



LIMPEZA URBANA
Parceria para Cidades
+ Inteligentes e Sustentáveis

IV ENCONTRO NACIONAL LIMPEZA URBANA

Roadmap para Cidades Competitivas e Atrativas

3 e 4 novembro 2022

RIA PARK HOTEL & SPA, ALMANCIL – LOULÉ

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Impact of Deposit Return System on Urban Cleaning

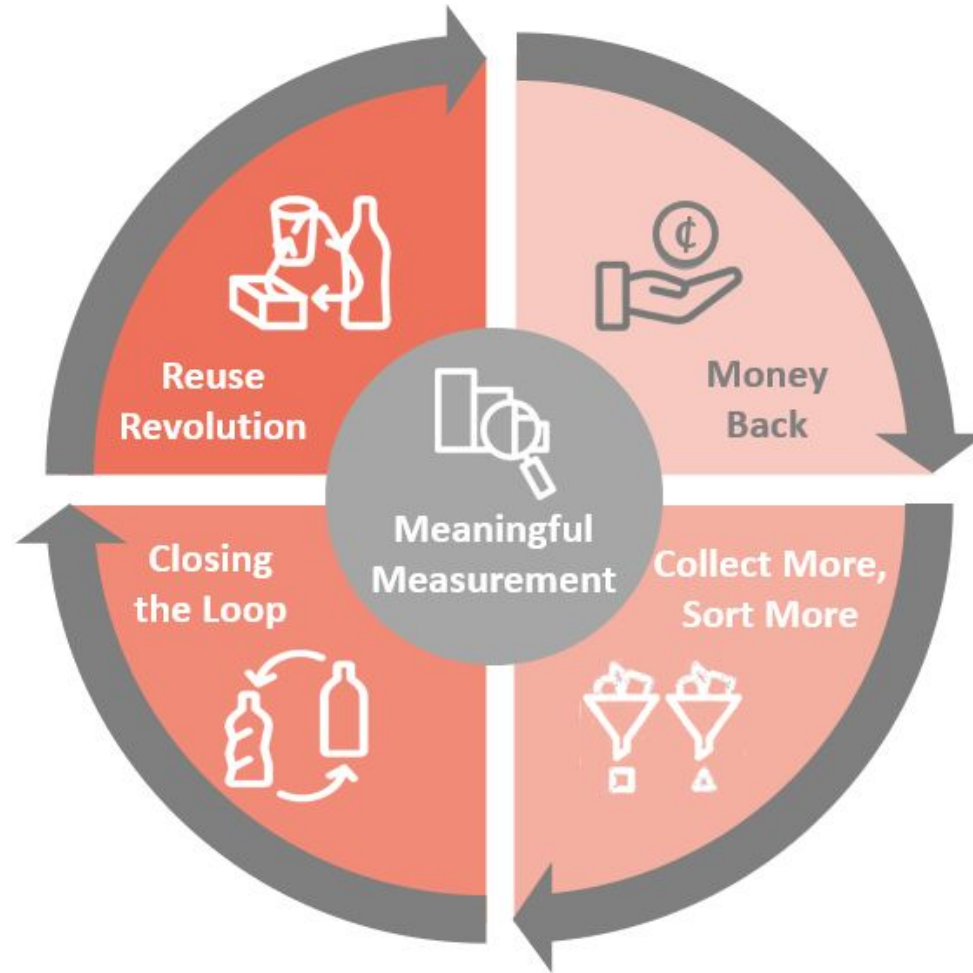
Clarissa Morawski

ReLoop



About Reloop

Reloop is an international non-profit organization that brings together industry, government and NGOs who share a vision of a system where resources are kept in continuous use and waste and pollution are eliminated.





Today's Presentation

- Video – 2.2minutes – What is DRS?
- A look a DRS globally
- Developments in Europe – timeline
- Key considerations
- Ecological impacts
- Impact on municipalities

The background is a solid green color. It features two large, stylized leaf outlines, one on the left and one on the right, both pointing towards the center. A large, faint circular graphic element is also visible, partially overlapping the leaf outlines. The text is centered horizontally and vertically in a white, sans-serif font.

2.2 minutes – what is DRS?

