)
- #4. All segments of bottled water grew in 2017. Non-sparkling water saw an increase of 5.5%, while domestic sparkling water grew by 27.5%. Even imported water sales grew by 9.2%. (Beverage Daily)
- #5. Office and home delivery of bottled water in 3-gallon and 5-gallon sizes saw an increase of 1.3% for 2017 from the year before. (Beverage Daily)
- #6. 63% of consumers say that bottled water, either sparkling or still, is one of their preferred beverages when they are thirsty. That ranks higher than coffee at 62% or a carbonated soft drink, diet or regular, at 58%. (Harris Poll)
- #7. Several companies which are produced bottled water for sale are using up to 100% rPET for their containers, while curbside recycling rates in the United States for the product reached 53.9% in 2017. Even plastic bottles and caps are 100% recyclable today. (Beverage Daily)
- #8. Bottled water uses only .011% of all water that is used in the United States each year. (IBWA)
- #9. It only takes 0.24 megajoules of energy to produce 1 liter of bottled water for consumers in the United States. (IBWA)

---

<sup>34</sup> <https://brandongaille.com/30-water-bottle-industry-statistics-trends-analysis/>



- #10. Bottled water takes a 23.9% volume share of the beverage segment in the United States, which makes it the top product purchased by consumers. Carbonated soft drinks have a 22.3% share of the market. Then it is coffee (12.5%), beer, and cider (11.5%), and milk (10%). (Beverage Marketing Corporation)
- #11. 69.5% of the bottled water that Americans consume each year comes in a PET single-serve bottle. Only 10.6% of the volume share comes from HOD, while 8.7% comes through retail bulk sales. Vending machines contribute 7.3% of the bottled water sales achieved by the industry each year. (Beverage Marketing Corporation)
- #12. China is the global leader for the consumption of bottled water, with over 25.4 billion gallons consumed in 2017. The growth of their market from figures in 2012 was 11.8%. The United States is the only other market to exceed 10 billion gallons of water consumed, and its CAGR during that time was 7.1%. (Beverage Marketing Corporation)
- #13. India achieved 10.4% market growth for bottled water consumption between 2012-2017, reaching 5.75 billion gallons of water consumed for the year. (Beverage Marketing Corporation)
- #14. The Top 10 consumers for the water bottle industry used a total of 80 billion gallons of water, while the world total came just under 100 billion gallons for the first time. Total water consumption globally has increased by 6.4% since 2012. (Beverage Marketing Corporation)
- #15. Mexico is the largest per capita consumer of bottled water in the world today, with the average person drinking 67.2 gallons. Thailand comes in second, with 57.5 per capita. These two leaders are followed by Italy (48.2), the United States (42.1), Germany (37.9), and France (36.4). (Beverage Marketing Corporation)
- #16. The global average for bottled water consumption per capita is just 13.2, although that rate is about 3 gallons higher than it was in 2012. (Beverage Marketing Corporation)
- #17. Only three countries in the Top 20 of bottled water consumption saw a per capita decrease in their consumption levels: Switzerland, Argentina, and Austria. (Beverage Marketing Corporation)
- #18. It requires three times the amount of water to produce a plastic bottle than it does to fill it, contributing to a cost factor that is 1,000 times higher when compared to tap water. (Ban the Bottle)
- #19. Although the average American uses 167 water bottles over the course of a year, they will only recycle 38 of them. (Ban the Bottle)
- #20. It requires 17 million barrels of oil to produce the number of plastic bottles which are used each year, which could create enough fuel to operate 1 million vehicles for an entire year. (Ban the Bottle)
- #21. Bottled water at the average rates that Americans consume it can cost about \$350 per year, but if you drank the same amount in tap water, the total cost would only be \$0.48. That means the average household could save \$3,400 per person by switching from bottled to tap water. (Consumer Reports)
- #22. The bottled water industry generates over \$100 billion in revenues each year in the United States alone. (National Geographic)
- #23. Up to 80% of the plastic bottles which do not make it into a recycling program in the United States will end up in a landfill. They do not break down naturally, which runs the risk of releasing toxic chemicals when they do start decomposing. (National Geographic)
- #24. Brazil leads the world in total annual renewable water resources, with over 1,975 cubic miles of product access. Russia comes in second with 1,079 cubic miles, followed by Canada (792), the United States (736), and Indonesia (681).



#25. Kuwait has the fewest annual renewable water resources in the world, with access to just 0.005 cubic miles of this resource. They are followed by Barbados (0.02), Antigua and Barbuda (0.02), Bahrain (0.02), and the Central African Republic (0.07). (Seametrics)

#26. 88% of the fatal cases of malaria, cholera, typhoid, and diarrhea are due to limited water access that could be solved by stronger distribution networks of bottled water. (Seametrics)

#27. For every \$1 that is spent by the water bottle industry on sanitation projects and water access, there is a \$9 return produced. (Seametrics)

#28. Although tap water is cheaper than bottled water, 95% of the water that enters the average home in the United States will go down the drain. Showers account for 27% of the total water use in the United States each year. (Seametrics)

#29. The United Nations estimates that the cost of providing global access to safe water is just \$30 billion. If the United States took that money out of their defense budget, there would still be \$580 billion to spend, which would still be higher than the next 9 countries expenses combined for the same resource. (Seametrics)

#30. Over 443 million school days are lost each year because of water-related disease issues that the water bottle industry could help to solve. (Seametrics)

### **Water Bottle Industry Trends and Analysis**

Water consumption is expected to continue increasing in the United States over the next 10-year period, with the average per capita rate topping 50 gallons by 2028 – if not before. 94% of Americans say that drinking bottled water is a healthier choice when compared to a soft drink. 93% say that they would like to see this product become available in all retail situations. There are multiple qualities which contribute to the water bottle industry’s continued attraction to American consumers, with benefits seen in safety, convenience, value, and health. This trend will only continue to grow as customers step away from the idea that buying water that they could get from a tap is a waste of funds. Addressing this issue through filters and reusable bottles has helped to secure strong growth for the industry. With consumption levels expected to continue increasing in the U.S. and around the world, the only issue to consider in this forecast for the industry is how much growth it will achieve. Although the double-digit percentages for some segments will wind down, we expect to see a CAGR of 4% at minimum for the industry as a whole, with the sparkling segment averaging 7% through 2029.

### **Cannabis-Infusions Open New Opportunities for Beverage-Makers**

In terms of modern society, historians commonly will point to three industrial revolutions that have greatly advanced society: the steam engine, the age of science and mass production, and the integration of digital technology. Each was revolutionary for the time periods in which they emerged and continue to impact many aspects of current society. For the consumer packaged goods (CPG) market, the emergence of a certain category also might cause a revolution in terms of CPG development — cannabis.

Whether it is tobacco, packaged foods, consumer health, beverages, or beauty and personal care, many market analysts recognize that cannabis is poised to disrupt these consumer markets as the flowering plant makes inroads in legalization and mainstream acceptance.



In its 2018 report titled “Here Comes Cannabis: How Legalization Will Disrupt Global Industries,” Chicago-based Euromonitor International estimates that the legal and illegal global market for cannabis equates to \$150 billion, with the legal market expected to grow 77 percent of total sales at \$166 billion by 2025.

“Within the next decade, some form of cannabis will be a part of consumers’ daily routines, either as a functional ingredient in foods, beverages and beauty or as a wellness mood enhancer in health,” the report states.

### **Cannabis 101**

Although cannabis continues to grab headlines across consumer and business trade media outlets, the scientific components and definitions go deeper than what is able to fit in a two-minute story package.

When asked which edible marijuana/cannabis formats they’d be interested in consuming, 34 percent of consumers in legal states said tea, Mintel’s Beth Bloom says. (Image courtesy of Buddha Teas)

“The cannabis plant has three main species: sativa (hemp and marijuana), indica (marijuana) and ruderalis,” Euromonitor’s report states. “Ruderalis is rarely used for consumption. All cannabis plants contain cannabinoids, which interact with the human body’s endocannabinoid system.

“Over 100 different cannabinoids exist, of which cannabidiol (CBD) and tetrahydrocannabinol (THC), a psychoactive substance, is the most well-known,” it continues.

Danny Brager, senior vice president at Nielsen for U.S. Beverage Alcohol Practice, further elaborates on the cannabis compounds and its various effects.

“CBD is found in both the aerial parts (those above the ground) of both marijuana and hemp,” he says. “It is a compound called a cannabinoid that is associated with easing pain and providing relaxation. THC is also a cannabinoid, but unlike CBD, it is only found at levels greater than 0.3 percent in marijuana.

“THC is the cannabinoid primarily responsible for the psychoactive effects of marijuana often referred to as a ‘high’ or a ‘buzz,’” Brager continues. “THC and its associated intoxicating effect is the main reason the federal government still considers any product derived from marijuana as a controlled substance and it remains federally illegal.”

The legal status of cannabis in the United States remains complicated as a number of states have legalized the drug for medical use while a choice number has done so for recreational use, despite its illegal designation at the federal level.

“Cannabis regulation is currently divided into medical and recreational or ‘adult’ use”, Euromonitor’s report states. “Medical use is only legal with a prescription or by registering as a medical patient. Recreational use allows cannabis products containing THC to be sold freely through licensed outlets at a taxable price. The government either controls the production and sale of the product, or it delegates this to the industry under strict legal guidelines.”



For recreational marijuana sales, Euromonitor details that 10 U.S. states have authorized it while 33 states allow for medical marijuana usage. “Euromonitor International expects federal legalization of recreational cannabis in the U.S. within the next 10 years”, the report states. “In the rest of the world, medicinal marijuana is a stronger prospect with some large markets, such as Germany, Czech Republic, and Australia, moving forward with liberalized structures.”

One of the most significant legal impacts for the cannabis market was the de-scheduling of hemp-derived CBD as part of the 2018 Farm Bill.

“Through the de-scheduling of hemp-derived CBD, it is no longer federally illegal for manufacturers and retailers to sell non-ingestible forms of hemp-derived CBD,” says Rick Maturo, associate client director for Nielsen Beverage Alcohol and Cannabis Practice. “These formats include topicals, sprays, rubs, and hand and body care products. Because the FDA has not approved hemp-derived CBD as an ingredient in ingestibles (capsules, drops, edibles, drinks, etc.) these formats are not on the shelves of major chain CPG retailers, nor are they included in the product portfolio of larger manufacturers. That said, although ingestible hemp-derived CBD products are not approved, there are cases today where some of these products may be found in smaller niche retailers (e.g., health food stores, vape shops) and eCommerce channels, including some that are direct-to-consumer.”

What the 2018 Farm Bill ultimately did was escalate the battle that existed with CPGs, the pharmaceutical industry and marijuana businesses in serving the needs of American’s pain management and holistic treatment solutions, Maturo adds.

Joybird Wellness beverages featuring 8 mg of CBD that is sourced from domestic, organic hemp, the company says. (Image courtesy of Joybird Wellness)

Despite the de-scheduling of hemp-derived CBD for non-ingestible products, the cannabis market remains complex.

“Regulations vary significantly not only by individual state but also across municipalities within legal recreational states to include things like traceability, adult-only purchasing, and use, dispensary locations, advertising, brand imagery, and many others,” Maturo says. “Also, because marijuana is federally illegal, all facets of the marijuana ecosystem must be contained within each legal state. There is no legal interstate commerce for marijuana.”

Because cannabis remains illegal at the federal level and the 2018 Farm Bill only cleared hemp-derived CBD for non-ingestibles, many legal hurdles still need to be overcome for the growing market, experts note.

“THC and CBD from the marijuana plant continues to be federally illegal and highly regulated at the state level within those states that legally permit adult purchasing and consumption,” Maturo says. “Only licensed dispensaries can sell marijuana, and those facilities cannot sell any non-marijuana related products, including CPG-type products. The de-scheduling of hemp-derived CBD (for non-ingestible



products) has provided opportunity — or risk — for CPG manufacturers and retailers that make or sell products that overlap with the need states that the hemp-derived CBD products also address.”

### **Drinkable future**

Although the legal standing for consumable forms of cannabis still has more questions than answers, CPG manufacturers see vast potential for this emerging market, including beverage formulators.

“Headset’s Insights Data Platform today covers the legal cannabis markets of California, Nevada, Washington, and Colorado,” Nielsen’s Brager says. “Within that dataset, recreational cannabis sales topped \$4 billion last year (vs. \$2.5 billion in prior year), and amounted to \$1.2 billion in Q1 2019.”

Manny Perez, vice president of marketing for Headset, reports that sales for infused beverages in those markets in 2018 totaled \$41 million with a 2 percent basket penetration. Additionally, 80 percent of the sales were among the Top 5 brands in each state, averaging \$15 an item.

Early 2019 sales also are showing potential. “Q1 2019 sales were \$12.3 million across our measured markets — California, Washington, Nevada, and Colorado — this amounts to approximately 1 percent of total recreational cannabis sales,” Perez says.

Based on Headset data, the overall legal cannabis market is forecasted to be between \$4.8 and \$6 billion in 2019 with beverages predicted to account for 1 percent of the market, which would put beverages sales range between \$48 and \$60 million, Perez says.

However, Perez adds that those predictions are a reflection of uncertainty because of Senate Bill 67 in California. The now amended measure would invalidate the expiration date of temporary licenses issued by the California Department of Food and Agriculture (CDFA) as long as licensees annually submit applications and fees prior to expiration and under the condition that the licensees remain in the location and business venture, according to an opinion article from the Desert Sun newspaper. Additionally, the CDFA would have more time under the measure to transition growers from temporary to provisional or full annual licenses, it adds.

Featuring 10 mg of raw organic cannabis extract, Nubrain California Cannabis promotes its positive energy and thoughts on its label. (Image courtesy of Tesla Nootropics Inc.)

“In 2019, the thing that everyone is keeping an eye on is SB67 in California,” he says. “If not resolved, we could see a contraction in the market, versus. If resolved, growth would hopefully continue as it has. This makes it difficult to forecast California.”

Although beverages account for a small percentage of sales within the legal cannabis market, they still offer much potential, says Beth Bloom, associate director of U.S. Food and Drink Reports for Chicago-based Mintel.



“When we asked consumers in legal states which edible marijuana/cannabis formats they’d be interested in consuming, 34 percent said tea,” she explains. “This is the fourth leading format of interest behind baked goods, chocolate candy, and non-chocolate candy. Beyond tea, 32 percent are interested in juice, 29 percent are interested in carbonated soft drinks, 27 percent are interested in coffee, and 21 percent are interested in sparkling water.”

Nielsen’s Brager also notes consumers’ interest in cannabis-infused beverages. “Cannabis interacts and overlaps with a broad set of more traditional consumer packaged goods categories, including beverages, both alcoholic and non-alcoholic,” he says. “For example, our consumer research suggests that cannabis-interested consumers are more likely to drink beer (53 percent) and spirits (50 percent) than wine (37 percent). Only 35 percent of current wine drinkers are interested in legally consuming cannabis for recreational purposes, versus 41 percent for beer drinkers and 44 percent for spirits drinkers.”

In its report, Euromonitor details that the beverage alcohol market has some of the stronger ties to cannabis exploration as major manufacturers already are investing in the space.

“At least three leading corporate players have a stake in cannabis producers”, the report states. “Alcoholic drinks that contain any form of THC currently tend not to contain alcohol, as the effects of THC in alcohol are still being researched. The industry is already headed in a low- / non-alcohol direction and so a future where THC replaces ABV in alcoholic beverages with an intoxicating buzz is on the horizon.”

As a result, Mintel’s Bloom cautions that the beverage alcohol market could be challenged as manufacturers experiment with cannabis infusions.

“While the impact of cannabis legalization in parts of the country remains to be seen, 34 percent of cannabis users say they’ve reduced alcohol consumption since legalization, pointing to a likely challenge to be addressed,” she says. “Relaxation is the leading reason for consumption of both cannabis and alcohol, pitting the two markets as competitors. Dollar sales of alcohol at home were flat in 2018, growing only 0.3 percent in 2018 (-2.1 percent when adjusted for inflation).

“This is down from a 3.8 percent recent annual gain high point in 2015,” Bloom continues. “While a significantly smaller number of consumers use cannabis than drink alcohol, staving off sales losses will require alcohol players to be mindful of the competitive threat. Cannabis is more likely peeling away some consumption occasions from alcohol rather than converting consumers wholesale.”

Nielsen’s Brager also notes that cannabis-infused beverages could serve as an alternative to beverage alcohol, but adds that the social element of cannabis consumption extends beyond beverages.

“CBD- and THC-infused beverages provide consumers with another choice in satisfying certain needs that parallel similar needs also met by alcoholic beverages, particularly those associated with social enablement and experience enhancement,” he says. “Some consumers may choose to substitute an alcohol occasion for a cannabis occasion, and choices of the latter include, but go beyond just beverage



cannabis product formats to also include other formats like vapes, concentrates, flower, pre-rolls, tinctures, and edibles.

“On the other hand, cannabis can facilitate social interactions that bring people together and because of this could generate some additional beverage alcohol occasions, as cannabis is not for all,” Brager adds.

Yet, cannabis infusions are not limited to the beverage alcohol space as analysts point to the numerous non-alcohol beverage categories in which cannabis compounds can open up opportunities.

“Beverages including infused-waters, coffee, teas, carbonated beverages and energy drinks are viable foundational beverages for infusing CBD and THC, so there is an opportunity for manufacturers to introduce a cannabis-infused beverage, where or when it’s legal to do so,” Brager says. “But this also poses risks and opportunity for today’s non-alcoholic beverage industry.”

Mintel’s Bloom, however, notes that CBD isn’t experiencing strong demand when it comes to non-alcohol beverages.

“Only 8 percent of non-alcoholic beverage drinkers would be persuaded to choose a drink due to the inclusion of CBD,” she says. “However, the importance of functionality in the non-alcoholic beverage market suggests that interest may grow, especially considering that 38 percent of consumers would be persuaded to choose a drink with calming/relaxing properties, — this is second only to an interest in hydration.”

This could stem from consumers being more aware of the THC compounds within cannabis versus CBD.

“Our research shows more education is in order, especially when it comes to CBD-only products,” Bloom says. “Sixty percent of cannabis users say THC amount is important in their cannabis choice, second only to price. This suggests that consumers are aware of the role THC plays in the product. A much smaller 32 percent say CBD amount is important in their choice. Stronger education efforts around CBD are in order.”





### **Motivating experimentation**

As beverage manufacturers look to create cannabis-infused beverages, analysts highlight the importance of recognizing the product attributes that spark consumers' exploration.

"Leading reasons for use of marijuana/cannabis include relaxation, stress relief, and mood improvement," Bloom says. "Leading reasons for using CBD-only products include pain relief, improved sleep, and relaxation, suggesting that while both marijuana/cannabis and CBD-only products have strong therapeutic associations, CBD has a stronger association with medicinal outcomes."

Yet, the curiosity aspect associated with cannabis and consumer usage actually is lower on the list of reasons for trying, Bloom adds.

"The leading reasons for cannabis consumption (and for interested non-users) are restorative in nature," she says. "Fun, curiosity and experience enhancement fall further down the list, suggesting the promotion of fundamental and functional benefits may have a stronger draw than recreation. While this may be impacted by consumer willingness (or unwillingness) to admit they turn to a product purely for a good time, it suggests that leading with recreational messaging alone may not be the best approach."

For marijuana and hemp-derived CBD beverages, Nielsen's Brager explains that product attributes can vary based upon the ratio of CBD or THC in the product.

Even though consumer interest in cannabis-infused beverages is increasing, experts note some formulation challenges need to be addressed.

"Most beverages are very bitter," says Brian Sudano, managing partner for New York-based Beverage Marketing Corporation. "However, a breakthrough disruptive technology from Infusion Biosciences (APP Technology) addresses both the onset and offset as well as flavor profile which will open up cannabis beverages to a broad audience that would likely reject pervasively available offerings at this time."

Nielsen's Maturo also recognizes the taste implications when formulating cannabis-infused beverages, but highlights that it depends on the beverage category and the target demographic when deciding how to tackle this challenge.

"This depends upon whether the beverage is an alcoholic beverage (especially for beer, the cannabis terpenes are in alignment with the hoppy taste profile of beer) or a non-alcoholic beverage," he says. "It is likely that high sugar concentrations in non-alcoholic beverages to mask the cannabis flavor profile will continue to dominate juices, carbonated beverages, and fruit drinks. Consumers of functional beverages may be a bit more forgiving in cannabis taste profile of the beverage if the messaging around the functional purpose resonates with them."

As beverage-makers address the various challenges of the emerging cannabis market, analysts note that many already have exhibited their investments in cannabis infusions.



“Brands (big and small) appear to be dipping their toes into (or tip-toeing around) the category,” Mintel’s Bloom says. “Beer maker Lagunitas launched a cannabis-infused sparkling water, Hi-Fi Hops, in California dispensaries in mid-2018. Alcohol conglomerates, including Constellation and Molson Coors, have teamed up with cannabis companies to explore market options. The introduction of cannabis-related elements, such as flavor profiles and non-psychoactive ingredients, can help brands (and consumers) get close to the on-trend action, without taking a leap into the deep end.

“In 2017, Lagunitas released its limited-edition SuperCritical Ale, in California,” she continues. “A hoppy beer brewed with terpenes, SuperCritical contained no THC. Similarly, New Belgium Brewing released The Hemperor HPA, a year-round beer that blends hemp with hops. The beer contains no THC or CBD, but features a flavor profile that emphasizes the hemp.”

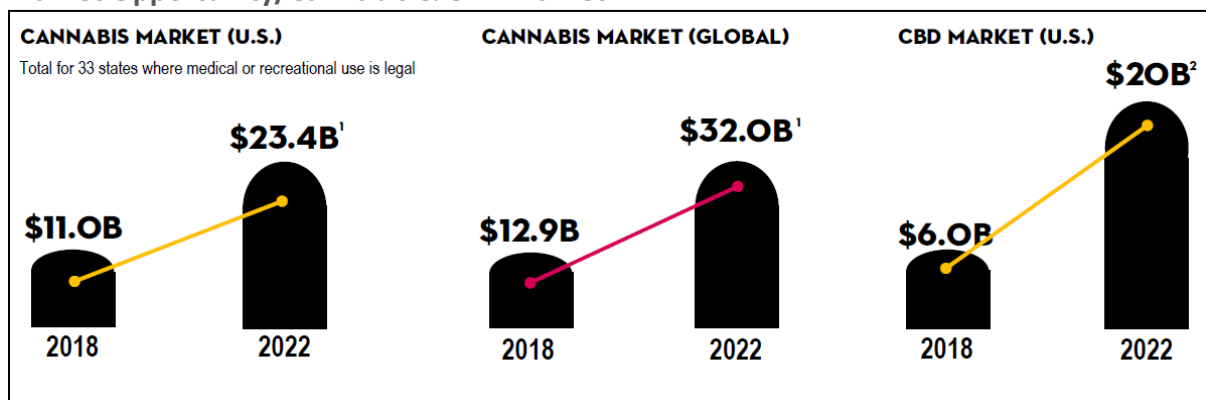
Going forward, analysts expect that the beverage market will be a popular partner for cannabis ingredients.

“This segment will likely continue to grow, as beverages in general are a product format familiar to every consumer, and beverage companies have proven their aptitude for innovation and adaptability over the years,” Nielsen’s Maturo says.

**Cannabis-infused beverages will see growth through 2022  
Beverage-makers already developing CBD- and THC-infused products<sup>35</sup>**

In an October 2018 Business Insider feature titled “The market for marijuana-infused beverages could explode to \$600 million in the next four years”, the business news outlet highlights the potential for this market. Citing a note from Canaccord Genuity, the article says that the financial firm is predicting that cannabidiol (CBD) beverages will become a \$260 million market by 2022 and that tetrahydrocannabinol (THC) beverages will become a \$340 million market by 2022.<sup>36</sup>

**Market Opportunity/Cannabis & CBD Market**



37

<sup>35</sup> <https://www.bevindustry.com/articles/91926-cannabis-infused-beverages-will-see-growth-through-2022?v=preview>

<sup>36</sup> <https://www.bevindustry.com/articles/91926-cannabis-infused-beverages-will-see-growth-through-2022?v=preview>

<sup>37</sup> Arcview Market Research, BDS Analytics 2 Brightfield Group



## U.S. MOBILE APP MARKET

### **10 years of growth of Mobile App Market** <sup>38</sup>

Mobile applications have been a part of smartphones for over a decade. Mobile App Market is the fastest growing segment in the mobile industry. There were a few app developers who were aware of the potential opportunity that app development had in the mobile industry. However, now the scenario has totally changed. With the ever-growing popularity of mobile apps, various OS providers and device vendors have even launched their own application stores. The growing advent of mobile devices, along with apps is perhaps the biggest technical phenomena in the recent times. Smartphone with featured apps has now become the remote control for our lives and can easily boost our small business.

#### **Evolution of smartphones: Over the last decade**

Now, It is kind of impossible to imagine our life without smartphones. Many software and hardware companies have worked off over the decade to narrow down all the features in small devices. The wondrous journey of smartphone evolution has been from the old BlackBerry to the current behemoth (iPhone X). The smartphone makers try to make the phone as small as possible while having the biggest display of that size. From the flat small display to the curved big screens is the long road, mobile phones have come over the last ten years. This trend isn't stopping soon as this field will always be in the state of innovation.

#### **Growth of Mobile App Market: An overview**

The app industry has seen an immense growth in the past ten years and even has no end in sight. Following figures itself says how big this industry is:

- In the year 2012, mobile app's financial state was around \$53B and it grew up to \$63.7B by the year 2016.
- Various researcher even predict that mobile app economy will touch \$188.9B worldwide by the year 2020

In-app ads, purchases, and other monetization models have come up immensely with the app market. According to a Forbes report, a huge rise is seen in the usage of monetization models by the app developers. Last year, In 2017, 49% of the app developers went for in-app advertising (for non-gaming apps) and 79 % chosen in-app purchases of items for gaming apps.

This growth is mainly due to a high potential of mobile applications which is acquired in various steps. Let's see how mobile apps have managed to grab such a high place in the current economy in a short span of time.

---

<sup>38</sup> <https://www.knowband.com/blog/mobile-app/growth-of-mobile-app-market/>

### 1. Growth of smartphone users:

With the rise of the affordable smartphone, reduced data prices, and short replacement cycles, the smartphone industry has seen rapid adoption for the past few years. The following report depicts how smartphone users have grown from 1.57B in 2014 to 2.53B in 2018 and it is expected that this data will cross the mark of 3 billion by the year 2021.

