



Container Refund Schemes – learnings for Aotearoa/ New Zealand

Introduction – Robert Kelman



- Contracted as Director Reloop for the Pacific Region
 - SUP's
 - CRS
 - Recycled Content
 - Refillables
- Coordinate the Australian Council of Recycling (ACOR) CD Division
- And - EO, Australian Tyre Recyclers Association (ATRA)

Public attitudes and markets have changed



The Public Doesn't Want Litter

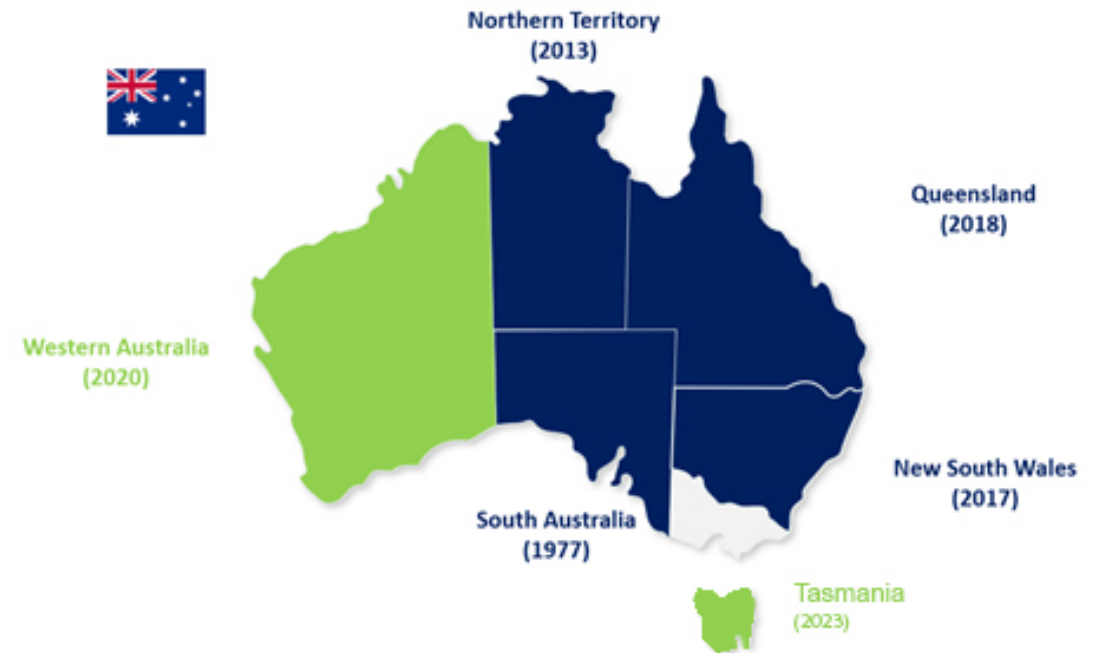


Malaysia et al Don't Want Rubbish

State of Play in Australia – Governance of each differs



- South Australia since 1975 – now reviewing CDS, e.g.
 - governance
 - eligibility – almost certain wine will be included
 - refund value
 - collection network (make it more convenient)
- NSW Dec 2017
- QLD Nov 2018
- WA July 2020
- NT and ACT also have CRS
- Tasmania 2023
- Victoria possible, and discussing a 6 bin option
- Aligned:
 - 10cents refund;
 - matched eligibility – excl wine;
 - labels



