



Sustainability & Consumer Preferences

how cannabis operators improve the bottom line, retain customers
and reduce waste through Sustainability



What we want to share:

1. Waste in Cannabis
2. Consumer Preferences
3. Consumer Retention
4. Market Share Performance
5. Price Premium & Inelasticity
6. Employees & Stakeholders
7. Sustainable Packaging
8. Benefits of Sustainable Packaging



1

Cannabis related industries have a major packaging waste problem

with over One Billion units of cannabis sold every year in North America, more than 92% of packaging waste is improperly sent to landfills or destined for the ocean. Issues with packaging contributing to this problem include:

- size
- color
- regulations
- contaminations
- material quality
- disposal

cannabis packaging is predominantly plastic, contributing to microplastic fragmentation and non-renewable resource consumption with little infrastructure capable of fully recycling the material.

Meaning, the **45M+** pounds of cannabis sold per annum. equally produces over **900 million** pounds of waste destined for landfills, and over **\$1.5B in non-recoverable material loss.**

According to the American Chemistry Council, polypropylene (PP #5) is one of the least recovered plastics with a recycling rate below one percent. It is also the most used plastic material in pre-roll tube production.

2

Modern consumers are more environmentally conscious than any other generation

Research shows consumers are adopting more responsible shopping habits to improve their quality of life and overall sustainability standards.

In a survey of over 9,000 consumer respondents, the top three emotions reported with buying products in plastic are:

1

Annoyed

2

Frustrated

3

Guilty

Over **70%** of cannabis consumers rated the issue of plastic packaging highly, choosing 4/5 stars on a scale of importance) with the other biggest issue being price.



3

Consumers are more loyal to brands that connect when values align

71% of global consumers have made modest to significant changes to their consumption behaviors over time in an effort to live more sustainably.

*2022 Global Sustainability Report,
Simon & Kucher*

63% of consumers claim they are less likely to buy products with packaging that is harmful to the environment.

2022 Trivium Consumer Report

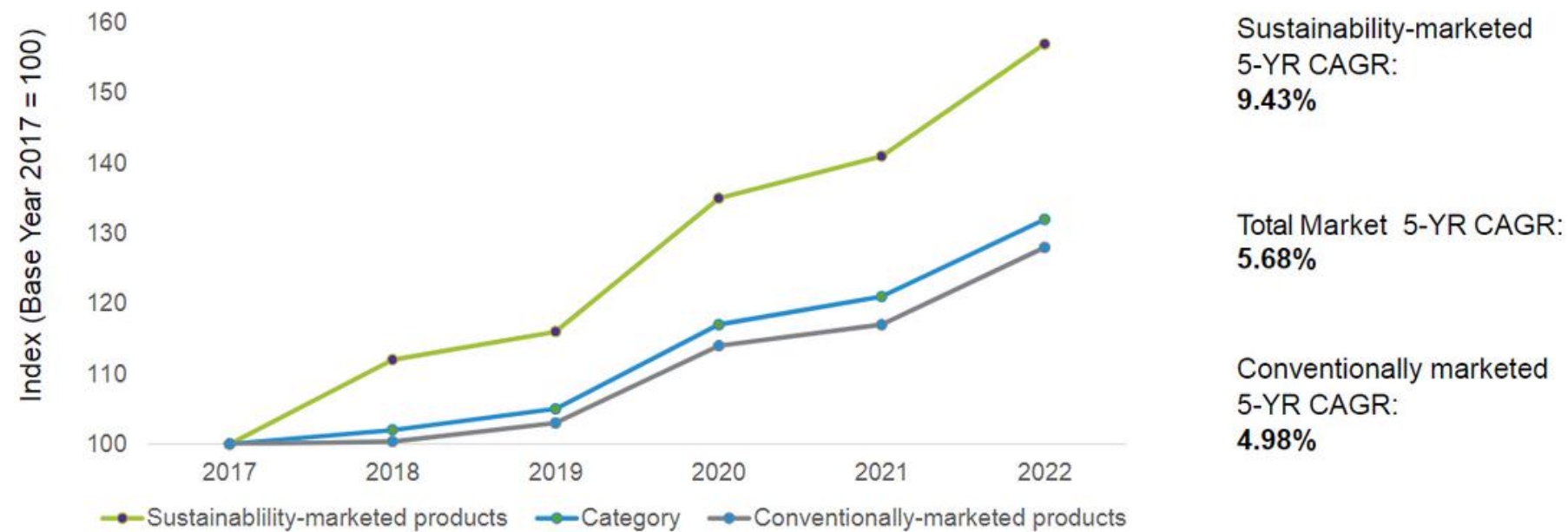
Millennials and Gen X are both the most

environmentally conscious and largest cannabis consumer generations.