It is obvious that this graph is showing a continuous increment. Everyone nowadays wants to have a smartphone for them. Also, the one which comes up with latest market technologies and trends are being preferred more.

### 2. Growth of Android and iOS platforms:

Android and iOS are two giant app platforms which build their high place in the past few years. When it comes to the mobile operating system, these two players have got no replacement. In the battle between them, both offer similar kind of features apart from one major difference of being an Open and Closed source.

As per Gartner’s study, in the year 2016, no one can deny that Android and iOS are ruling the business:

- Android has the biggest market share by being sold 87.8% of total business, whereas iOS also grabbed 11.5% on their side.
- Rest other platforms showed feeble presence in the market with 1% or 2%.

**Table 2. Worldwide Smartphone Sales to End Users by Operating System in 3Q16 (Thousands of Units)**

Operating System	3Q16 Units	3Q16 Market Share (%)	3Q15 Units	3Q15 Market Share (%)
Android	327,674.0	87.8	300,133.2	84.7
iOS	43,000.7	11.5	46,062.0	13.0
Windows	1,484.4	0.4	5,874.4	1.7
BlackBerry	377.8	0.1	977.0	0.3
Others	755.5	0.2	1,133.6	0.3
<b>Total</b>	<b>373,292.5</b>	<b>100.0</b>	<b>354,180.2</b>	<b>100.0</b>

Source: Gartner (November 2016)

Also, with constant growth, Android and iOS have removed their competitors in the process. Microsoft’s Windows phone has lately seen a big setback in the year 2014 when their sale rate falls to just 2.5%. It clearly shows the challenge of existence before Microsoft in the mobile app market.



Apple’s App Store and Google’s Play Store have always been the most popular app stores. Now, they are at a place in mobile app market, that it seems impossible for any other competitor to catch up with them. The major reason behind their success is having a variety of applications and developers. Forbes shared a report illustrating the growth scope of app developers. At the Worldwide Developer Conference, Apple talked about 1.25 million apps in the App Store and it paid \$5 billion to developers last year. The average mobile app developer revenue is shown in the table below:

Number of users (in millions)	900	600	12
Number of apps (in thousands)	800	1250	160
Number of developers (in thousands)	150	235	45
Number of downloads (in billions)	48	50	.65
Paid to developers (in millions)	900	5000	100
	Google	Apple	Microsoft
Average revenue per app	\$1125	\$4000	\$625
Average revenue per developer	\$6,000	\$21,276	\$2,222

This data shows that why developers focus on making an app for every simple task, not only it makes our life easy but also provides them with a huge money-making option.

### 3. Growth in mobile app usage:

Mobile has now overpowered the position of the desktop by making it secondary touch point for the digital users. With the increase in the number of digital users, the mobile apps now grab 65% share of digital media time. If we categorize the digital time on the basis of usage, these results follows:

1. Music – 79%
2. Health and fitness – 51%
3. Social networking – 49%
4. Travel – 28%
5. Entertainment – 22%
6. Sports – 16%
7. Games – 15%
8. News – 14%

The percentage of mobile apps that were only used once shrunk to 20% in 2015 after improving from 22% in 2014. The percentage of app usage increased by 39% in 2016. Mobile devices entice us to spend a maximum of our time on them and we seem to be doing so. The smartphone is ascendant, and every section of our society prefers them to keep everything at their fingertips.

The new 2018 Global Digital Suite of reports reveals the following data related to increased internet and smartphone usage:

- The number of internet users worldwide in 2018 is **4.021 billion**, up 7 percent year-on-year.

- The number of social media users worldwide in 2018 is **3.196 billion**, up 13 percent year-on-year.
- The number of mobile phone users in 2018 is **5.135 billion**, up 4 percent year-on-year.



More time spent on mobile applications is directly proportional to their development rate. Such high data of time spent on mobile apps shows that there is no end to mobile app usage in the upcoming years. It will only see the rise.

#### 4. Growth in mobile app downloads:

Worldwide smartphone users downloaded 60% more apps in 2017 as compared in 2015. Simplifying this data means that nearly two apps were downloaded every month per human being on the planet. Lately, in September 2016, India has also seen a rapid growth in app download with unlimited 4G access by Reliance Jio. Gartner shared a report on how mobile app downloads have increased in the past years and this data is gradually increasing:

This data is of worldwide mobile app downloads and the graph is just getting higher and higher. By the end of this year hopefully, it would cross the mark of 300 billion.

#### Current technology trends and their future scope:

1. IoT (Internet Of Things)
2. AR and VR development
3. Blockchain development
4. Cloud base app development
5. Accelerated mobile pages
6. Artificial Intelligence and Chatbots:
7. Location-based apps will hold the gears
8. Enhanced Security Constraints
9. Mobile Wallets



## **The future of Mobile Apps in a nut-shell**

With millions of mobile apps listed in at the various app stores, people might say that the industry is saturated. However, if you take a closer look at the stats, you'll know that there is still a lot of room to grow. The gross revenue of mobile apps worldwide in the year 2015 was 96.7 billion US dollar. This figure showed a skyrocket increment in the following year and reached an amount of 88.3 billion US dollar. If you think that this is the limit, then, watch out for the future predictions. As per Statista, this figure is expected to reach 188.9 billion US dollar.

Mobile apps have also the reason behind growth in E-Commerce industry. Users can engage through mobile apps, which makes the communication easy and develops a bond of trust and loyalty. Mobile apps are easily accessible and contain all the required info required while product purchase.

### **Mobile App Download and Usage Statistics (2019) <sup>39</sup>**

With over 2.7 billion smartphone users across the world, it's no surprise that the mobile app industry is thriving. App usage and smartphone penetration are still growing at a steady rate, without any signs of slowing down in the foreseeable future.

Now factor in the 1.35 billion tablet users worldwide, which is a number that has doubled over the past six years.

### **Key Mobile App Statistics**

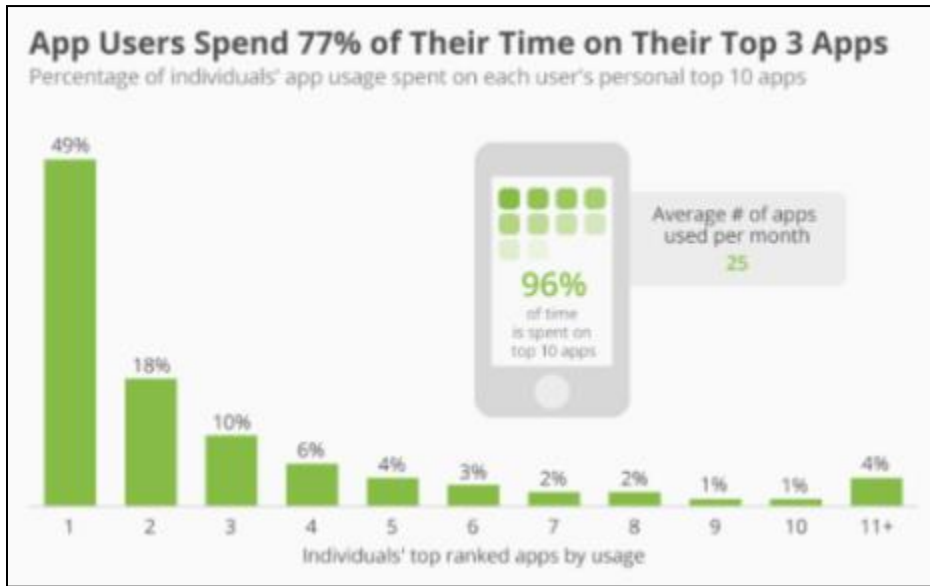
- Mobile apps are expected to generate \$189 billion in revenue by 2020.
- The Apple App Store has 2.2 million apps available for download.
- There are 2.8 million apps available for download on the Google Play Store.
- 21% of Millennials open an app 50+ times per day.
- 49% of people open an app 11+ times each day.
- 57% of all digital media usage comes from mobile apps.
- The average smartphone owner uses 30 apps each month.

### **Mobile App Usage**

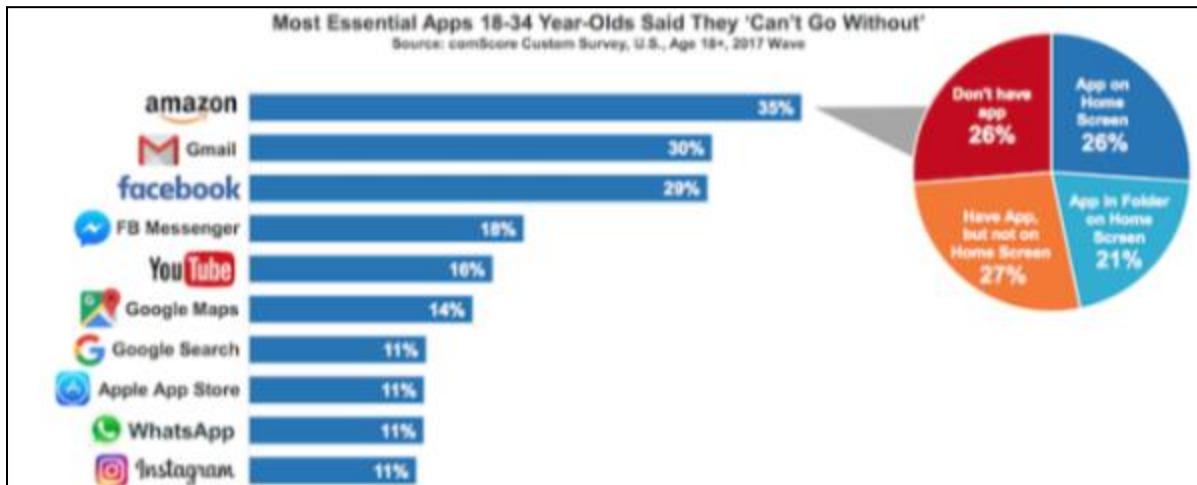
Now that you've seen how users across the world download apps, it's time to analyze how people are using mobile apps. The average smartphone user spends 2 hours and 15 minutes each day using apps. Research shows that there are between 60 and 90 apps installed on the average smartphone. But with that said, people aren't using all of those apps. Here's a deeper look at how many apps people really use.

---

<sup>39</sup> <https://buildfire.com/app-statistics/>



The majority of mobile time is spent using three apps. Even though the average person uses 25 apps per month, 96% of that time is split between just ten apps. 71% of app users churn within the first 90 days of downloading an app. Give users a reason to keep coming back and using your app down the road.



If you look at this list, it makes sense. All of the top apps are used for different purposes and could be used on a daily basis.

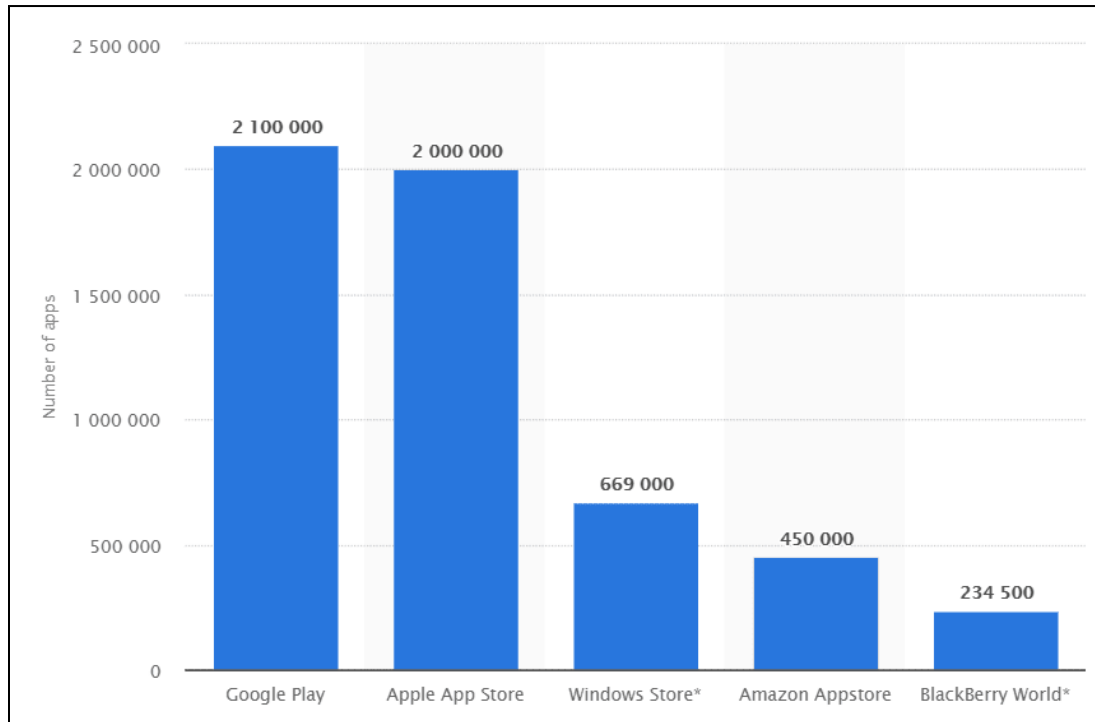
- Amazon for purchases
- Gmail for email communication
- Facebook for social media
- YouTube for video content
- Maps for navigation



## Interesting Mobile App Market Statistics for 2019 <sup>40</sup>

### Mobile App Market Statistics

- In the third quarter of 2018, the total number of mobile applications in the App Store and Google Play reached 4.1 billion. The competition is getting frantic, but the market continues to grow (Statista.com).



- The number of downloads is increasing as well, largely due to the growing Asian markets and markets in other developing countries (App Annie).
- About 48% of mobile apps take 4 to 6 months of development time (MobileAppDaily).
- It is expected that the total amount of payments made using mobile devices will reach \$503 billion by 2020 (BI Intelligence).
- Approximately 4 out of 5 Americans currently shop online. At the same time, more than half of them pay for purchases using their smartphone (Pewinternet).
- During 2019, the number of users who use mobile payments to pay for purchases in US stores will reach 150 million people. This is more than 50% of the country's total population (Mobile Payments World).
- By 2020, customers will use mobile wallets more often than bank cards to pay for merchandise and services (WorldPay).

<sup>40</sup> <https://ivivity.com/mobile-app-statistics-for-2019>



### Mobile App Usage Statistics

- More than 1.2 billion people in the world access the Internet from their smartphones. This number has increased over the past 6 years by 42%. To compare, it took almost 45 years for landline phones to reach the same distribution rate (Mobify.com).
- In 2019, 1/6 of the total media content consumed by users will consist of online videos viewed on mobile device screens (App Annie).
- 61% of mobile users claim that they often make purchases on mobile websites and on apps that personalize data according to their location and preferences, say, based on browsing or shopping history (Thinkwithgoogle).
- Under these circumstances, the main conclusion to make is that it is crucial for any business to take advantage of mobile market to ensure growth and expansion.

### U.S. BIO FUEL MARKET

#### Biofuels Market Size Will Reach USD 218.7 Billion by 2022, Globally: Zion Market Research <sup>41</sup>

*According to the report, global biofuel market was valued at USD 168 billion in 2016, is expected to reach USD 218.7 billion in 2022 and is anticipated to grow at a CAGR of 4.5% between 2017 and 2022.*

Biofuel is an economically important and versatile vegetable oil used as a raw material for both food and nonfood products. Biofuel is most widely used vegetable oil in the world and is found in supermarkets ranging from sweets, baked goods, margarine, cereals, washing powders, and cosmetics. Biofuel is also used as a first-generation fuel. It is also used in preventing vitamin A deficiency, cancer, brain disease, aging; and treating malaria, high blood pressure, high cholesterol, and cyanide poisoning. Most biofuels are produced in Asia, Africa, and South America because the trees require warm temperatures, sunlight, and plenty of rain in order to maximize crop production.

Factors such as improving economic conditions, rising living standards, and changing eating habits in emerging countries, and growing demand for vegetable oil as a feedstock for biodiesel production are driving the biofuels market growth. Furthermore, stringent regulations on trans-fat foods in U.S. and Europe are resulting in a rapid shift in consumption of soybeans oil to biofuels. Additionally, low price of biofuels than other vegetable oils is expected to boost the market growth within the forecast period. Moreover, increasing market penetration by major producing countries such as Indonesia, Malaysia, and Thailand may open up a new opportunity in the biofuels market in the forecast period.

Biofuels market derivative segment includes crude palm oil, palm kernel oil, palm kernel cake, and others. The crude oil segment was a leading segment among the other biofuels derivative in the global biofuels market size in 2015 owing to growing applications such as edible oil, surfactants, cosmetics, biofuel, and lubricants. On the basis of application biofuels market is divided into edible oil, cosmetics, bio-diesel,

---

<sup>41</sup> <https://www.globenewswire.com/news-release/2018/01/09/1285912/0/en/Biofuels-Market-Size-Will-Reach-USD-218-7-Billion-by-2022-Globally-Zion-Market-Research.html>

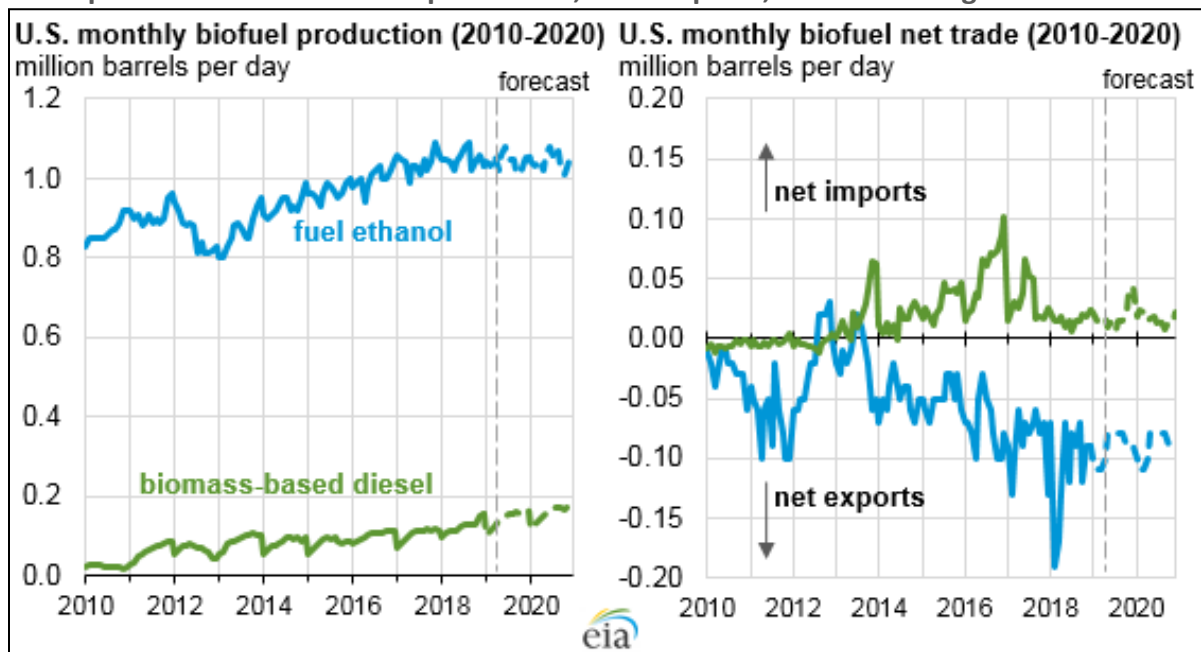


lubricants, surfactants, and other applications. Edible oil segment is expected to witness strong growth in upcoming years owing health concerns regarding trans-fat consumption.

North America is anticipated to account for the leading share of the revenue pie throughout the forecast horizon. The rising awareness regarding the advantages of biofuels over conventional fuels, regulatory & political support and agricultural and economic support along with policies pertaining to environment conservation along with the increasing environmental concerns among the populace are contributing to the growth of the region. North America will be closely trailed by Europe, whose development will be governed by similar factors.

Key players in Biofuels market are Copersucar S.A DSM, Green Plains Inc., Aemetis Inc, Western Dubuque Biodiesel Llc, Solazyme Inc, Renewable Energy Group, Raizen Energia Participacoes S.A, BlueFire Renewables, Aventine Renewable Energy Holdings, Inc. (AVRW), and Australian Renewable Fuels Ltd. among others.

**EIA expects stable U.S. biofuels production, consumption, & trade through 2020 <sup>42</sup>**



In its February 2019 *Short-Term Energy Outlook* (STEO), EIA forecasts that several recent trends in U.S. biofuels markets will continue through 2020. In the STEO, production of fuel ethanol and net imports of biomass-based diesel stay unchanged, while net exports of fuel ethanol decline modestly. Federal mandates and state programs continue to support biofuel consumption through 2020; however, biofuels remain a relatively small share of total U.S. liquid transportation fuels supply.

<sup>42</sup> <https://www.eia.gov/todayinenergy/detail.php?id=38532> - March 1, 2019

<sup>43</sup> Source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, February 2019



The most common biofuels consumed both domestically and globally are fuel ethanol and biomass-based diesel. Fuel ethanol is primarily blended with motor gasoline blendstock in the United States to produce 10% ethanol blended motor gasoline, or E10. Biomass-based diesel, which collectively refers to biodiesel and renewable diesel, is typically mixed with ultra-low sulfur distillate fuel at varying percentages.

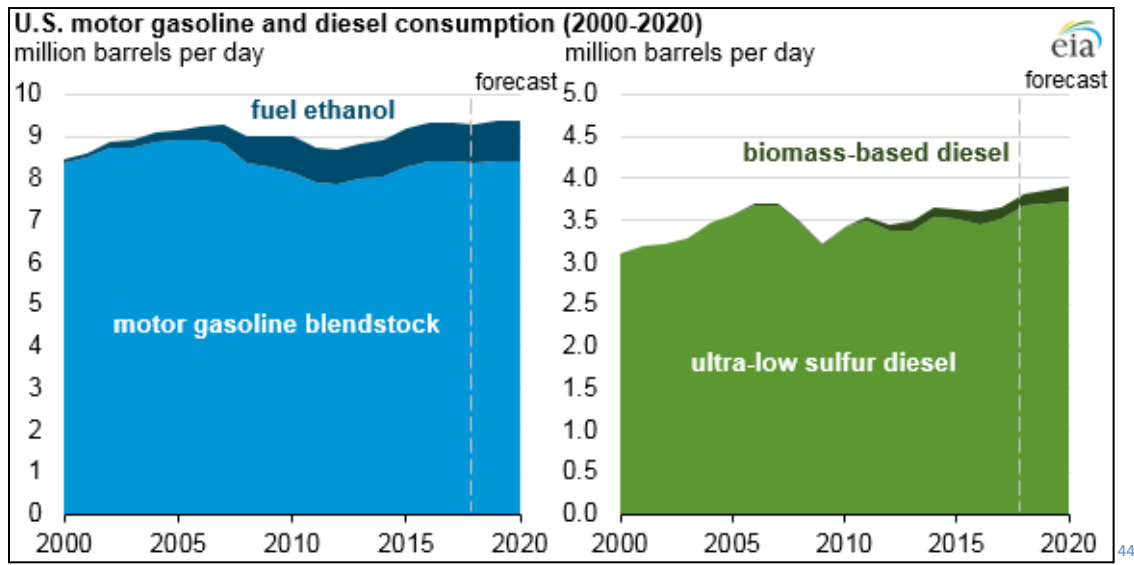
EIA expects that U.S. fuel ethanol production will remain near current levels, decreasing slightly in 2019 to 1.04 million b/d and increasing to 1.05 million b/d in 2020. Fuel ethanol production is largely dependent on domestic motor gasoline consumption, which has been relatively stable in recent years, as fuel economy improvements have largely offset increases in population and vehicle miles traveled.

U.S. ethanol exports have accounted for an increasing share of production since 2013 and have contributed to market growth. EIA forecasts net ethanol exports, which reached nearly 110,000 b/d in 2018, will fall to an average of 90,000 b/d in 2019 and 2020, driven primarily by the expectation that record levels of ethanol exports to Brazil in early 2018 will not persist.

Biomass-based diesel production—excluding renewable diesel—was about 120,000 b/d in 2018 and grows to 160,000 b/d in 2020. Total biomass-based diesel consumption will increase from an estimated 134,000 b/d in 2018 to 174,000 b/d in 2020. Growth in domestic production will continue to be supported by antidumping and countervailing duties placed on biodiesel imports from Argentina and Indonesia that went into effect in 2017. Current import restrictions on these countries will contribute to flat biomass-based diesel net imports through 2020, with U.S. biomass-based diesel net imports about 70% lower than the 2016 peak.

Biofuels account for a relatively small share of total transportation fuels, with consumption supported over time by the federal Renewable Fuel Standard as well as state-level biofuel programs. U.S. consumption of motor gasoline was 9.31 million b/d in 2018, and EIA expects that it will increase by less than 1% annually to 9.36 million b/d by 2020.

Of the motor gasoline demand in 2020, domestic ethanol consumption will contribute about 950,000 b/d, corresponding to a national-level blend rate estimate of 10.2%. Limited demand and ongoing regulatory and infrastructure hurdles for ethanol blends higher than E10 (e.g., E15, E85) and lower-priced petroleum blendstocks restrict higher domestic ethanol consumption rates.



U.S. diesel fuel consumption, which includes biomass-based diesel, is expected to increase from 3.8 million b/d to 3.9 million b/d between 2018 and 2020 in the STEO. The share of biomass-based diesel in diesel fuel increases from 3.6% in 2018 to 4.5% in 2020. Demand for renewable diesel, which includes stand-alone production facilities as well as petroleum refiners that co-process renewable feedstocks in downstream units such as hydrotreaters, is expected to grow in 2020.