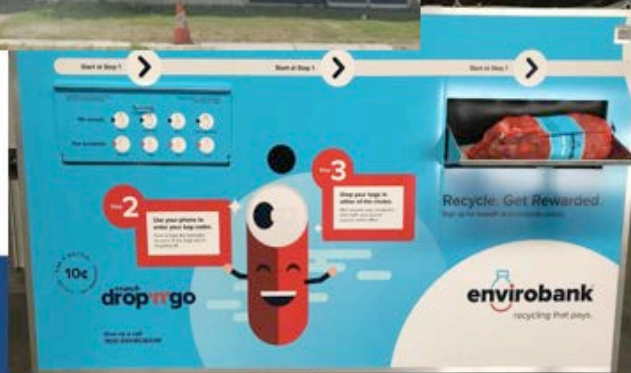
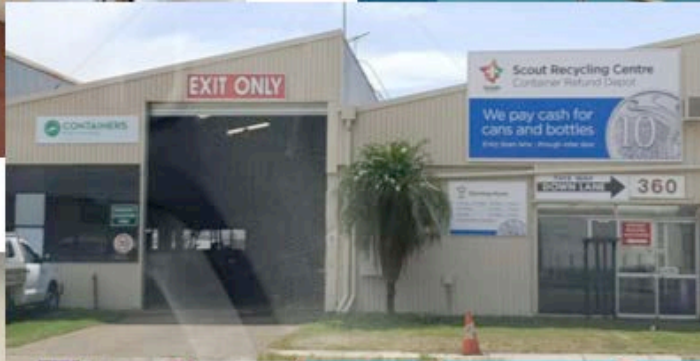
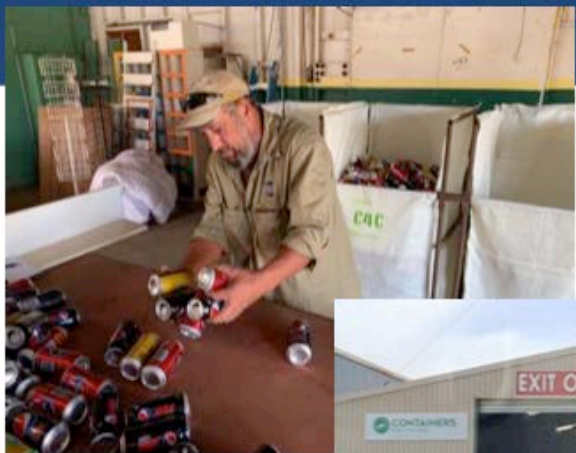
Australian Objectives and Outcomes



	SA	NT	NSW	QLD	ACT	WA
Objectives	Litter	Litter and RR	Litter and RR	Litter, RR & S.Ent	Litter and RR	Litter, RR & S.Ent
Scope	All < 3ltr; not white milk, juices > 1ltr	All < 3ltr and as SA	150MI's → 3ltrs; milk and juices > 1ltr 3.5BN	150MI's → 3ltrs; milk and juices > 1ltr - 2.8-3BN	150MI's → 3ltrs; milk and juices > 1ltr	150MI's → 3ltrs; milk and juices > 1ltr - 1.8BN
Governance	3 Super Collectors operated by producers	4 SC	1. SC 2. Network Op	1. 1. SC	1. SC 2. Network Op	1. SC
Key Driver	History / refund	Refund	Recycling sector responsibility for convenient network	85% target	N/A	85% target
Funding	HF set by SC	HF by SC's	HF and Network tendered/ contracted by NSW govt	HF set by SC; costs projected return rates	HF set by SC	HF set by SC
Marking	10c refund at collection depots/ points in participating State/ Territory of purchase + BC (not SA)					
Payments	Cash	Cash / EFT	Cash, Voucher, Donation, EFT	Cash, Voucher, Donation, EFT	Cash, Donation, EFT	Likely - Cash, Donation, EFT
Collections	Manual depot	Manual depot; RVM	RVM; automated depots; OTC - 650	Manual depot; bag drops; OTC; RVM depots - 307	OTC, depots	Uncertain – likely manual depot
Recycling	76.4%	approx. 60%	32% → 69%	Pre-CD unknown → 46 - 53%	?	NA
CD v MRF	65% + 11%		53% + 16%	33-38%+13-15%		

Collection Networks – QLD and NSW

- QLD - 307 – 87 DEPOTS; 47 POP-UPS; 148 BAG DROPS; 10ATD's
- NSW - 650 - 320 RVM KIOSKS; 300 OTC ; 25 ATD incl VINNIES



Challenges for Australian Schemes – not best practice – NZ can do better!

