

A hand is shown holding a large, dense bundle of discarded plastic straws. The straws are of various colors, including white, clear, and dark blue. The background is a blurred, blue-toned image of a beach or ocean. The text is overlaid on the left side of the image.

The Final Straw: Tackling plastic straw consumption in Singapore

June, 2018

Who are we?

The Final Straw is a non-profit social enterprise based in Singapore, which works with cafes and bars to reduce plastic waste, including by providing sustainable alternatives to plastic straws.

www.thefinalstraw.co



Economic strategy firm, based in Asia-Pacific, which works with investors, governments, and companies on understanding the opportunities emerging from the shifting economic, technology, societal, and regulatory landscape.

www.alphabeta.com

The Cyan Project is a social enterprise that aims to provide sustainable consumer product alternatives, such as reusable cups, and solutions for businesses to target plastic waste.

The context for this work

Every straw used counts.

Plastic is non-biodegradable, takes up space in landfills we don't have and ends up in the oceans where it injures and kills marine life. By 2050, there could be more plastic in our oceans than fish!

We suck!

Sadly we do. Millions of people in Singapore use drinking straws every single day – for their morning coffee, juice, sodas, milk teas or gin and tonic! There are paper, glass or metal straws BUT overwhelmingly they are made of plastic.

There is viable way for Singapore not to suck.

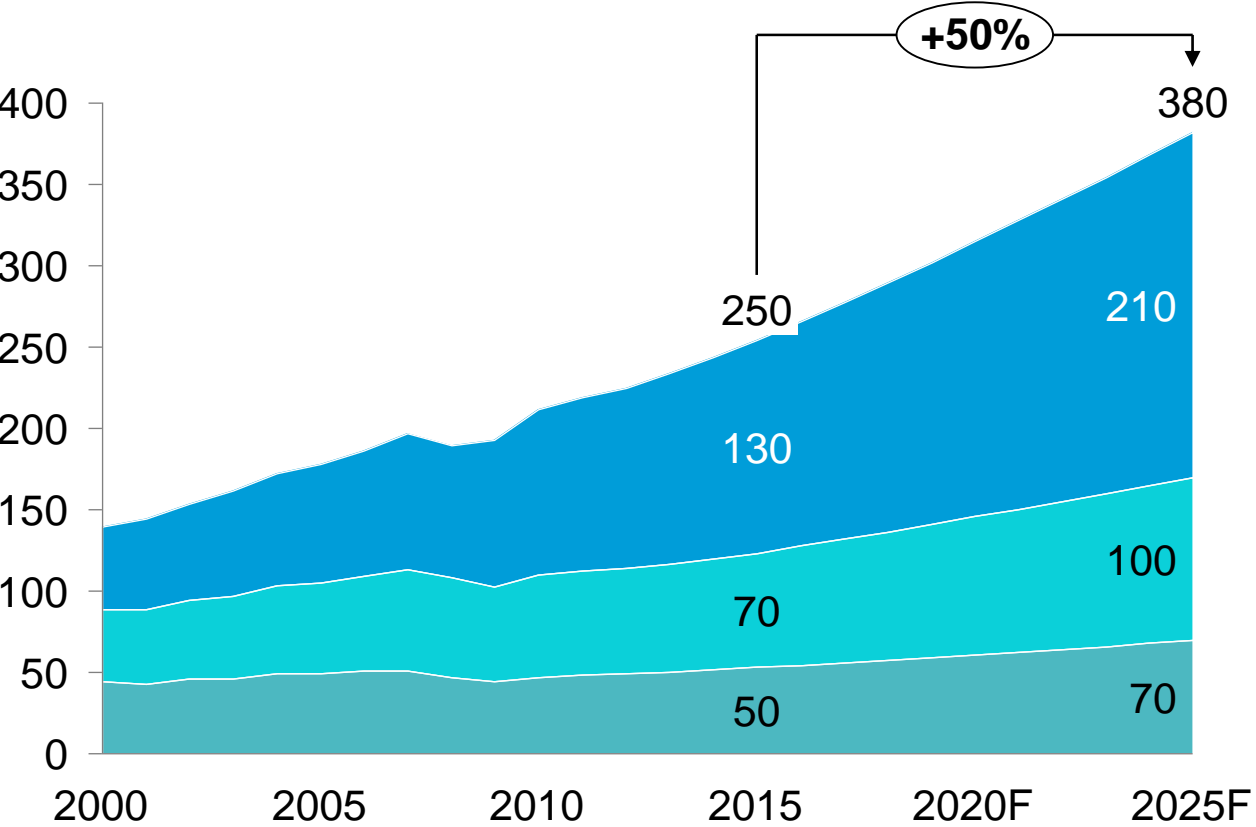
AlphaBeta, the Final Straw and the Cyan Project have worked together over the past 6 months to develop a fact base, based on a combination of analytical work and an extensive survey of over 260 people based in Singapore to understand straw consumption and possible solutions to reduce plastic straw use.

