Where is Beverage Packaging Heading -Trends Which Influence Them

ProFood Tech 2019

Impact Zone

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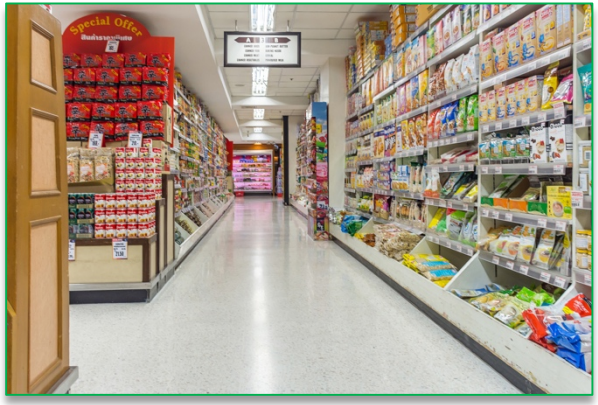
- Consumer impacts
- Product trends
- Technology advances
- Sustainability
- Retail challenges
- Where will we go next?

North American packaged food, drink consumption

- Expectation is 659.34 billion packs by 2022
  - 3.1% from present levels.
- Volume consumption will reach 551.32 million ton per annum in 2022.
- Plans include recyclable and light weighting
- Plastic packaging – impact of availability of commercial packaging grade bioplastics.
- Packaged food and drink sales increased average of 2.3% between 2012 and 2017, reaching 549.57 billion packs.



Ongoing food and beverage packaging trends

1. More material conversions
2. Unusual container choices
3. **Zero-waste initiatives**
4. Stand-up pouches
5. Consumers want healthy, convenient
6. **How packaging can sway empowered GenZs (1990s to Mid 2000)**
7. Concerns around BPA
8. Simplifying lives via universal design
9. **Can't get enough of cannabis**

Consumer trends and impact

Consumer Changes

- Millennial transition to parenthood – change coming
- Boomers aging and yet resistant to aging
- Health tracking and self monitoring
- Wellness and natural products shift
- Need for convenience (in all forms, and willing to pay for it!)
- Premiumization of experiences
- Mistrust of big brands

Consumer Use Experience: Journey of Truth™

ZERO MOMENT OF TRUTH

Advertising, word of mouth, internet/web info, blogs, etc.

FIRST MOMENT OF TRUTH

How can the package meet needs and delight the consumer?

SECOND MOMENT OF TRUTH

Map the entire use experience? What happens to packaging at end of use?

THIRD MOMENT OF TRUTH

For oneself or someone else who has already experienced the product.

Insight: Packaging touches all moments of truth

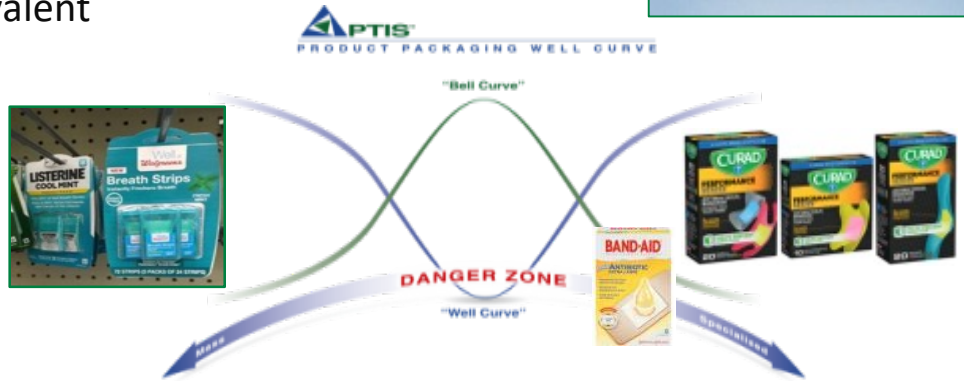
Packaging is a key trends enabler

Nutrition/ Life Quality

- Single serve
- Portion control
- Nutrient protection

Value

- Private label national brand equivalent
- Match product to package



Packaging is a key trends enabler (cont.)