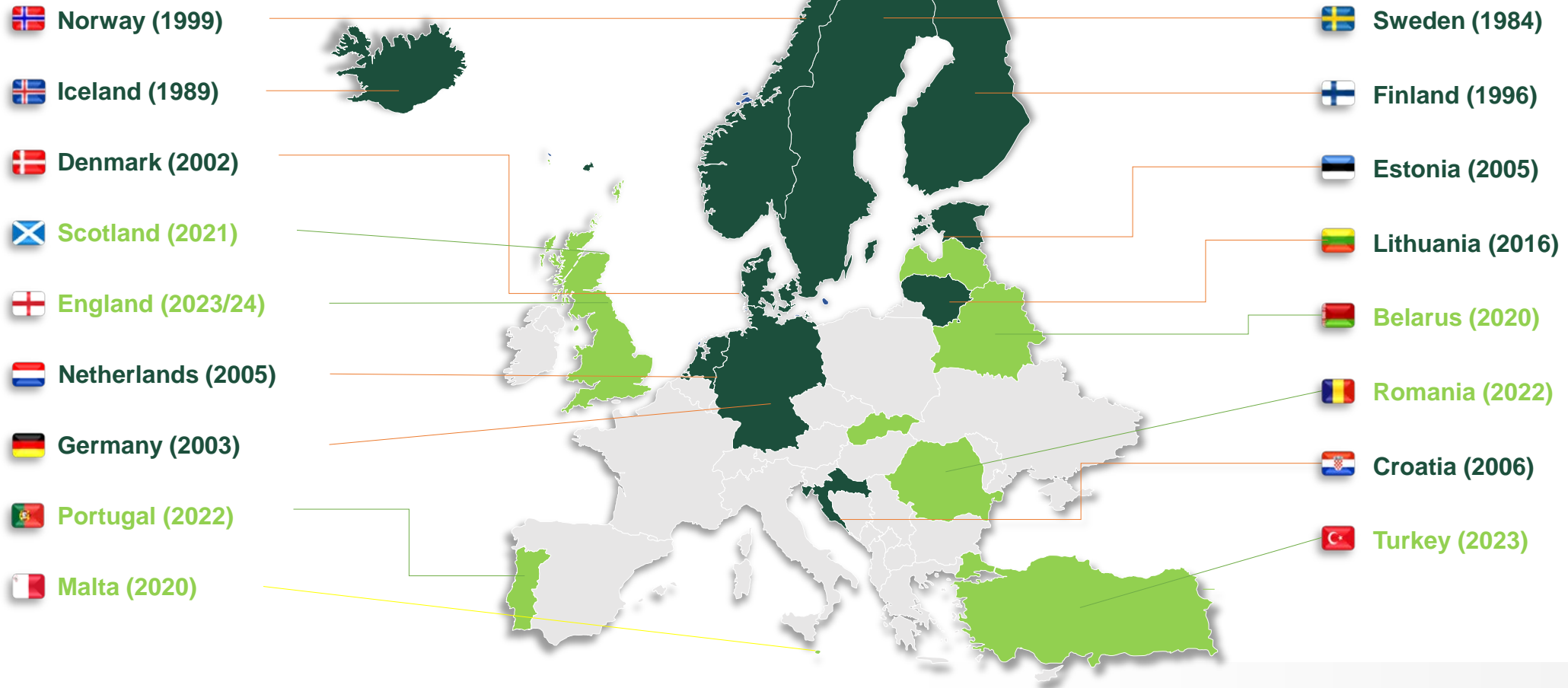


1. No requirement on large retailers to take-back containers (Voln retail participation in NSW)
 - i.e. Inconvenient
 - Consumers forced to make separate trips (aside from NSW)
2. Globally low deposit/ refund value
3. WA and QLD contracted producer run SC to determine nature of the collection network – chose manual
4. Low spread of return points to population
 - E.g. 1 return point per 11,000-15,000 people in Qld/ NSW
 - Germany and other EU states 1: 2000 people; Lithuania 1: 2800
5. Expensive as consumers unable to easily redeem their refund