## The World's Oceans & Plastic

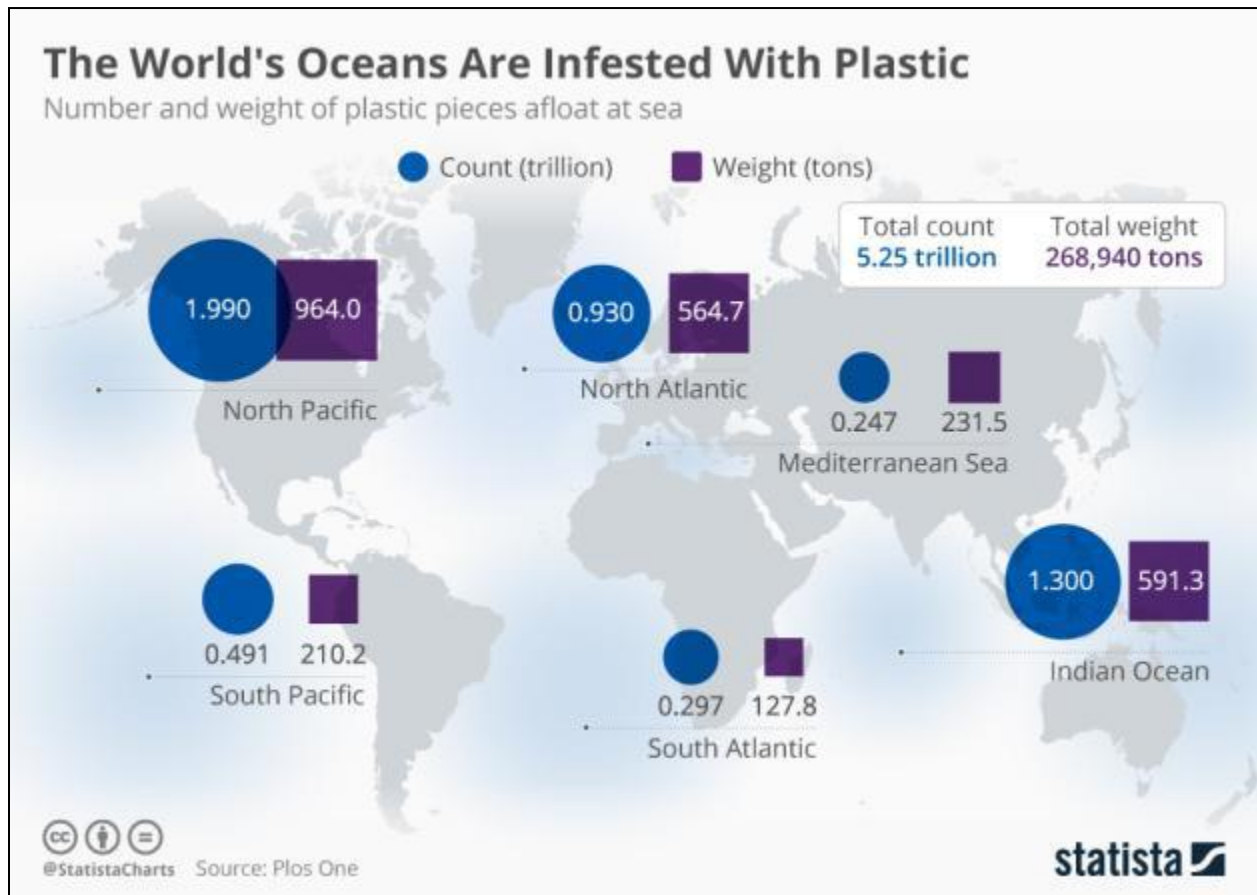
### The World's Oceans Are Infested With Plastic <sup>45</sup>

How often does the same old sad story repeat itself? You set out for a nice walk along a seemingly pristine beach but once you're out on the sand, it's clogged with plastic bottles and other garbage. A grim report estimates that there are over 5.25 trillion pieces of plastic weighing over 250,000 tons floating on the world's oceans. All of that pollution has had a serious impact on the environment with evidence even suggesting that marine organisms as far as 10km beneath the surface have ingested plastic fragments.

The infographic below shows the distribution of plastic pollution across the world's oceans. The North Pacific has the highest level of contamination with nearly 2 trillion pieces of plastic while the Indian Ocean comes second with 1.3 trillion. According to a recent Greenpeace report, the world's top-6 companies sell plastic bottles weighing over 2 million tons every year - that's the same weight as 10,000 blue whales. Even though all plastic bottles can be recycled, unfortunately a huge number of them still end up in the ocean and landfill rather than the recycling plant.

<sup>44</sup> Source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2019

<sup>45</sup> <https://www.statista.com/chart/8616/the-worlds-oceans-are-infested-with-plastic/>



#### Plastic Can Take 500 Years To Bio-Degrade In The Ocean <sup>46</sup>

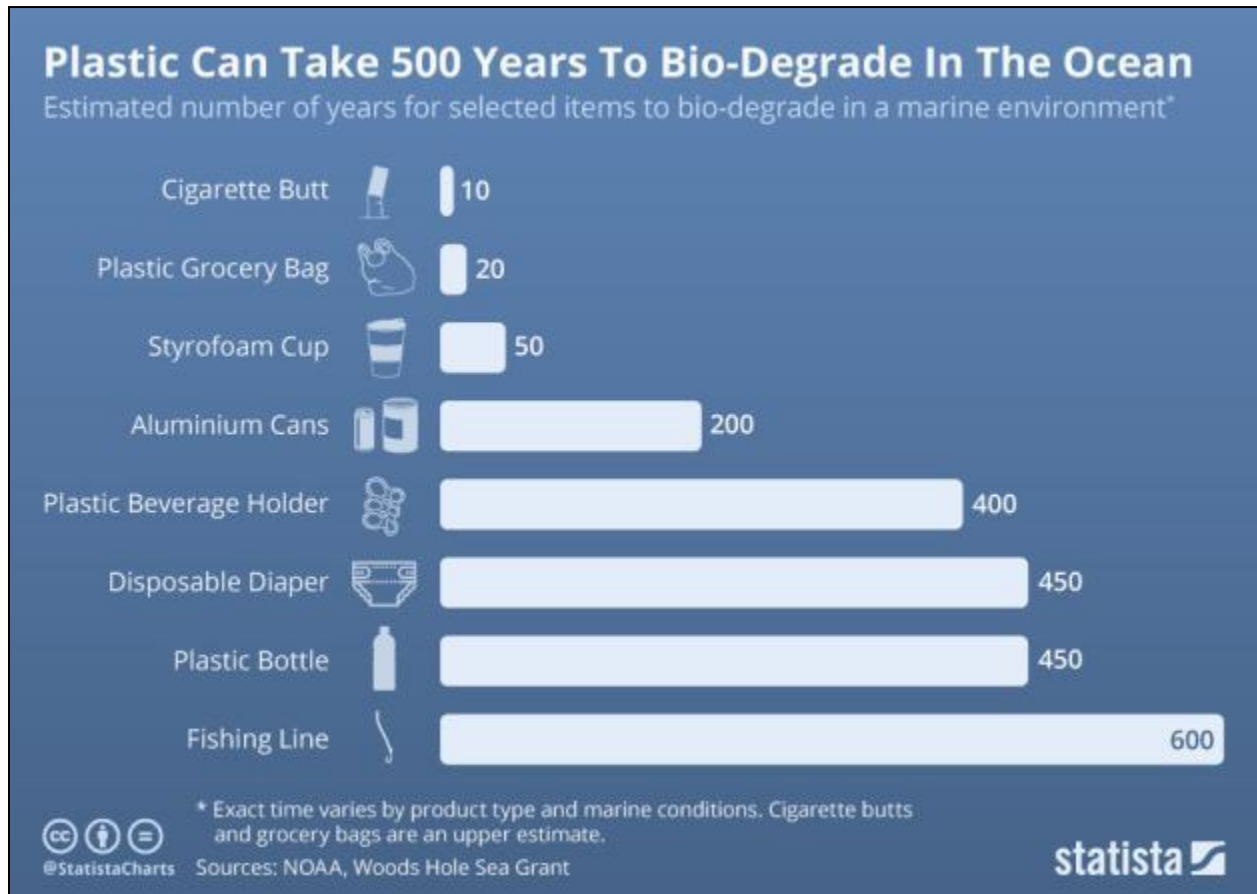
In 2018, the European Parliament overwhelmingly backed a sweeping ban on a range of single-use plastics in an effort to curb maritime pollution. The proposed directive will ban items such as plastic straws, cutlery, plates, and cotton swabs by 2021 and ensure that 90 percent of plastic bottles are recycled by 2025. MEPs backed the legislation by 571 votes to 53.

According to the European Parliament, the products that will be banned account for over 70 percent of maritime litter. MEPs also agreed that measures need to be taken to reduce pollution from tobacco products, particularly cigarette filters that contain plastic. They are the second most littered single-use plastic item and one butt can pollute between 500 and 1,000 liters of water, taking up to a decade to bio-degrade. Under the directive, waste from cigarette filters containing plastic will have to be reduced by 50 percent by 2025 and 80 percent by 2030.

The following infographic uses data from NOAA and Woods Hole Sea Grant to show just how long it takes for a range of other plastic items to bio-degrade in a marine environment. Governments have been highly active banning plastic grocery bags and they can take twice as long as cigarette butts to bio-degrade.

<sup>46</sup> <https://www.statista.com/chart/15905/the-estimated-number-of-years-for-selected-items-to-bio-degrade/>

Other items are far worse, however, with plastic beverage holders, plastic bottles, and disposable diapers all taking 400 years or longer to finally break up and disappear.



### PepsiCo Announces Waste Diversion <sup>47</sup>

As a part of the 2025 initiative, the company aims to design 100 percent of their packaging to be recyclable, compostable, or biodegradable. The packaging initiative began execution when the 2016 sustainability report came out. In 2017, 85 percent of PepsiCo’s worldwide packaging met the criteria, Aulisi said.

The report also discussed progress toward the company’s packaging and waste reduction goals. “We’re already piloting plant-based, bioplastic bags in three locations across the globe, including Chile, India, and here in the U.S.,” Aulisi said. “These bags are produced from renewable resources and can be composted in industrial composting facilities.

<sup>47</sup> <https://www.bevindustry.com/articles/91299-pepsico-announces-waste-diversion-2017-packaging-results>



## Hemp

**Hemp has been making headlines for its impact on several mature markets** – from food and textiles, to building construction and nutraceuticals. Hemp is **emerging** as a potential **commodity ripe** to not only influence but possibly **revolutionize major economic sectors** around the world.<sup>48</sup>

**The United States is currently the largest importer of hemp goods in the world.** The hemp market generated over \$820 million in sales in the U.S. in 2017, up from \$680 million in 2016, and is **expected to swell to \$1.9 billion by 2022.** Just under 10,000 acres of hemp were cultivated in the U.S. under agricultural pilot and other programs in 2016, and that number more than doubled to just under 26,000 acres in 2017. Using available data for 2018, **the Hemp Industries Association® estimates there are upwards of 1,200 licensed U.S. hemp farmers operating on over 40,000 acres,** along with hundreds of processors across the nation. **The new Farm Bill opens the floodgates to domestic production, economic stimulus, job creation, and opportunities for international trade.**<sup>49</sup>

**The global industrial hemp market size is expected to reach USD \$10.6 billion by 2025,** according to a new report by Grand View Research, Inc. and the market is anticipated to expand at a CAGR of 14.0%.<sup>50</sup>

**Hemp is a fast growing,** high margin business growing at a 22% CAGR currently valued at over \$688 million, and estimated to grow to **\$1.8 billion by 2020** in the USA.<sup>51</sup>

A lot of what happens in the hemp industry will depend on the federal government. Right now, it's an open market. People are trying to work as fast as possible to meet that high demand.<sup>52</sup>

### Ways Hemp Plastic Could Change the World<sup>53</sup>

Did you know that it takes between 500-1,000 years for plastic to degrade? Plastic pollution is destroying our planet by the minute. In fact, so much plastic is thrown away each year it could circle the earth four times. And these numbers are on the rise. In the United States alone, Americans throw away 35 billion plastic water bottles every year. This plastic ends up in the land and the sea, devastating natural ecosystems. Worse yet, this same plastic pollution end up in our bodies. It's estimated that 93 percent of Americans over the age of six test positive for BPA, a chemical in plastic linked to cancer, diabetes, impaired immunity, and much more. Clearly, plastic pollution is an environmental and health hazard. But what if hemp could help? The basic building blocks of plastic are cellulose. Currently, cellulose is primarily obtained from petroleum. However, petroleum-based plastics are harmful to human health. Not to mention destructive to the environment. Hemp, on the other hand, happens to be an excellent source of cellulose and is sustainable.

---

<sup>48</sup> *The Global State of HEMP - 2019 Industry Outlook - Hemp Business Journal*

<sup>49</sup> <https://www.thehia.org/HIAhemppressreleases/6968011>

<sup>50</sup> <https://www.prnewswire.com/news-releases/bright-future-for-cbd-and-hemp-industry-as-demand-continues-to-grow-822086414.html>

<sup>51</sup> <https://www.prnewswire.com/news-releases/future-farm-closes-on-120-acre-licensed-industrial-hemp-farm-projects-over-10million-in-revenue-660746053.html>

<sup>52</sup> <https://www.telegram.com/news/20190330/fast-growing-hemp-industry-seen-as-22b-us-operation-in-next-three-years>

<sup>53</sup> <https://www.green-flower.com/articles/448/7-ways-hemp-plastic-could-change-the-world>







**Here are 7 ways how hemp plastic could change our planet.**

1. Hemp plastic is completely biodegradable
2. Hemp plastic is non-toxic
3. Hemp plastic could help save endangered wildlife
4. Hemp plastic is extraordinarily versatile
5. Hemp plastic decreases environmental pollutants
6. Hemp plastic is stronger than petroleum-based plastics
7. Hemp plastic is a renewable resource

**M&A Transactions**

TRANSACTIONS				
COCA COLA PURCHASED VITAMIN WATER FOR \$4.1 BILLION	GOOGLE PURCHASED NEST LABS, INC. FOR \$3.2 BILLION	AMCOR PURCHASED ALCAN PACK FOR \$1.9 BILLION	PEPSICO PURCHASED 90% SOBE FOR \$370 MILLION	LITHIUM PURCHASED KLOUT FOR \$200 MILLION

**Target Market**

The target market is geared towards consumers and companies who care about the planet; world renowned companies want to partner, publications have and continue to produce publications on our business.

**Eco-Conscious Consumers**

Awareness around the environment and sustainability has gained momentum over the last few years influencing consumer behavior. The issue of plastic waste, for example, has become well documented and shared across social media, and there’s been a number of high profile campaigns on the issue – from Sky’s #PassOnPlastic to the #BeatPlasticPollution movement for World Environment Day.

About half of the digital consumers we interviewed in the UK and U.S. said they consider the environment when they make a purchase decision.

When we ask these consumers why they would buy eco-friendly products over their current product when applicable, it’s sustainability and the environment which are the top motivations. 80% say they make eco-friendly brand choices because they care about the future of the planet, or because they think we should be respectful of the other living creatures in our environment.



There are other notable motivations, though.

6 in 10 believe eco-friendly products are likely to be better for their health, while about 40% think they are better quality.

Social factors beyond just social class or education level are also important in the decision-making process for buying new products. A fair share also want to be a positive role model for friends or family, perhaps showing that some consumers buy eco-friendly because of the image and social status associated by doing so; it allows them to obtain group influence and be respected by their peers.

We see some interesting differences here by age. The results indicate that customer behavior amongst older age groups are more likely to think eco-friendly products are good for their health, while younger groups are more likely to associate them higher-quality. But whilst acknowledging these emotional responses with psychological and personal factors, the proportion who buy eco-friendly products on a regular basis is because they care about the planet is consistently high across all of the age groups in our customer reviews.

This movement clearly plays an important role. Brands should be capitalizing on their marketing decisions and strategies to increase market share, influence and understand consumer behavior, facilitate brand loyalty and attract potential customers.

*Eco-Conscious Consumers are defined as internet users aged 16-64 who say that concern for the environment affects their day-to-day buying decisions.*





## Average Annual Expenditures in the US

According to the *United States Bureau of Labor Statics*, the average annual expenditures during this period were \$50,486. Northeast spending was \$54,918, Midwest spending was \$47,846, Southern spending was \$46,823, and Western spending was \$55,453.<sup>54</sup>

The average annual expenditures break down as follows:<sup>55</sup>

- **Housing** – 33.9 percent, or \$17,115
- **Transportation** – 17 percent, or \$8,583
- **Food** – 12.8 percent, or \$6,462
- **Personal insurance and pensions** – 11.1 percent, or \$5,604
- **Health care** – 5.9 percent, or \$2,979
- **Entertainment** – 5.6 percent, or \$2,827
- **Apparel and services** – 3.6 percent, or \$1,817
- **Cash contributions** – 3.4 percent, or \$1,717
- **Education** – 2.1 percent, or \$1,060
- **Miscellaneous** – 1.7 percent, or \$858
- **Personal care and services** – 1.2%, or \$606
- **Alcoholic beverages** – 0.9 percent, or \$454
- **Tobacco products and smoking supplies** – 0.6 percent, or \$303
- **Reading** – 0.2 percent, or \$101

## Demographics - United States (People & Businesses)

(Note: The US census updates every 10 years.)

FACT <sup>56</sup>	UNITED STATES
<b>Population estimates, July 1, 2018, (V2018)</b>	<b>327,167,434</b>
Population estimates base, April 1, 2010, (V2018)	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2018, (V2018)	6.00%
Population, Census, April 1, 2010	308,745,538
Persons under 5 years, percent	6.10%
Persons under 18 years, percent	22.60%
Persons 65 years and over, percent	15.60%
Female persons, percent	50.80%
Veterans, 2013-2017	18,939,219
Foreign born persons, percent, 2013-2017	13.40%
Housing units, July 1, 2017, (V2017)	137,403,460
Owner-occupied housing unit rate, 2013-2017	63.80%
Median value of owner-occupied housing units, 2013-2017	\$193,500

<sup>54</sup> <https://www.creditloan.com/blog/average-american-spends-on-entertainment/>

<sup>55</sup> <https://www.creditloan.com/blog/average-american-spends-on-entertainment/>

<sup>56</sup> <https://www.census.gov/quickfacts/fact/table/US/PST045218>



<b>Median selected monthly owner costs -with a mortgage, 2013-2017</b>	\$1,515
<b>Median selected monthly owner costs -without a mortgage, 2013-2017</b>	\$474
<b>Median gross rent, 2013-2017</b>	\$982
<b>Building permits, 2017</b>	1,281,977
<b>Households, 2013-2017</b>	118,825,921
<b>Persons per household, 2013-2017</b>	2.63
<b>Living in same house 1 year ago, percent of persons age 1 year+, 2013-2017</b>	85.40%
<b>Language other than English spoken at home, percent of persons age 5 years+, 2013-2017</b>	21.30%
<b>Households with a computer, percent, 2013-2017</b>	87.20%
<b>Households with a broadband Internet subscription, percent, 2013-2017</b>	78.10%
<b>High school graduate or higher, percent of persons age 25 years+, 2013-2017</b>	87.30%
<b>Bachelor's degree or higher, percent of persons age 25 years+, 2013-2017</b>	30.90%
<b>With a disability, under age 65 years, percent, 2013-2017</b>	8.70%
<b>Persons without health insurance, under age 65 years, percent</b>	10.20%
<b>In civilian labor force, total, percent of population age 16 years+, 2013-2017</b>	63.00%
<b>In civilian labor force, female, percent of population age 16 years+, 2013-2017</b>	58.20%
<b>Total accommodation and food services sales, 2012 (\$1,000)</b>	708,138,598
<b>Total health care and social assistance receipts/revenue, 2012 (\$1,000)</b>	2,040,441,203
<b>Total manufacturers shipments, 2012 (\$1,000)</b>	5,696,729,632
<b>Total merchant wholesaler sales, 2012 (\$1,000)</b>	5,208,023,478
<b>Total retail sales, 2012 (\$1,000)</b>	4,219,821,871
<b>Total retail sales per capita, 2012</b>	\$13,443
<b>Mean travel time to work (minutes), workers age 16 years+, 2013-2017</b>	26.4
<b>Median household income (in 2017 dollars), 2013-2017</b>	\$57,652
<b>Per capita income in past 12 months (in 2017 dollars), 2013-2017</b>	\$31,177
<b>Persons in poverty, percent</b>	12.30%
<b>Total employer establishments, 2016</b>	7,757,807
<b>Total employment, 2016</b>	126,752,238
<b>Total annual payroll, 2016 (\$1,000)</b>	6,435,142,055
<b>Total employment, percent change, 2015-2016</b>	2.10%
<b>Total nonemployer establishments, 2016</b>	24,813,048
<b>All firms, 2012</b>	27,626,360
<b>Men-owned firms, 2012</b>	14,844,597
<b>Women-owned firms, 2012</b>	9,878,397
<b>Minority-owned firms, 2012</b>	7,952,386
<b>Nonminority-owned firms, 2012</b>	18,987,918
<b>Veteran-owned firms, 2012</b>	2,521,682
<b>Nonveteran-owned firms, 2012</b>	24,070,685
<b>Population per square mile, 2010</b>	87.4
<b>Land area in square miles, 2010</b>	3,531,905.43



## Industry Reports & Market Analysis

---

**Reports and Snapshots that are directly or indirectly related:**

### **Bottled Water Production in the US - IBISWorld Industry Report (\$7.2bn)**

#### **Industry Definition**

Operators in this industry purify and bottle water into plastic and glass bottles for retail. Bottles are capped and labeled before being sold. Companies in this industry typically provide various water offerings, including spring water,

mineral water, sparkling water and flavored water in a range of sizes. This industry includes ice manufacturing, but does not include any beverage production operations other than water varieties.

---

#### **Main Activities**

##### **The primary activities of this industry are**

Purifying and bottling still water

Purifying and bottling carbonated water

Producing flavored bottled water

Manufacturing ice

##### **The major products and services in this industry are**

Bulk products

Manufactured ice

Sparkling water

Still water

---

#### **Similar Industries**

##### **31192a Coffee Production in the US**

Coffee producers purchase coffee beans and process them into roasted whole or ground bean products.

##### **31192b Tea Production in the US**

Tea producers blend and package loose leaf and bagged tea. The industry does not include iced and ready-to-drink tea beverages.

##### **31211a Soda Production in the US**

Soda makers bottle, cap and market carbonated beverages. Some major soft drink manufacturers are also involved in the bottled water market.

##### **31211c Juice Production in the US**

Juice producers package and blend fruit and vegetable juices. The industry does not include functional (i.e. sports and energy) drinks.



**Key Statistics Snapshot**

Revenue <b>\$7.2bn</b>	Annual Growth 14–19 <b>1.0%</b>	Annual Growth 19–24 <b>1.2%</b>
Profit <b>\$289.2m</b>	Exports <b>\$152.3m</b>	Businesses <b>469</b>

**Market Share**

- PepsiCo Inc. **21.4%**

---

- Nestle SA **20.3%**

---

- Cott Corporation **9.7%**

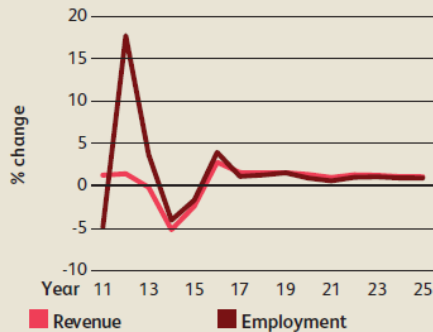
---

- The Coca-Cola Company **8.6%**

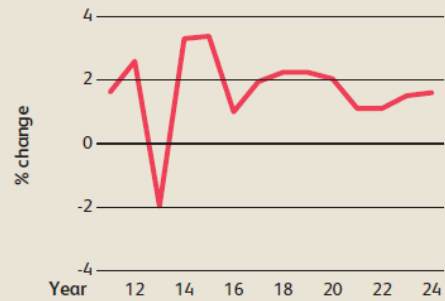
---

p. 27

Revenue vs. employment growth



Per capita disposable income



SOURCE: WWW.IBISWORLD.COM

**Key External Drivers**

- Per capita disposable income

---

- Healthy eating index

---

- Per capita soft drink consumption

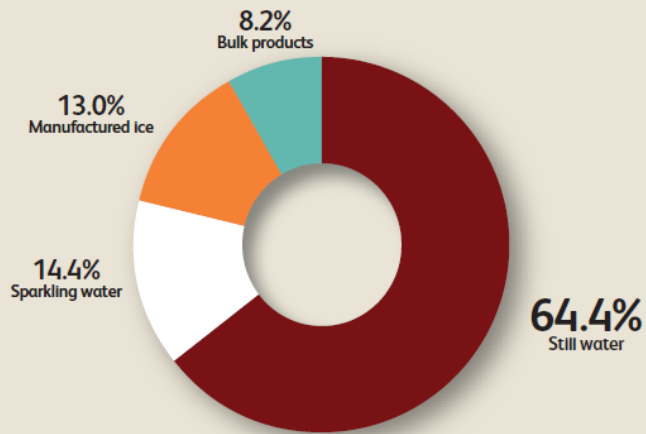
---

- Trade-weighted index

---

p. 5

Products and services segmentation (2019)



SOURCE: WWW.IBISWORLD.COM

**Industry Structure**

Life Cycle Stage	Mature	Regulation Level	Medium
Revenue Volatility	Low	Technology Change	Medium
Capital Intensity	High	Barriers to Entry	Medium
Industry Assistance	None	Industry Globalization	Medium
Concentration Level	Medium	Competition Level	High



## Executive Summary

The Bottled Water Production industry expanded over the five years to 2019, despite some difficult conditions. The industry adapted to changing consumer taste preferences and consumer awareness of sustainable water sourcing and recyclable packaging materials. Demand for industry products has shown some growth, which is mainly attributable to consumers turning away from other beverages with high sugar levels. Furthermore, industry revenue grew during the current period, as consumers with higher disposable incomes resumed purchases of bottled

The high price elasticity of water generally makes bottled water an easy product to substitute when incomes fall

water, sparkling water, flavored water and ice. However, the industry also experienced declines due to consumers filtering their water at home. Moving forward, the industry is expected to experience continued and steady revenue growth, particularly among the growing number of US consumers that value the industry's products for their potential health benefits compared with soft drinks and other carbonated beverages. Over the five years to 2019, industry revenue is expected to rise at an annualized rate of 1.0% to \$7.2 billion, including a 1.6% increase in 2019 alone.

## Industry Outlook

The Bottled Water Production industry will likely experience slow yet consistent growth over the five years to 2024; however, substitute products, such as water filters and reusable bottles, will continue to inhibit demand for bottled water products. Nonetheless, projected increases in per capita disposable income levels will drive consumers to make more

During the current period, consumers shifted from the industry's growing range of bottled water products to substituting them with their home tap water and at-home water filters. The high price elasticity of water generally makes bottled water an easy product to substitute when incomes fall, but new forms of sparkling water, vitamin-enhanced water and other flavored brands have propelled industry growth. Consumers have gravitated toward premium products, such as water fortified with electrolytes and minerals to enhance the product's overall health benefits. The shift toward more premium products, which typically have higher profit margins, has helped boost industry-wide profit over the past five years.