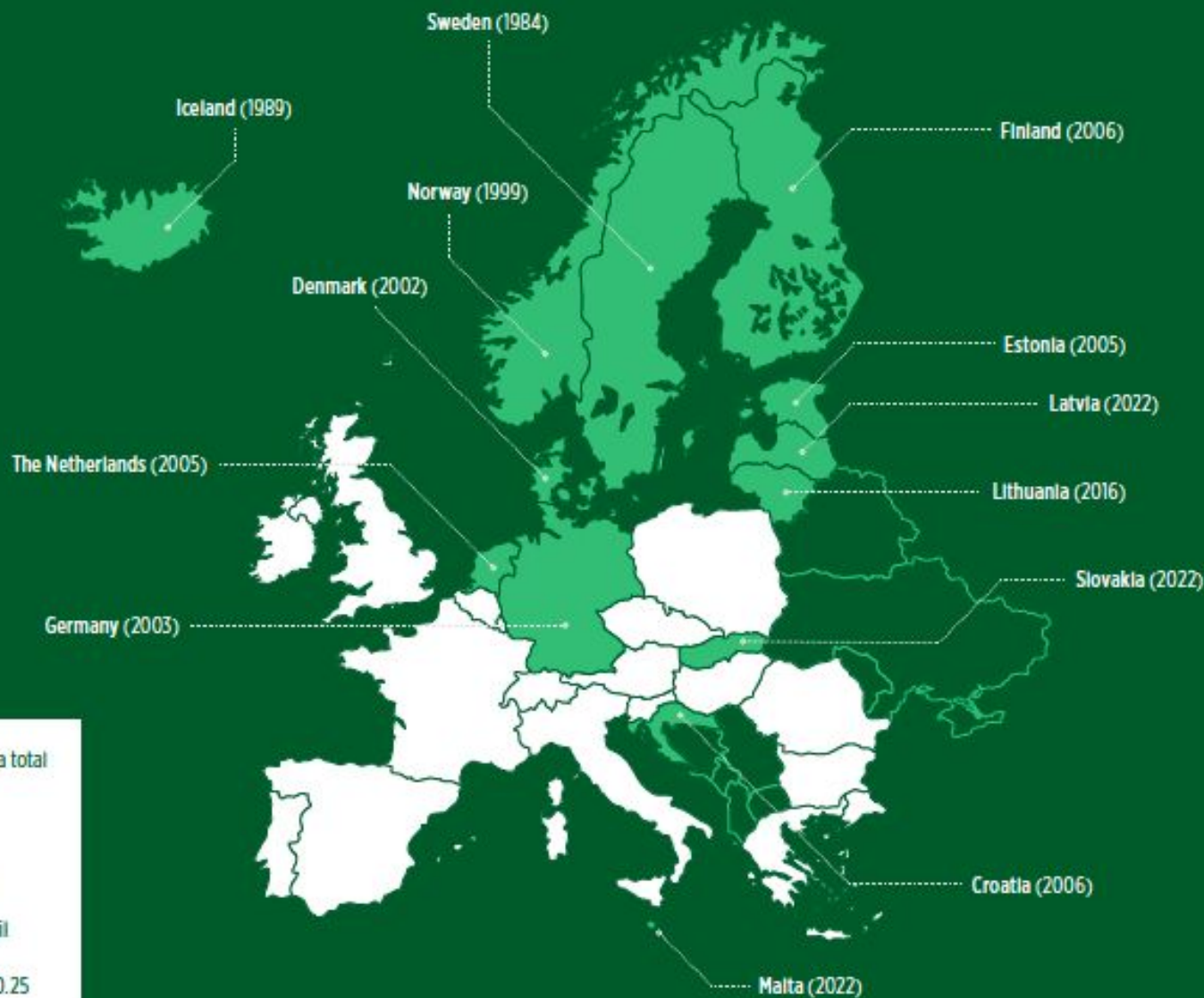


A look a DRS globally

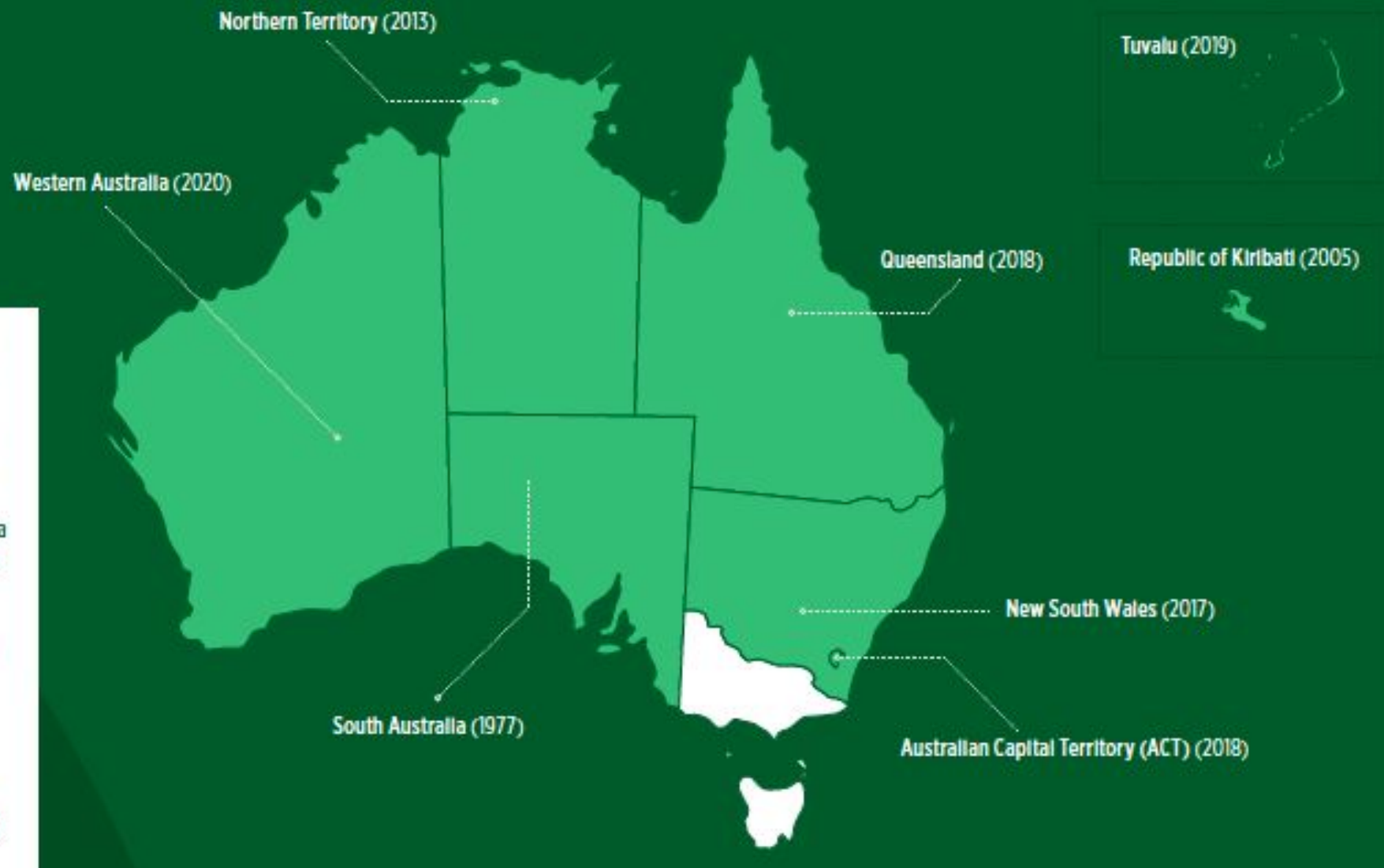
Europe

Region snapshot

- › 13 countries with DRS, covering a total of 144.2 million people
- › Average return rate: 90%
- › Median return rate: 91%
- › Most systems are centralised (Germany is the exception)