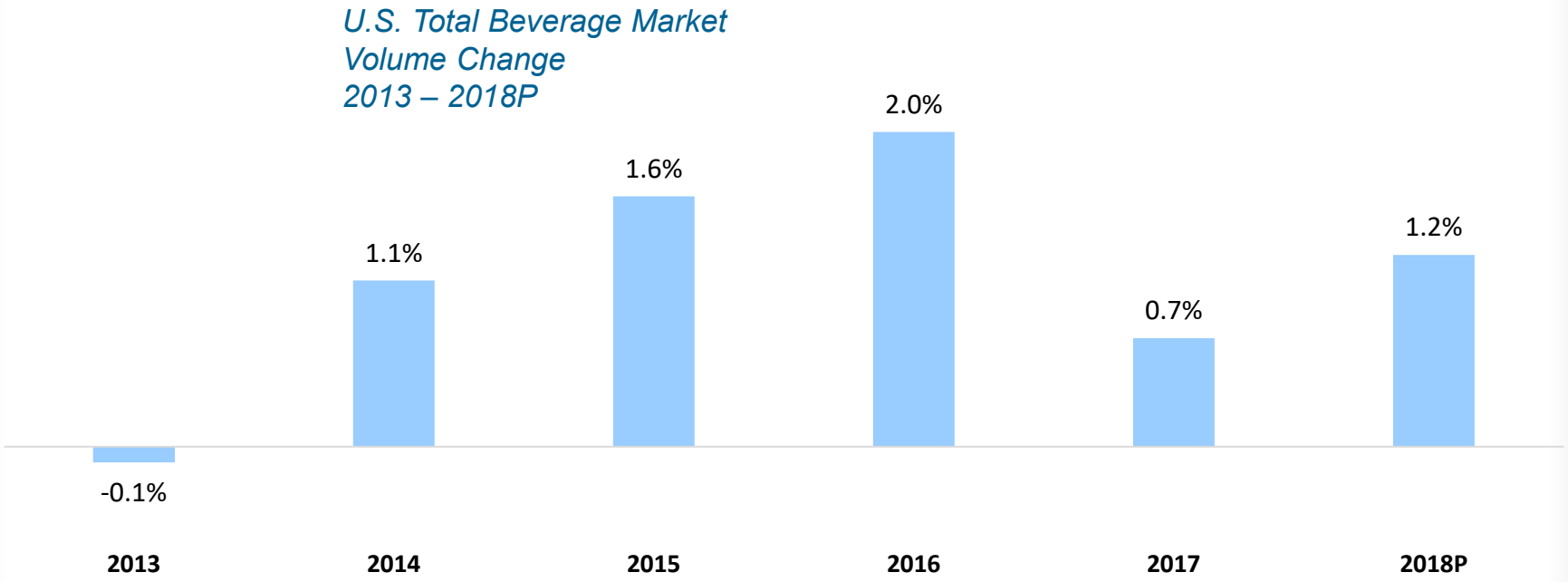
Environment / Sustainability

- New ante
- Efficiency and investment

Safety

- Authenticity, counterfeiting
- Tamper evident
- Tracking / traceability

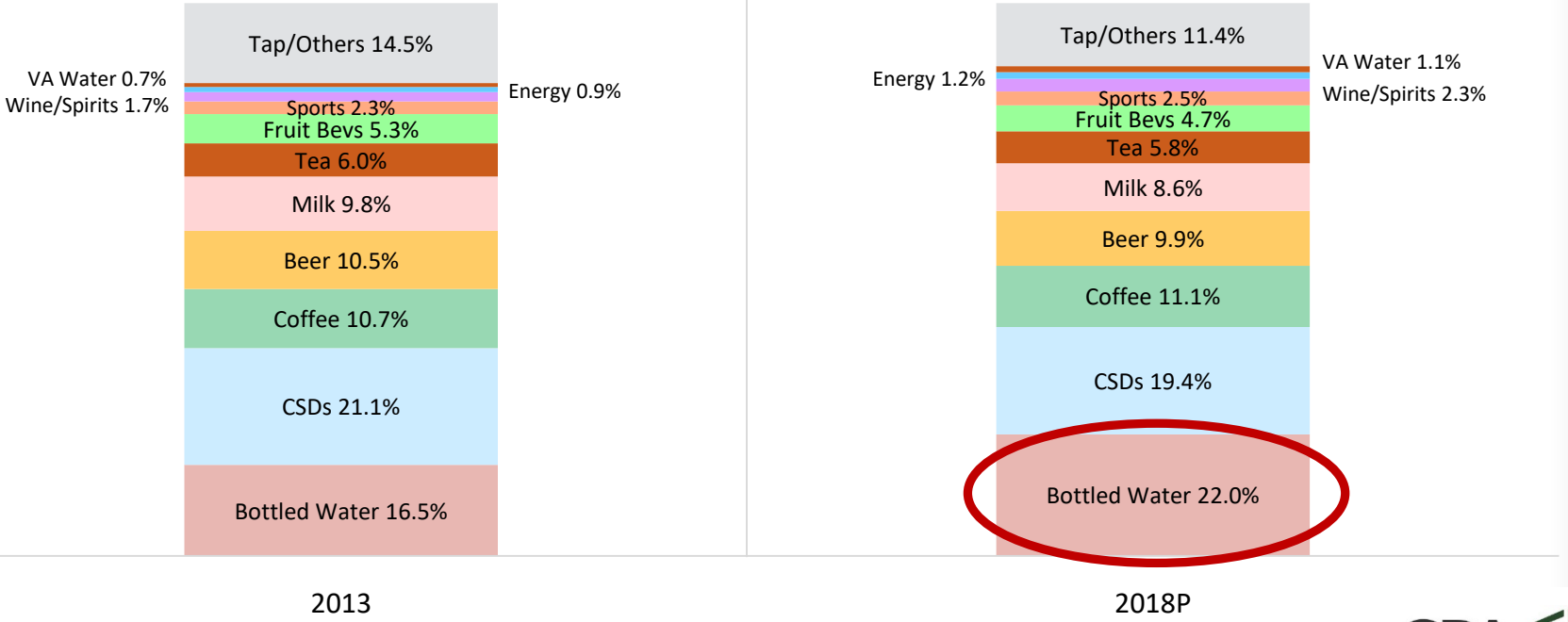
The U.S. beverage market grew volume for the fifth consecutive year in 2018, and experienced slightly accelerating growth