Plastic production is forecasted to grow 50% in 10 years, with ocean plastic levels set to reach 250m tonnes by 2025

Global plastics production by region

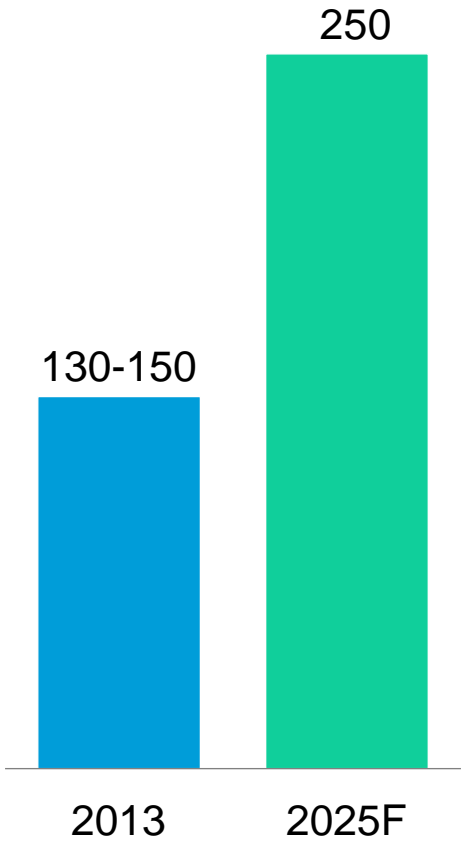
Million tonnes plastic produced annually, 2000-2025F

- APEC
- EMEA
- Americas



Ocean plastic debris

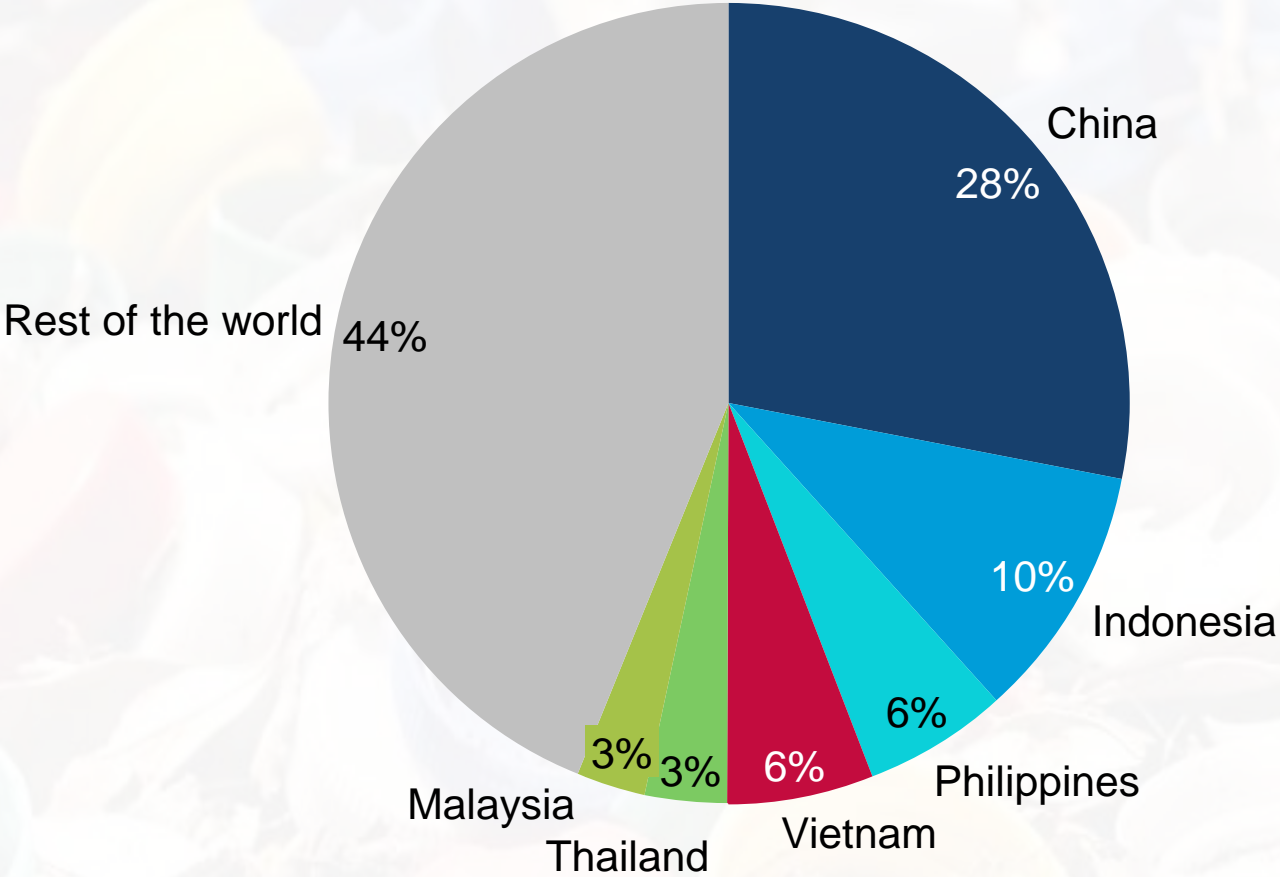
Million tonnes estimated to be in the ocean