6. Ministers (esp QLD and WA) have few tools aside from increasing the refund value to deliver targets
 - 10 → 20cents already being discussed (provides a mechanism to increase consumer engagement)
 - WA retained ability for Minister to intervene
7. Australian schemes already demonstrating limitations– e.g.
 - a. Lithuania has 92% recycling within 2 years;
 - b. NSW at 69% - growing the network
 - c. QLD collections plateaued at 53%

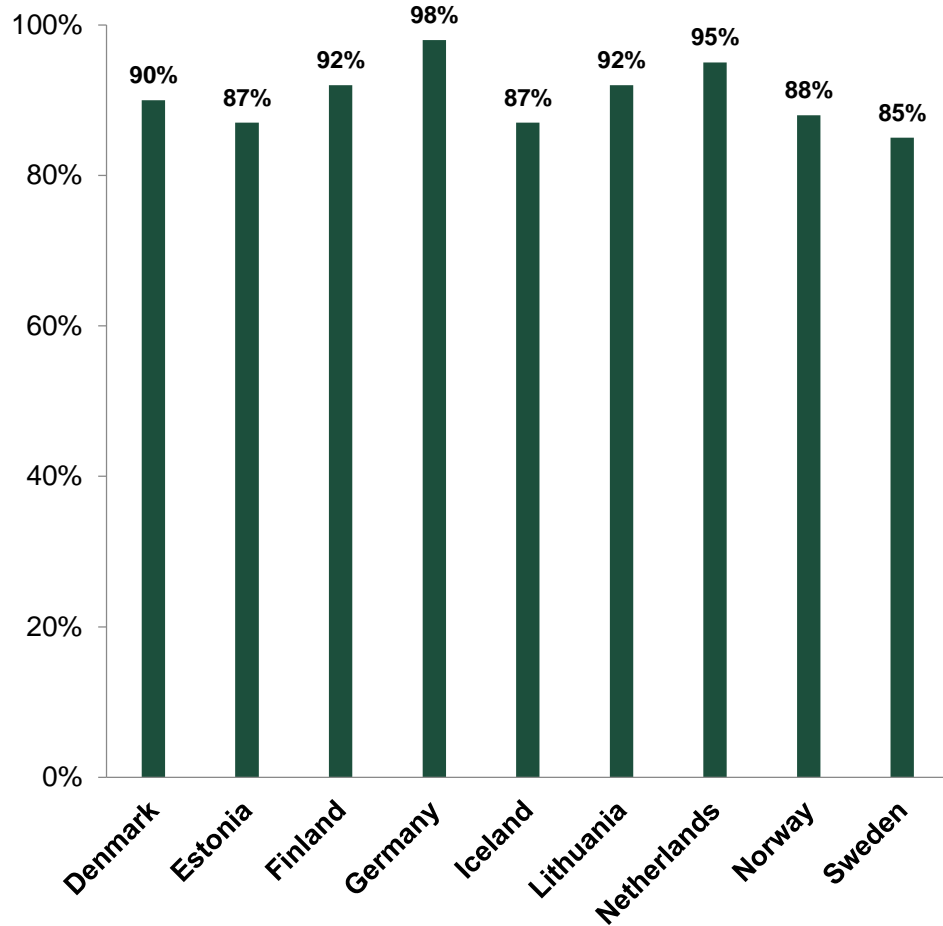
DRS in Europe – 90% recycled PET by 2029 will see EU go CRS