P: Preliminary
Source: Beverage Marketing Corporation

Bottled water is the biggest volume share gainer

U.S. Beverage Market
Volume Share by Category
2013 – 2018P



P: Preliminary
Source: Beverage Marketing Corporation

Water is going premium and edging out soda

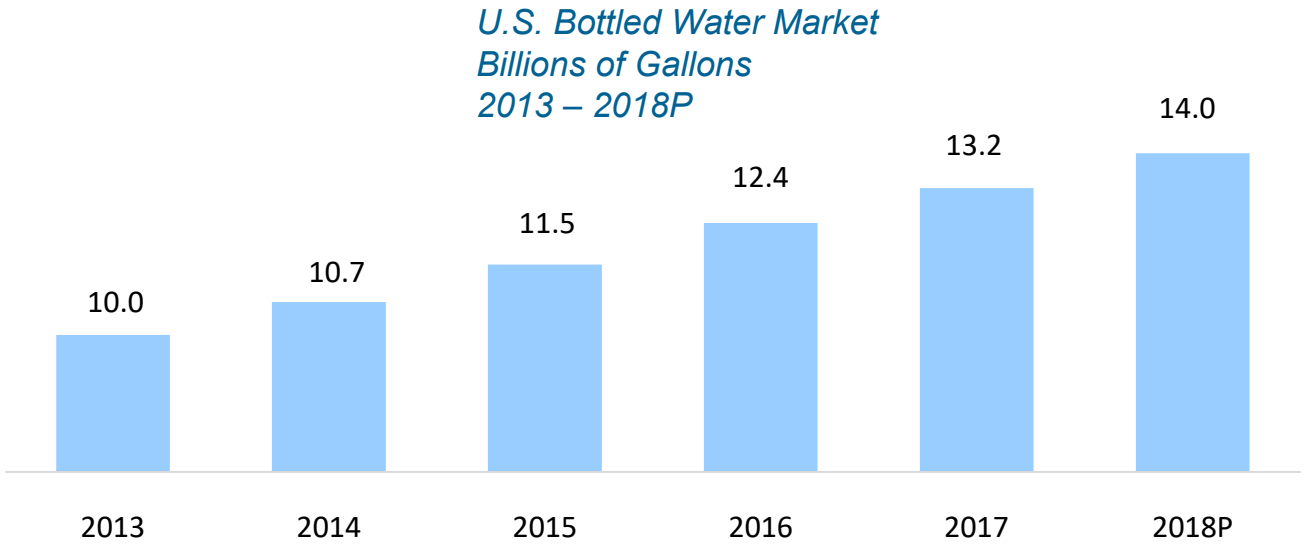
Globally Bottled water consumption overtakes all other soft drinks 2018

- Bottled water is a $13 billion business
  - Coca-Cola and PepsiCo currently only have a 13% volume share in the US. Nestle is far and away the leader, with almost half of the market.)
  - Major room for growth in this area — Companies showcase a healthier and more diverse array of beverages.
  - Consumption reached 418bn litres in 2017, up 92% since 2007

- When it comes to nutrition, nothing has a better reputation.
- Rumors of water's positive impact have reached mythical.
- General healthy beverage innovations.

Source: www.businessinsider.com

Bottled water has experienced healthy growth each year since the recession

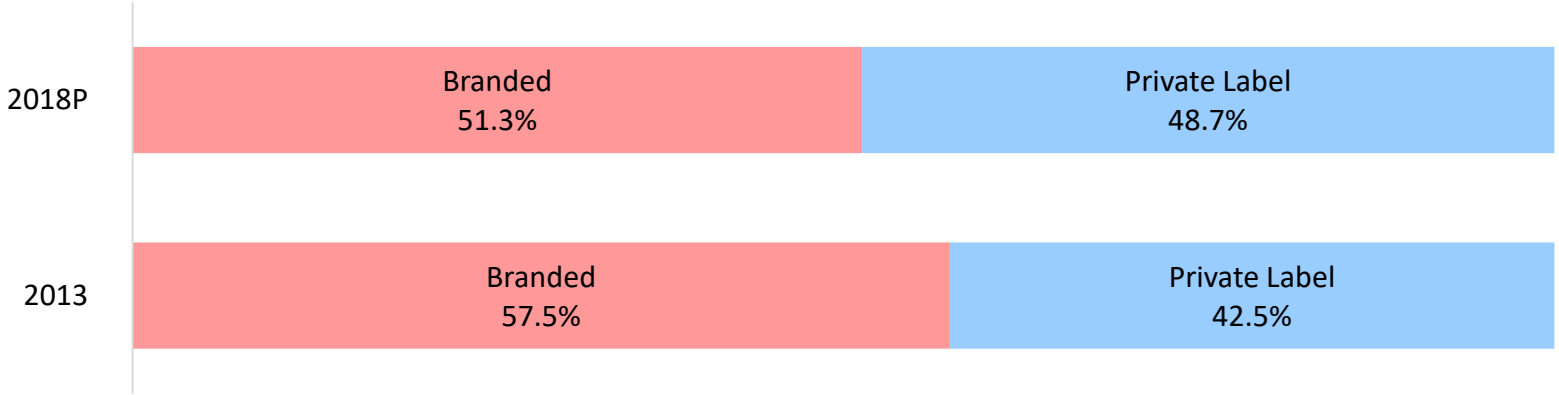


YEAR	2013/14	2014/15	2015/16	2016/17	2017/18P	13/18P CAGR
Change	7.2%	7.6%	7.9%	6.1%	5.0%	6.7%

P: Preliminary
Source: Beverage Marketing Corporation

Private label PET water accounts for virtually half of the single-serve market today, and its share is on the rise

U.S. Retail PET Water Market
Branded vs. Private Label



SEGMENT	PRIVATE LABEL	BRANDED	TOTAL
5-YR CAGR	10.6%	5.2%	7.6%

P: Preliminary
Source: Beverage Marketing Corporation

Sparkling water is on fire – fastest growing segment in the bottled water category

Dairy and the Non-Dairy category

- Expansion into the dairy alternative category
- Offsets flat liquid milk sales
- Looking at +15% compound annual growth rate of plant based dairy alternative category

Health & wellness mega trend

- High-growth, on-trend food and beverage categories that focus on:
  - premium organic dairy,
  - non-GMO,
  - plant-based alternatives to milk and yogurt,
  - fresh foods, and coffee creamers.