SOURCE: ICIS Supply and Demand database; SPI's 2015 Global Business Trends

More than half of global plastic leakage occurs in Asia

Source of ocean plastics by country¹
Share of annual plastic marine debris, 2010



¹ A sample of 192 countries was considered in this study.
SOURCE: Jambeck et. al.; Team analysis

Singapore must substantially reduce waste generation to meet SDG goals and reduce dependency on Semakau landfill

11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- By **2020**, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle
- By **2030**, substantially reduce waste generation through prevention, reduction, recycling and reuse
- Singapore has designated **2018** as the Year of Climate Action



- The amount of waste sent for disposal per day in 2016 had risen over **6 times** since 1970, according to the National Environment Agency (NEA)
- The NEA also reports that only **6%** of plastic waste was recycled in 2017
- Semakau landfill is now estimated to reach full capacity by **2035**, almost a decade earlier than first projected

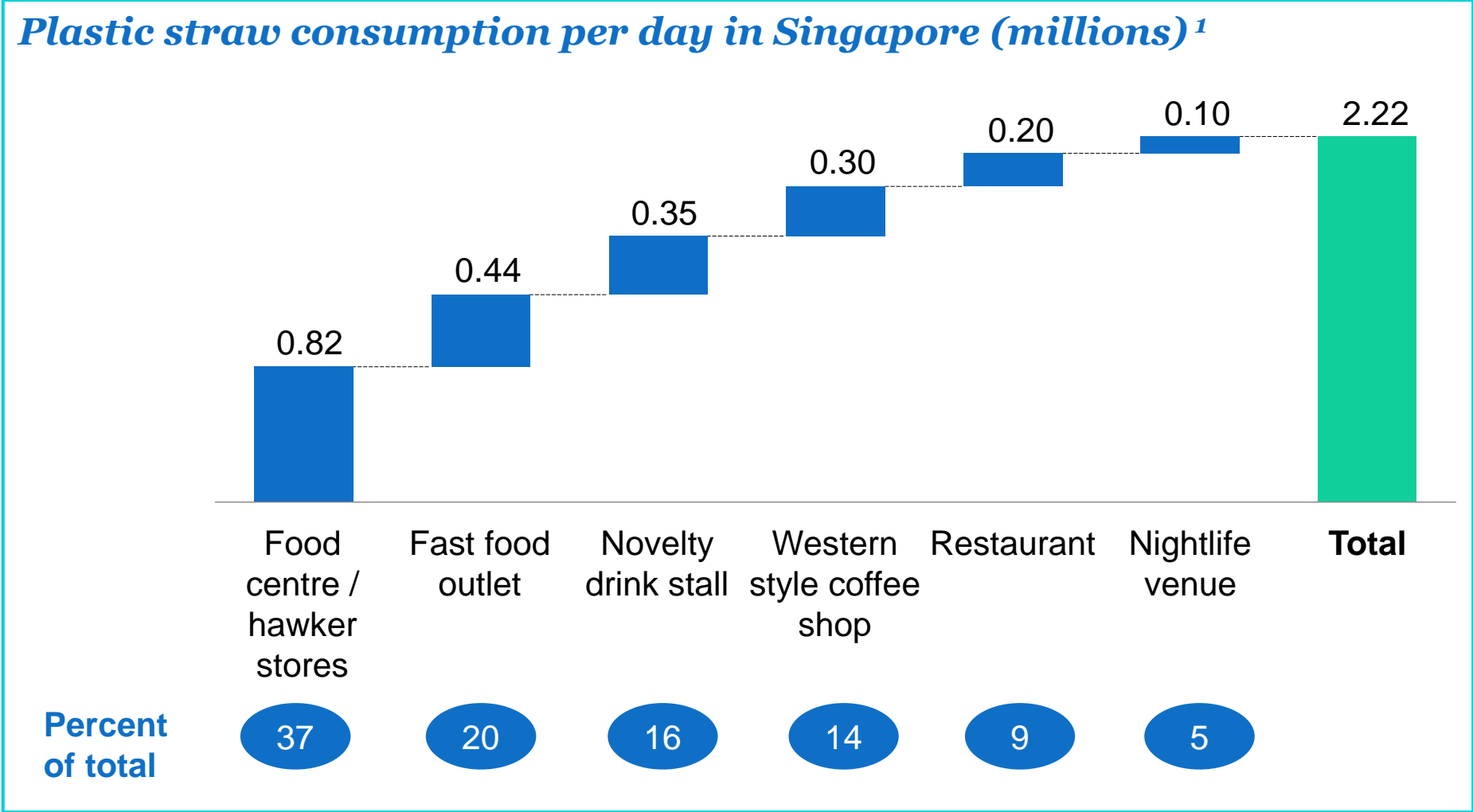
Main messages

The Problem: We suck in Singapore!