4

Sustainably-marketed products are outpacing conventionally-marketed product growth by **2X**

Sustainability-marketed products grew **~2x faster** than conventionally marketed products



Sustainability-marketed products delivered approximately **one third of all CPG growth, despite representing 17.3% market share**

2022 NYU Stern Sustainability Index Market Share Report

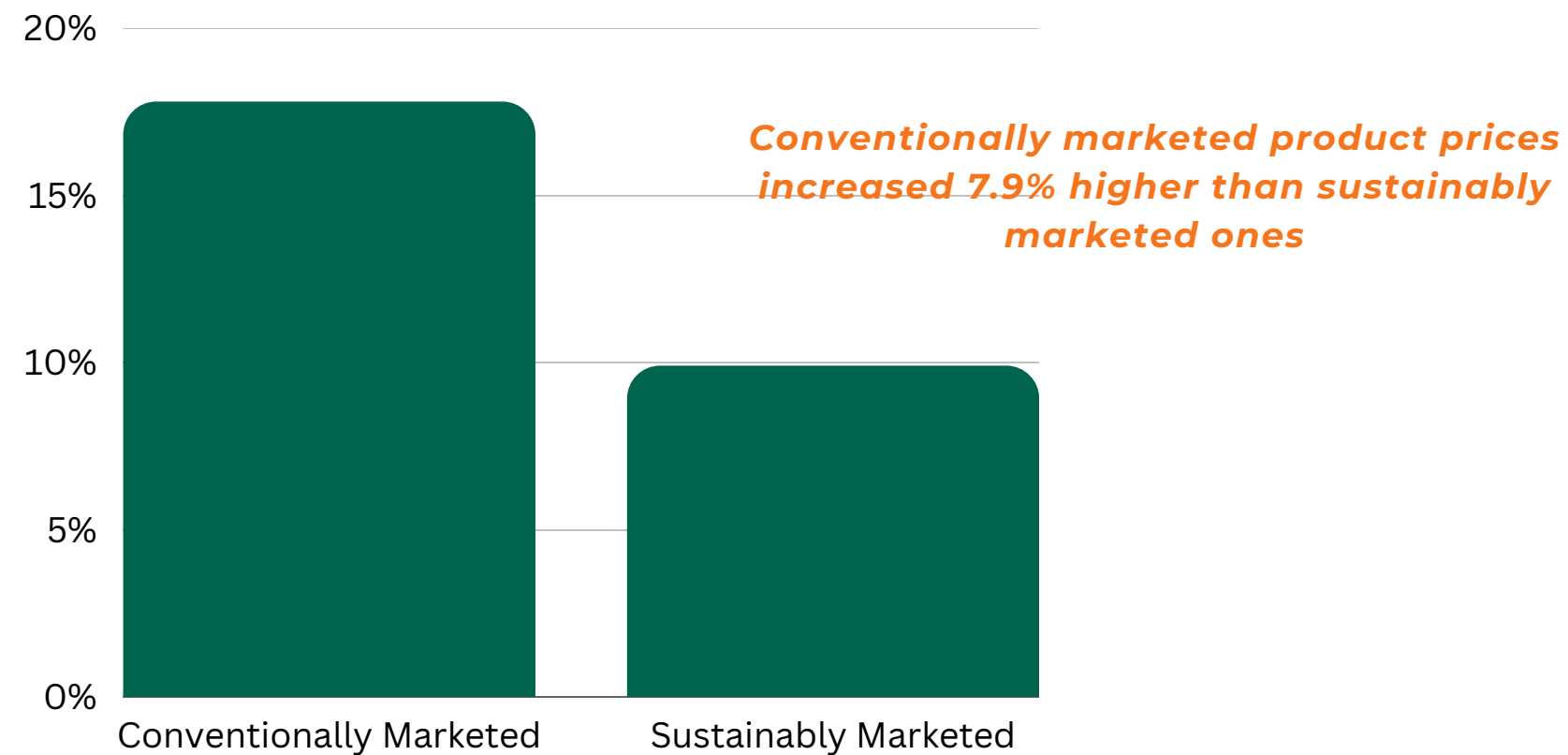
Sustainable packaging is hard to come by for a myriad of reasons despite being a major connector to consumer values.

This is particularly true in Cannabis. The vast majority of product is packaged in plastics, giving sustainably-packaged products an edge in standing out, reducing waste, and connecting with consumers.

5

And are less sensitive to price changes than their non-sustainable competitors

Given recent inflationary pressures, conventionally marketed products took higher price increases than sustainability-marketed products (17.8% vs. 9.9%)



While higher prices affected consumer spending to some degree, **70%** of consumers **chose not to swap** sustainably packed products for alternatives.

32% of all consumers are willing to pay more for sustainable products and services across categories.

this premium ranges from 22-40%, depending on the industry and regardless of how the consumer views the importance of sustainability.