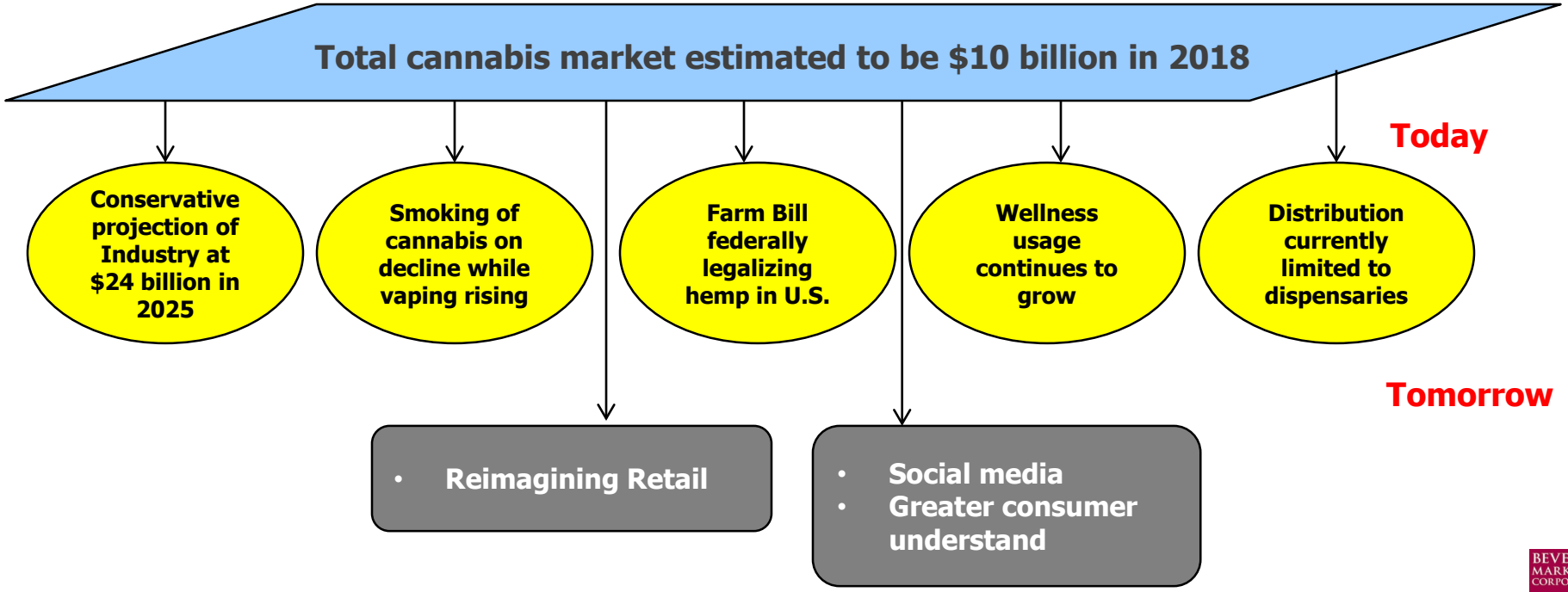
Fermented – beverages

Fermented foods deliver on:

- the demand for ‘natural’ products.
- deliver added health benefits.

The cannabis/hemp market in the U.S. is projected to be extremely attractive with some estimates placing it as high as $250 billion in the future

Cannabis Market Size and Projections
2018



Cannabis-Infused Beverages
Potential Beer Industry Disruptor

- Assortment of beer-centric products disrupt the current alcohol market with **cannabis-infused beverages.**
- **Lagunitas Brewing Company,** (wholly owned by Amsterdam-based Heineken International B.V.)
- Launches of **two psychedelic sparkling water products.**
- Called Hi-Fi Hops, the two "IPA-inspired" non-alcoholic beverages— and contain zero alcohol, zero calories, and zero carbohydrates.

Coke, Constellation Brands, Miller-Coors All have plans!

Packaging Innovation at home and personalization

SodaStream

Bonne O

Meat kits: personalization

- Among the brands ordered online by meal kit users, Blue Apron got top ranking (64 percent)
- Some 78 percent of consumers – 76 percent of nonusers and 78 percent of users – want, to some extent, grocery stores to develop meal kits they could purchase in stores.
- 68 percent of nonusers and 75 percent of users – desire kits that contain a combination of local or private brands and well-known name brands.
- Meal kits have skyrocketed to $5 billion in sales,
- **Amazon, Kroger and even Coke are developing this market**

Kroger just re-invented the meal kit

- Previously the Easy for You!
- Allows shoppers to personalize their dinner down to the entree and side dish.
- The meals are sold by weight at $7.99 per pound.
- Once home, the items are put in a skillet and cooked for 10 to 12 minutes.
- A video at the store explained how to pack and prepare the items.