The Opportunity: We are willing to stop sucking in Singapore!

The Next Steps: Businesses can help people make the change!

The resident population in Singapore consumes over 2.2 million straws per day, more than a third of them in food centres

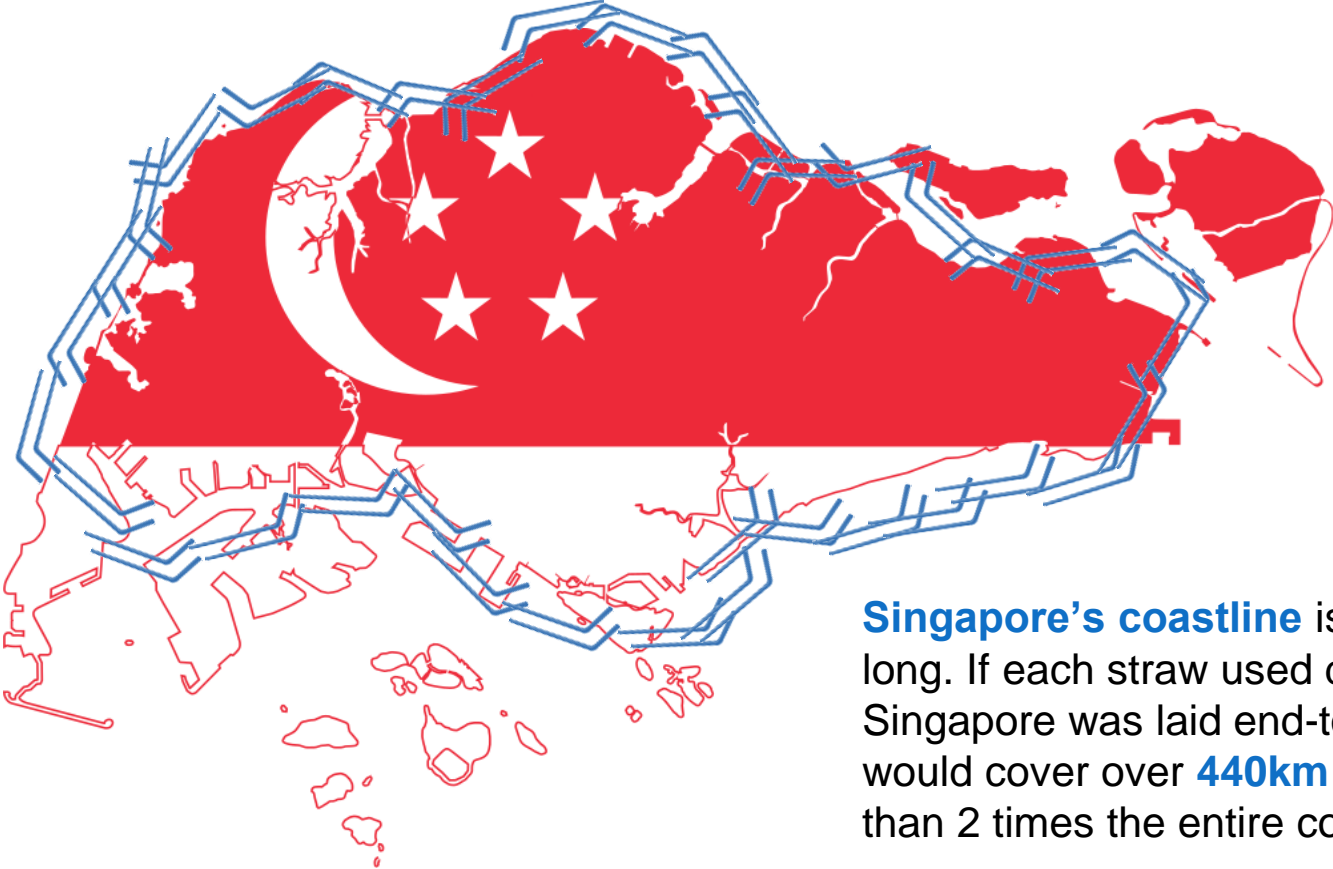


¹ Based on a survey of 261 consumers. Figures for total resident population extrapolated from working age population respondents. For residents younger than 18 and older than 60, the average consumption was assumed to be equal to that of the working age population. Estimates were adjusted to ensure the demographics of the sample matched Singapore's overall demographics (in terms of age, race and income). Components may not sum to total due to rounding errors.

