

THE ASSOCIATED BOTTLERS CO. LTD

The Associated Bottlers Co. Ltd (ABC)

ABC serves the brewing industry by:

- Purchase and distribute new refillable bottles and crates
- Recovery, re-recovery and distribution of secondhand refillable bottles and crates.

VISION: The Auckland Bottle Co. Ltd, now Associated Bottlers Co Ltd

- Standard proprietary bottle
- Easy label removal
- Standard cleansing procedures.

A Brief History

- 1920 Formed to provide generic refillable bottles
Initial 10,000 dozen (120,000 bottles) from USA
- 1922 Glass manufacturer, Penrose, Auckland
- 1941 Name change to cover both North and South Islands
- 1964 Removal long neck quart bottles
- 1975 Peak hiring's ~28m dozen (336m bottles)

ABC accounted for approximately +90% packaged beer market

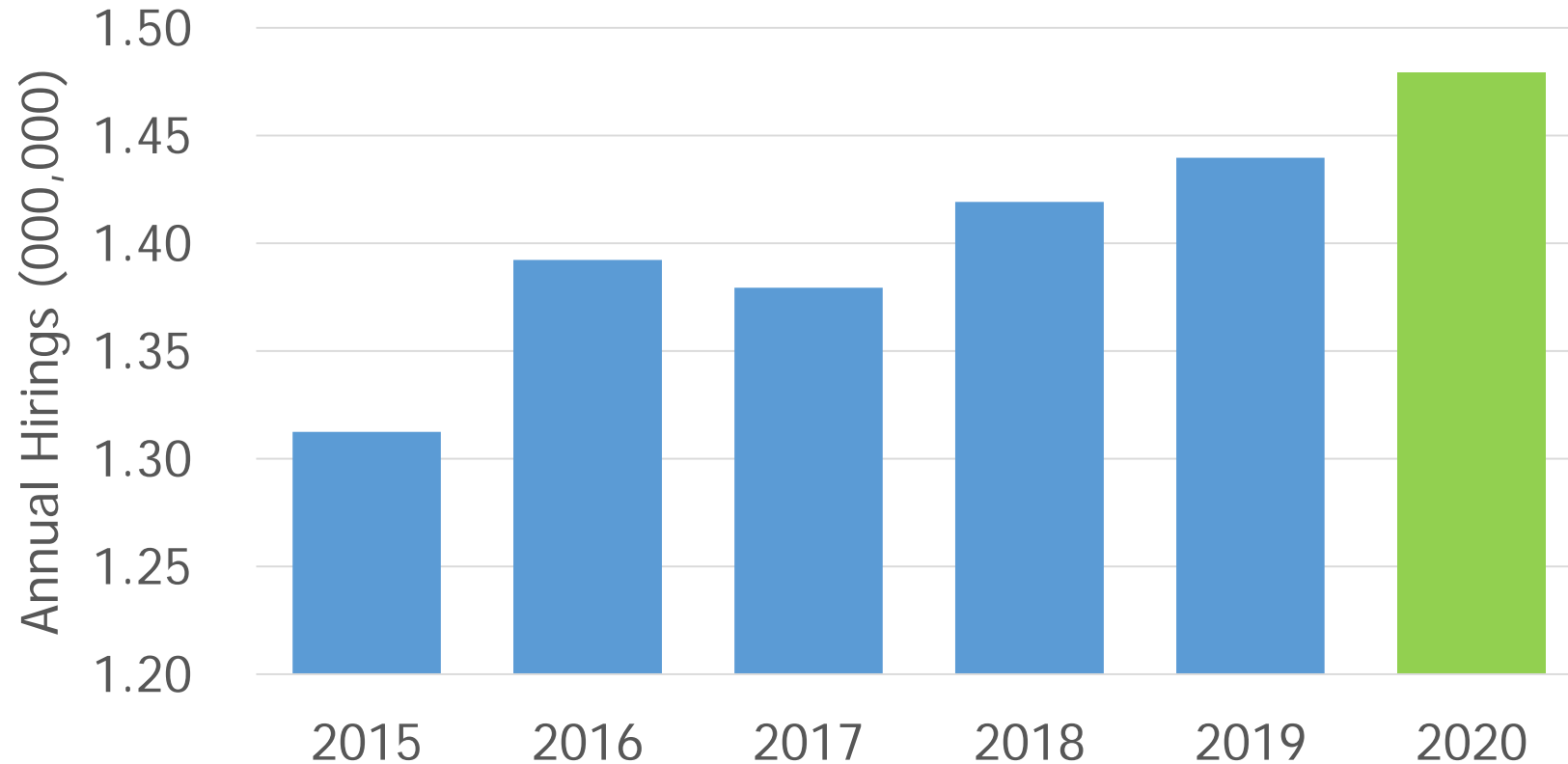
A Brief History (continued)