Technology impact

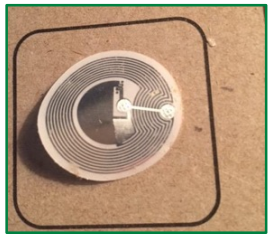
Packaging Changes – Science & Technology

Science & Technology will continue to impact packaging

- AI/robotics/machine learning
- ***Digital printing / mass customization***
- Flexible equipment – many sizes, more formats
- ***Small scale manufacturing***
- Renewable non-food feedstocks
- Coatings / barrier for paper based materials
- High speed sorting for recycling
- Nanotechnology
- ***Active / Intelligent packaging***
- Traceability / authentication

Technology

- Time temperature indicators
- Smart packaging
- Biomimicry
- Personalization
- Foamed paper
- 3D printing
- Absorbers/ emitters



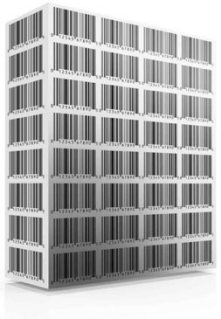
“Talking” Bottles

Belgium-based Martens Brouwerij has launched a new beer brand using digitally printed PET bottles which come to life using a smartphone app

When two bottles are brought together, the app brings to life a dialogue between the characters – resulting in talking bottles

Smart Labels

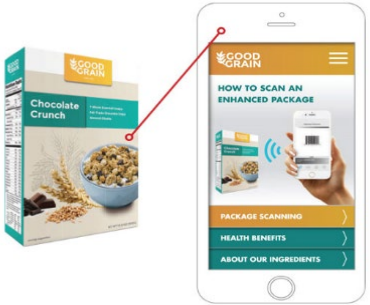
- Smart labels expand reach of invisible barcodes to create new possibility for product identification



Performs like this.

Looks like this.

- Digimarc Barcode scanning capabilities within the SmartLabel app.
  - Digimarc provides reliable, efficient and flexible method for delivering SmartLabel to consumers.
  - The SmartLabel program from Grocery Manufacturers Association (GMA) and the Food Marketing Institute



Print developments to track

- Digital printing
  - Personalizing packaging
- Direct bottle printing
  - Eliminating labels
  - Customization – one off!
- 3D printing
  - DIY prototypes, machine parts
  - Small quantity sample

Sustainability

Why is Sustainability so Critical?

"One half to three quarters of annual resource inputs to industrial economies is returned to the environment as wastes within just one year."

— *Weight of Nations: Material Outflow from Industrial Economies, WRI*

Sustainability Drivers & Packaging Implications

Drivers

- Legislation
- Social/ transparency
- Safety/ health
- Risk management
- Millennials

Packaging Implications

- Recyclable materials
- Recycled content
- Carbon impact
- Logistics impact
- End of life impact – marine, litter
- Zero waste
- Enhanced shelf life
- Compostable packaging
- Ethical sourcing/ CoC
- Green chemistry
- Emerging Issue program & replacements
- Consumer communication
- Sustainable packaging goals

Sustainable Packaging Journey

Sustainability has become embedded in many companies for packaging selection, but much of low hanging fruit has been picked

Low-Hanging Fruit

- Recycling/Recyclable materials
- Materials reduction
- Energy efficiency

Getting serious

- Refillables
- Product concentrates
- Hybrid bio-based materials w performance
- Brand equity through sustainability
- Transparency
- Anticipatory & emerging issues tracking
- Sustainable sourcing/social considerations
- Extended Producer Responsibility (EPR)
- New technology development/ implementation
- E-commerce returnable packaging

Big Systems

- Renewably sourced polymers @ cost/perf of petro polymers
- Natural capital/ carbon accounting
- Green chemistry replacements
- Composting – home & industrial
- Circular Economy
- New Plastics Economy
- Emerging market recovery
- Marine debris collection

2000 | 2005 | 2010 | 2015 | 2020 | 2025

Opportunity: Preparing for Future

Sampling of brand owners have all set goals for packaging that is recyclable or compostable – by 2025

Nestlé Good Food, Good Life

MARS

Coca-Cola

KraftHeinz

L'ORÉAL

pepsi

THE UK PLASTICS PACT

Unilever

DELL

Are you preparing to meet the needs of brands & consumers?

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Sustainability

- Sustainable Sourcing
- Biobased
- Compostable materials
- Recycled content
- Recyclability
- Design for disassembly

Sustainability (cont.)

- **Logistics Optimization**
- **Ocean Waste**
- **LCA driven decisions**
- **Lightweighting**
- **Keeping materials out of landfills**

Sustainability (cont.)