Bottled water producers will continue to contend with various challenges due to increasing plastic and resin prices and competition from alternative bottled beverages, soft drinks and home filters. Companies have focused on public relations efforts by pledging to use sustainable bottling materials and will likely continue to market bottling operations to emphasize its shrinking negative effect on the environment. As a result of the industry's improved production techniques, IBISWorld estimates industry revenue will steadily improve over the five years to 2024, rising an annualized 1.2% to \$7.7 billion.

bottled water purchases. Growing concerns surrounding sugar intake levels and the consequences of excessive soft drink consumption will likely benefit the industry further during the outlook period. Over the five years to 2024, IBISWorld projects industry revenue to increase at an annualized rate of 1.2% to \$7.7 billion.



## Going green

Operators in the Bottled Water Production industry have continued shifting toward environmentally friendly production processes. All of the industry's major companies have pledged to significantly cut down on waste through forward-looking initiatives. For example, in 2018, Nestle SA (Nestle) announced that the company is aiming to make 100.0% of its packaging recyclable or reusable by 2025. Companies are also directing research toward new packaging designs that require less material, offer improved ergonomic functions and can be completely recyclable.

Bottled water packaging and labeling will also likely undergo environmental improvements. Bottler producers may forgo traditional paper labels and print information directly on water bottles, thereby decreasing the material used. This will benefit operators, as the price of plastic materials and resin is expected to rise at an annualized rate of 2.2% over the five years to 2024. Any unexpected

**Bottled water packaging and labeling will likely undergo environmental improvements**

losses incurred due to rising materials prices may be mitigated by the industry's concentrated efforts toward reducing the amount of plastic materials purchased for bottling. Alternative packaging materials, such as glass, are possible options, although the costs associated with transitioning toward glass bottling would merely compound industry costs. Despite the durability of glass, it is typically only used as a bottling material for premium sparkling water brands. Overall, industry profit margins, measured as earnings before interest and taxes, is expected to marginally decrease from 4.0% of revenue in 2019 to 3.9% in 2024.

## Industry Life Cycle

This industry is Mature

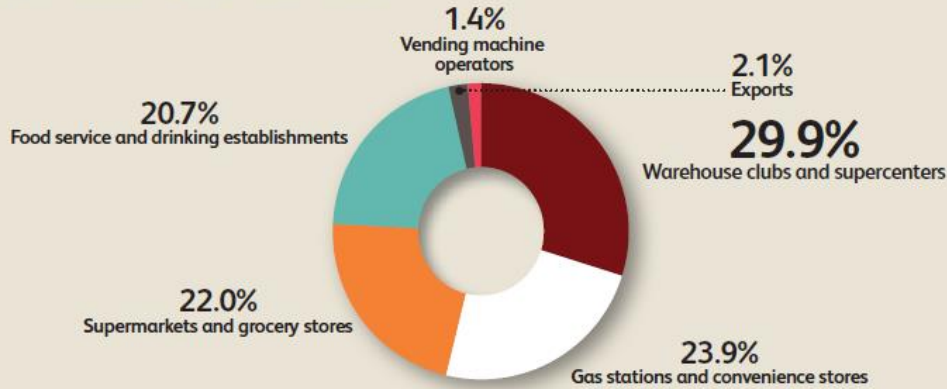
The Bottled Water Production industry is in the mature stage of its life cycle. Industry value added (IVA), which measures the industry's contribution to the overall economy, is forecast to rise at an annualized rate of 1.2% over the 10 years to 2024. Comparatively, US GDP is forecast to grow at an annualized rate of 2.1% during the same period. IVA that is growing slower than the US economy generally signals an industry is in the mature phase of its life cycle.

Furthermore, bottled water and manufactured ice are whole-heartedly accepted products with little variation among products. Additionally, the processes of creating industry goods has remained relatively unchanged for decades. While renewed interest among consumers in the industry's range of bottled sparkling and flavored products provided revenue growth for bottled water producers, it is otherwise

characterized by stagnant expansion in industry employment and establishments. In fact, the number of companies operating in this industry is expected to decline at an annualized rate of 0.7% to 464 companies over the 10 years to 2024.

Over the five years to 2019, the industry has addressed consumers' concerns related to the environment, and operators have altered product packaging in response to increasing awareness surrounding the use of plastic bottles. These changes have enabled the industry to reduce its dependence on plastic and resin resources that often exhibit price volatility, which will ultimately benefit the industry's growth potential moving forward. There are lingering concerns, however, that home water filters and municipal tap water will continue to remain a major threat to industry producers.

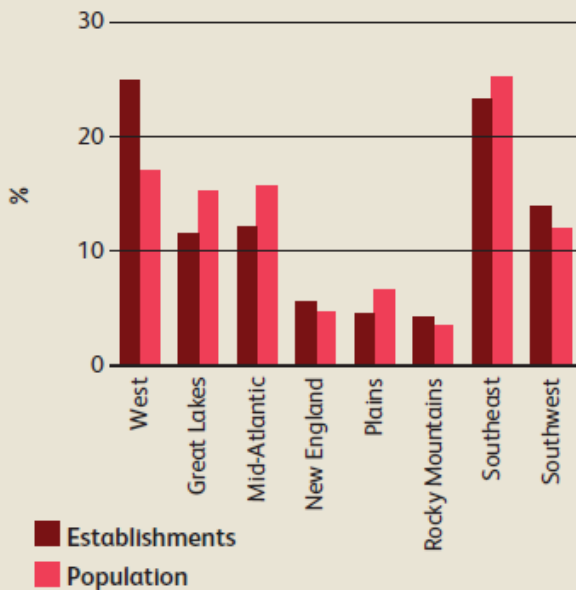
### Major market segmentation (2019)



**Total \$7.2bn**

SOURCE: WWW.IBISWORLD.COM

### Distribution of establishments vs. population



SOURCE: WWW.IBISWORLD.COM

### Barriers to Entry checklist

Competition	High
Concentration	Medium
Life Cycle Stage	Mature
Capital Intensity	High
Technology Change	Medium
Regulation and Policy	Medium
Industry Assistance	None

## Market Share Concentration

Level  
Concentration in this industry is **Medium**

The level of market share concentration in the Bottled Water Production industry is moderate, as the top four players are expected to generate 60.0% of revenue in 2019. Given the heavy bulk weight of industry products and the relatively low value per unit sold, bottled water production is generally taken on by large companies with major economies of scale and heavy investments in transportation. While the majority of bottled water production is performed as one of many activities within the corporate portfolios of international food and beverage companies, the remaining portion of the industry's production is performed through small-sized local players. IBISWorld estimates there are

469 enterprises competing in the Bottled Water Production industry in 2019.

Multinational corporations like Nestle SA, The Coca-Cola Company and PepsiCo Inc. have used existing distribution systems and relationships with wholesalers to maintain a large share of shelf space within supermarkets, grocery stores, gas stations, convenience stores and other locations. These companies also distribute both national brands and large portfolios of regional brands. This strategy has enabled the industry's largest players to maintain their market share over the five years to 2019, despite inconsistent demand for industry products during the period.

## Key Success Factors

IBISWorld identifies 250 Key Success Factors for a business. The most important for this industry are:

### Control of distribution arrangements

Strong distribution networks enable bottlers to gain retailer shelf space and reach the maximum number of customers.

### Economies of scale

Minimizing marginal and average production costs by producing large volumes will enable companies to sell at a lower price and still maintain profitability.

### Ensuring pricing policy is appropriate

Bottled water is a low-margin business, so slight differences in price can lead to significantly higher profit. However, higher prices may also lead consumers

to switch to alternatives. Businesses must strike the correct balance to maximize revenue.

### Establishment of brand names

Consumers typically purchase water from a narrow range of trusted brands. Ensuring that a company's brand is part of this small group is vital to winning purchases.

### Ability to raise revenue from additional sources

Since bottled water production is a relatively low-margin activity, most bottled water production activities are regarded as a peripheral activity for many major soft drink producers.

## Cost Structure Benchmarks

The Bottled Water Production industry's cost structure is based on estimates for total enterprises. Thus, primary costs such as purchases and wages vary from producer to producer. While changes in demand can significantly affect smaller operators' earnings,

multinational companies with greater resources are able to adjust quickly to market conditions.

### Profit

The industry's average profit margin, defined as earnings before interest and



**Cost Structure  
Benchmarks  
continued**

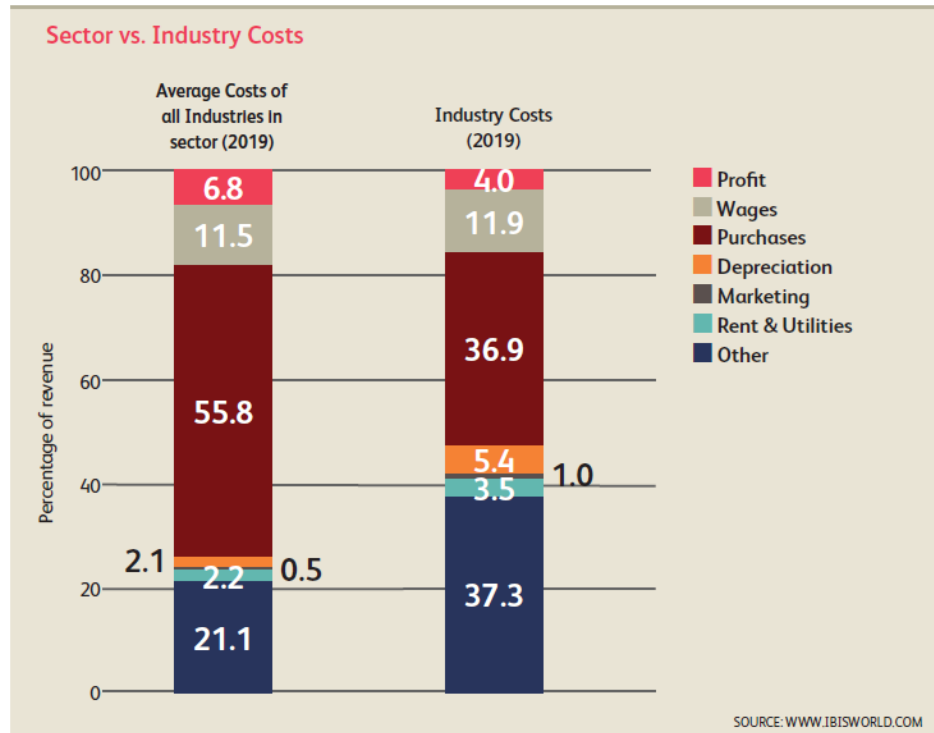
taxes, will account for an estimated 4.0% of industry revenue in 2019, down from 4.8% in 2014. Despite the decline in the industry’s average profit margins, some larger operators, such as PepsiCo Inc., have experienced increased profitability during the period. Certain bottled water producers have expanded profit margins over the five years to 2019 through sales of sparkling, flavored and artisanal brands of water that are sold for higher retail prices than standard bottled spring or tap water. Profitability will likely continue to gradually decline moving forward as the price of plastic materials and resin are expected to rise, increasing costs and thus negatively affecting industry-wide profit margins.

Industry profit varies depending on the size of the company operating in the Bottled Water Production industry. Multinational food and beverage corporations supplement company soft

drink production with additional bottling of bottled water. Doing so yields far higher profit margins compared with medium- and small-sized bottled water producers that operate exclusively in bottled water. Since major companies use preexisting soda bottling capital and machinery to manufacture bottled water, margins tend to be higher among these companies compared with regional water bottlers that must invest heavily in similar machines.

**Purchases**

Industry purchases account for 36.9% of revenue for bottled water producers in 2019. Purchases of raw materials are significant, although the types of raw materials rarely change each year. Manufacturers require high volumes of water and may also need to purchase water purification technology depending on the product class of the bottled water





## Cost Structure Benchmarks continued

that is manufactured. Packaging, plastic bottling, printing and labeling services and occasionally glass bottling services are required, though the prices of these inputs rarely undergo drastic fluctuations. Plastic and resin is a major purchase for the industry, the price of which decreased at an annualized rate of 1.2% during the five-year period to 2019. Fluctuating costs associated with raw materials are often passed along to bottled water producers, and these costs, if high enough, may ultimately reach consumers at the retail level. Purchases as a share of revenue are expected to increase slightly over the next five years as the cost of key inputs, such as plastic, are expected to rise.

### Wages

In 2019, wages represent 11.9% of revenue for bottled water producers. The process of bottling water, manufacturing ice and applying product labels is highly capital intensive, and overall wage expenses have increased from 10.9% of industry revenue in 2014. As bottling machinery becomes increasingly efficient and more affordable, labor is not expected to increase substantially as a percentage of the industry's total costs over the five years to 2024.

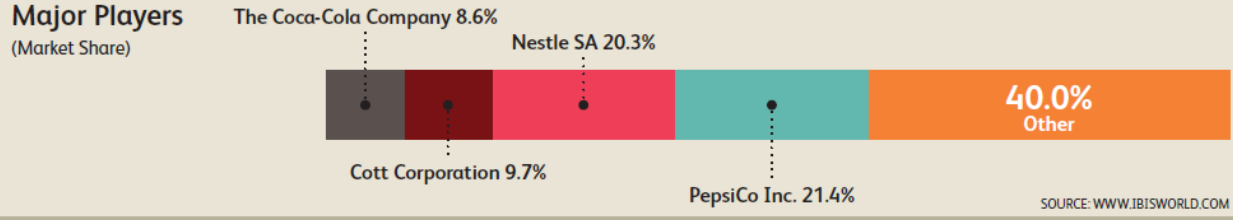
### Other

Rent and utilities make up 3.5% of industry revenue in 2019, which is slightly higher than the average

percentage for other relevant industries. This owes to the added rent associated with large facilities, many of which are situated in major urban areas in which population levels are relatively high. Utilities like electricity, gas and water also are fairly high in comparison to other similar industries; the water that ultimately is bottled into industry products is not considered a utility expense. Depreciation comprises 5.4% of industry revenue.

Marketing is projected to account for 1.0% of industry revenue in 2019. Advertising and promotional budgets are typically high among major soft drink manufacturing companies, several of which operate within the Bottled Water Production industry and therefore provide their bottled water products with strong advertising budgets. The high degree of competition among bottled water brands will likely result in increasing investments in marketing moving forward.

Other various industry costs include insurance; legal representation; accounting services; delivery and warehouse expenses (for industry operators that do not distribute their own products); and equipment repairs and maintenance. Distribution costs represent a significant and rising proportion of industry revenue, yet companies generally account for this expenditure as a part of selling and administrative expenses.



## Player Performance

**PepsiCo Inc.**  
Market Share: 21.4 %  
**Industry Brand Names**  
Aquafina  
Propel  
SoBe

Founded in 1898 and headquartered in Purchase, NY, PepsiCo Inc. (PepsiCo) is an international food and beverage manufacturer that employs more than 263,000 workers worldwide, about 111,000 of which work in the United States. The company has predominantly expanded through mergers and acquisitions, through which it obtained major brands such as Quaker Oats, Tropicana, Gatorade and more. Operations are divided into six business segments: Frito-Lay North America; Quaker Foods North America; North America Beverages (NAB); Latin America; Europe and Sub-Saharan Africa; and Asia, Middle East and North Africa. Altogether, the six segments generated \$63.5 billion in revenue in 2017 (latest data available).

PepsiCo first entered the Bottled Water Production industry in 1997 with the introduction of Aquafina, which

continues to be the most popular brand of its kind, as measured by total annual sales. The company has grown the Aquafina brand into a line of skincare products, such as skin butter and shower gel, to impress upon consumers the link between hydrated skin and consuming water for hydration. PepsiCo also owns IZZE flavored sparkling beverages, SoBe water and Propel water. The company also aggressively negotiates with professional sports franchises to sell the Aquafina brand exclusively at sporting venues.

### Financial performance

PepsiCo's revenue from bottled water activities has been gradually increasing over the five years to 2019. Continued competition from industry products that are naturally sourced has posed a major competitive threat to the Aquafina brand, which is bottled and then filtered from

### PepsiCo Inc. (US industry-specific segment) - financial performance\*

Year	Revenue		Operating Income	
	(\$ million)	(% change)	(\$ million)	(% change)
2014	1,425.7	N/C	204.8	N/C
2015	1,474.1	3.4	195.3	-4.6
2016	1,527.4	3.6	238.0	21.9
2017	1,500.0	-1.8	248.1	4.2
2018	1,538.8	2.6	247.3	-0.3
2019	1,544.3	0.4	252.3	2.0

\*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD



**Player Performance continued**

municipal tap water. However, strong brand loyalty has kept demand strong. Additionally, rising incomes has renewed demand for industry products. The company's industry-relevant revenue has also benefited from its

sparkling water line and enhanced waters (i.e. Propel). Over the five years to 2019, the company's industry-specific revenue is anticipated to increase at an annualized rate of 1.6% to reach \$1.5 billion in 2019.

**Player Performance**

**Nestle SA**  
 Market Share: 20.3 %  
**Industry Brand Names**  
 Arrowhead  
 Calistoga  
 Deer Park  
 Ice Mountain  
 Ozarka  
 Poland Spring  
 Zephyrhills  
 Perrier  
 S. Pellegrino  
 Acqua Panna

Nestle SA (Nestle), founded in 1866 and currently headquartered in Vevey, Switzerland, is the largest food and beverage company in the world. Nestle sells more than 2,000 brands of snack foods, beverages and home cooking products in 189 countries and employs more than 323,000 people. Nestle operates in the following segments: powdered and liquid beverages; milk products and ice cream; prepared dishes and cooking aids; confectionery; pet care; and waters. The company competes in the Bottled Water Production industry through its waters segment. According to their most recent annual report, Nestle generated \$89.8 million Swiss Francs (CHF) in total revenue in 2017.

Nestle Waters North America is based in Stamford, CT, and employs 8,500 individuals. Nestle Waters North America includes brands such as Nestle Pure Life, Ice Mountain, Poland Springs, Perrier and San Pellegrino. According to the

company, these brands have helped make Nestle Waters North America the third-largest non-alcoholic beverage company by volume in the United States. Over the past decade, Nestle has made an effort to reduce its environmental footprint, particularly in its waters segment. In fact, some of the company's production plants are Leadership in Energy and Environmental Design (LEED) certified, which signifies acknowledged green building construction. The company's water-saving and other green initiatives are aiming to reduce the stigma surrounding wasteful plastic bottles. The company's dominant brand is Nestle Pure Life, which includes the traditional spring water brand, its Nature's Blends line of fruit juices, Sparkling Carbonate Natural line of flavored sparkling water beverages and Splash line of lightly flavored still water beverages. Nestle Pure Life is available in over 40 countries around the world. In North America, the

**Nestle SA (US industry-specific segment) - financial performance\***

Year	Revenue		Operating Income	
	(\$ million)	(% change)	(\$ million)	(% change)
2014	1,346.5	N/C	139.3	N/C
2015	1,288.8	-4.3	144.2	3.5
2016	1,386.1	7.5	169.4	17.5
2017	1,411.8	1.9	171.4	1.2
2018	1,449.1	2.6	185.6	8.3
2019	1,464.2	1.0	197.3	6.3

\*Estimates (Figures are converted from CHF to USD)

SOURCE: ANNUAL REPORT AND IBISWORLD



**Player Performance continued**

Poland Spring brand dominates the bottled spring water market.

**Financial performance**

Since Nestle is based in Switzerland, the company reports its annual financial data in CHF. The discussion that follows is based on revenue in US dollars; therefore, fluctuations in the exchange rate affect the financial performance of this company. Nestle’s industry-specific revenue increased an

annualized 1.7% to \$1.5 billion over the five years to 2019. The company’s industry-specific revenue has been only gradually increasing as some consumers have shifted purchased of bottled water toward purchases of at-home filtration systems or private label bottled water brands. Despite fluctuations in industry-relevant revenue, the company announced a \$36.0 million investment in expanding production in Michigan in 2016.

**Player Performance**

**Cott Corporation**  
Market Share: 9.7 %

Ontario-based Cott Corporation (Cott) is the world’s largest manufacturer of private-label soft drinks and a leader in home and office delivery of bottled water and coffee products in North America and Europe. In addition to carbonated soft drinks, the company produces bottled water, shelf-stable juices, energy drinks, sports drinks and ready-to-drink iced tea, among other beverage products. Cott was able to carve a niche in the Canadian drinks manufacturing market by lowering production costs, while maintaining quality and improving packaging design. This move enabled expansion into the US market, largely via acquisitions. In 2017, the company reported total revenue of \$2.3 billion (latest data available).

Cott operates in three segments: route-based services; coffee, tea and extraction solutions; and all other. The company operates in the Bottled Water Production industry through its route-based services segment. Although Cott has been producing water products for private-labels, the company was not an industry leader until its acquisitions and restructuring in 2014. In 2014, the company completed the acquisition of DSS Group Inc., a leading bottled water and coffee direct-to-consumer services provider in the United States, for a reported \$1.2 billion. This purchase extended Cott’s beverage portfolio into new markets in the United States.

**Cott Corporation (US industry-specific segment) - financial performance\***

Year	Revenue (\$ million)	(% change)	Operating Income (\$ million)	(% change)
2014	9.4	N/C	0.1	N/C
2015	333.8	3,451.1	5.0	4,900.0
2016	474.8	42.2	2.8	-44.0
2017	647.7	36.4	14.0	400.0
2018	676.4	4.4	17.3	23.6
2019	704.5	4.2	20.6	19.1

\*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD





## Player Performance continued

Cott became a major operator in this industry through recent acquisitions. The company acquired Sweet Arrow Springs in 2015 to extend its home and water delivery service in and around Pennsylvania. Cott also acquired Consolidated Water Group in September 2015, to cater to customers in the Southeastern United States. In 2016, Cott acquired Aquaterra Corporation, a Canadian producer of bottled water for offices, and Eden Springs Europe B.V., a leading European water provider. More recently, in 2018, the company announced its acquisition of Crystal Rock Holdings, a direct-to-consumer home and office water and coffee filtration company, for \$35.0 million. In addition, Cott acquired The Mountain Valley Spring Company, which produces and delivers spring and

sparkling water to homes and offices, for \$78.5 million in October 2018.

### Financial performance

IBISWorld expects that Cott's industry-specific revenue will increase at an annualized rate of 137.1% to \$704.5 million over the five years 2019. This growth rate is skewed by the 3457.8% hike in 2015, due to the company's skyrocketing entrance into the industry as a result of multiple acquisitions. In 2015, Cott extended its Sparkletts line of sparkling water to cater to shifting demand, which further increased revenue. Overall, a combination of Cott's aggressive acquisition activity and organic growth have helped the company expand their market share in the Bottled Water Production industry.

## Player Performance

The Coca-Cola Company  
Market Share: 8.6%

The Coca-Cola Company (Coca-Cola) is the world's largest beverage manufacturing company, with more than 500 brands sold in more than 200 countries. Founded in 1886 and headquartered in Atlanta, Coca-Cola entered the US bottled water market in 1999 with the launch of the Dasani brand. The product was introduced to

capture the success of competitor PepsiCo Inc.'s trademarked Aquafina line of bottled water and has since become the industry's most intense competitor; it is also one of the most commonly purchased bottled water brands in the world. Furthermore, the company oversees bottled water subsidiary Energy Brands, which produces the popular

### The Coca-Cola Company (US industry-specific segment) - financial performance\*

Year	Revenue (\$ million)	(% change)	Operating Income (\$ million)	(% change)
2014	136.0	N/C	54.9	N/C
2015	231.1	69.9	90.3	64.5
2016	356.9	54.4	137.4	52.2
2017	530.4	48.6	189.0	37.6
2018	582.4	9.8	195.5	3.4
2019	622.2	6.8	225.0	15.1

\*Estimates

SOURCE: IBISWORLD



### Player Performance continued

Smartwater and Vitaminwater brands. However, production of Coca-Cola is done by the Coca-Cola Bottling Co. Consolidated, the largest independent bottler of Coca-Cola beverages in the United States. The bottling company employs about 16,500 employees and is headquartered in Charlotte, NC. Overall, the bottling company reported total revenue of \$4.3 billion in 2017 across all business segments (latest data available).

Coca-Cola has continually expanded the distribution volume of Dasani since its release. Amid changing consumer attitudes toward tap water in addition to municipal efforts across the United States to ban plastic water bottles, Coca-Cola consistently redesigns and reintroduces their Dasani brand. Coca-Cola Bottling Co. Consolidated also produces Gaceau, which produces the popular Vitaminwater brand. Over the five years to 2019, the company has announced environmental initiatives to reduce the company's environmental

footprint. In 2015, Coca-Cola revealed PlantBottle packaging that uses proprietary technology that converts natural sugars from plants into ingredients to make a polyethylene terephthalate (PET) plastic bottle that is entirely made of plant materials.

#### Financial performance

IBISWorld estimates the company's industry-specific revenue to increase an annualized 35.5% over the five years to 2019 to reach \$622.2 million. Coca-Cola has benefited from significant increases in sales due to higher consumer spending on nonessential purchases of soft drinks and bottled water. Total revenue from bottled water production has consistently increased, owing to the company's rebranding efforts. Despite an increase in sales, the company's overall industry revenue and market share concentration has not yet reached the levels of its largest competitor, PepsiCo Inc.

---

### Other Company Performance

Reddy Ice Holdings Inc.  
Market Share: 4.6 %

Reddy Ice Holdings Inc. (Reddy Ice), located in Dallas, is the largest ice manufacturing company in the United States. The company operates a network of 51 ice manufacturing facilities and 57 distribution centers across the country. Reddy Ice produces different shapes of ice cubes and ice blocks through a

variety of packaging sizes, selling primarily to convenience stores, supermarkets and restaurants. Ice is a privately held company; therefore, it does not release its financial information. As a result, IBISWorld estimates that Reddy Ice will generate \$334.2 million in revenue in 2019.



## Technology & Systems

### Level

The level of technology change is **Medium**

From digital label printing capabilities to using more environmentally friendly materials, the Bottled Water Production industry has seen moderate improvement to its production processes over the five years to 2019. The trend toward sustainability has encouraged companies to design packaging that uses less plastic and also comes partly from recycled plastic material. Nestle SA (Nestle)'s has heavily promoted its environmentally friendly Eco Shape bottling technology. Furthermore, the company has announced that by 2025 all of Nestle's packaging will be reusables or recyclable. In addition, over the past 10 years the company has reduced the amount of polyethylene terephthalate (PET) required by 22.0%. Since, many other companies have adopted similar initiatives and technology to reduce the use of plastic in their bottles.