6

Sustainability plays a key role in employee retention and stakeholder relations

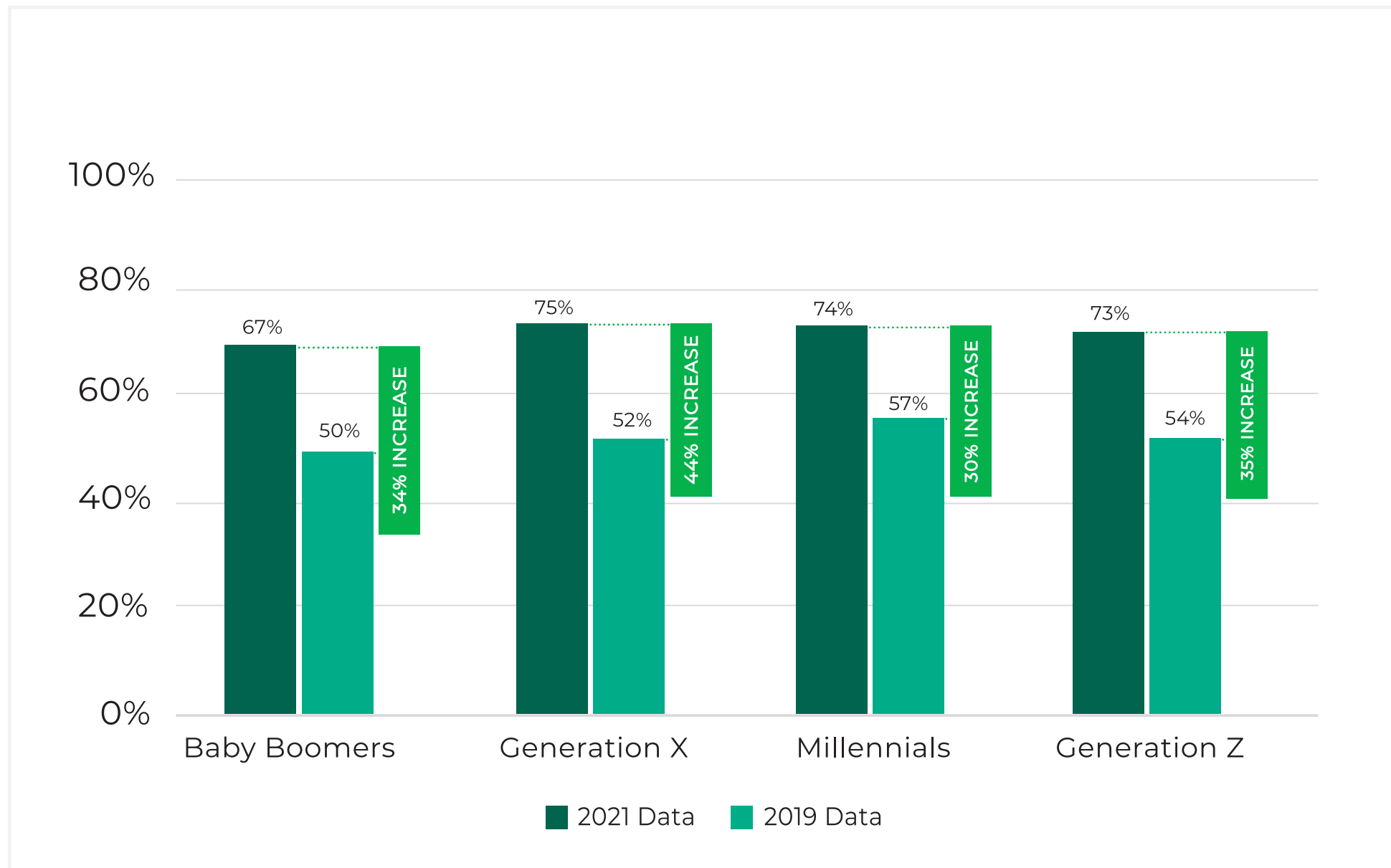
52% of **executive** respondents ranked talent attraction and retention as one of the most likely beneficial outcomes of enhanced ESG reporting.

2022 Deloitte study, "Sustainability action report: Survey findings on ESG disclosure and preparedness."

Boston Consulting Group found companies that prioritize sustainability outperform their peers financially, with a median total return to shareholders of **16%** per year compared to non-sustainably focused companies' median of 3%

7

Consumers are placing a greater emphasis on the importance of sustainable packaging



Every generation has not only stated sustainable packaging is an important factor in purchasing decisions, but has increased its importance over a two year timeline by, on average, 18%.

The majority of respondents across generations continue to consider sustainable packaging as important, with a 34% increase of Baby Boomers, 44% of Generation X, 30% increase of Millennials, and 35% increase of Generation Z.

8

Sustainable packaging represents a significant opportunity for cannabis brands to reduce waste footprints while standing out on a shelf of plastic

Responsible packaging choices are a front-facing message to differentiate brands with consumers, aligning values around a common mission to improve sustainability.

Celise BioProducts wants to help. Consult with us to see if we or trusted partners can assist your company's sustainability goals.

learn more at:



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