SOURCE: Consumer survey; Team analysis

If laid end-to-end, Singapore's daily plastic straw consumption would cover its coastline more than twice over

Plastic straw consumption in Singapore¹



Singapore's coastline is 193km long. If each straw used daily in Singapore was laid end-to-end, it would cover over **440km** or more than 2 times the entire coastline²

¹ Based on a survey of 261 consumers. Figures for total resident population extrapolated from working age population respondents. For residents younger than 18 and older than 60, the average consumption was assumed to be equal to that of the working age population. Estimates were adjusted to ensure the demographics of the sample matched Singapore's overall demographics (in terms of age, race and income).

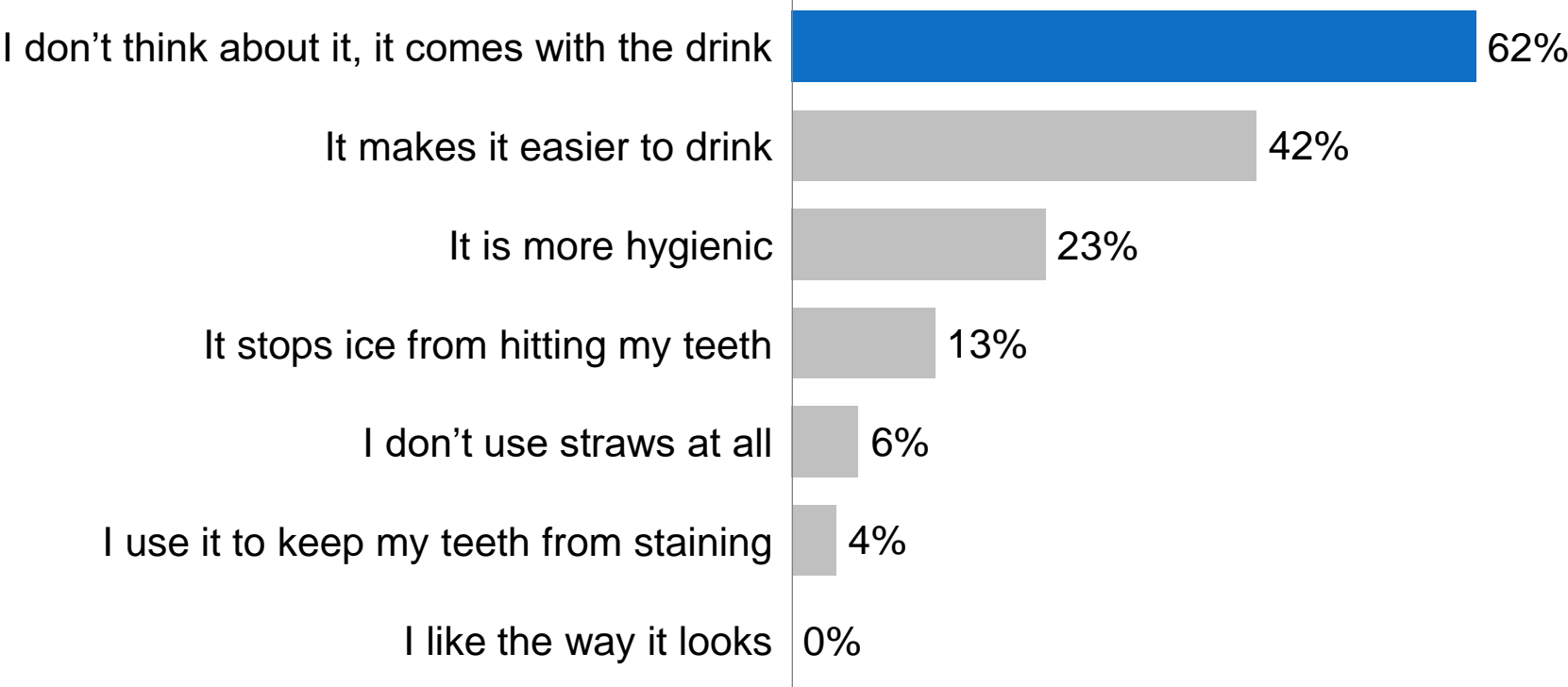
² Based on the assumption that a standard plastic straw has a height of 200mm.

SOURCE: Consumer survey; CIA World Factbook; Team analysis

People use plastic straws primarily because they come with the drinks they purchase

“Why do you use plastic straws?”

Percentage of respondents¹



¹ Based on a survey of 261 consumers. Estimates for Singapore were adjusted to ensure the demographics of the sample matched Singapore's overall demographics (in terms of age, race and income). Respondents were free to select top 2 reasons for why they use straws; therefore bars do not total to 100 and should be read individually e.g., "62% of respondents indicated that they use straws without thinking about it because it comes with the drink they ordered".

Main messages

The Problem: We suck in Singapore!