The plastic inputs have also been improved. For example, The Coca-Cola Company revealed its newest technological development in 2015, with the creation of the PlantBottle packaging. PlantBottle packaging uses proprietary technology to turn natural sugars found in plants into ingredients to make PET plastic bottles. The packaging looks and functions just like a traditional water bottle, however it is entirely made of plants. Prior to this

development, the company was producing plastic bottles with only 30.0% of inputs being derived from plants. Increasingly industry operators are adopting more plant-based material technology, though it has not been entirely embraced across the industry.

Water treatment and filtration technology has increased in response to the growing number of water styles that have been introduced to the industry. In some cases, the method of water filtration is considered a crucial marketing aspect of the brand. The general bottled water treatment process consists of collecting municipal tap water or groundwater, filtering the water through multiple filters of sand and carbon, softening the water by removing excess minerals and metal cations, removing lingering particles through reverse osmosis, adding additional minerals, killing microorganisms through ultraviolet irradiation, sanitizing the water by adding small amounts of ozone and ultimately bottling the water. Effective filtration removes all undesirable contaminants and microbes, but filtration steps vary depending on the source water. Artesian well water or spring water products, for example, do not require mineral injections, while distilled water specifically must be evaporated and collected.

## Industry Data

	Revenue (\$m)	Industry Value Added (\$m)	Establishments	Enterprises	Employment	Exports (\$m)	Imports (\$m)	Wages (\$m)	Domestic Demand	Per capita disposable income (\$)
2010	7,074.6	1,319.9	788	586	13,340	117.4	381.3	662.0	7,338.5	38,160.3
2011	7,163.9	1,550.7	747	539	12,697	129.2	390.4	626.7	7,425.1	38,769.6
2012	7,266.5	1,409.1	751	529	14,945	122.6	431.6	747.8	7,575.5	39,763.4
2013	7,254.1	1,609.7	752	528	15,498	131.8	423.3	775.5	7,545.6	38,973.8
2014	6,880.0	1,440.6	716	500	14,872	138.3	466.3	752.7	7,208.0	40,249.8
2015	6,714.9	1,549.3	708	491	14,623	132.6	487.3	797.2	7,069.6	41,598.1
2016	6,902.4	1,372.1	687	476	15,201	130.7	521.9	826.8	7,293.6	42,004.3
2017	7,010.6	1,523.8	685	473	15,371	137.1	562.0	836.8	7,435.5	42,791.1
2018	7,118.4	1,523.9	681	470	15,568	145.1	606.2	847.9	7,579.5	43,758.3
2019	7,229.8	1,542.7	680	469	15,808	152.3	661.0	861.0	7,738.5	44,630.2
2020	7,327.0	1,563.8	678	466	15,953	157.8	712.0	869.7	7,881.2	45,278.2
2021	7,399.8	1,576.6	675	464	16,047	162.4	768.7	875.5	8,006.1	45,776.2
2022	7,496.6	1,597.3	675	463	16,209	169.9	830.6	884.9	8,157.3	46,279.8
2023	7,590.7	1,610.8	676	463	16,382	176.5	905.6	894.7	8,319.8	46,974.0
2024	7,674.1	1,625.7	678	464	16,535	181.2	976.8	903.3	8,469.7	47,710.3
Sector Rank	152/193	152/193	103/193	112/193	144/193	174/184	164/184	149/193	158/184	N/A
Economy Rank	559/694	591/694	576/694	570/694	594/694	201/216	178/216	586/694	177/216	N/A

## Snapshot of Energy Drink Production in the US - IBISWorld Industry Report (\$8.9bn)

### Key Statistics Snapshot

Revenue	Annual Growth 13–18	Annual Growth 18–23
<b>\$8.9bn</b>	<b>5.2%</b>	<b>1.2%</b>
Profit	Exports	Businesses
<b>\$1.2bn</b>	<b>\$208.2m</b>	<b>73</b>

#### Market Share

Red Bull GmbH	<b>38.6%</b>
Monster Beverage Corp.	<b>31.6%</b>
Rockstar Energy Drink	<b>9.3%</b>

p. 24

Revenue vs. employment growth



Per capita disposable income



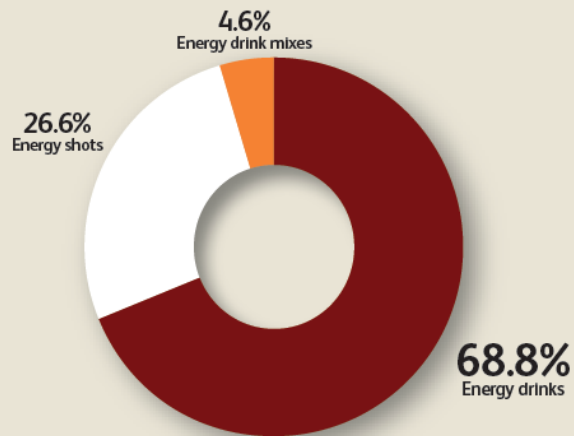
SOURCE: WWW.IBISWORLD.COM

#### Key External Drivers

- Per capita disposable income
- Per capita sugar and sweetener consumption
- Healthy eating index
- Trade-weighted index

p. 4

Products and services segmentation (2018)



SOURCE: WWW.IBISWORLD.COM

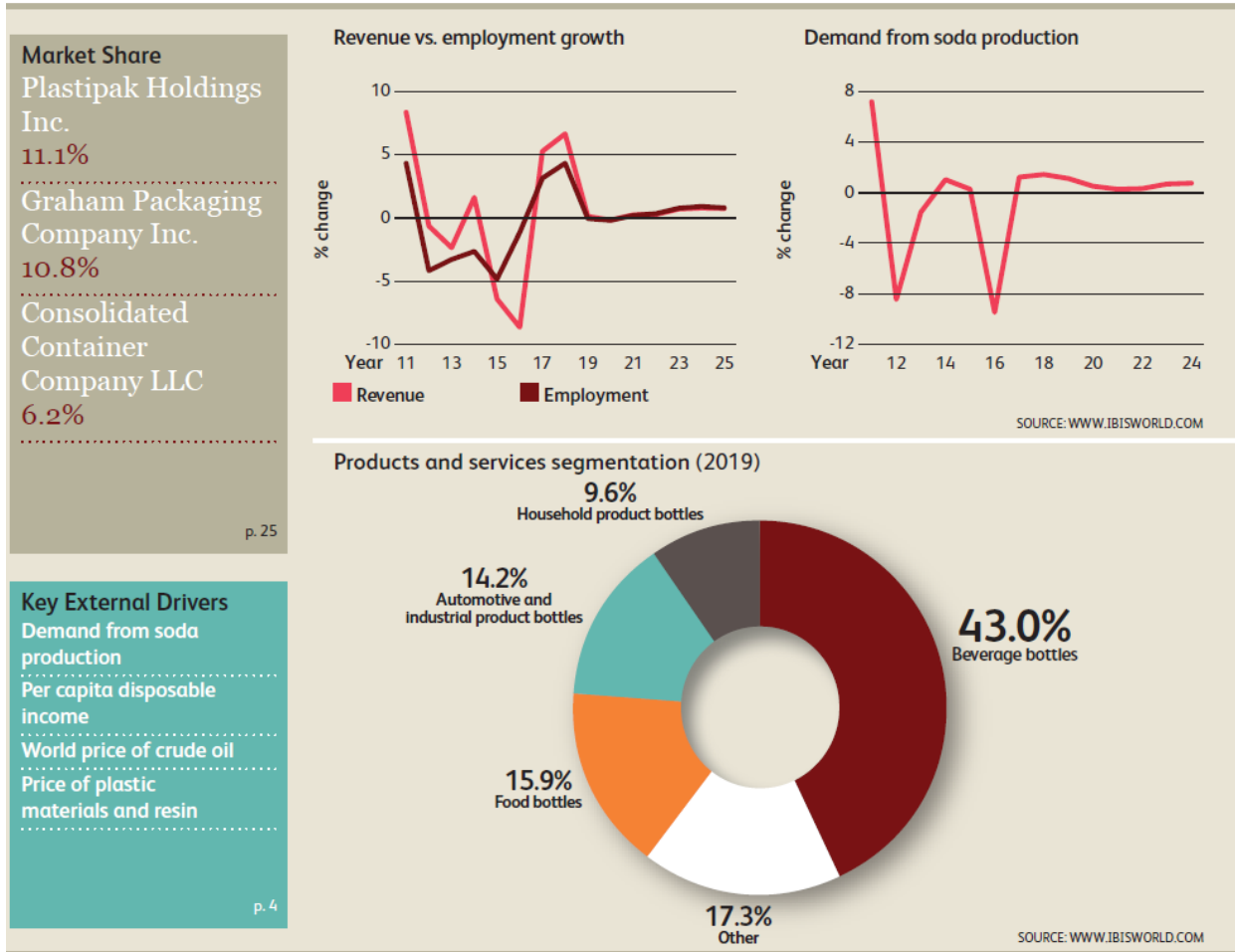
### Industry Structure

Life Cycle Stage	Growth	Regulation Level	Heavy
Revenue Volatility	Medium	Technology Change	Medium
Capital Intensity	High	Barriers to Entry	Medium
Industry Assistance	Low	Industry Globalization	Medium
Concentration Level	High	Competition Level	High

## Plastic Bottle Manufacturing in the US - IBISWorld Industry Report (\$13.1bn): For Comparison or Market Share

### Key Statistics Snapshot

Revenue	Annual Growth 14-19	Annual Growth 19-24
<b>\$13.1bn</b>	<b>-0.8%</b>	<b>0.4%</b>
Profit	Exports	Businesses
<b>\$1.5bn</b>	<b>\$694.7m</b>	<b>191</b>



- Key External Drivers**
- Demand from soda production
  - Per capita disposable income
  - World price of crude oil
  - Price of plastic materials and resin
- p. 4

### Industry Structure

Life Cycle Stage	Mature	Regulation Level	Medium
Revenue Volatility	Medium	Technology Change	High
Capital Intensity	High	Barriers to Entry	Medium
Industry Assistance	Medium	Industry Globalization	Medium
Concentration Level	Low	Competition Level	Medium

## Executive Summary

The Plastic Bottle Manufacturing industry manufactures a range of bottles from various plastic compounds based on their end use. These bottles are then sold to beverage, food and chemical manufacturers to use as packaging for soft drinks, milk, condiments and household and automotive chemicals. The prevalence of plastic containers and bottles, has not immunized the Plastic Bottle Manufacturing industry to economic volatility. Industry revenue is expected to rise just 0.1% in 2019, as a

annualized rate of 0.8% to \$13.1 billion over the five years to 2019.

Still, the industry has had to contend with offshore production operations. The United States has been a net importer of plastic bottles and containers since 2003. Over the five years to 2019, industry imports are expected to increase at an annualized rate of 1.5%. As globalization increases, imports will continue to challenge the viability of domestic manufacturing, forcing US manufacturers to innovate or decrease per-unit production costs to remain competitive. Additionally, exports have fallen at an annualized rate of 1.6% during the same period, partially as a result of the appreciation of the US dollar.

**Mergers and acquisitions among large players have increased, enabling established players to increase their market share**

result of declining input forcing industry operators to lower selling prices to retain customers.

The industry relies on several key downstream industries to purchase its products. For example, soft drink producers account for more than 40.0% of industry revenue. However, soda production has faltered in recent years, largely due to changes in consumer tastes and concerns about plastic waste. This decline, along with falling petroleum prices' effect on product prices, has caused industry revenue to fall at an

Additionally, mergers and acquisitions among large players have increased, enabling established players to increase their market share in a mature industry. Large players can more easily undertake product development and improve the efficiency and scale of their production operations, giving them an edge over competitors. Over the five years to 2024, consumer spending is anticipated to continue to increase and input prices are expected to stabilize, resulting in revenue increasing at an annualized rate of 0.4% to \$13.4 billion over the five years to 2024.

## Industry Outlook

After years of revenue volatility, growth in the Plastic Bottle Manufacturing industry will stabilize over the five years to 2024. As the economy continues to grow and consumers increase their spending, downstream customers will increase their demand for plastic bottles. Consequently, over the five years to 2024, industry revenue is forecast to increase an annualized 0.4% to \$13.4 billion.

Over the next five years, industry profit margins are expected to remain relatively stable. The price of plastic materials and resin is forecast to stagnate, keeping industry costs stable. In the event of material costs increases, companies with long-term supplier contracts will be able to guard against unexpected raw material price increases.

### Industry Life Cycle

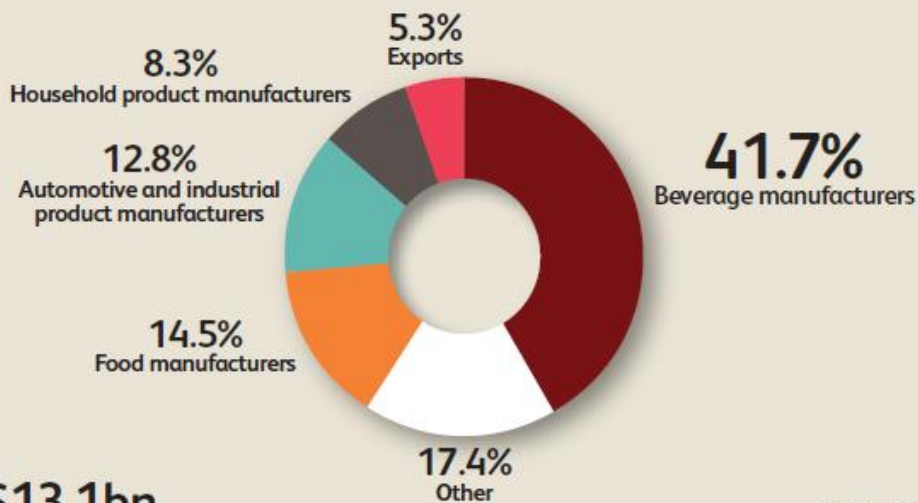
This industry is **Mature**

The Plastic Bottle Manufacturing industry’s growth rate, product saturation, market acceptance and acquisition activity all indicate that the industry is in the mature phase of its life cycle. Industry value added (IVA), which measures the industry’s contribution to the overall economy, is forecast to grow an annualized 2.9% over the 10 years to 2024, slightly exceeding US GDP, which is projected to grow at an annualized rate of 2.2% during the same period.

Clearly defined downstream industries, including beverage and food manufacturers and automotive and household chemical producers, continue to be the industry’s key buying markets,

which is indicative of a mature industry. Product groups are also well-segmented and fairly stable. While product processes are continually being improved, no new products are entering the market to boost the industry into a growth stage. In addition, the industry has experienced more mergers and acquisitions. Operators are merging or are being acquired to gain greater market share and attain lower costs per unit. For example, in 2017, major industry player Consolidated Container Co. LLC (Consolidated Container) was purchased by Loews Corporation, a conglomerate, following a period of Consolidated Container’s own spree of leveraged acquisitions.

### Major market segmentation (2019)



SOURCE: WWW.IBISWORLD.COM

### Barriers to Entry checklist

Competition	Medium
Concentration	Low
Life Cycle Stage	Mature
Capital Intensity	High
Technology Change	High
Regulation and Policy	Medium
Industry Assistance	Medium

## Market Share Concentration

Level Concentration in this industry is **Low**

The Plastic Bottle Manufacturing industry has a low level of market share concentration. This industry’s three biggest players, Plastipak Holdings Inc. (Plastipak), Graham Packaging Co. Inc. and Consolidated Container Co. LLC, make up a sizeable contribution to industry revenue. Relationships and long-term contracts with major customers have enabled the industry to be dominated by a few key players rather than being fragmented like other plastic manufacturing industries.

Over the past five years, the industry’s concentration has increased as a result of a growing number of mergers and acquisitions. After former industry player

Constar International went bankrupt in 2014, Plastipak purchased more than 90.0% of its assets (\$102.5 million).

The recent upswing in acquisitions indicates that companies are making a concerted effort to increase profitability by claiming larger portions of the market. Larger companies also benefit from economies of scale, lowering their per-unit costs and affording them greater profit margins, permitting them the capability to reinvest in new technology and establish patents. Major company Plastipak has been growing quickly over the past five years, in part a result of several trademarked technologies that have boosted efficiency and streamlined production processes.

## Key Success Factors

IBISWorld identifies 250 Key Success Factors for a business. The most important for this industry are:

### Supply contracts in place for key inputs

A reliable supply of key inputs, such as plastic resin, at a competitive cost increases an operator’s profitability.

### Provision of a related range of goods/services (“one-stop shop”)

Downstream customers may prefer to use manufacturing operators that can offer them total packaging solutions through the provision of value-added services such as design.

### Undertaking technical research and development

It is important for operators within the industry to develop new production technologies to maintain a competitive advantage over other operators.

### Effective quality control

Operators must maintain consistent quality in their products. Any deviation from consistency may cause an operator to lose business.

### Output is sold under contract – incorporate long-term sales contracts

Negotiation of supply contracts with customers enables manufacturing operators to make long-term plans relating to their level of plant and equipment expenditure. The ability to make such plans in advance could potentially save the operator money.

### Economies of scale

The development of large-scale production facilities enables operators to increase their profitability through lower production costs per unit.

## Cost Structure Benchmarks

The Plastic Bottle Manufacturing industry has been making the gradual shift toward higher levels of capital investment in automation technology. This shift has been driven by the goal to

create more-efficient and -profitable enterprises. Despite recovering demand, the industry has nonetheless struggled recently due to lowered input costs and a subsequent decline in revenue.



**Cost Structure  
Benchmarks  
continued**

**Profit**

Profit, measured as earnings before interest and taxes, varies between players, depending on the relative size of their manufacturing facilities. Larger operators generally benefit from economies of scale and experience great profit margins. Average industry profit accounts for an estimated 11.4% of revenue. Purchase costs have decreased over the past five years, leading the average industry margin to rise during the period. Consolidation in the industry is creating more large-scale players that benefit from economies of scale, pulling up average margins.

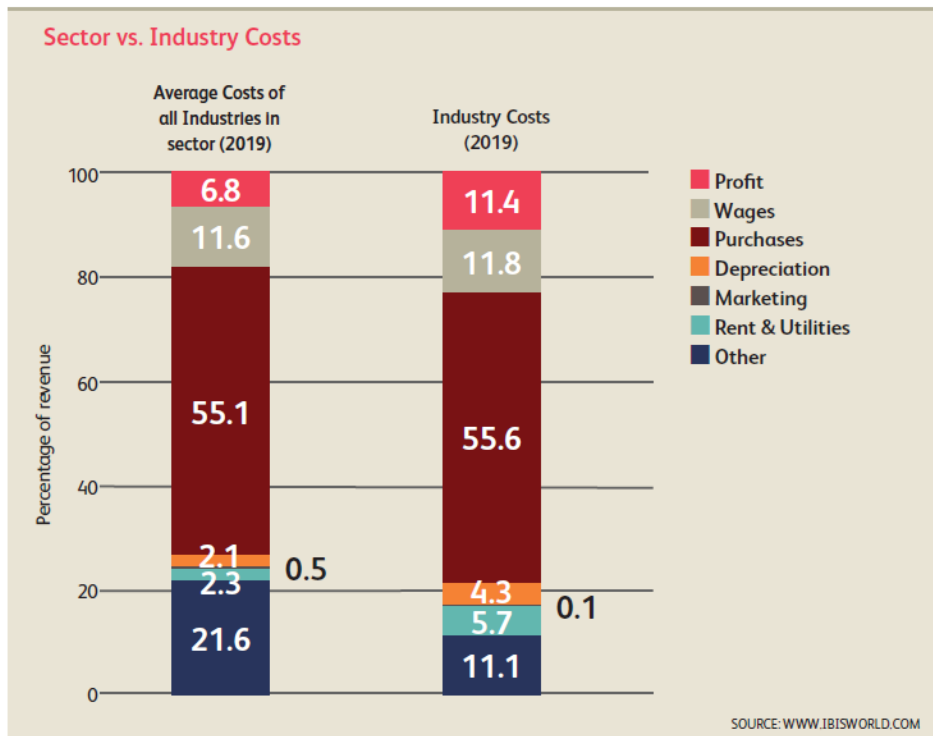
industry very sensitive to the level of raw material prices, specifically plastic resin prices. Generally, appropriate changes in product pricing enable the industry to pass adverse fluctuations in the price of resin on to customers. A sustained increase in resin prices over time would make plastic bottles less economical for downstream industries than substitute products such as glass and aluminum. High-density polyethylene (HDPE) and polyethylene terephthalate (PET) resins constitute the primary raw materials used to make plastic bottles. Resin is derived from oil, so when the price of oil increases, so does the price of plastic resin.

**Purchases**

Purchases are the industry’s largest expense (55.6% of industry revenue), accounting for over half the industry’s revenue. The high raw material component in total costs makes the

**Wages**

The Plastic Bottle Manufacturing industry is capital-intensive, but wage costs still account for the second-largest share of revenue (11.8%). Wage costs have increased over the past five years





## Cost Structure Benchmarks continued

despite a slight dip in the number of employees. Increased automation can also reduce the need for labor. As the industry continues to invest in developing more efficient, automated processes, wages' share of revenue will most likely stay low. Industry operators are investing more in their research and development (R&D) teams to produce environmentally friendly products.

### Depreciation

Depreciation is expected to account for 4.3% of industry revenue in 2019. Depreciation expenses fluctuate depending on the operator's size and the number of assets involved. Depreciable assets include buildings, storage equipment, machinery used to move products and computer inventory systems. Depreciation costs have remained flat over the past five years though may rise in the future if players introduce more automated, sophisticated machinery.

### Rent

Rent is expected to account for 1.9% of industry revenue in 2019. Rent is typically a small cost for this industry as most operators prefer to directly own

the property and equipment used for their operations.

### Utilities

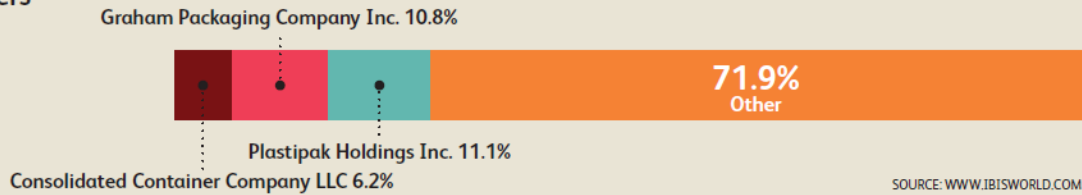
In 2019, are anticipated to account for 3.8% of industry revenue. As producing plastic bottles require energy, utility costs claim a relatively sizeable portion of industry revenue in comparison to the manufacturing sector as a whole.

### Marketing

Marketing costs are expected to account for less than 0.1% of revenue in 2019. This industry generally has low marketing costs, as most downstream customers are manufacturing industries. As a result, most customers are familiar with this industry's operators and products, limiting the need for marketing.

### Other

Other expenses include R&D costs, which represent a small but rising cost as companies seek out new processes that can reduce input volumes as well as integrate recycled plastic materials. Other costs include accounting and legal, advertising, repair and maintenance and licensing fees.

**Major Players**  
 (Market Share)


SOURCE: WWW.IBISWORLD.COM

**Player Performance**
**Plastipak Holdings Inc.**  
 Market Share: 11.1 %

Plastipak Holdings Inc. (Plastipak) manufactures high-density polyethylene (HDPE) and polyethylene terephthalate (PET) resins, which are used in the packaging of carbonated and noncarbonated beverages, cleaning products, distilled spirits and processed juices. The private company is headquartered in Plymouth, MI and has 13 manufacturing plants and three on-site manufacturing facilities in the United States. Plastipak serves an array of market segments, including beverage, household cleaning, food, industrial, automotive, personal care and specialty products.

Plastipak also designs packages for food staples, such as pickles, coffee, salad dressing, mayonnaise, sauces and grated cheeses. One of the company's biggest customers is Kraft Foods. Furthermore, its personal care PET bottles are used in a

variety of cosmetic, personal care, spa and specialty applications. Close to half the company's revenue is generated from carbonated and noncarbonated beverage packaging, 30.0% is derived from cleaning product bottles and 15.0% comes from food and processed juice.

Aside from its US operations, the company is also expanding its presence in South America and Europe. Its most recent market entry was in Italy with the purchase of two local plastic packaging manufacturers. Over the past five years, Plastipak has grown through the introduction of new technologies (both its ThermoShape and Direct Object Printing processes are trademarked) and development of recycling technologies.

In February 2014, Plastipak won a bid to purchase most of the assets of former industry player Constar International (Constar) for \$102.5 million. Constar

**Plastipak Holdings Inc. (US industry-specific segment) - financial performance\***

Year	Revenue (\$ million)	(% change)	Operating Income (\$ million)	(% change)
2014	694.8	N/C	38.2	N/C
2015	1,080.0	55.4	131.8	245.0
2016	1,215.0	12.5	175.0	32.8
2017	1,303.2	7.3	164.2	-6.2
2018	1,421.5	9.1	158.6	-3.4
2019	1,455.4	2.4	165.6	4.4



**Player Performance continued**

filed for bankruptcy after suffering from low demand during the economic downturn and losing a contract with PepsiCo Inc., its largest customer. The added production capacity is expected to benefit Plastipak’s revenue.

**Financial performance**

As it is a private company, Plastipak does not publish its financial information. However, IBISWorld estimates that over

the five years to 2019, Plastipak’s US industry-specific revenue is expected to increase an annualized 15.9% to \$1.5 billion. This high growth is due to both the company’s integration of Constar’s business and the introduction of new product technologies that boost efficiency, namely ThermoShape. Additionally, the company has expanded its recycling facilities, enabling Plastipak to manufacture more bottles from recycled material.

**Player Performance**

**Graham Packaging Company Inc.**  
Market Share: 10.8%

Headquartered in York, PA, Graham Packaging Company Inc. (Graham) is a manufacturer of custom plastic containers for branded consumer products. The company, which was founded in the 1970s and is a subsidiary of New Zealand-based Reynolds Group Holdings Inc., has grown to become the largest manufacturer of plastic bottles in the United States. It has over 4,500 employees worldwide and conducts over 65.0% of its business in the United States.

Graham manufactures plastic bottles through a variety of methods, including blow molding and injection molding for four consumer product segments: food

and beverage, household, personal care/ specialty and automotive lubricants. One-third of the company’s 72 manufacturing facilities exist on-site at customer plants, enabling streamlined product manufacturing, bottle manufacturing and packaging in the same facility. On-site facilities have enabled Graham to secure longer-term contracts, usually at a length of about 10 years instead of the average three to five years for off-site manufacturing contracts.