Deposit systems implemented and planned



Key Driver of 'Success' – (increase recovery/ RECYCLING rates?) - is CONVENIENCE



State	Pop M	Rec Rate	Deposit Rate		Retail Req	Reg T&P	20+ yrs)	Tax
Germany	82.76	98%	✓	0.33 (\$A)	✓	X	✓	
Croatia	4.3	95%	X	0.1	✓	✓	X	
Vermont	0.6	95%	X	0.06-0.18	✓	✓	✓	
Norway	5.2	88%	✓	0.30-0.50	✓	✓	✓	✓
NL	16.7	95%	✓	0.33	✓	X	✓	
Iowa	3.1	93.30%	✓	0.06	✓	X	✓	
Mich	9.9	90%	X	0.13	✓	X	✓	
SA	1.66	76.4%	X	0.10	X	X	✓	

Country	Deposit Rate \$A	Return Rate	R2R	R2R + depot opt out	Depot
Germany	0.33	98.50%	√		
Netherlands	0.33	95%	√		
Michigan (USA)	0.13	92%	√		
Norway	0.3-0.5	88%	√		
Finland	0.12-0.25	92%	√		
Lithuania	0.15	92%	√		
Denmark	0.13-0.40	90%	√		
Croatia	0.10	87%	√		
Estonia	0.15	87%	√		
Ontario (Canada)	0.10-0.20	86%		√	
Sweden	0.12-0.25	85%	√		
Alberta (Canada)	0.10-0.25	85%			√
Maine (USA)	0.07-0.18	84%	√		
				√	
British Columbia (Canada)	0.05-0.20	84%			
Saskatchewan (Canada)	0.05-0.40	82%			√
					√
Prince Edward Island (Canada)	0.05-0.10	81%			
Nova Scotia (Canada)	0.10-0.20	80%			√
Oregon (USA)	0.03-0.07*	75%		√	
California (USA)	0.07-0.13	77%		√	
South Australia	0.1	76%			√
Vermont (USA)	0.07-0.18	75%		√	
New Brunswick (Canada)	0.05	73%			
Iowa (USA)	0.07	71%			
Quebec (Canada)	0.05-0.20	70%	√		
New York (USA)	0.07	61%		√	
					√
Newfoundland (Canada)	0.08-0.20	64%			
Hawaii (USA)	0.07	65%			√
Massachusetts (USA)	0.07	57%			√
Connecticut (USA)	0.07	52.00%	√		
*Oregon deposit rate recently doubled to 0.10c					

Financial Features & Scheme Costs



- FINANCES - Driven by two financial features
 - Refund – motivates the consumer to engage (not as important as convenience but should be realistic)
 - Handling fee – motivates private sector investment
- COSTS – impacts on **Consumers**
 - QLD Productivity Commission May 2019 non-alc increase of 9.04c; alc 8.3cents
 - NSW IPART – average across all 7.7cents
 - ‘The most expensive scheme is one in which consumers cannot readily access their refund’*
- COSTS - Impacts on **Producers**
 - The higher the recycling rate the more costly the scheme – keeping recycling rates low can become an objective of a producer led scheme coordinator – i.e.
 - Avoided refund payouts
 - Avoided HF pay outs
 - QLD PC – 11.2cents averaged
 - NSW IPART – 9.3cents averaged

Costs example - Slovakia



Institute for Environmental Policy

Direct financial revenues of DRS



Direct financial costs of DRS

- 80 mil. EUR on investments, including reverse vending machines



Source: Slovak Institute for Environment Policy

Deposit system incomes include:

- Unredeemed deposit
- Sold recyclables

The difference between incomes and costs are covered by producers in form of the put to market fees

Costs of the deposit system include:

- Retail handling fee
- Transport and logistics
- Administration and marketing campaign



Costs comparison - Norway

- Popn – 5.3M
- Refund – 20-30 EU cents (recently increased A30-50c)
- Eligible approx. 1.5BN containers
- Retail obligation
 - HF to the stores of \$NZ3.3-4.3 cents
- Total Handling/Transport/Logistics Fee – approx. \$NZ 0.75cents
- Pigovian Tax
- **Producer Fee A1.2cents (offset by unredeemed deposits and material sales)**
- Recycling rate - 88%