- › Most systems are return-to-retail (Iceland is the exception)
- › Deposit ranges from €0.07 to €0.25 (USD\$0.07 to \$0.27)



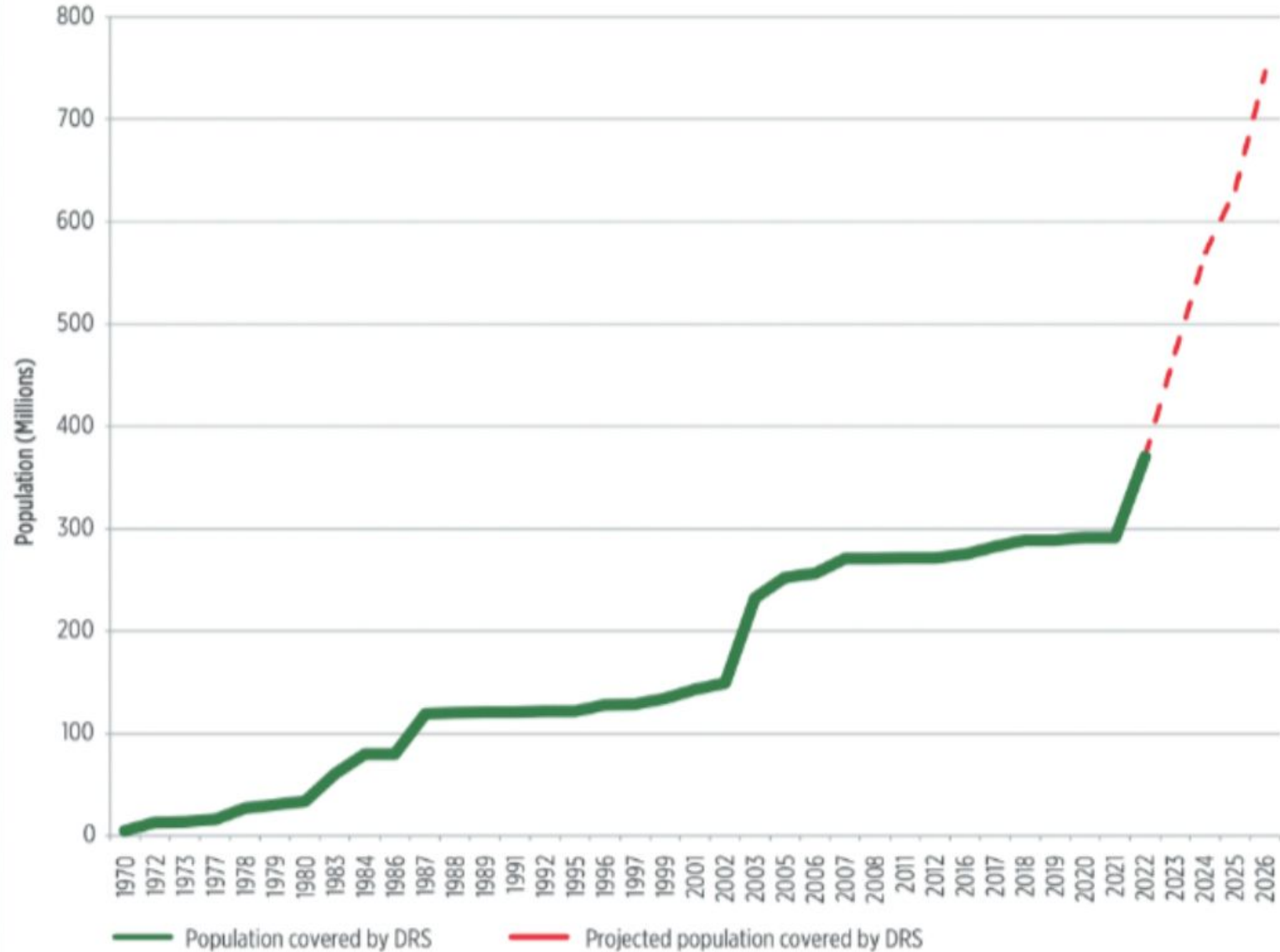
- › 13 jurisdictions with DRS, covering a total of 18.8 million people
- › Average return rate: 69%
- › Median return rate: 68%
- › Most systems are centralised (South Australia and Northern Territory are the exceptions)
- › All but one system operate return-to-depot models (the exception is New South Wales, which operates a hybrid redemption model)
- › Refund value ranges from €0.04 to €0.07 (USD\$0.04 to \$0.07)