**Financial performance**

Over the five years to 2019, Graham’s US revenue is expected to decline at an annualized rate of 2.1% to \$1.4 billion. Revenue fell every year before 2019

**Graham Packaging Company Inc. (US industry-specific segment) - financial performance\***

Year	Revenue (\$ million)	(% change)	Operating Income (\$ million)	(% change)
2014	1,586.0	N/C	132.4	N/C
2015	1,497.0	-5.6	166.9	26.1
2016	1,392.7	-7.0	149.8	-10.2
2017	1,369.7	-1.7	159.0	6.1
2018	1,391.3	1.6	111.5	-29.9
2019	1,424.4	2.4	116.3	4.3

\*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD



**Player Performance continued**

during the period due to a combination of lower sales volumes and decreased input prices pressuring the company to lower its sale prices. These trends forced Graham to engage in cost saving measures during the period, such as

closing its underperforming facilities in Belvedere, NJ, and Baltimore, MD, in 2016, which further depressed revenue. However, the company’s cost saving measures succeeded in boosting Graham’s revenue in 2019.

**Player Performance**

**Consolidated Container Company LLC**  
Market Share: 6.2 %

Consolidated Container Company LLC (CCC) was established in 1999 through the merger of Reid Plastics Holdings and Suiza Food Corporation’s (now Dean Foods) domestic plastic packaging operations. The company is one of the largest manufacturers of rigid plastic containers in the United States and primarily produces plastic bottles for the agricultural, automotive, food and beverage and personal care and household consumer goods markets. Atlanta-based CCC has 52 manufacturing plants in the United States and a 70-member team that creates product designs and engineers specific packages that address customer requirements. The company also develops process improvements for the manufacturing of plastic bottles and has about 2,100 employees.

CCC’s agricultural bottle range includes custom-designed and stock bottles manufactured from HDPE, polypropylene and PET. These bottles range from 16

ounces to 2.5 gallons and are constructed from a single layer or multiple layers to prevent permeation and provide added product protection. The company’s automotive products include bottles for motor oil, fuel additives, brake fluid, antifreeze, lubricants and degreasers. These products can feature creative designs, specialized layers, protective barriers, view stripes, in-mold labeling, fluorination and other functional elements. CCC produces beverage bottles for water, juice and dairy companies, using an array of plastic materials, including proprietary polypropylenes and multilayer combinations of materials, to engineer bottles and support customers’ process and shelf life requirements. The company also produces lightweight, high-impact containers for refrigerated and shelf-stable food products, such as syrups, concentrates and dressings. CCC also produces blow-molded rigid plastic containers for

**Consolidated Container Company LLC (US industry-specific segment) - financial performance\***

Year	Revenue	(% change)	Operating Income	(% change)
2014	886.1	N/C	44.6	N/C
2015	838.2	-5.4	93.5	109.6
2016	774.2	-7.6	101.9	9.0
2017	485.8	-37.3	56.0	-45.0
2018	801.8	65.0	47.5	-15.2
2019	820.8	2.4	49.6	4.4

\*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD



### Player Performance continued

household detergents, cleaners, cosmetics and toiletry containers using highly engineered multilayer bottle constructions.

Loews Corporation (Loews), a conglomerate with operations in insurance, hotels, and offshore drilling, acquired CCC in May 2017. Since this acquisition, CCC has acquired several smaller regional plastic bottle manufacturers.

### Financial performance

IBISWorld estimates that over the five years to 2019, revenue for the company has decreased at an annualized rate of 1.5% to \$820.8 million. The decline in revenue is a result of Loews still integrating CCC into its larger operations and improve efficiencies. Over the next five years, CCC revenue is expected to grow as changes implemented by Loews take effect.

---

### Other Company Performance

Pretium Packaging LLC  
Market Share: 2.0 %

Headquartered in Chesterfield, MO, Pretium Packaging LLC (Pretium) was founded in 1992 and is one of largest manufacturers of customized, high-performance plastic bottles in the United States. The company primarily manufactures bottles for products like beverages, food, household products, cosmetics, toiletries and pharmaceuticals and, for the most part, manufactures using PET and HDPE. In fiscal 2013 (year-end September), the company manufactured 1.2 billion plastic bottles out of more than 113.0 million pounds of

resin. The company has grown in part through acquisitions over the past five years, which have contributed to its revenue growth. The company has 12 manufacturing facilities in total, 10 in the United States and two in Canada. In June 2014, Pretium was sold by its parent company to private equity firm Genstar Capital. The firm has announced plans to increase capital investment in the business to push Pretium's growth forward. IBISWorld expects its industry-relevant revenue to reach \$261.1 million in 2019.

## Technology and Systems

Level  
The level of technology change is **High**

The industry has a high level of technological change; companies in the industry must adopt the latest manufacturing technologies to remain competitive and keep up with customer needs. Most beverage bottles are produced from polyethylene terephthalate (PET), which is transparent and light. Detergent and household good bottles are primarily produced from high-density polyethylene (HDPE), which is stronger and not transparent. HDPE bottles are produced using a blow-molding process that involves feeding blended HDPE resin pellets and colorants into an extrusion machine and using heat and pressure to form the resin into a round hollow tube of molten plastic called “parison”. The parison is captured by bottle molds mounted radially on a wheel as it leaves the extruder. Once inside the mold, air pressure blows the parison into the bottle shape of the mold. The mold is rapidly cooled and removed, producing a bottle.

PET bottle production involves a stretch blow-molding process, by which a test-tube-shaped preform is made by injection molding and then heated, stretched and filled with compressed air to fill the mold and form the bottle. This process provides the enhanced physical clarity and gas-containing properties commonly required for soft drink bottles.

Major companies continue to develop new ways of manufacturing bottles to

increase automation and efficiency, reduce material per unit and streamline processes. New proprietary technologies are sometimes patented, giving the company that developed them a competitive advantage. Recent hot-fill technology for PET bottles, for example, enables the finished bottle to withstand filling temperatures of over 180 degrees Fahrenheit. In addition to possessing the structural integrity to withstand extreme filling conditions, highly customized hot-fill PET bottles filled with food or beverage products can be shipped and displayed without refrigeration. This eliminates the need for preservatives to be added to the product and reduces the cost of its storage and transport.

One of the main concerns with using plastic bottles is bottle creep, which is created when the dimensions of the bottle increase under pressure, disrupting the carbon dioxide equilibrium and causing lower levels of the dissolved gas. Another concern is the high carbon dioxide solubility of PET plastic, which can cause a 1.0%-to-3.0% loss of gas. Newer barrier technologies have improved oxygen and carbon dioxide protection up to 45.0%. Barrier technology for oxygen-sensitive beverage and food products involves the application of a thin layer of carbon to the inside of the bottle, providing a barrier against oxygen and carbon dioxide leakage.

## Industry Data

	Revenue (\$m)	Industry Value Added (\$m)	Establishments	Enterprises	Employment	Exports (\$m)	Imports (\$m)	Wages (\$m)	Domestic Demand	World price of crude oil (\$ per barrel)
2010	12,815.7	2,710.9	445	170	31,833	749.1	832.3	1,583.1	12,898.9	79.0
2011	13,882.7	2,868.7	443	177	33,202	814.3	920.4	1,536.0	13,988.8	104.0
2012	13,793.5	2,752.6	458	186	31,817	829.8	984.4	1,511.1	13,948.1	105.0
2013	13,468.6	2,805.1	456	177	30,771	787.1	995.3	1,471.8	13,676.8	104.1
2014	13,685.5	2,781.3	446	179	29,956	751.7	984.1	1,481.1	13,917.9	96.2
2015	12,808.8	3,539.8	452	183	28,509	732.5	1,004.1	1,413.5	13,080.4	50.8
2016	11,702.2	3,572.8	448	182	28,179	693.8	978.4	1,431.3	11,986.8	42.8
2017	12,317.3	3,615.9	457	185	29,062	654.7	1,009.2	1,485.0	12,671.8	52.8
2018	13,134.3	3,575.2	471	190	30,315	685.6	1,073.4	1,556.0	13,522.1	69.4
2019	13,149.8	3,615.3	473	191	30,297	694.7	1,060.0	1,555.6	13,515.1	66.9
2020	13,126.2	3,638.2	474	192	30,238	696.9	1,052.1	1,552.6	13,481.4	64.6
2021	13,157.2	3,637.6	476	193	30,295	699.2	1,053.4	1,555.7	13,511.4	64.7
2022	13,192.6	3,656.5	480	194	30,397	702.3	1,054.2	1,560.7	13,544.5	64.6
2023	13,284.2	3,677.3	483	196	30,629	708.1	1,060.0	1,572.4	13,636.1	65.3
2024	13,387.6	3,708.3	488	198	30,906	713.0	1,069.3	1,586.2	13,743.9	66.3
Sector Rank	114/193	98/193	127/193	155/193	111/193	144/184	156/184	117/193	127/184	N/A
Economy Rank	459/694	466/694	606/694	640/694	527/694	163/216	166/216	504/694	142/216	N/A

## Snapshot of Recycling Facilities in the US - IBISWorld Industry Report (\$6.6bn)

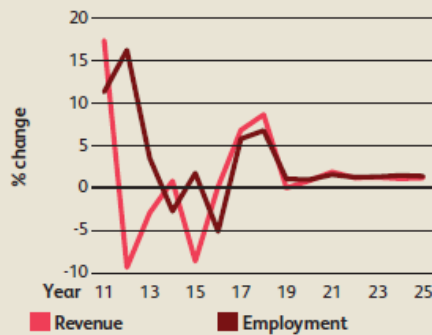
### Key Statistics Snapshot

Revenue	Annual Growth 14-19	Annual Growth 19-24
<b>\$6.6bn</b>	<b>1.2%</b>	<b>1.3%</b>
Profit	Wages	Businesses
<b>\$682.0m</b>	<b>\$1.1bn</b>	<b>1,088</b>

**Market Share**  
Waste Management Inc.  
18.9%

p. 24

Revenue vs. employment growth



Demand from recyclable material wholesaling

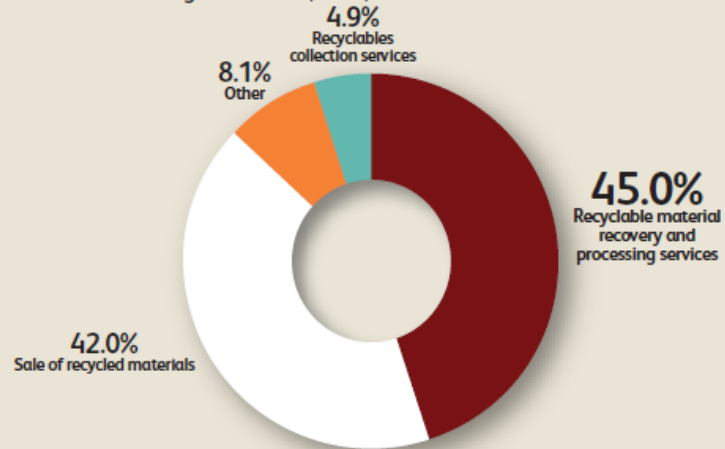


SOURCE: WWW.IBISWORLD.COM

**Key External Drivers**  
Demand from recyclable material wholesaling  
Population  
Price of paper  
Price of plastic materials and resin  
World price of crude oil

p. 4

Products and services segmentation (2019)



SOURCE: WWW.IBISWORLD.COM

### Industry Structure

Life Cycle Stage	Growth	Regulation Level	Heavy
Revenue Volatility	Medium	Technology Change	Medium
Capital Intensity	Medium	Barriers to Entry	Medium
Industry Assistance	High	Industry Globalization	Low
Concentration Level	Low	Competition Level	Medium



## Snapshot Retail Trade in the US - IBISWorld Sector Report (\$5.5tr)

### Key Statistics Snapshot

Revenue

**\$5.5tr**

Annual Growth 13-18

**2.1%**

Annual Growth 18-23

**1.2%**

Profit

**\$185.4bn**

Wages

**\$491.1bn**

Businesses

**2.7m**

### Market Share

Walmart Inc.

7.2%

Amazon.com Inc.

2.8%

The Kroger Co.

2.3%

The Home Depot Inc.

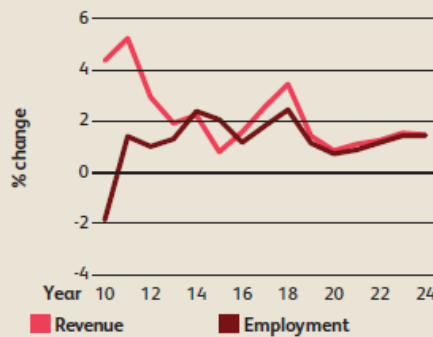
1.8%

Best Buy Co. Inc.

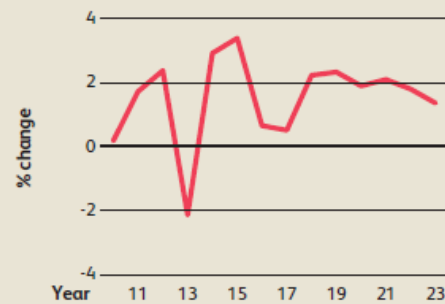
0.7%

p. 28

Revenue vs. employment growth

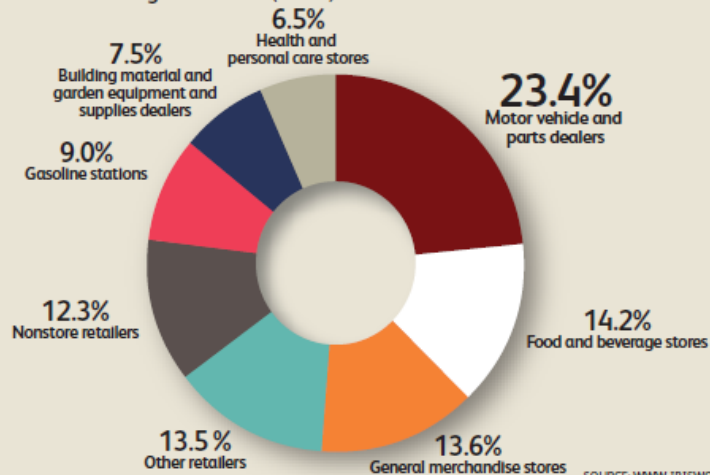


Per capita disposable income



SOURCE: WWW.IBISWORLD.COM

Products and services segmentation (2018)



SOURCE: WWW.IBISWORLD.COM

### Key External Drivers

Per capita disposable income

Consumer Confidence Index

Consumer spending

Number of households

National unemployment rate

Population

p. 5

### Sector Structure

Life Cycle Stage	Mature	Regulation Level	Medium
Revenue Volatility	Low	Technology Change	Medium
Capital Intensity	Low	Barriers to Entry	Low
Sector Assistance	None	Sector Globalization	Low
Concentration Level	Low	Competition Level	High

## E-Commerce & Online Auctions in the US - IBISWorld Industry Report (\$512.9bn)

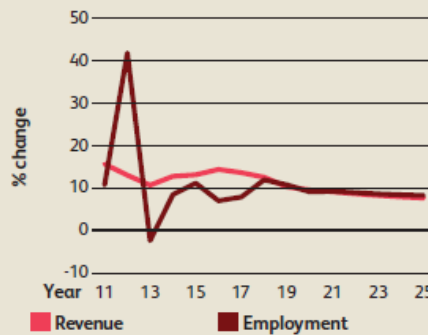
### Key Statistics Snapshot

Revenue	Annual Growth 14–19	Annual Growth 19–24
<b>\$512.9bn</b>	<b>12.8%</b>	<b>8.7%</b>
Profit	Wages	Businesses
<b>\$28.7bn</b>	<b>\$19.6bn</b>	<b>212,349</b>

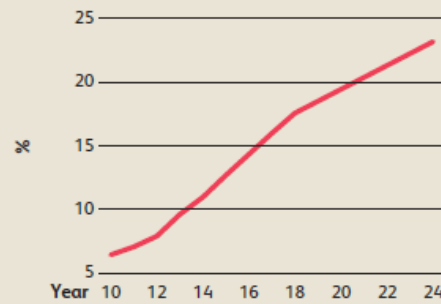
Market Share  
Amazon.com Inc.  
26.3%

p. 24

Revenue vs. employment growth



Percentage of services conducted online

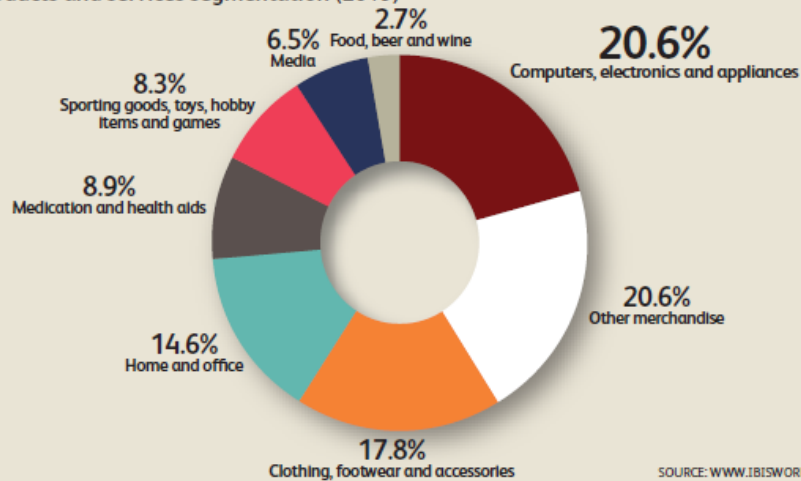


SOURCE: WWW.IBISWORLD.COM

Key External Drivers  
Percentage of services conducted online  
Number of mobile internet connections  
Internet traffic volume  
Per capita disposable income

p. 5

Products and services segmentation (2019)



SOURCE: WWW.IBISWORLD.COM

### Industry Structure

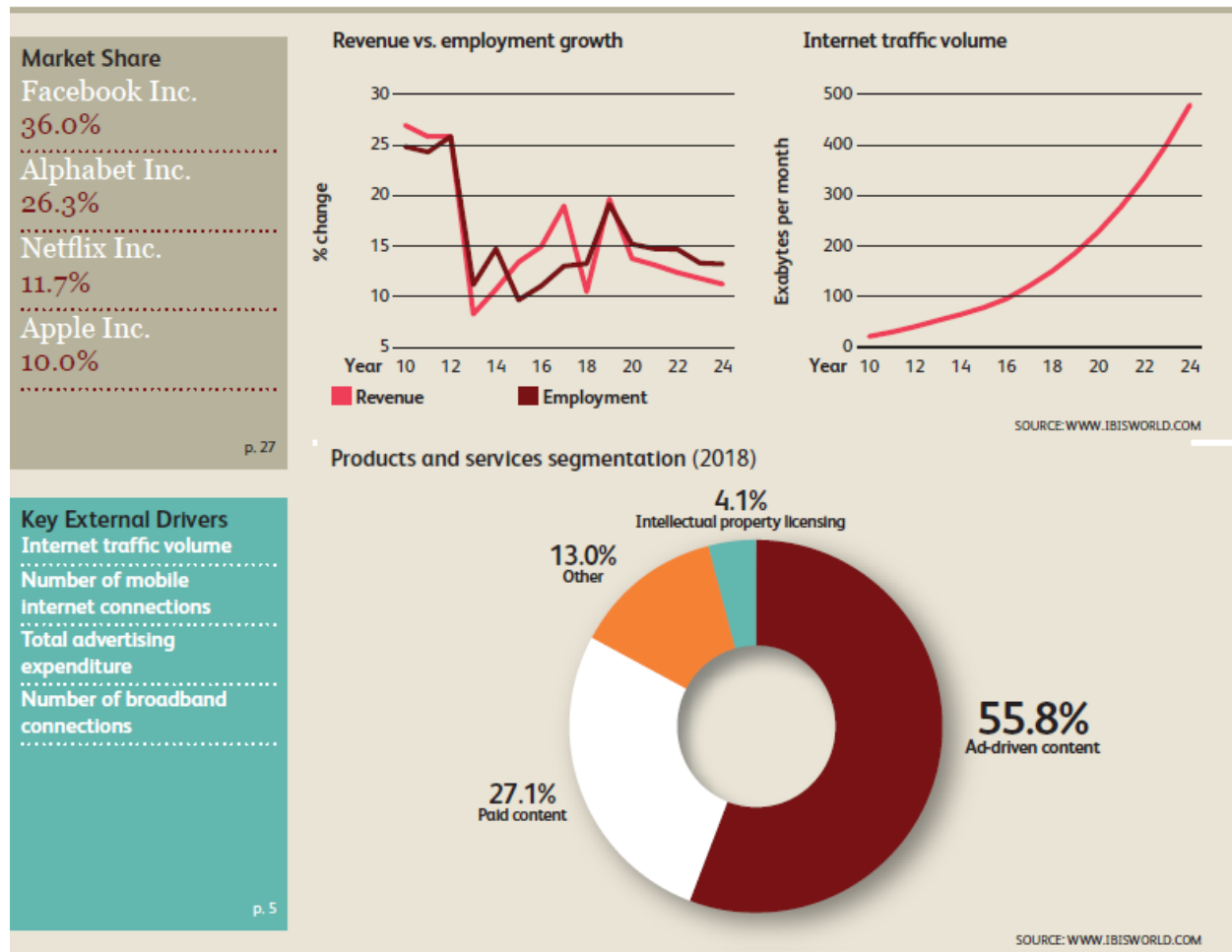
Life Cycle Stage	Growth	Regulation Level	Medium
Revenue Volatility	Low	Technology Change	High
Capital Intensity	Medium	Barriers to Entry	Low
Industry Assistance	None	Industry Globalization	Low
Concentration Level	Low	Competition Level	High

## Snapshot of Internet Publishing and Broadcasting in the US - IBISWorld Industry Report (\$124.7bn)

This industry includes **subscriptions** to consumers. In addition, companies may derive revenue from **intellectual property licensing** and the sale of user information to third parties.

### Key Statistics Snapshot

Revenue	Annual Growth 13-18	Annual Growth 18-23
<b>\$124.7bn</b>	<b>13.7%</b>	<b>14.1%</b>
Profit	Wages	Businesses
<b>\$31.6bn</b>	<b>\$45.0bn</b>	<b>82,483</b>



### Industry Structure

Life Cycle Stage	Growth	Regulation Level	Light
Revenue Volatility	Medium	Technology Change	High
Capital Intensity	Medium	Barriers to Entry	Low
Industry Assistance	None	Industry Globalization	Low
Concentration Level	High	Competition Level	High



## Marketing Strategy

---

### Marketing

Treeson utilizes a variety of marketing methods that collectively make up the Company's marketing strategy. Treeson will utilize the latest technology and advertising to tell *our story* direct to consumers. With the help of strategic corporate partners, influencers, and digital media Treeson will educate consumers on the one of a kind attributes of our brand, products and services.

**The Company's primary means of attracting new customers include the following:**

- Tech
- Internet
- Video
- TV/Story-sharing
- Corporate
- Events
- Influencers
- Partners

Additional means of attracting new clients and customer's includes:

- Advertising
- Affiliate Marketing
- Brand Management
- Brand Managers
- Campaigns/Ad Word Campaigns
- Company's Website
- Content Distribution
- Content Marketing
- Data Analytics
- Direct Marketing
- Email Marketing
- Emails
- Facebook Ads/Google Ads
- Free Content
- Google Ad Words
- Influencer Marketing
- Internet Marketing Funnels
- Landing Pages For KEYWORDS
- Lead Generation
- Mobile Marketing
- Online Marketplaces



- Paid Search Campaigns
- Pay-Per-Click (PPC)/ Bid Per Click
- PR
- Routing Through Blog And Social Media
- SEM (Search Engine Marketing)
- SEO (Search Engine Optimization)
- Social Media
- Social Media Marketing
- Website Design
- Word-Of-Mouth

**The marketing team will execute an integrated marketing communications strategy with the following objectives:**

- Generate Brand Awareness
- Drive Participation
- Drive Usage and Users

**The marketing communications strategy will employ the following marketing activities to build effective branding and engagement initiatives.**

- Online Marketing
- Mobile Marketing
- Email Marketing
- Search Engine Marketing

#### **Marketing Programs**

- Responsive Website, Platform, and Portal
- Blog
- Company News
- Market Reports
- Videos
- Newsletter
- SEO
- Tracking Results

### **Web Plan Summary**

[treeson.us](http://treeson.us)

<https://www.youtube.com/watch?v=FYy6MK3smpps&t=28s>

Treeson has a well designed website. The Company understands the increasing importance of online marketing. The management team will continually strive to have a competitive edge by maintaining a significant presence, and plans for sophisticated exposure online. It is important that those interested in



finding their services will do so from online first and easily. Treeson will apply the necessary resources to be an industry leader in utilization of the internet's potential.

### **Strategic Alliances**

Treeson is constantly working to build a network of key individuals and companies that work as alliances to accomplish its major strategies. The Company is also committed to networking with any and all individuals that may have a favorable impact on the business. A great strength of this Company is its vast network of professional alliances that stand ready, willing, and able to facilitate the growth of this Company as soon as it begins to take off. The Company will be most concerned with developing concrete alliances that ensure the funding the Company needs to grow, as well as developing support systems for the businesses that facilitate their success.

### **Branding & Corporate Literature**

The majority of the positioning and branding strategies as well as the creative aspects of the brands, logos, slogans, Company fonts, color scheme, etc. will be the responsibility of The management/marketing teams. The management/marketing teams will be responsible to assure that all personnel use the designated logo and brand uniformly. The advice of a web designer and graphic artist will be blended to create the best possible presentation at all levels and in all venues.

### **Positioning Statement**

Treeson takes the position that its primary role in the marketplace is to create the first consumer products co-op for the planet to showcase our brand and other brands that use our packaging and our system. This is how Treeson will distinguish itself in the marketplace. The Company wants people associate Treeson with quality products and solutions.



## Key Members of the Company/Management

---

The Company is the vision of Carlton Solle, a beverage, entertainment, and eco-lifestyle entrepreneur.

Supported by an advisory board of seasoned and successful entrepreneurs, the management team includes professionals in communications, design, engineering, sales, and technology.

The Company is a for profit entity with products in the beverage, packaging, recycling, energy and technology markets.

### Management Team

#### Carlton Solle, Founder, CMO, & Owner

Carlton's background includes more than 20 years in sales, marketing, and business development. His portfolio of successful ventures includes a long list of projects he has developed from concept to market. He has worked both independently and with some of the world's most trendy and well known consumer brands. He is a natural marketer and consummate idea guy with a passion for the environment and creating products that not only raise awareness about environmental issues but also empower people to help make a difference.