- Mid 80's Keg / can usage becomes prominent
- 1987 Consumer-led demand disposable pint bottles
- 1988 Demise ABC pint pool.
- 1988 ABC employed 165 staff, over 19 branches throughout NZ
- 1989 Start restructure / shrink company

- TODAY Two staff members
Annual hiring's +1.44m dozen (~17m bottles)

A Resurgence in Swappa Crates

ABC Hiring's 2015 through 2020



Original Operational Bottle Pool

1970's depots throughout New Zealand:

Whangarei, Takapuna, Newmarket, Otahuhu, Hamilton, Rotorua, Gisborne, Napier, New Plymouth, Palmerston North, Mangatainoka, Carterton, Wellington, Nelson, Christchurch, Dunedin, Greymouth, Timaru and Invercargill.

Collections:

- Wholesale and retail, hospitality including hotels, bottle shops, licensed clubs and bottle dealers
- General public including sporting, service, scouting, school bodies – fund raising bottle drives.

And now

18 transits (contractors) collect all crates covering 26 geographical areas

Collections:

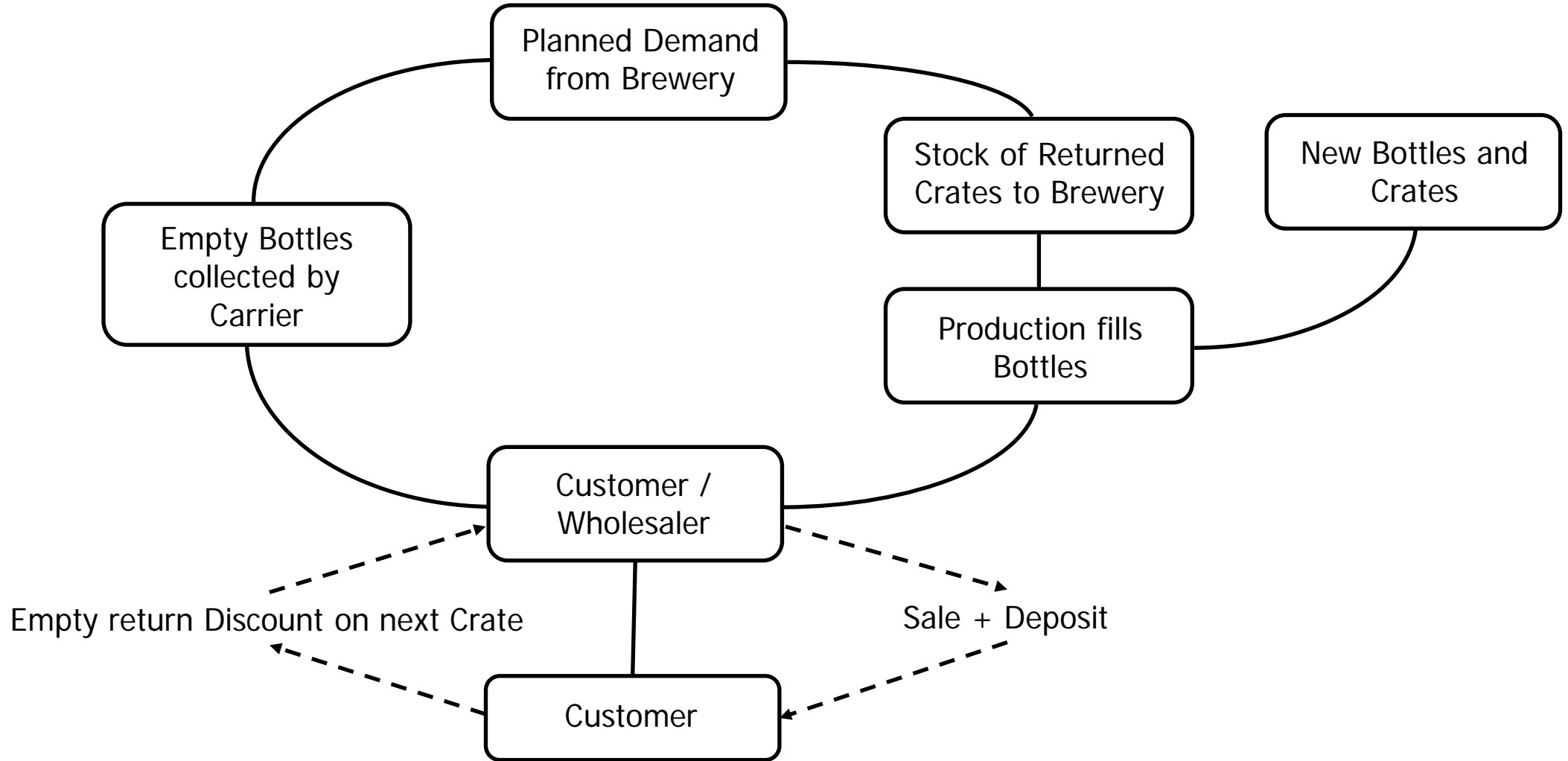
- Wholesale and retail, hospitality including hotels, restaurants, bars, bottle shops, licensed clubs, recycling centres.
- Crates no longer accepted from general public.