- › 21 states/provinces/territories with DRS, covering a total of 126.2 million people
- › Average return rate: 69.6%
- › Median return rate: 70.0%
- › 7 jurisdictions operate decentralised systems
- › 14 jurisdictions operate centralised systems
- › Most systems operate a return-to-redemption centre or hybrid redemption model
- › Deposit ranges from €0.04 to €0.09 (USD\$0.04 to \$0.10)



Global Population Living in Jurisdictions with Deposit Return Systems for Single-Use Drinks Containers (1970-2026)



Packaging types in the existing European DRS systems



Country	Plastic	Metal	Glass
Croatia	•	•	•
Denmark	•	•	•
Estonia	•	•	•
Finland	•	•	•
Germany	•	•	•
Island	•	•	•
Lithuania	•	•	•
Netherlands	•	•	
Norway	•	•	
Sweden	•	•	
Latvia	•	•	•
Slovakia	•	•	
Malta	•	•	•



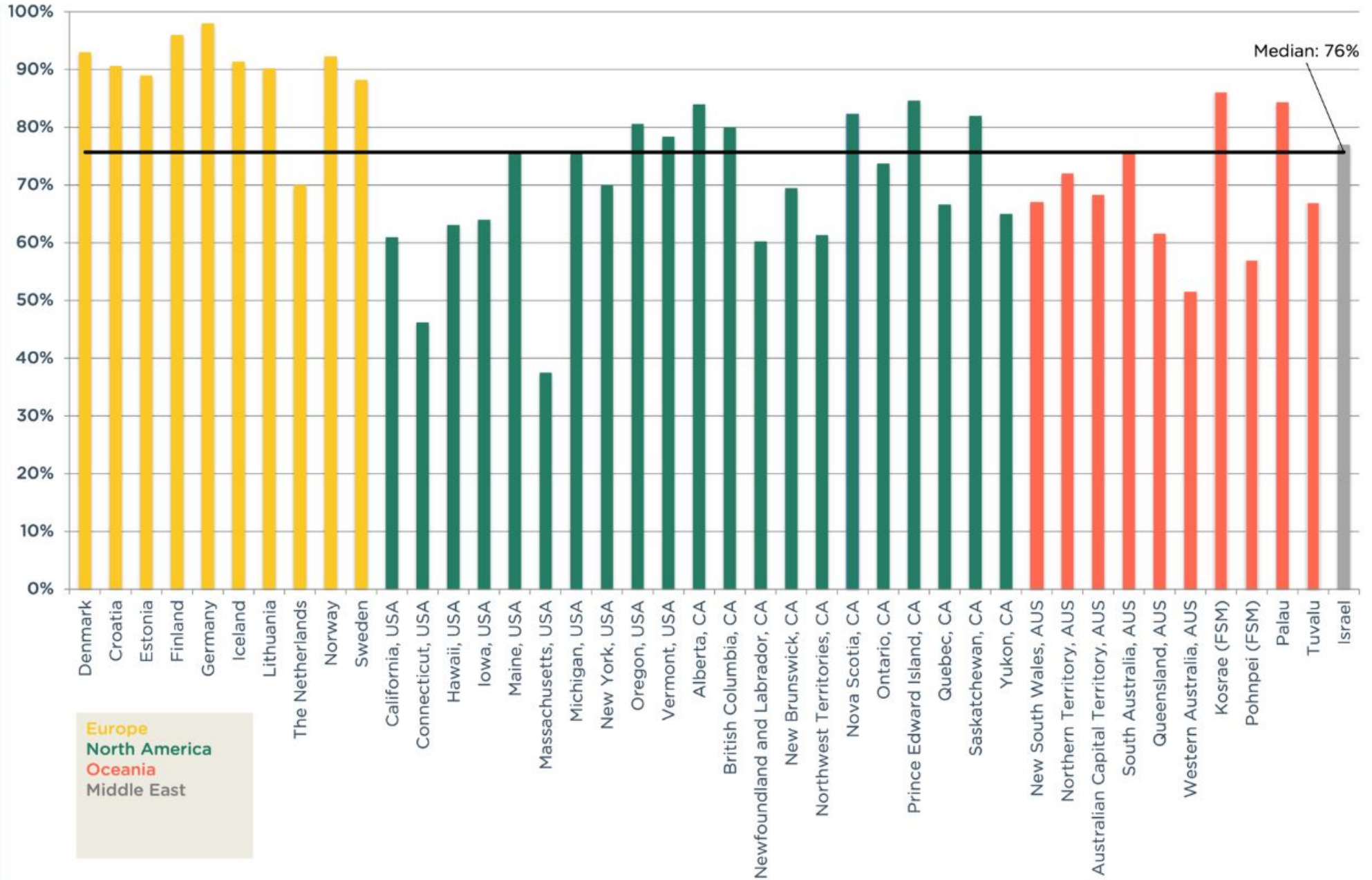
Products in the deposit systems



	Croatia	Denmark	Estonia	Finland	Germany	Iceland	Lithuania	Netherlands	Norway	Sweden	Latvia	Slovakia	Malta
Water (still, sparkling)	•	•	•	•	•	•	•	•	•	•	•	•	•
Soft drinks	•	•	•	•	•	•	•	•	•	•	•	•	•
Juices and nectars	•		•	•	•	•	•	•	•		•	•	•
Beer	•	•	•	•	•	•	•	•	•	•	•	•	•
Cider	•	•	•	•	•	•	•	•	•	•	•	•	•
Alcohol beverages	•	<10%	<6%	•	•	•	•		•	•	<6%	•	<10%
Wines	•			•		•	in PET		•			•	
Liquors	•			•		•			•				
Spirits				•									
Milk	<0,2l				•			•					



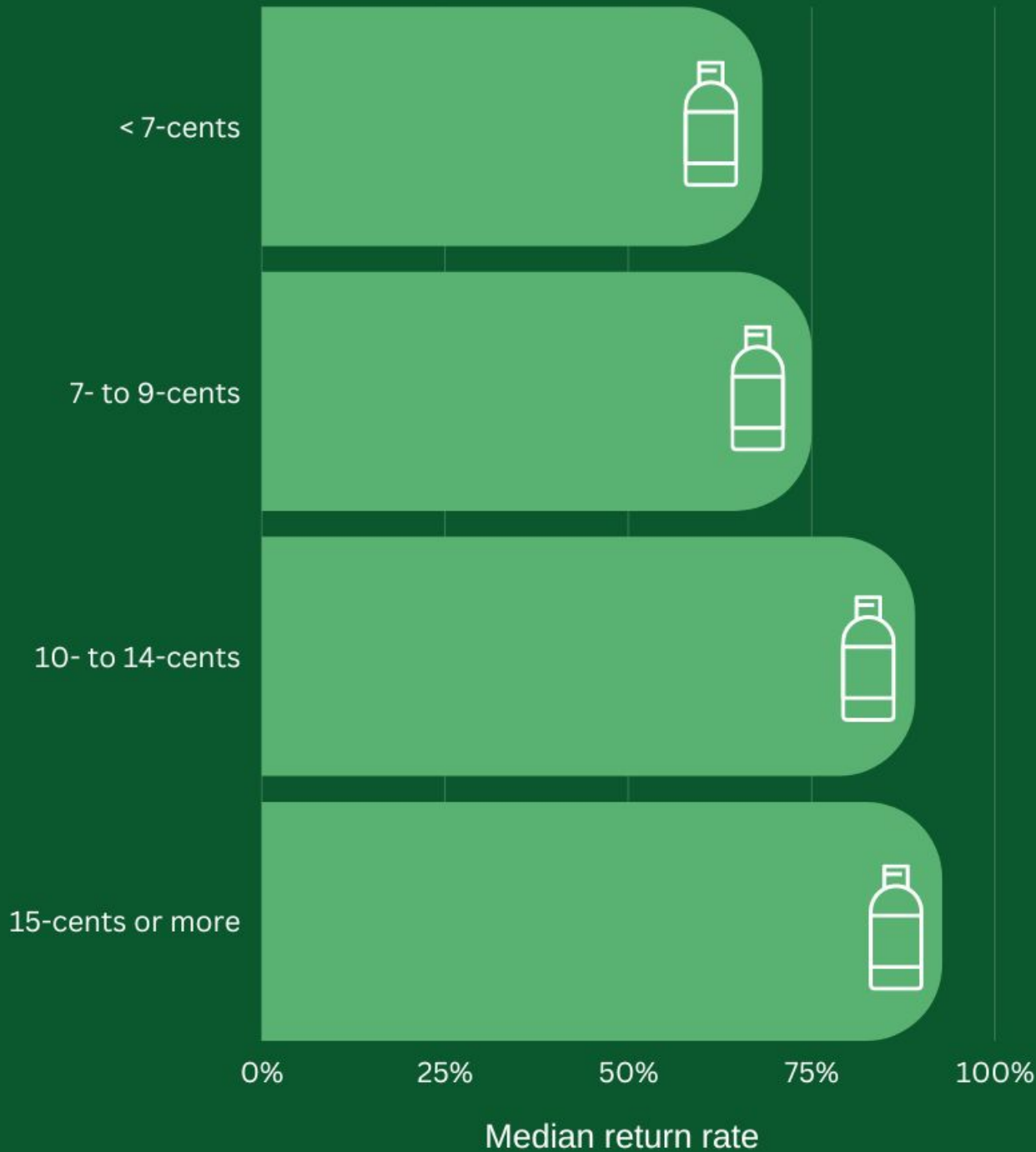
Latest Return Rates in Global Deposit Return Systems for Single-Use Drinks Containers