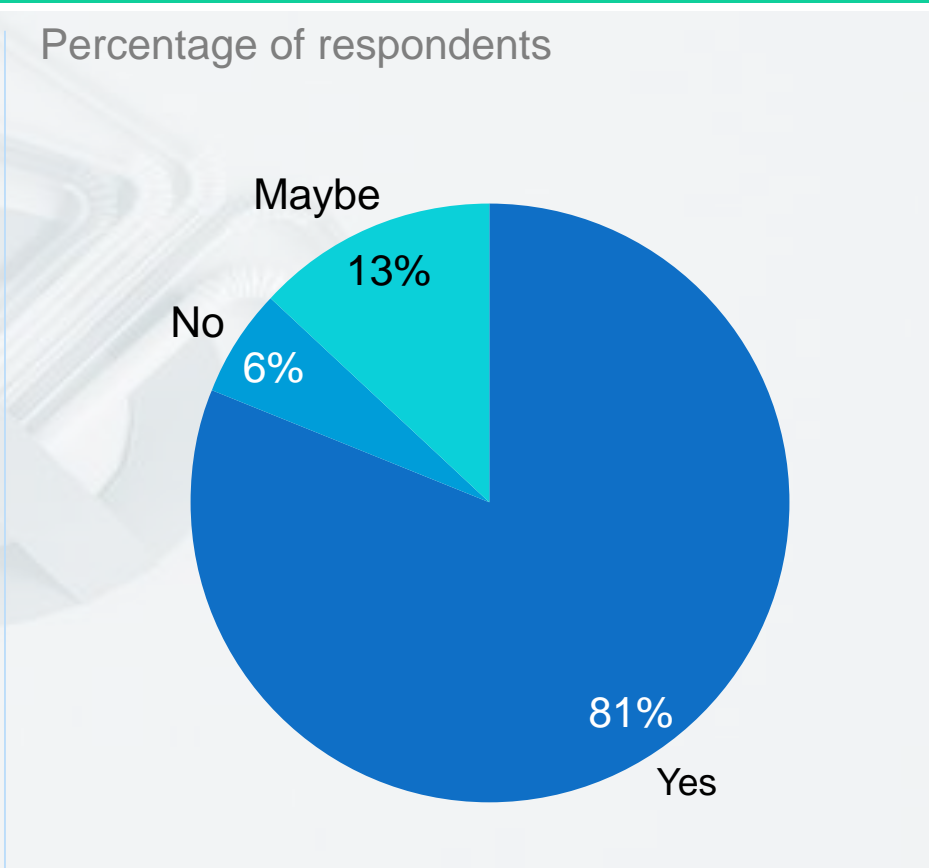
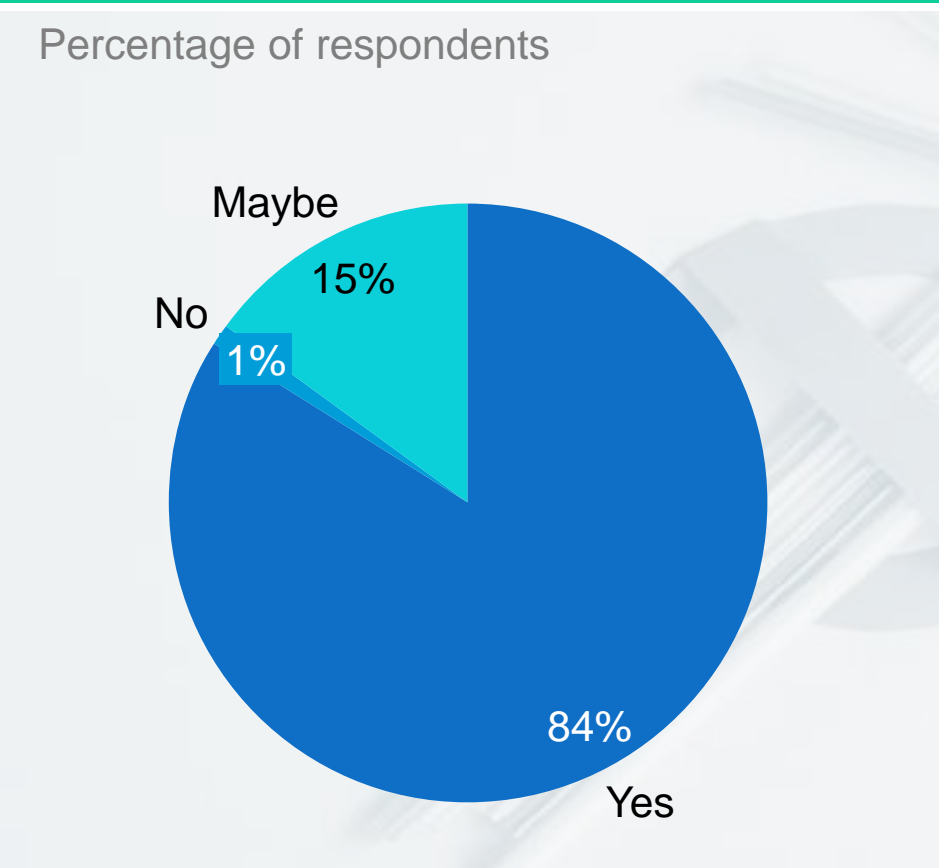
The Opportunity: We are willing to stop sucking in Singapore!