Stakeholder Objectives

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- | | |
|---------------------|--|
| National Government | – Good public policy, cost effective, popular with electorate, high recycling |
| Recycling Sector | – Business, clean materials, high return rates – adequate handling fees |
| Consumers/ public | – zero-litter and good recycling, convenience, refund easily returned |
| Retailers | – Sales continuity, effective marketing, foot traffic (5-7% sales increase) |
| Local Government | – \$Savings (kerbside, litter), remove glass, returns to MRFs and refund sharing |
| Beverage Producers | – Costs (lower returns = lower costs), level playing field |

Industry preferred model



Coca-Cola European Partners (CCEP) and Coca-Cola Great Britain (CCGB): '11 Key Principles' for a well-designed Deposit Return Scheme



- 1. Easy for public to recycle and no penalty for doing the right thing (i.e. good provision of return points and deposit not subject to VAT)**
- 2. Good financial management and fraud control**
- 3. A common approach covering the whole of GB**
- 4. Run by one not-for-profit management company**
- 5. Retailers, machine suppliers and hauliers are paid for the services they provide**
- 6. Scheme costs are covered by the sale of collected materials, deposits which aren't redeemed by the public and a fee on producers and retailers**
- 7. The management company designs and runs the scheme to achieve targets agreed with Government, including responsibility for determining the number and type of collection points, administration and fraud control.**
- 8. The management company is run by the producers and retailers who have an obligation to fund the scheme**
- 9. Scheme is flexible enough to work in different retail outlets, specific exemption criteria for small stores and those with sensitive hygiene or security requirements**
- 10. Underpinned by legislation so all parties engage in the same scheme**
- 11. Sits alongside other policy initiatives such as changes to the current producer responsibility schemes and other proposed taxes**

For more information please contact:
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The Coca-Cola Company

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Collection Networks – Globally 3 distinct types

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OPTION	LEGISLATED RETAIL TAKE-BACK – Stores over a prescribed size;	VOLUNTARY RETAIL TAKE-BACK – OR R2R + OPT-OUT	DEPOT BASED
BENEFITS/ CHALLENGES	<ul style="list-style-type: none"> • Comprehensive national coverage • Maximised convenience • Minimal footprint • No additional journeys • No additional GHG emissions • Maximises recycling rates and litter reductions dependent on the refund value • Incorporates depots for bulk / consolidation 	<ul style="list-style-type: none"> • Average level of convenience • Minimal additional journeys • Improved recycling and litter rates • Retail and depot 	<ul style="list-style-type: none"> • Low levels of convenience • Land constraints, esp metro • Additional journeys for consumers • Additional GHG emissions • Lower rates of recycling and avoided litter • Includes bag-drops
COUNTRIES / STATES	EU: Germany, Croatia, Norway, NL, Finland, Sweden, Denmark, Lithuania, US: Vermont, Michigan	AUST: NSW US: Oregon, Cal, Vermont, NY	AUST: South Australia, QLD US: Hawaii, Massachusettes CANADA: most provinces
RETURN RATES	90% (median)	50%-76% (med)	50%-78% (med)



NZ Government Options for Collection Network

Not for Profit producer managed Scheme Coordinator, includes community, recycling sector and other Board representation

Either

Government determined network

- Legislate for retailer take back (over certain size; Zero-waste type depots included for smaller towns (collection and consolidation + large volume collections) – EU, US
- Contract recycling sector to deliver network – Government decides the nature of this based on tenders (NSW)