By the end of 2026, at least 70 jurisdictions, representing over 748 million people, will have a DRS for single-use beverage containers



Minimum deposit value (USD)



Higher deposits
=
higher returns

Global Deposit Book 20 22

An Overview of Deposit
Return Systems for Single-Use
Beverage Containers



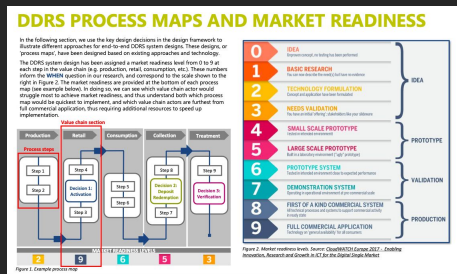
reloop resources
remain
resources

www.reloopplatform.org

The background is a solid green color. It features two large, thin-lined circles that overlap each other. Inside each circle, there is a stylized leaf shape, also outlined in thin lines. The leaves are positioned in the lower-left and upper-right quadrants of their respective circles. The text 'Key considerations' is centered in the middle of the image.

Key considerations

DIGITAL DRS



<https://gov.wales/sites/default/files/publications/2022-08/evaluation-of-digital-technology-in-a-deposit-return-scheme-phase-2-final-report.pdf>

INCENTIVE SCHEMES DISGUISED AS DRS



RECICLOS

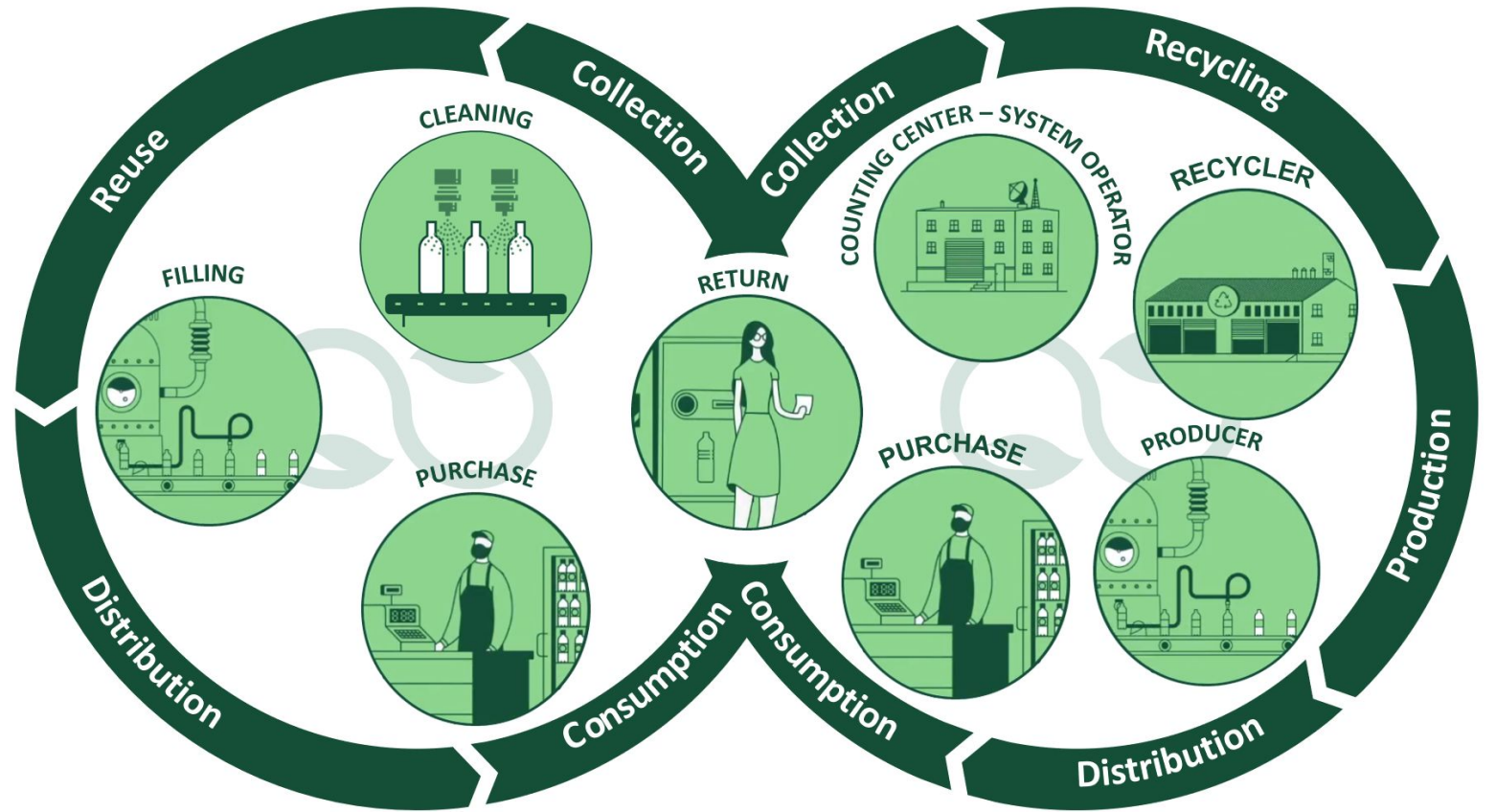
Cómo funciona Quiénes somos Reciclaje Premios Testimonios 

La app que te premia por reciclar

Únete reciclando latas y botellas de plástico y gana fantásticos premios o dona a proyectos sociales.

Recicla 5 envases y gana una tablet gratis. ¡Sin sorteos!

REFILLABLES



The image features a solid green background. Two large, stylized leaf outlines are positioned on either side of the center. Each leaf is defined by a thin white line and is oriented horizontally. The text "Impact on municipalities" is centered in the middle of the image in a white, sans-serif font.

Impact on municipalities

“

One of the main benefits of deposit return systems—and one that cannot be accomplished without them—is litter reduction.

Attaching a monetary value to beverage containers, in the form of a refundable deposit, decreases the likelihood that they will be littered in the environment, as consumers will be motivated to return them for recycling to claim the refund.