The Next Steps: Businesses can help people make the change!

Over 80% of people in Singapore say that they would be willing to go without a straw or to use an alternative

Would you be willing to go without a straw?¹

Would you be willing to use an alternative to a plastic straw?¹



¹ Based on a survey of 261 consumers. Figures for total resident population extrapolated from working age population respondents. For residents younger than 18 and older than 60, the average consumption was assumed to equal that of the working age population. Estimates were adjusted to ensure the demographics of the sample matched Singapore's overall demographics (in terms of age, race and income). Components may not sum to 100 due to rounding errors.

Contents

The Problem: We suck in Singapore!

The Opportunity: We are willing to stop sucking in Singapore!

The Next Steps: Businesses can help people make the change!

86% of consumers would feel positive about businesses offering sustainable alternatives to plastic straws

How would you feel about a business that offered an alternative to plastic straws?¹

Percentage of respondents

1 = Very negative 2 3 4 5 = Very positive



¹ Based on a survey of 261 consumers. Figures for total resident population extrapolated from working age population respondents. For residents younger than 18 and older than 60, the average consumption was assumed to equal that of the working age population. Estimates were adjusted to ensure the demo-graphics of the sample matched Singapore's overall demographics (in terms of age, race and income). Components may not sum to 100 due to rounding errors.

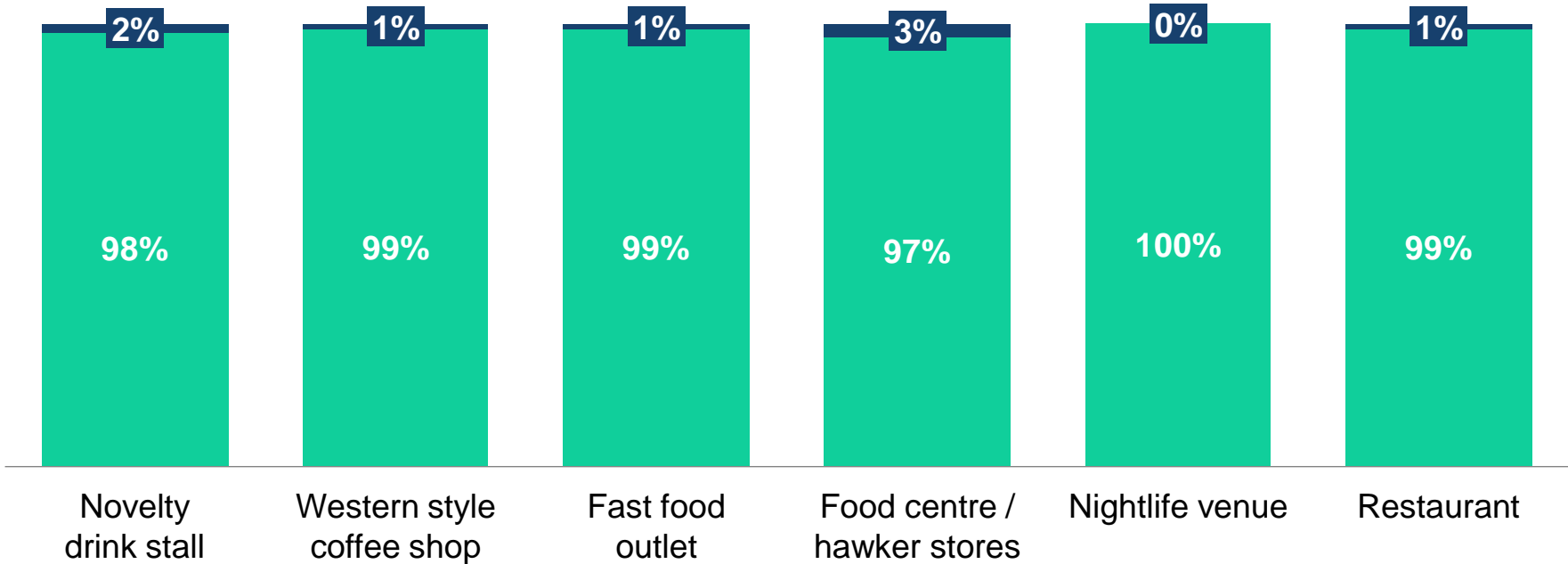
SOURCE: Consumer survey; Team analysis

Almost all survey respondents, regardless of venue, said they would be willing to not use a straw or use an alternative to plastic

In which places would you go without a plastic straw?¹

Percentage of respondents

- I would want to remain using a plastic straw
- I would be willing to not use a straw or use an alternative to plastic