Producer determined network

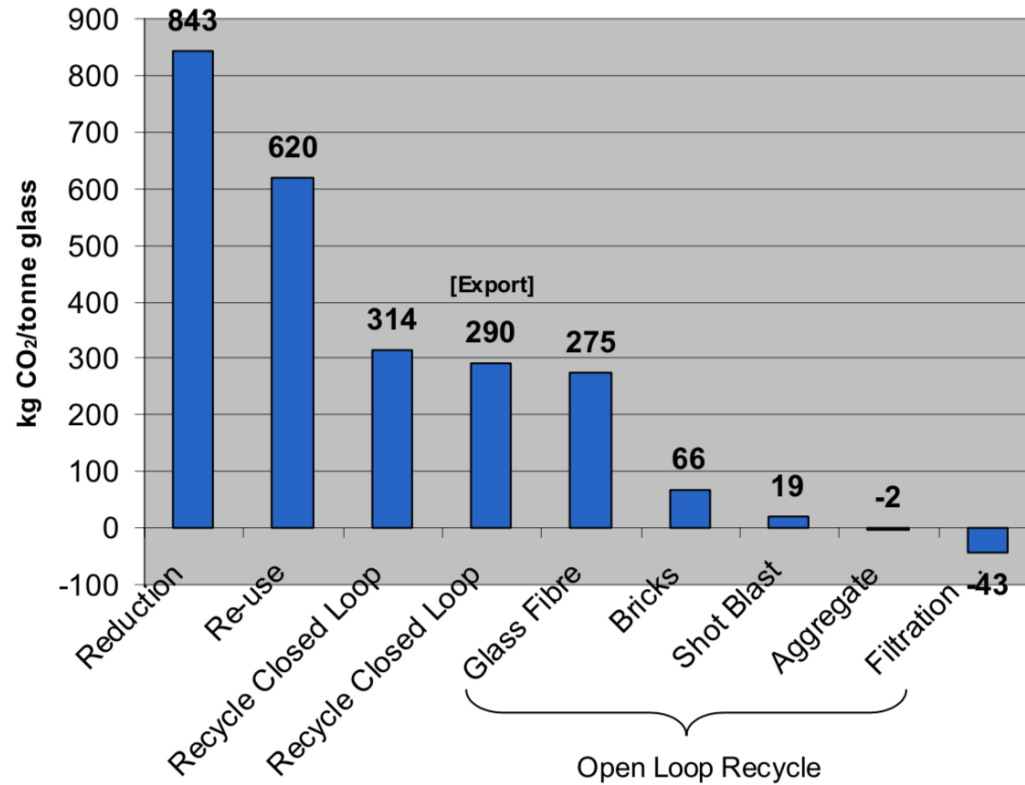
- Contract producer based Scheme Coordinator to decide nature of the network (SA, QLD, WA – depot based models)



Return of Refills – Oregon model; large 20%+ of EU still in refills; depot or automated recovery



CO₂ Savings by End Use
compared to landfill



Bottle Box is a waxed reusable box for

Reflections – Design for the masses!



- Consumers are mostly busy people, living in cities with ‘limited’ interest in recycling
- Understand the motivations, objectives and ambitions of all parties and adopt a true PS model (producers, retailers and consumers all have a role)
- Incorporate all beverage packaging, including wine and spirits
- Strive for a high return scheme – they are not cost prohibitive (e.g. Norway)
- Allow 12months for implementation (infrastructure roll out and marketing)
- Invoice producers in arrears and with set costs – central government may need to advance SC \$ (esp for small producers)
- Assure recyclability but also recycled content – drive additional CE outcomes
- Allow for refillable containers in the scheme – Oregon restarted a refill market in 2017; 20%+ of EU retains
- Assure consumer convenience through retail – the best schemes globally mandate retail take-back (not small stores) for ‘day-to-day’ recycling
- Incorporate zero-waste ‘tip-shop’ style depot networks – larger volumes from pubs and clubs, consolidation etc
- Set the refund high enough and allow for inflation (UK 20pence – NZ40cents) but minimize incentive for fraud
- Ensure sensible negotiations between Councils and MRFs

Resources available on RELOOP website –
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resources remain resources