Carlton brought Red Bull into the club scene and helped Rockstar Energy Drink expand into Central & South America. Learning about the beverage business first hand and then realizing the dark underbelly of the industry and the planet's plastic epidemic 10 years ago, he set out to engineer a plant-based packaging solution, the best possible. We will be seeking industry experience to help manage the beverage aspect and as we grow into the renewable energy, CBD infusion, and other aspects under the McCloud lease, we will hire accordingly.

He has worked both independently and with some of the world's most trendy and well known consumer brands. Many of these endeavors have been multimillion dollar revenue generators that have attracted great attention with both national media and popular culture. He is a natural marketer and a consummate idea guy with passion and energy that are contagious and unwavering.

#### The Treeson Story: as told by Carlton Solle

*While living in Costa Rica, I took my wife and daughter out to the coast for the day. While walking down a beautiful, pristine beach I saw an old plastic water bottle. I picked it up to drop in the trash and then I came across another, and another, and another... By the end of the walk I had picked up all I could carry.*

*Later that night, I did some research and found out about the "Great Pacific Garbage Patch" a swirling vortex of trash floating in the middle of the ocean, larger than the state of Texas and growing at an alarming rate every year. That's when I came up with an idea. What if we could take something bad and turn it into something good?*



*I had already spent some time previously working on a waste-to-energy project so I was familiar with the technologies available. The best of those is a machine that turns the material into a gas that can be used as fuel to power a generator to create electricity. The machine converts the majority of any material placed into it into gas, leaving only a small bi-product. The bi-product and emissions are of course determined by what you put into the machine so to create clean energy that meant we couldn't use traditional plastic bottles. We needed to create our own bottle and it would have to be the greenest bottle to ever exist.*

*The other concern was that, because plastic bottles were so light, it would take a lot of them to actually do what we wanted to do and we needed to ensure that we had a steady stream of bottles coming back to generate a substantial amount of power.*

*With that in mind, I started studying recycling to see if there was a way to utilize the existing system. Of the 50 billion plastic water bottles sold in the U.S. every year less than twenty percent actually get recycled. The remaining 40 billion end up in landfills, rivers, and oceans around the world. So much of the "recycling" we so diligently and responsibly sort at home still ends up in a landfill or gets put on a barge and becomes somebody else's problem. So, if you put something into the existing system, there was no way to know where it would end up. The only way that we could actually guarantee that our bottles did not end up where they should not, and ensure a steady stream of them, was to take them out of the trash. So, we designed our own return recycling system.*

*It's a totally new system that eliminates trash & uses the bottle returned to make clean energy to do it all over again. It's convenient, it's free, and it supports the oldest government institution in the United States of America, the USPS, and the organization with the greenest fleet on the streets. If we can do it with bottled water and beverage packaging why couldn't we do it with everything on the supermarket shelf? It's a big idea and a big shift and will take a lot of work to put in motion but in the end it could be a huge step in the right direction!*

*Most companies design their bottles to make them look cool so you will grab their bottle off the shelf. With our bottle, it not only had to look cool and function like a traditional bottle but it also had to literally be not only the best bottle for you and your family, but also the best bottle for the planet. It had to be the greenest to ever exist and... oh yeah, it now also had to be able to be returned in the mail! Basically, it was a bottle that would be designed to put all others to shame. We went through over 100 different bottle and label designs. We kept on running into issues until the day my daughter helped bring it all together. She loves the outdoors and is always picking up stuff and bringing it back home with her. One of those souvenirs, a perfectly shaped leaf, ended up becoming the design inspiration for the shape of our bottle and the key to it all. That is why we call it The Bio Bottle. It is made of plant-based materials, not petroleum based.*

*It is 100% toxin free and is certified free of any GMOs (many "bio-plastics" are made from GMO corn). Our labels are made from rocks and are completely safe for the environment. It looks similar to the traditional bottles you are used to it fits in the cup holder in your car and it feels great in your hand but there is one major difference that you might not see at first glance. Its shape allows it to naturally collapse flat when*





*empty for easy mailing. This gives you a way to take it out of the trash stream and return it to us so we can use it to make clean energy to make more bottles to do it all over again.*

*Water is truly an incredible thing. We are all born in it, we are all made of it, it's the main ingredient in practically everything, and it really does help make the world go round. I come from a place where there a lot of folks promoting the use of tap water so I started studying the difference. I learned that many, if not most, of the popular brands on the shelf are just that, actually municipal tap water with some fancy marketing thrown in.*

*I also learned that, as crazy as it sounds, water actually has a memory, and it is affected by everything that it goes through to get to us. So, every twist and turn, every different container, every process is "stored" in the water and affects it all along the way. So, the folks promoting tap water and refillable canteens are doing a good thing by helping reduce waste but they are also promoting us all drinking water that has travelled miles through old pipes and been through a fight to get out of that tap. Is that the water you want to be drinking?*

*If you don't believe me, there is a fun test that you can do for yourself: Take tap water and natural spring water and put them both in front of your dog or cat and see which one they choose. You will see that they choose the spring water every time. So, to make the best water product, we absolutely had to start with the best natural spring water.*

*After studying water in its natural environment, I got to know water in the wild and, in doing so, I got to know the rainforest. Much like a fruit or a vegetable once "harvested" water starts to deteriorate so we not only had to start with the best source, but we also needed to figure out how to replace what is lost after you take it out of its natural environment and what is lost after it is packaged. I knew that, if we could do all of that, we would create a product so fresh and so natural that you would be able to taste the difference. We did it! We start with the world's finest spring water. We then purify it via a system modeled after how water is filtered in the rainforest canopy. We then add back the vital nutrients and the electrolytes lost during purification, replacing them to help balance your body's natural performance. We also add oxygen to return it to the state it was in at the source, giving your body a boost of natural Rainforest energy. There is nothing else out there like it.*

*Once we had the bottle and the water figured out, we looked at the product as a whole. That was really the first time we were able to look at the big picture. The big idea was to use bottles to make clean energy but that was really only addressing a symptom of a much bigger problem. Millions of people around the world do not have access to clean water sources and that is why bottled water is actually a necessity in many places for those who can afford it. We wanted to do something about that and that was when we came up with the real big idea. To give you the power to help restore water sources around the world so people could once again get water from that natural source that used to be pure and clean.*

*What are Mother Nature's best water filters? Trees! Not only do you help get rid of trash and create clean energy but you also help restore vital habitats and ensure that there will be plenty of fresh water and clean*



*air for all of us for years to come! We're literally putting the power of a rainforest into the palm of your hand.*

### **Mark Tillemans, CEO, Owner**

Mark has years of leadership within social, educational, and economic development programs. As an elected County Supervisor, Mark has a strong understanding of the public policy process. He has successfully managed multi-million dollar budgets throughout his career and is respected for creating rewarding employment opportunities in the public, private, and tribal sectors. With his entrepreneurial spirit and results-based approach to new endeavors, Mark's enthusiasm and passion create an optimal working environment. Perhaps his strongest attribute is his ability to connect people with purpose while leading his team to success.

### **Brian Whalen**

Brian's unique perspectives are an indispensable asset to the CEOs he serves. Two master's degrees in finance and taxation from world-class business schools compliment his unwavering attention-to-detail and focus on regulatory compliance. Rarely will you find a CPA with two decades of experience supervising the operation of multi-billion-dollar assets and broad groups of people in the military, government, and massive corporations.

### **Taylor Woods**

Taylor has maintained an entrepreneurial career path spanning clean energy, beverage, cannabis, and clean technology. He has developed various technologies including carbon dioxide reclamation equipment, bio-plastic formulations, and semiautonomous control systems. His background includes mechanical engineering, process development, marketing, strategy, automation/industrial controls, and material science.

### **Mark Levitan, Legal, Key Consultant**

Mark has over 20 years of experience as a transactional attorney working in business development. He has worked extensively on behalf of businesses and American Indian tribes across the United States on economic development projects. Mark has been an active presence in the cannabis business field for more than 3 years. He has negotiated and implemented cannabis investment and development agreements, and has participated in several California cannabis legislative and regulatory efforts. He is regularly invited to speak on cannabis development issues at conferences, and provides consultation to Congressional staff on cannabis legislation drafting.

### **Management**

Treeson recognizes that in any growing Company management personnel often have to fill more than one role. As a result a gap or gaps may exist until the Company is developed enough to have a specific person for every task required. Treeson currently has everything covered and feels confident that each task is being handled competently by management. As the Company hires more people the Company will always



be sensitive to this issue and prevent any weaknesses by planning a contingency program that overlaps job responsibilities.

**The Company is confident that the team has the experience and skills needed to grow this Company.**



## Funding

---

### Funding

Treeson is currently seeking funding in the amount of **\$14,000,000** for use in financing its start-up, equipment, construction, development, marketing, inventory, technology/return closed loop to renewable energy system, and general working capital requirements in the form of an investment to execute its business plan for the greatest potential to secure the most desirable (“highest and best”) return. The Owners have invested \$50,000 to date. This start-up and capital amount will allow the Company to have the proper and vital day-to-day cash reserves/ operating funds for the foundational next year of operation of the Treeson business.

- Real estate: secured
- Water rights: secured
- Beverage operations: to scale
- Development: full spectrum IP

### Use Of Funds

- Equipment \$3,500,000, 25%
- Construction \$750,000, 5.4%
- Development \$750,000, 5.4%
- Operations \$3,500,000, 25%: 24 Months
- Marketing \$4,000,000, 28.6%: 200,000 Subscribers
- Inventory \$1,000,000, 7.1%: 150,000 Cases & Supplies
- Technology \$500,000, 3.6%: Web, Mobile & Facilities

**Total \$14,000,000, 100%**

The pro forma projections indicate that the business will have sufficient excess cash to cover operations should sales not materialize as quickly as planned.

### Exit Strategy

As a Delaware incorporated entity, Treeson Inc. is set up for a potential IPO, open to mergers, acquisitions, partnerships, or selling in the future when the time is right.

## Conclusion

---

Treeson believes that its long-term prospects for establishing and continuing a successful business are excellent. The Company believes that this industry, and the strong foundation of experience that management brings to the Company, lends itself to positive results over the long-term. With a market-sensitive management team and excellent systems in place to monitor competitive shifts or changes, Treeson is ideally positioned [1] to implement this business plan through the next five years [2] to become a respected and recognized leader in the industry and [3] to continue growing on through the next decade.

Management seeks a relationship with an investor(s) that can help Treeson carefully grow the business in a manner which will allow the Company to provide exceptional products and services to a growing market.

**The Company appreciates your consideration of this request and is confident you can enjoy a fine working relationship for many years.**

ARE YOU READY TO BE A PART OF THE REVOLUTION?





## Pro Forma - 5 Year Financial Forecast

Treeson's financial projections show that the Company will competently utilize the requested funding to capitalize its growth efforts. The Company projects a significant increase in net income over the next (5) years as its business plan is implemented. The Company has fully developed this financial plan to cover the next five years in business. The purpose of the financial plan is to survey solid growth through the exciting business model punctuated by a healthy relation between continually increasing revenues, and diligent monitoring of an optimum cost structure.

### Start-up Summary/Use of Funds

Use of Start-up Funding	
<b>Expenses</b>	
Equipment	\$3,500,000
Construction	\$750,000
Development	\$750,000
Operations	\$3,500,000
Marketing / Subscribers	\$4,000,000
Inventory / Cases & Supplies	\$1,000,000
Technology / Web, Mobile & Facilities	\$500,000
<b>Total Start-up Expenses</b>	<b>\$14,000,000</b>
<b>Total Long-Term Assets</b>	<b>\$0</b>
<b>Total Short-Term Assets</b>	<b>\$0</b>
Total Start-up Expenses	\$14,000,000
Total Start-up Assets	\$0
<b>Total Funding Requirements</b>	<b>\$14,000,000</b>
Total Start-up Funding	
Total Amount Being Requested	\$14,000,000
Total Funds Already Received	\$50,000
<b>Total Funding</b>	<b>\$14,050,000</b>
New Start-up Funding Being Requested	
Bank Amount Being Requested	\$0
Investor Amount Being Requested	\$14,000,000
<b>Total Amount Being Requested</b>	<b>\$14,000,000</b>
Start-up Funding Already Received	
Owner Contribution	\$50,000
Investor Contribution	\$0
<b>Total Funding Already Received</b>	<b>\$50,000</b>
Start-up Capital and Liabilities	
Loss at Start-up (Start-up Expenses)	(\$14,000,000)
Total Funds Received & Requested	\$14,050,000
<b>Total Start-up Assets</b>	<b>\$0</b>
<b>Cash Balance</b>	<b>\$28,057</b>

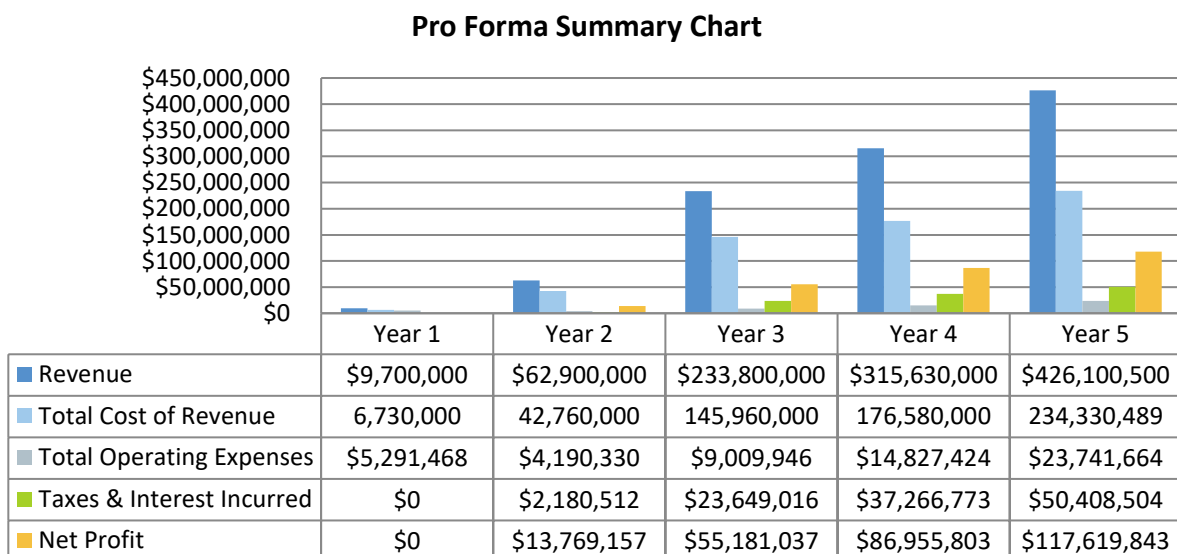


## Assumptions

Financial Assumptions					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Growth Assumptions</b>					
Total Revenue Growth		548%	272%	35%	35%
Total Expense Growth		-21%	115%	65%	60%
<b>Personnel Assumptions</b>					
Average Salary Growth		22%	22%	22%	22%
Payroll Growth		173%	120%	56%	47%
<b>Cash Assumptions</b>					
Months of Cash on Hand	0	53	73	65	56
Bill Payment Term (Days)	30	30	30	30	30

- Year 1 is 6 months of full operations subscriptions
- Water subscriptions are billed monthly but based on annual commitment
- Water Wholesale Corporate, Energy Drink & Energy Drink CBD are FOB sales, meaning shipping on buyer
- Water Subscriptions are 3 cases per month. Year 1 case cost is \$8 per case, year 2 is \$7, year 3 is \$6 per case, year 4 is \$5
- Shipping per case on subscriptions is \$15 per case year 1, \$14 per case year 2, \$13 per case year 3, \$12 per case year 4
- Energy Drink Case Cost per Case is \$13 year 1, \$12 year 2, \$11 year 3 and \$10 year 4
- Energy Drink CBD Cost per Case is \$18 year 1, \$17 year 2, \$16 year 3 and \$15 year 4
- Projections don't include Full Retail Sales Via Internet of products other than water and other products
- Projections don't include Co-packing, Licensing, or Contract Packaging Revenues
- Empty Packaging Return is a marketing expense

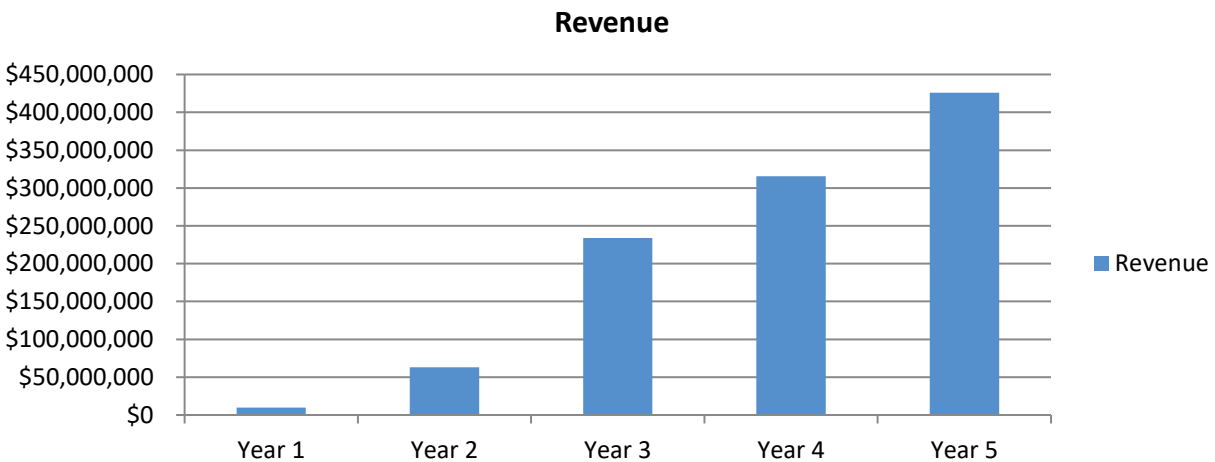
## Pro Forma Summary Chart





## Income (Revenue) Statement

Revenue Forecast					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Total</b>					
Energy Drink	50,000	100,000	200,000	270,000	364,500
Energy Drink CBD	90,000	180,000	360,000	486,000	656,100
Water Wholesale Corporate	40,000	100,000	200,000	270,000	364,500
Water Subscriptions	10,000	50,000	200,000	270,000	364,500
<b>Price</b>					
Energy Drink	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Energy Drink CBD	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Water Wholesale Corporate	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Water Subscriptions	\$540.00	\$1,080.00	\$1,080.00	\$1,080.00	\$1,080.00
<b>Revenue</b>					
Energy Drink	\$1,000,000	\$2,000,000	\$4,000,000	\$5,400,000	\$7,290,000
Energy Drink CBD	\$2,700,000	\$5,400,000	\$10,800,000	\$14,580,000	\$19,683,000
Water Wholesale Corporate	\$600,000	\$1,500,000	\$3,000,000	\$4,050,000	\$5,467,500
Water Subscriptions	\$5,400,000	\$54,000,000	\$216,000,000	\$291,600,000	\$393,660,000
<b>Total Revenue</b>	<b>\$9,700,000</b>	<b>\$62,900,000</b>	<b>\$233,800,000</b>	<b>\$315,630,000</b>	<b>\$426,100,500</b>
<b>Direct Materials Cost</b>					
Energy Drink	\$13.00	\$12.00	\$11.00	\$10.00	\$9.83
Energy Drink CBD	\$18.00	\$17.00	\$16.00	\$15.00	\$14.75
Water Wholesale Corporate	\$8.00	\$7.00	\$6.00	\$5.00	\$4.92
Water Subscriptions	\$414.00	\$756.00	\$684.00	\$612.00	\$601.60
<b>Direct Cost of Revenue</b>					
Energy Drink	\$650,000	\$1,200,000	\$2,200,000	\$2,700,000	\$3,583,035
Energy Drink CBD	\$1,620,000	\$3,060,000	\$5,760,000	\$7,290,000	\$9,674,195
Water Wholesale Corporate	\$320,000	\$700,000	\$1,200,000	\$1,350,000	\$1,791,518
Water Subscriptions	\$4,140,000	\$37,800,000	\$136,800,000	\$165,240,000	\$219,281,742
<b>Subtotal Cost of Revenue</b>	<b>\$6,730,000</b>	<b>\$42,760,000</b>	<b>\$145,960,000</b>	<b>\$176,580,000</b>	<b>\$234,330,489</b>



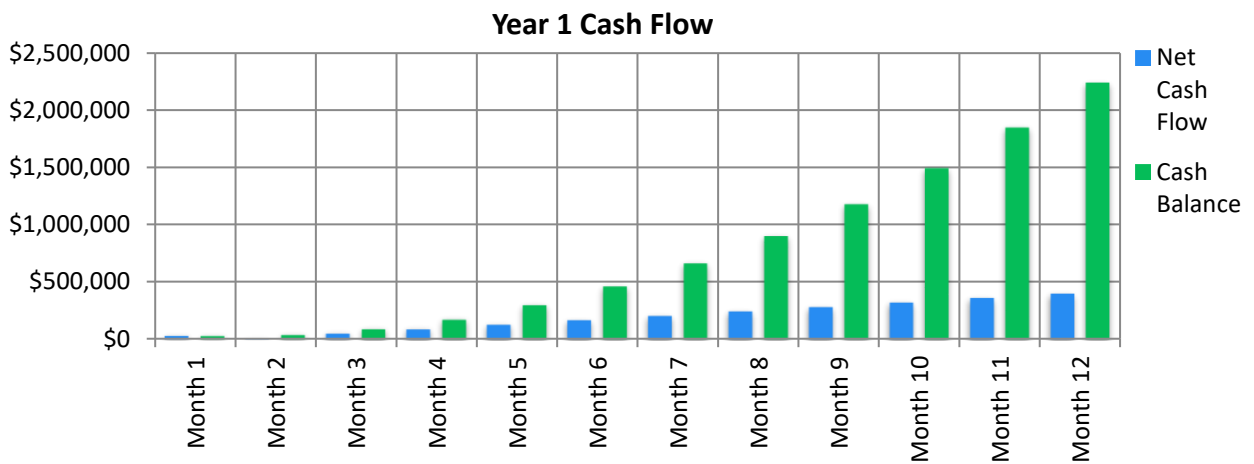
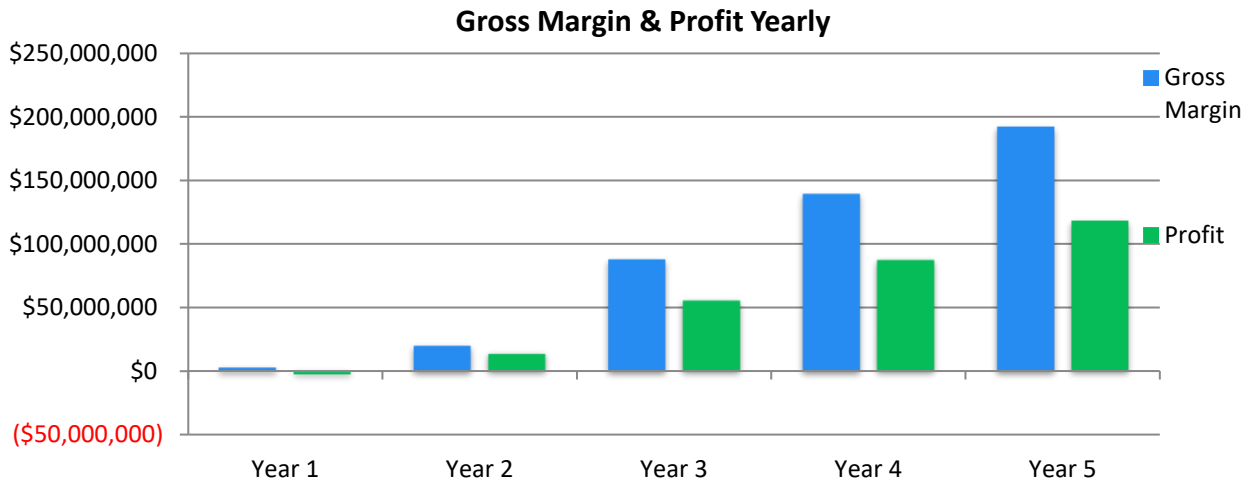
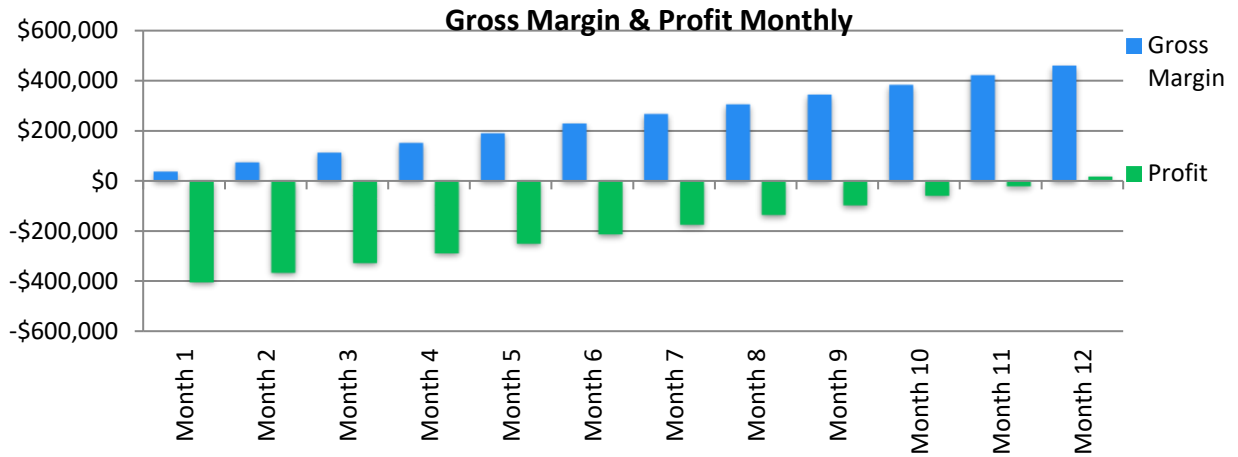




## Profit & Loss Statement

The projected Profit & Loss Statement for *TreeSon* highlights the relation between the sales forecast and the operating expenses. These figures are based on the experience in the industry and the projected sales for the next five years. Please note: the Company makes every attempt to present conservative projections with incremental growth.