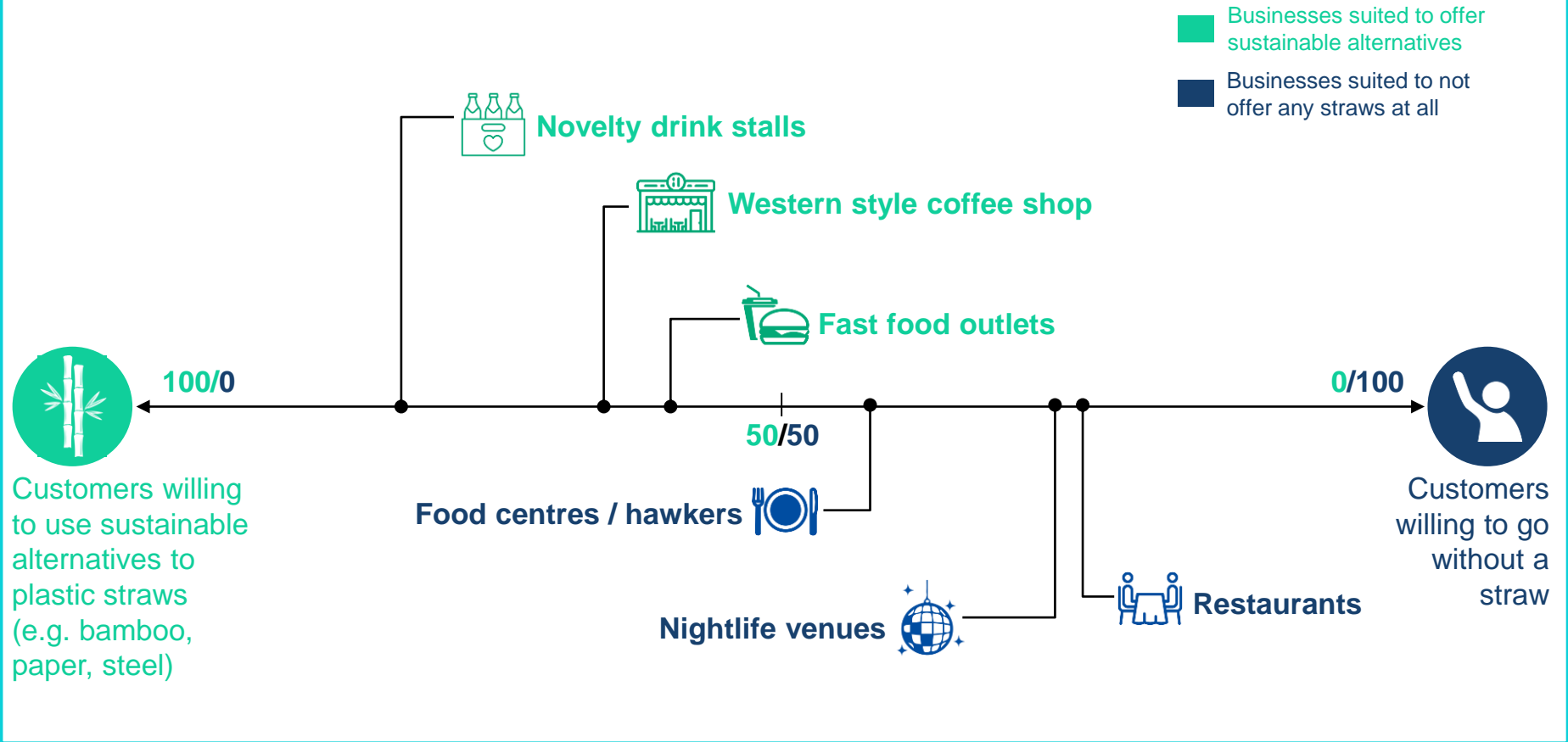
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SOURCE: Consumer survey; Team analysis

Of consumers willing to go without plastic straws, most would use alternatives at novelty drink stalls; at restaurants most would go without any

Business model spectrum for straws

Of consumers willing to not use plastic straws; percentage of consumers willing to use alternatives / no straws



1 Based on a survey of 261 consumers. Figures for total resident population extrapolated from working age population respondents. For residents younger than 18 and older than 60, the average consumption was assumed to equal that of the working age population. Estimates were adjusted to ensure the demographics of the sample matched Singapore's overall demographics (in terms of age, race and income).

SOURCE: Team analysis

Businesses can follow 3 simple steps to help people in Singapore make the change



1

TRACK

Conduct an audit of the plastic straws used at your outlet to measure your waste footprint



2

COMMIT

Commit to an alternative!
Provide:

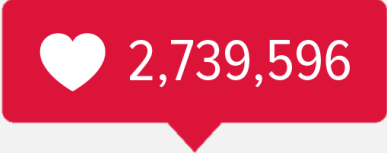
- plastic straws only on request
- alternatives e.g. steel, bamboo or paper
- alternatives only on request



3

PROMOTE

Track your progress and feedback from customers.
Promote your switch online!



#thefinalstraw

Want to find out more?

**Email us at:
singapore@alphabetalpha.com**