How it works

ABC currently supplies new and recycled bottles/crates to DB and Lion breweries:

- To the factory gate
- Breweries responsible for bottle washing onsite
- Breweries undertake relevant quality inspections to both bottles and crates to ensure that they are fit for purpose, before bottling commences.

ABC Process Flow



ABC Deposit System

- ABC charges breweries a deposit for each crate of bottles delivered
- Breweries pass the deposit charge to wholesale retail and hospitality customers
- Retail customer crate purchase:
 - If they do not have an empty crate to “swap”, customer pays the full price including the deposit
 - If they have a “Swappa” they pay a discounted price excluding the deposit
- ABC collects all empty crates from the wholesalers and refunds the deposit to wholesale retail and hospitality customers.

ABC Process a Closed Loop

ABC's deposit system forms a closed loop process, in which our loyal customer base, understands the benefit of returning crates from a personal financial prospective. Involves the breweries, transport agencies, wholesale customers and consumer customers.

Third party one-way glass bottles contamination risk:

- Breweries identify and remove prior to production due to health and safety risk.

Crate Recovery Rate

ABC's recovery rate tracks:

- 87% and 92% per annum

Average recovery rate would be 90%

- ABC bottle stock is completely renewed every 10 years
- Estimated life span of an ABC bottle is 10 years.

Crate Circulation

- ABC continually monitors returned crates, calculating return timings
- Averaging this information over the year gives crate circulation
- Current crate circulation is just over three months
- Average crate of 12 ABC bottles is refilled four times a year.

Trippage

- The environmental advantages of refilling depend heavily on the number of trips a refillable bottle makes (the bottle's trippage)
- ABC bottle lifespan 10 years, refilled four times a year

ABC bottle's trippage = 40

Each ABC bottle is equivalent to 40 one-way glass bottles of similar size (745ml)

- One ABC bottle prevents the use of **39 one-way 745ml glass bottles**
- Or approximately **90 one-way 330ml glass bottles**, by volume

Benefits of Refillable Glass Bottles

Where refilling leads to the use of less material for bottles, less energy is needed to extract raw materials and manufacture new bottles.

If the percentage of recycled content is the same for refillable and one-way beer bottles, refillable glass beer bottles that average 25 trips will consume 93 percent less energy than one-way glass bottles that deliver the same amount of beverage.

Energy used in washing refillable bottles is more than offset by savings in energy needed to make additional new bottles.

Source: Boris Borchev (Professor at Sofia University), Zhivko Ivanov and Nadezhda Peneva of TechnoLogica EAD (TL)

Collection Infrastructure

Challenges to trippage:

- Disincentive to return (consumer – deposit incentive/swappa crate)
- Lack of collection (wholesaler)
- Washing and refilling infrastructure (breweries)

NOT physical limitations of the bottles.

ABC has an active database of nearly 1,000 customers who regularly return crates and a transit network covering every corner of New Zealand.

ABC and Environmental Sustainability

- ABC was formed when glass bottles were a premium item, sourced overseas, with refilling a standardised bottle a sensible use of a scarce resource
- As cheaper single use glass alternatives have become readily available, ABC operations shrank from its peak in the 1970's
- The brands available in ABC crates are brewery standard reflecting brewery focused clientele

Price vs environmental sustainability:

- At this time, price probably driving most crate returns.

ABC

- ABC Recovery Rate is 87 – 92% (8 – 13% bottles do not return)
- ABC Bottles return on average 4 times a year
- Forecast 2020 1.48M dozen (~18M bottles)
- Around 385,000 dozen (4.62M bottles) in circulation at any time
- Potentially saving the use of ~**14M one-way 745ml glass bottles** the equivalent of ~**31M 330ml glass bottles**, by volume each year