Pro Forma Profit and Loss					
	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$9,700,000	\$62,900,000	\$233,800,000	\$315,630,000	\$426,100,500
Total Cost of Revenue	\$6,730,000	\$42,760,000	\$145,960,000	\$176,580,000	\$234,330,489
Gross Margin	\$2,970,000	\$20,140,000	\$87,840,000	\$139,050,000	\$191,770,011
Gross Margin/Revenue	30.62%	32.02%	37.57%	44.05%	45.01%
Expenses					
Healthcare	\$148,608	\$31,648	\$66,736	\$94,256	\$120,400
Rent	\$120,000	\$240,000	\$480,000	\$960,000	\$1,920,000
Utilities	\$96,000	\$192,000	\$384,000	\$768,000	\$1,536,000
Leases	\$30,000	\$60,000	\$120,000	\$240,000	\$480,000
Insurance	\$24,000	\$48,000	\$96,000	\$192,000	\$384,000
Supplies	\$18,000	\$36,000	\$72,000	\$144,000	\$288,000
Travel	\$60,000	\$120,000	\$240,000	\$480,000	\$960,000
Professional Services	\$30,000	\$60,000	\$120,000	\$240,000	\$480,000
Misc	\$90,000	\$180,000	\$360,000	\$720,000	\$1,440,000
Depreciation	\$3,500,000	\$19,231	\$19,231	\$19,231	\$19,231
Payroll Taxes	\$76,860	\$209,572	\$461,344	\$717,659	\$1,054,189
Total Personnel	\$1,098,000	\$2,993,880	\$6,590,635	\$10,252,278	\$15,059,844
<b>Total Operating Expenses</b>	<b>\$5,291,468</b>	<b>\$4,190,330</b>	<b>\$9,009,946</b>	<b>\$14,827,424</b>	<b>\$23,741,664</b>
Profit Before Interest and Taxes	(\$2,321,468)	\$15,949,670	\$78,830,054	\$124,222,576	\$168,028,347
EBITDA	\$1,255,392	\$16,178,472	\$79,310,629	\$124,959,466	\$169,101,767
Taxes Incurred	\$0	\$2,180,512	\$23,649,016	\$37,266,773	\$50,408,504
<b>Net Profit</b>	<b>(\$2,321,468)</b>	<b>\$13,769,157</b>	<b>\$55,181,037</b>	<b>\$86,955,803</b>	<b>\$117,619,843</b>
Net Profit/Revenue	-23.93%	21.89%	23.60%	27.55%	27.60%





## Cash Flow Statement

The projected Cash Flow Statement for *Treeson* represents what the Company believes the business will take in and what it will spend. Cash flow will be crucial to the survival of the business. The Company is confident that the Company will have ample cash on hand to ensure that investors can be paid on time. The Company offers this statement of the business's positive cash flow as perhaps the single most powerful gauge of the expected financial performance.

Pro Forma Cash Flow					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Cash Received</b>					
Revenue	9,700,000	62,900,000	233,800,000	315,630,000	426,100,500
Proceeds from Property/Land	0	0	0	0	0
Proceeds from Bank Loan	0	0	0	0	0
Proceeds from Current Assets	0	0	0	0	0
Proceeds From Long-term Assets	0	0	0	0	0
Proceeds from Investor	14,000,000	0	0	0	0
<b>Subtotal Cash Received</b>	<b>23,700,000</b>	<b>62,900,000</b>	<b>233,800,000</b>	<b>315,630,000</b>	<b>426,100,500</b>
<b>Expenditures from Operations</b>					
Cash Spending	1,098,000	2,993,880	6,590,635	10,252,278	15,059,844
Bill Payments	6,366,734	43,510,318	162,006,769	214,716,622	287,442,766
<b>Subtotal Spent on Operations</b>	<b>7,464,734</b>	<b>46,504,198</b>	<b>168,597,404</b>	<b>224,968,900</b>	<b>302,502,610</b>
<b>Additional Cash Spent</b>					
Investor Repayment	0	0	0	0	0
Principal Loan Repayment	0	0	0	0	0
Purchase Long-term Assets	0	0	0	0	0
Dividends Paid	0	0	29,088,053	64,788,931	92,633,338
<b>Subtotal Cash Spent</b>	<b>21,464,734</b>	<b>46,504,198</b>	<b>197,685,457</b>	<b>289,757,831</b>	<b>395,135,948</b>
<b>Net Cash Flow</b>	<b>2,235,266</b>	<b>16,395,802</b>	<b>36,114,543</b>	<b>25,872,169</b>	<b>30,964,552</b>
<b>Cash Balance</b>	<b>2,235,266</b>	<b>18,631,069</b>	<b>54,745,612</b>	<b>80,617,781</b>	<b>111,582,333</b>

## Financial Indicators

*Treeson* recognizes that the most important financial indicators are cash and bottom line. *Treeson* will constantly monitor the flow of revenue to the Company as well as the expense requirements that deplete the Company of its cash. *Treeson* will always try to improve the ratio of revenue and expenses to generate a healthier bottom line in addition to a healthier cash base.

Financial Indicators					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Profitability %'s:</b>					
Gross Margin	30.62%	32.02%	37.57%	44.05%	45.01%
Net Profit Margin	-23.93%	21.89%	23.60%	27.55%	27.60%
EBITDA to Revenue	12.94%	25.72%	33.92%	39.59%	39.69%
Return on Assets	183.55%	91.12%	107.76%	112.84%	108.90%
Return on Equity	-19.88%	54.11%	107.06%	117.97%	119.18%



## Breakeven Analysis

The break-even analysis for *Treeson* calculates at what point the Company becomes profitable, and also at what point the Company will be operating at a loss. The analysis takes into consideration forecasted revenues as well as regular running fixed costs and average revenue.

Break-even Analysis	
Monthly Revenue Break-even	\$1,440,158
Assumptions:	
Average Monthly Revenue	\$808,333
Average Monthly Variable Cost	\$560,833
Estimated Monthly Fixed Cost	\$440,956

## Personnel

Personnel Count	Year 1	Year 2	Year 3	Year 4	Year 5
Management 1	1	1	1	1	1
Management 2	0	1	1	1	1
Management 3	1	1	2	2	2
Marketing 1	1	1	1	1	1
Marketing 2	0	1	1	1	1
Sales 1	1	1	1	1	1
Sales 2	0	2	4	4	4
Lab 1	0	1	3	3	3
Engineer 1	1	1	2	2	2
Bookkeeper 1	1	1	1	1	1
Bookkeeper 2	0	1	3	3	3
Admin 1	0	1	3	3	3
Admin 2	0	1	2	2	2
Bottling 1	1	2	2	2	2
Bottling 2	2	2	3	4	5
Shipping 1	1	2	4	6	8
Shipping 2	8	16	42	68	93
Return 1	0	2	4	6	8
Return 2	0	4	8	12	15
Reg Copack / Ship 1	0	2	3	4	5
Reg Copack / Ship 2	0	2	6	10	14
<b>Total Personnel</b>	<b>18</b>	<b>46</b>	<b>97</b>	<b>137</b>	<b>175</b>
Personnel Wage	Year 1	Year 2	Year 3	Year 4	Year 5
Management 1	\$150,000	\$183,000	\$223,260	\$272,377	\$332,300
Management 2	\$120,000	\$146,400	\$178,608	\$217,902	\$265,840
Management 3	\$90,000	\$109,800	\$133,956	\$163,426	\$199,380
Marketing 1	\$180,000	\$219,600	\$267,912	\$326,853	\$398,760
Marketing 2	\$120,000	\$146,400	\$178,608	\$217,902	\$265,840
Sales 1	\$120,000	\$146,400	\$178,608	\$217,902	\$265,840
Sales 2	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Lab 1	\$90,000	\$109,800	\$133,956	\$163,426	\$199,380
Engineer 1	\$120,000	\$146,400	\$178,608	\$217,902	\$265,840



Bookkeeper 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Bookkeeper 2	\$42,000	\$51,240	\$62,513	\$76,266	\$93,044
Admin 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Admin 2	\$42,000	\$51,240	\$62,513	\$76,266	\$93,044
Bottling 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Bottling 2	\$42,000	\$51,240	\$62,513	\$76,266	\$93,044
Shipping 1	\$42,000	\$51,240	\$62,513	\$76,266	\$93,044
Shipping 2	\$24,000	\$29,280	\$35,722	\$43,580	\$53,168
Return 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Return 2	\$42,000	\$51,240	\$62,513	\$76,266	\$93,044
Reg Copack / Ship 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Reg Copack / Ship 2	\$30,000	\$36,600	\$44,652	\$54,475	\$66,460
<b>Personnel Costs</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Management 1	\$150,000	\$183,000	\$223,260	\$272,377	\$332,300
Management 2	\$0	\$146,400	\$178,608	\$217,902	\$265,840
Management 3	\$90,000	\$109,800	\$267,912	\$326,853	\$398,760
Marketing 1	\$180,000	\$219,600	\$267,912	\$326,853	\$398,760
Marketing 2	\$0	\$146,400	\$178,608	\$217,902	\$265,840
Sales 1	\$120,000	\$146,400	\$178,608	\$217,902	\$265,840
Sales 2	\$0	\$146,400	\$357,216	\$435,804	\$531,680
Lab 1	\$0	\$109,800	\$401,868	\$490,279	\$598,140
Engineer 1	\$120,000	\$146,400	\$357,216	\$435,804	\$531,680
Bookkeeper 1	\$60,000	\$73,200	\$89,304	\$108,951	\$132,920
Bookkeeper 2	\$0	\$51,240	\$187,538	\$228,797	\$279,132
Admin 1	\$0	\$73,200	\$267,912	\$326,853	\$398,760
Admin 2	\$0	\$51,240	\$125,026	\$152,531	\$186,088
Bottling 1	\$60,000	\$146,400	\$178,608	\$217,902	\$265,840
Bottling 2	\$84,000	\$102,480	\$187,538	\$305,062	\$465,220
Shipping 1	\$42,000	\$102,480	\$250,051	\$457,594	\$744,352
Shipping 2	\$192,000	\$468,480	\$1,500,307	\$2,963,464	\$4,944,627
Return 1	\$0	\$146,400	\$357,216	\$653,705	\$1,063,361
Return 2	\$0	\$204,960	\$500,102	\$915,187	\$1,395,661
Reg Copack / Ship 1	\$0	\$146,400	\$267,912	\$435,804	\$664,600
Reg Copack / Ship 2	\$0	\$73,200	\$267,912	\$544,754	\$930,441
<b>Total Payroll</b>	<b>\$1,098,000</b>	<b>\$2,993,880</b>	<b>\$6,590,635</b>	<b>\$10,252,278</b>	<b>\$15,059,844</b>



## Balance Sheet

The projected Balance Sheet for *Treeson* highlights total assets, total liabilities, and owners' equity. The salient feature of the projected Balance Sheet is that it demonstrates the relationship between what the Company will own in assets and the way this is balanced by equity investment funds and owners' existing equity.

Pro Forma Balance Sheet					
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Assets</b>					
<b>Current Assets</b>					
Cash	\$2,235,266	\$18,631,069	\$54,745,612	\$80,617,781	\$111,582,333
<b>Total Current Assets</b>	<b>\$2,235,266</b>	<b>\$18,631,069</b>	<b>\$54,745,612</b>	<b>\$80,617,781</b>	<b>\$111,582,333</b>
<b>Long-term Assets</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Accumulated Depreciation	\$3,500,000	\$3,519,231	\$3,538,462	\$3,557,692	\$3,576,923
<b>Total Long-term Assets</b>	<b>(\$3,500,000)</b>	<b>(\$3,519,231)</b>	<b>(\$3,538,462)</b>	<b>(\$3,557,692)</b>	<b>(\$3,576,923)</b>
Other Assets	\$0	\$0	\$0	\$0	\$0
<b>Total Assets</b>	<b>(\$1,264,734)</b>	<b>\$15,111,838</b>	<b>\$51,207,150</b>	<b>\$77,060,089</b>	<b>\$108,005,410</b>
<b>Liabilities and Capital</b>					
<b>Current Liabilities</b>					
Accounts Payable	\$1,056,734	\$3,664,149	\$13,666,476	\$17,352,542	\$23,311,359
Current Borrowing	\$0	\$0	\$0	\$0	\$0
Other Current Liabilities	(\$14,000,000)	(\$14,000,000)	(\$14,000,000)	(\$14,000,000)	(\$14,000,000)
<b>Subtotal Current Liabilities</b>	<b>(\$12,943,266)</b>	<b>(\$10,335,851)</b>	<b>(\$333,524)</b>	<b>\$3,352,542</b>	<b>\$9,311,359</b>
<b>Long-term Liabilities</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Liabilities</b>	<b>(\$12,943,266)</b>	<b>(\$10,335,851)</b>	<b>(\$333,524)</b>	<b>\$3,352,542</b>	<b>\$9,311,359</b>
<b>Capital</b>					
Paid-in Capital	\$14,000,000	\$14,000,000	\$14,000,000	\$14,000,000	\$14,000,000
Retained Earnings	\$0	(\$2,321,468)	(\$17,640,363)	(\$27,248,256)	(\$32,925,791)
Earnings	(\$2,321,468)	\$13,769,157	\$55,181,037	\$86,955,803	\$117,619,843
<b>Total Capital</b>	<b>\$11,678,532</b>	<b>\$25,447,689</b>	<b>\$51,540,674</b>	<b>\$73,707,547</b>	<b>\$98,694,051</b>
<b>Total Liabilities and Capital</b>	<b>(\$1,264,734)</b>	<b>\$15,111,838</b>	<b>\$51,207,150</b>	<b>\$77,060,089</b>	<b>\$108,005,410</b>
<b>Net Worth</b>	<b>\$11,678,532</b>	<b>\$25,447,689</b>	<b>\$51,540,674</b>	<b>\$73,707,547</b>	<b>\$98,694,051</b>



## 12-Month Revenue Projections

Year 1 Revenue Forecast												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Total</b>												
Energy Drink	641	1,282	1,923	2,564	3,205	3,846	4,487	5,128	5,769	6,410	7,051	7,692
Energy Drink CBD	1,154	2,308	3,462	4,615	5,769	6,923	8,077	9,231	10,385	11,538	12,692	13,846
Water Wholesale Corporate	513	1,026	1,538	2,051	2,564	3,077	3,590	4,103	4,615	5,128	5,641	6,154
Water Subscriptions	128	256	385	513	641	769	897	1,026	1,154	1,282	1,410	1,538
<b>Price</b>												
Energy Drink	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Energy Drink CBD	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Water Wholesale Corporate	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Water Subscriptions	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00	\$540.00
<b>Revenue</b>												
Energy Drink	\$12,821	\$25,641	\$38,462	\$51,282	\$64,103	\$76,923	\$89,744	\$102,564	\$115,385	\$128,205	\$141,026	\$153,846
Energy Drink CBD	\$34,615	\$69,231	\$103,846	\$138,462	\$173,077	\$207,692	\$242,308	\$276,923	\$311,538	\$346,154	\$380,769	\$415,385
Water Wholesale Corporate	\$7,692	\$15,385	\$23,077	\$30,769	\$38,462	\$46,154	\$53,846	\$61,538	\$69,231	\$76,923	\$84,615	\$92,308
Water Subscriptions	\$69,231	\$138,462	\$207,692	\$276,923	\$346,154	\$415,385	\$484,615	\$553,846	\$623,077	\$692,308	\$761,538	\$830,769
<b>Total Revenue</b>	<b>\$124,359</b>	<b>\$248,718</b>	<b>\$373,077</b>	<b>\$497,436</b>	<b>\$621,795</b>	<b>\$746,154</b>	<b>\$870,513</b>	<b>\$994,872</b>	<b>\$1,119,231</b>	<b>\$1,243,590</b>	<b>\$1,367,949</b>	<b>\$1,492,308</b>
<b>Direct Materials Cost</b>												
Energy Drink	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
Energy Drink CBD	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00
Water Wholesale Corporate	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00
Water Subscriptions	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00	\$414.00
<b>Direct Cost of Revenue</b>												
Energy Drink	\$8,333	\$16,667	\$25,000	\$33,333	\$41,667	\$50,000	\$58,333	\$66,667	\$75,000	\$83,333	\$91,667	\$100,000
Energy Drink CBD	\$20,769	\$41,538	\$62,308	\$83,077	\$103,846	\$124,615	\$145,385	\$166,154	\$186,923	\$207,692	\$228,462	\$249,231
Water Wholesale Corporate	\$4,103	\$8,205	\$12,308	\$16,410	\$20,513	\$24,615	\$28,718	\$32,821	\$36,923	\$41,026	\$45,128	\$49,231
Water Subscriptions	\$53,077	\$106,154	\$159,231	\$212,308	\$265,385	\$318,462	\$371,538	\$424,615	\$477,692	\$530,769	\$583,846	\$636,923
<b>Subtotal Cost of Revenue</b>	<b>\$86,282</b>	<b>\$172,564</b>	<b>\$258,846</b>	<b>\$345,128</b>	<b>\$431,410</b>	<b>\$517,692</b>	<b>\$603,974</b>	<b>\$690,256</b>	<b>\$776,538</b>	<b>\$862,821</b>	<b>\$949,103</b>	<b>\$1,035,385</b>



## 12-Month Profit & Loss Statement

Year 1 Profit & Loss												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Revenue	\$124,359	\$248,718	\$373,077	\$497,436	\$621,795	\$746,154	\$870,513	\$994,872	1,119,231	1,243,590	1,367,949	1,492,308
Total Cost of Revenue	\$86,282	\$172,564	\$258,846	\$345,128	\$431,410	\$517,692	\$603,974	\$690,256	\$776,538	\$862,821	\$949,103	1,035,385
Gross Margin	\$38,077	\$76,154	\$114,231	\$152,308	\$190,385	\$228,462	\$266,538	\$304,615	\$342,692	\$380,769	\$418,846	\$456,923
Gross Margin/Revenue	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%	30.62%
Expenses												
Healthcare	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384	\$12,384
Rent	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Utilities	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Leases	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Insurance	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Supplies	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Travel	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Professional Services	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Misc	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500
Depreciation	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667	\$291,667
Payroll Taxes	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405	\$6,405
Total Personnel	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500
<b>Total Operating Expenses</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>	<b>\$440,956</b>
Profit Before Interest and Taxes	(\$402,879)	(\$364,802)	(\$326,725)	(\$288,648)	(\$250,571)	(\$212,494)	(\$174,417)	(\$136,340)	(\$98,263)	(\$60,186)	(\$22,110)	\$15,967
Interest on Loan Repayment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Taxes Incurred	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Net Profit</b>	<b>(402,879)</b>	<b>(364,802)</b>	<b>(326,725)</b>	<b>(288,648)</b>	<b>(250,571)</b>	<b>(212,494)</b>	<b>(174,417)</b>	<b>(136,340)</b>	<b>(98,263)</b>	<b>(60,186)</b>	<b>(22,110)</b>	<b>15,967</b>
Net Profit/Revenue	-323.96%	-146.67%	-87.58%	-58.03%	-40.30%	-28.48%	-20.04%	-13.70%	-8.78%	-4.84%	-1.62%	1.07%





## 12-Month Cash Flow Statement

Year 1 Cash Flow												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Additional Cash Received</b>												
Revenue	\$124,359	\$248,718	\$373,077	\$497,436	\$621,795	\$746,154	\$870,513	\$994,872	\$1,119,231	\$1,243,590	\$1,367,949	\$1,492,308
Proceeds from Property/Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds from Bank Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds from Current Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds From Long-term Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds from Investor	\$14,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal Cash Received</b>	\$14,124,359	\$248,718	\$373,077	\$497,436	\$621,795	\$746,154	\$870,513	\$994,872	\$1,119,231	\$1,243,590	\$1,367,949	\$1,492,308
<b>Total Personnel</b>	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500
<b>Bill Payments</b>	\$4,802	\$146,947	\$233,229	\$319,511	\$405,793	\$492,075	\$578,357	\$664,639	\$750,921	\$837,204	\$923,486	\$1,009,768
<b>Additional Cash Spent</b>												
Investor Repayment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Principal Loan Repayment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Purchase Long-term Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Dividends Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Cash Spent</b>	\$14,096,302	\$238,447	\$324,729	\$411,011	\$497,293	\$583,575	\$669,857	\$756,139	\$842,421	\$928,704	\$1,014,986	\$1,101,268
<b>Net Cash Flow</b>	\$28,057	\$10,271	\$48,348	\$86,425	\$124,502	\$162,579	\$200,655	\$238,732	\$276,809	\$314,886	\$352,963	\$391,040
<b>Cash Balance</b>	\$28,057	\$38,327	\$86,675	\$173,100	\$297,601	\$460,180	\$660,835	\$899,568	\$1,176,377	\$1,491,263	\$1,844,226	\$2,235,266



## 12-Month Balance Sheet

Year 1 Balance Sheet												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Current Assets</b>												
Cash	28,057	38,327	86,675	173,100	297,601	460,180	660,835	899,568	1,176,377	1,491,263	1,844,226	2,235,266
Other Current Assets	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Current Assets</b>	<b>28,057</b>	<b>38,327</b>	<b>86,675</b>	<b>173,100</b>	<b>297,601</b>	<b>460,180</b>	<b>660,835</b>	<b>899,568</b>	<b>1,176,377</b>	<b>1,491,263</b>	<b>1,844,226</b>	<b>2,235,266</b>
Accumulated Depreciation	291,667	583,333	875,000	1,166,667	1,458,333	1,750,000	2,041,667	2,333,333	2,625,000	2,916,667	3,208,333	3,500,000
<b>Total Long-term Assets</b>	<b>(291,667)</b>	<b>(583,333)</b>	<b>(875,000)</b>	<b>(1,166,667)</b>	<b>(1,458,333)</b>	<b>(1,750,000)</b>	<b>(2,041,667)</b>	<b>(2,333,333)</b>	<b>(2,625,000)</b>	<b>(2,916,667)</b>	<b>(3,208,333)</b>	<b>(3,500,000)</b>
Other Assets	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Assets</b>	<b>(263,610)</b>	<b>(545,006)</b>	<b>(788,325)</b>	<b>(993,567)</b>	<b>(1,160,732)</b>	<b>(1,289,820)</b>	<b>(1,380,831)</b>	<b>(1,433,766)</b>	<b>(1,448,623)</b>	<b>(1,425,403)</b>	<b>(1,364,107)</b>	<b>(1,264,734)</b>
<b>Current Liabilities</b>												
Accounts Payable	139,269	222,675	306,081	389,487	472,893	556,299	639,705	723,111	806,517	889,923	973,329	1,056,734
Current Borrowing	0	0	0	0	0	0	0	0	0	0	0	0
Other Current Liabilities	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)	(14,000,000)
<b>Subtotal Current Liabilities</b>	<b>(13,860,731)</b>	<b>(13,777,325)</b>	<b>(13,693,919)</b>	<b>(13,610,513)</b>	<b>(13,527,107)</b>	<b>(13,443,701)</b>	<b>(13,360,295)</b>	<b>(13,276,889)</b>	<b>(13,193,483)</b>	<b>(13,110,077)</b>	<b>(13,026,671)</b>	<b>(12,943,266)</b>
Long-term Liabilities	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Liabilities</b>	<b>(13,860,731)</b>	<b>(13,777,325)</b>	<b>(13,693,919)</b>	<b>(13,610,513)</b>	<b>(13,527,107)</b>	<b>(13,443,701)</b>	<b>(13,360,295)</b>	<b>(13,276,889)</b>	<b>(13,193,483)</b>	<b>(13,110,077)</b>	<b>(13,026,671)</b>	<b>(12,943,266)</b>
Paid-in Capital	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000
Retained Earnings	0	0	0	0	0	0	0	0	0	0	0	0
Earnings	(402,879)	(767,681)	(1,094,405)	(1,383,053)	(1,633,624)	(1,846,119)	(2,020,536)	(2,156,876)	(2,255,139)	(2,315,326)	(2,337,435)	(2,321,468)
<b>Total Capital</b>	<b>13,597,121</b>	<b>13,232,319</b>	<b>12,905,595</b>	<b>12,616,947</b>	<b>12,366,376</b>	<b>12,153,881</b>	<b>11,979,464</b>	<b>11,843,124</b>	<b>11,744,861</b>	<b>11,684,674</b>	<b>11,662,565</b>	<b>11,678,532</b>
<b>Total Liabilities and Capital</b>	<b>(263,610)</b>	<b>(545,006)</b>	<b>(788,325)</b>	<b>(993,567)</b>	<b>(1,160,732)</b>	<b>(1,289,820)</b>	<b>(1,380,831)</b>	<b>(1,433,766)</b>	<b>(1,448,623)</b>	<b>(1,425,403)</b>	<b>(1,364,107)</b>	<b>(1,264,734)</b>
<b>Net Worth</b>	<b>13,597,121</b>	<b>13,232,319</b>	<b>12,905,595</b>	<b>12,616,947</b>	<b>12,366,376</b>	<b>12,153,881</b>	<b>11,979,464</b>	<b>11,843,124</b>	<b>11,744,861</b>	<b>11,684,674</b>	<b>11,662,565</b>	<b>11,678,532</b>



## Financial Highlights

(\$thousands)

Financial Highlights (\$thousands)																	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	Y1	Y2	Y3	Y4	Y5
Revenue	124	249	373	497	622	746	871	995	1,119	1,244	1,368	1,492	9,700	62,900	233,800	315,630	426,101
Gross Margin	38	76	114	152	190	228	267	305	343	381	419	457	2,970	20,140	87,840	139,050	191,770
Operating Expenses	441	441	441	441	441	441	441	441	441	441	441	441	5,291	4,190	9,010	14,827	23,742
EBITDA	-111	-73	-35	3	41	79	117	155	193	231	270	308	1,179	16,178	79,311	124,959	169,102
Net Profit	-403	-365	-327	-289	-251	-212	-174	-136	-98	-60	-22	16	-2,321	13,769	55,181	86,956	117,620
Gross Margin/Revenue	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	32%	38%	44%	45%
EBITDA/Revenue	-89%	-29%	-9%	1%	7%	11%	13%	16%	17%	19%	20%	21%	12%	26%	34%	40%	40%
Net Profit/Revenue	-324%	-147%	-88%	-58%	-40%	-28%	-20%	-14%	-9%	-5%	-2%	1%	-24%	22%	24%	28%	28%
Net Cash Flow	28	10	48	86	125	163	201	239	277	315	353	391	2,235	16,396	36,115	25,872	30,965
Cash Balance - Ending	28	38	87	173	298	460	661	900	1,176	1,491	1,844	2,235	2,235	18,631	54,746	80,618	111,582