- **Refill**
- **Concentrates**
- **Material replacement**
- **Sustainability claims / communication**

FILM
home
compostable

USDA
CERTIFIED
BIOBASED
PRODUCT
PRODUCT 95%

Lucozade Sport trials edible seaweed packaging at sporting events

- Ooho capsules are made of edible and biodegradable seaweed.
- Packaging biodegrades in four to six weeks – the same length as a piece of fruit – ***or can be eaten***.
- Lucozade Ribena Suntory trialed the packaging at the Richmond Marathon, September 2018.
- At each trial, hundreds of Oohos – in 25ml and 70ml sizes – were handed out to participants

Retail challenges (omni-channel)

Retail Drivers & Packaging Implications

Drivers

Cost pressures

Enhanced experience

Convenience

Health focus

Sustainability leadership

Millenials

Packaging Implications/Strategies

Private label

#2/3 brand phased out

Retail ready packaging

In store & e-commerce pack formats

NFC/ QR/ Interactivity

Transparent packaging, paper/ pulp based

Certified sourcing

Niche brands get a chance

Green chemistry

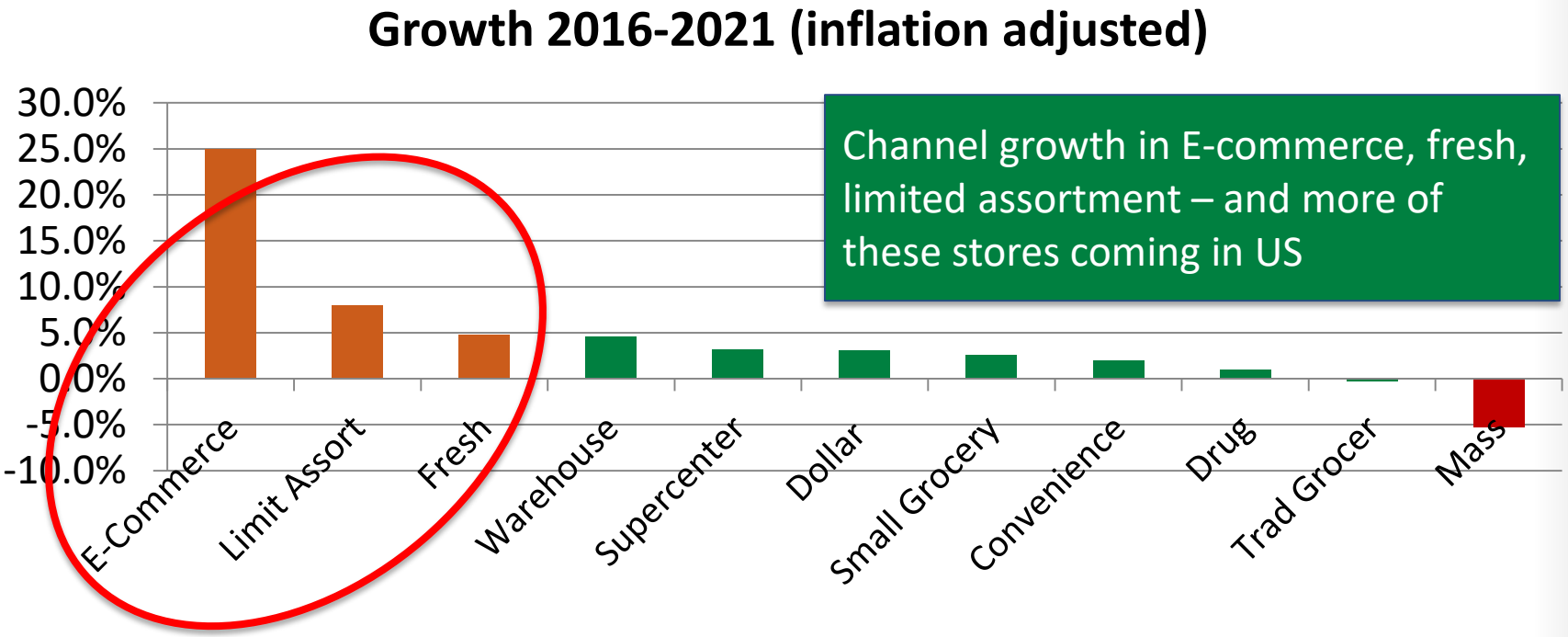
Sustainability components

Private brands grow

- Estimates have store brand sales at $120 billion.
  - Private label food and beverage will grow at a rate of 2.95 percent through 2020.
- *German retailer Lidl planed to open 20 stores 2017 summer and 100 stores in total by mid-2018.* **– DID NOT HAPPEN – Retrenching**
- Impact could spur other regional and national retailers to up their private label games.
- Millennial shoppers will continue to spur even more growth in private brands - They trust the retailers

Kantar Retail

Channel Trends – Grocery Format Trends



Source: Williard Bishop: Future of Food Retailing

E-Commerce

- ***Growing at 16-26% to 2021***
- Could be 20% of US grocery sales by 2025
- ***49% of U.S. consumers already shop for packaged goods products online.***
  - 61% of Millennials, 55% of Generation X, 41% of Boomers and 39% of Greatest Generation.
- Only 7% of retailers surveyed believe they are ready.
  - 22% of manufacturers as comparison
- Number of delivery models – but does not work well for all pack formats (i.e. detergents, liquids, etc.)
- Need new packaging formats optimized to e-commerce

E-Commerce Supply Chain Impacts

Brand Manufacturers - Machine and Material Considerations

- Product protection
- Multiple package sizes
- Reduction in pack counts
- Mixed cases
- Tamper-evident
- Counterfeit prevention
- Use of recycled/reusable
- Lighter-weight materials
- Connectivity
- Flexible equipment
- Shorter runs
- Bundled packaging

Etailers - Fulfillment and Distribution Considerations

- Durable packaging
- Smaller package sizes
- Traceability
- Weight concerns
- Right-size cartons
- Sustainable materials
- Automating manual tasks
- Inventory management

Logistics Providers (3PL) - Packaging and Delivering Considerations

- Damage prevention
- Size of carton
- Weight of carton
- Cost reductions
- Automating manual tasks
- Traceable coding/marking

Delivery methods:

- Truck and driver
- Contracted drivers
- Driverless vehicles
- Drones

Consumers - Online Shopping and Unboxing Expectations

- Easy returns
- Convenience
- Quick delivery
- Meet expectations
- Environmentally friendly packaging
- Recyclable materials/containers
- Personalize it
- "Let me buy it on line, and pick it up"
- "Deliver it to me anywhere"
- "Don't send me damaged goods"

PMMI E-COMMERCE: THINK INSIDE THE BOX 2018

The Most Important Considerations via E-Commerce Supply Channel

- Damage Prevention
- Packaging Reduction

Consumers are Not Afraid to Purchase Everything Online and Packaging Influences Brand Perception

The online retailer becomes the brand

Latest own brand marks shift in e-commerce giant's private label business – Bricks and Mortar

- Amazon.com Wickedly Prime private label food products earlier this month
- Los Angeles San Francisco, Seattle, Chicago, Washington D.C. and Philadelphia
- 50 stores in 2019

To open 3,000 cashier less stores by 2021

Amazon Go – Launches 2017

Amazon Go cashier-less store Chicago 2018

Chinese tech's move into food retailing

- The growth of ecommerce in China
  - Driven by a lack of physical store infrastructure.
- Chinese companies don’t face committed brick and mortar ala Walmart
  - No need to replace a generation of big box stores as they moved into ecommerce.
- Chinese big tech is leading the development of the next generation in grocery
  - Well-developed understanding and execution of online shopping.

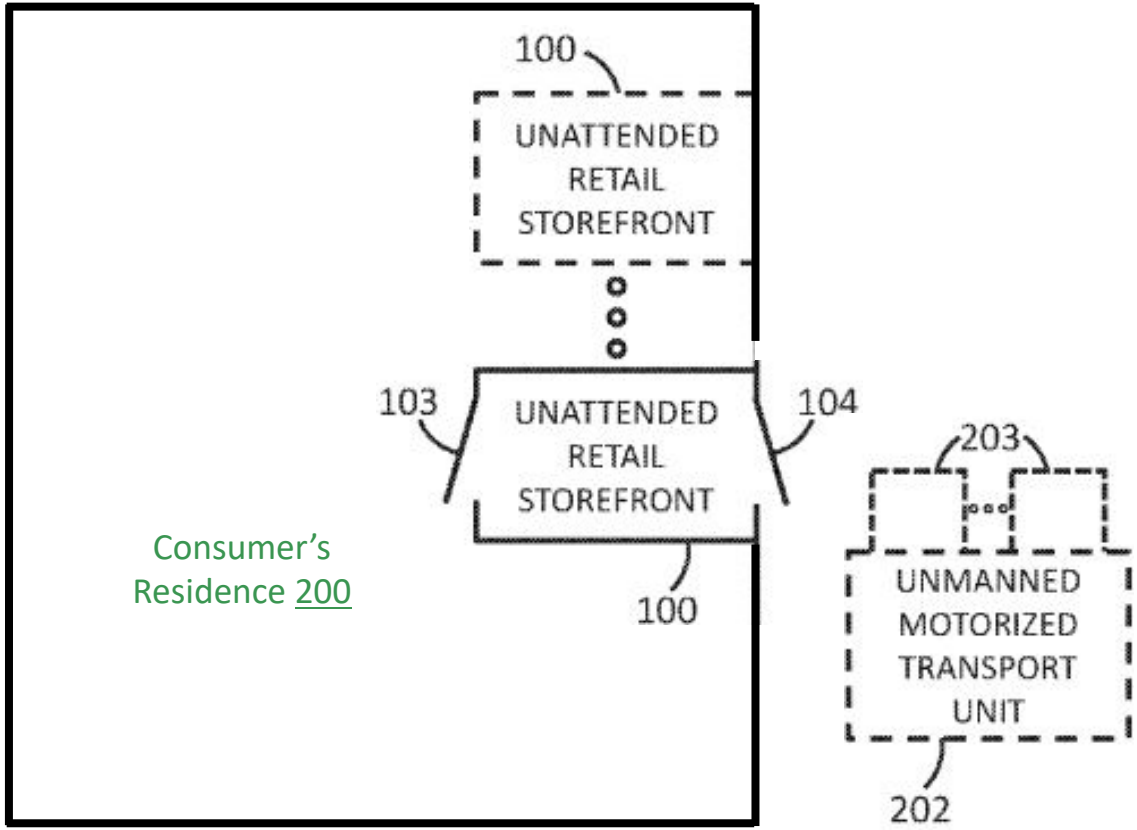
Alibaba
Tencent
JD

Kroger starts use of unmanned vehicles for delivery in Arizona

- Krogers Frys Food Stores begin a test of the vehicle in Scottsdale, Arizona,
- Partnership with Silicon Valley startup Nuro.
- Nuro's R1, a custom unmanned vehicle.
- Kroger service @ $5.95 with no minimum order requirement for same-day or next-day deliveries.

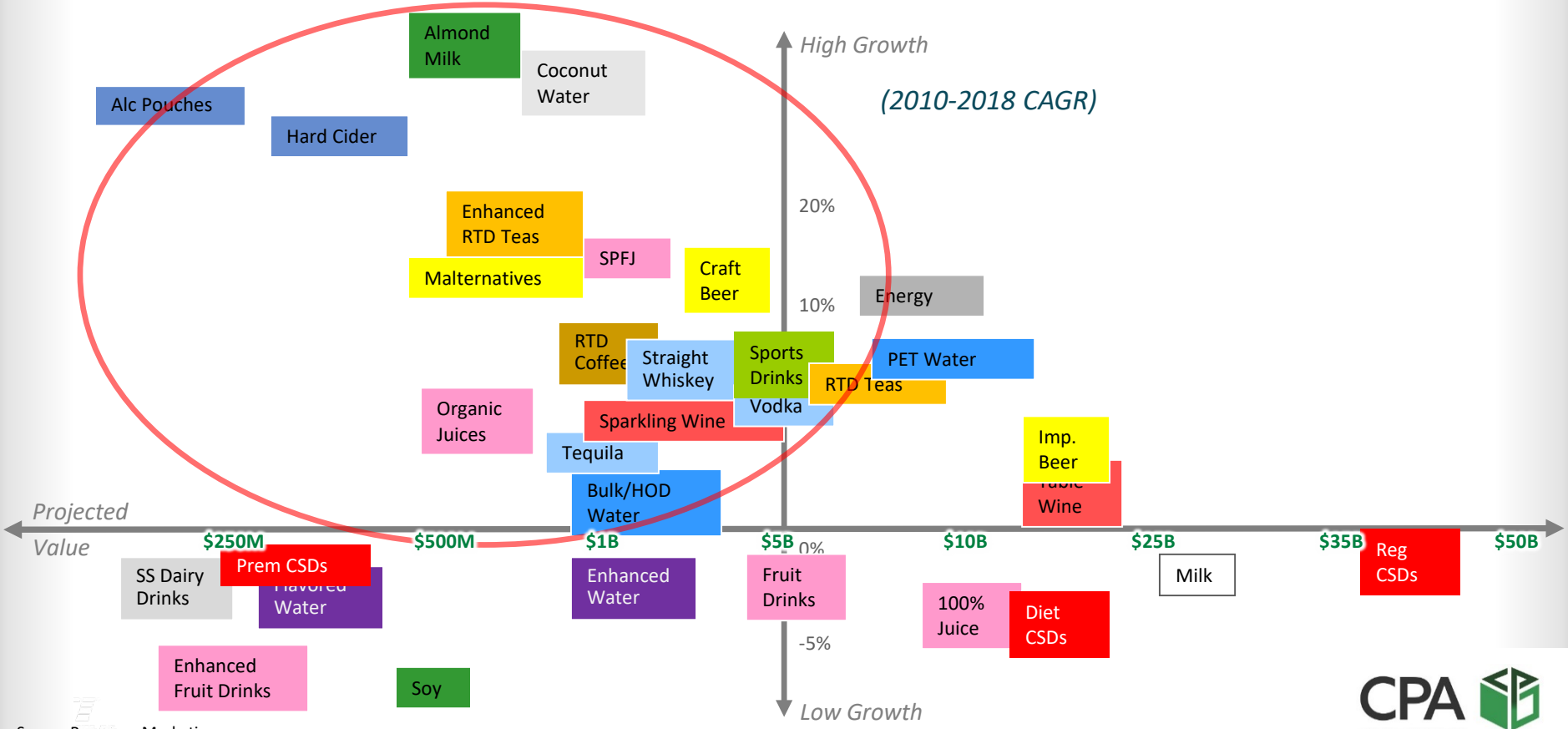
Source: Thomson Reuters

Walmart patents a storeless retail system



Where are we heading?

In the future, the marketplace will be characterized by numerous high-value, low relative volume opportunities



Source Beverage Marketing

EMERGING BEVERAGE TRENDS

- COLD BREW + COFFEE PLUS
- PLANT BASED
- PROTEIN
- FUNCTIONAL
- VALUE ADDED DAIRY
- KOMBUCHA
- PROBIOTICS
- BIO-HACKING
- CBD
- SPECIAL DIETS
- SUSTAINABILITY & ECO-FRIENDLY
- PACKAGE INNOVATION

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In summary: packaging in 3 to 10 years

- **Ecommerce out paces traditional**
- **Flexible equipment – many sizes, more formats**
  - Small scale manufacturing
- **Renewable non-food feedstocks for packaging**
- Nanotechnology
- Active / Intelligent packaging
- Traceability / authentication

- Consumer wants change quickly
- **Private brand grows**
- **Health and wellness a competitive advantage**
- **Sustainability drivers increase**
- Technology advances allow for rapid interaction
- **Digital printing / mass customization**

Service, Solutions, Sustainability

What the CPA offers today!

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Raise Your Industry Profile

Gain and Maintain and an Industry Advantage

- The **voice and source** for contract packaging and manufacturing resources.
- Leader in **increasing the knowledge and expertise** within the contract packaging industry.
- Encourage the **effective use** of contract packaging services.
- Increase the **industry profile, capabilities, innovation** of its members.

MORE Leading CP/CMs are CPA Members

MORE RFQ

OVER 90
RFQ / MONTH
2018 Avg.

MORE education and training opportunities for your entire team

MORE networking – opportunities with hundreds of industry executives

UP TO 10
EVENTS
per year

MORE growth

11.9%
CAGR
5-year

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