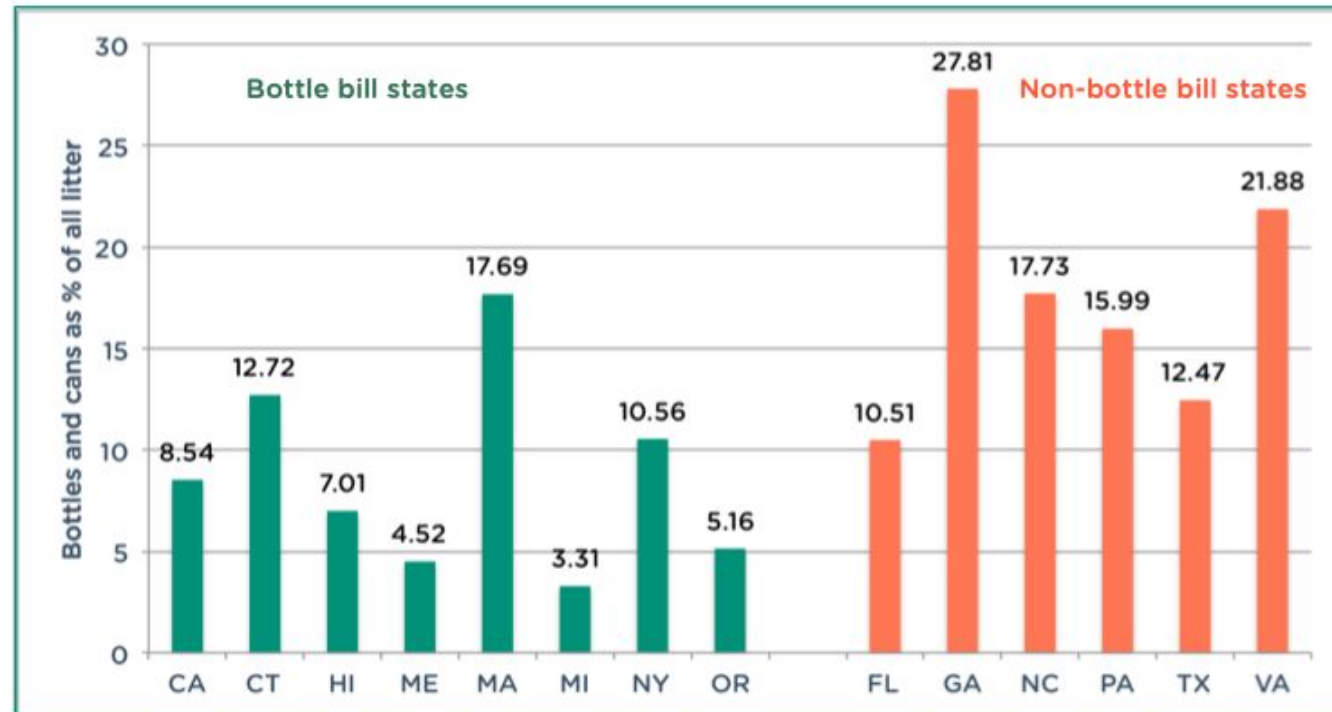


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- ❖ Europe, the total cost of cleaning up litter on land alone is estimated at €10 billion to €13 billion per year
- ❖ **USA**, with new deposit systems, container litter reductions have consistently been between 70% and 84%
- ❖ Total litter containers as a percentage of total litter in Hawaii, found a 60% reduction within three years
- ❖ According to the NSW Government, prior to DRS, drink container litter made up 44% of the volume of litter in the state. Now, the DRS has contributed up to a 57% reduction of drink container litter by volume and an annual average of 40% reduction compared to pre-scheme litter levels.

Bottles and Cans as a % of litter

Figure 2 Bottle Bill States vs. Non-Bottle Bill States: Litter from Bottles and Cans



Fact Sheet: Deposit Return Systems Generate Cost Savings for Municipalities

In recent years, there has been renewed interest in deposit return systems (DRS) for the recovery of beverage containers. These systems place a small deposit on beverage purchases, which is refunded to the consumer when the empty container is returned for recycling.

As more countries consider DRS as a means to reduce litter and encourage recycling, many are questioning the impacts that such a system would have on municipalities, particularly those that have an existing source separation program in place. The main argument put forward by opponents is that DRSs harm municipalities by diverting recyclables with the most value from the municipal recycling stream, resulting in a reduction of the cost-effectiveness of municipal curbside programmes. To support this argument, evidence is provided to show loss of material revenues as well as the industry contributions from extended producer responsibility schemes for packaging where they exist. However, one of the key elements missing in the majority of these analyses is the savings resulting from the reduced or avoided costs of collection, treatment, and disposal by the municipal waste management system.

We wanted to learn more about how municipalities are impacted by the implementation of a DRS, and so we set off on a task to compile all of the research done on the subject over the years. What we found was compelling, and sufficiently closes the case that container deposit systems are good-not-bad-for municipalities.

The following table presents a compilation of 33 studies that examined the costs and benefits to municipalities of implementing (or expanding) a DRS for beverage containers. It is noteworthy that, although different in scope, location, author and year, nearly every study reported significant net cost savings to municipalities.

Table 1 Key Findings from Studies That Examined the Costs and Benefits to Municipalities of Implementing or Expanding a Deposit Return System

Study Title, Author and Year	Summary of Findings
<p>Key Findings:</p> <ul style="list-style-type: none"> • Reduced waste collection and transportation costs: \$6M • Avoided AC 1999 processing costs: \$4M • Avoided landfill costs: \$1.7M/year • Avoided recycling program costs: \$1.2M/year • Value of avoided litter: \$1.2M • Value of avoided litter: \$1.2M • Total savings: \$12.8M <p>Costs:</p> <ul style="list-style-type: none"> • Container design and administration: \$2.5M • System implementation and operational costs: \$2M • Beverage industry compliance cost: \$1M • Beverage participation cost: \$1M • Consumer education cost: \$1M • Total costs: \$6.5M <p>Net Savings: \$6.3M</p>	<p>Key Findings:</p> <ul style="list-style-type: none"> • The DRS saves the municipal disposal of 100,000 tonnes of beverage containers annually, which is equivalent to 100,000 tonnes of waste. This is equivalent to 100,000 tonnes of waste that would otherwise be sent to the waste stream. • The DRS saves the municipal disposal of 100,000 tonnes of beverage containers annually, which is equivalent to 100,000 tonnes of waste. This is equivalent to 100,000 tonnes of waste that would otherwise be sent to the waste stream. • The DRS saves the municipal disposal of 100,000 tonnes of beverage containers annually, which is equivalent to 100,000 tonnes of waste. This is equivalent to 100,000 tonnes of waste that would otherwise be sent to the waste stream.
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But what about local authorities?

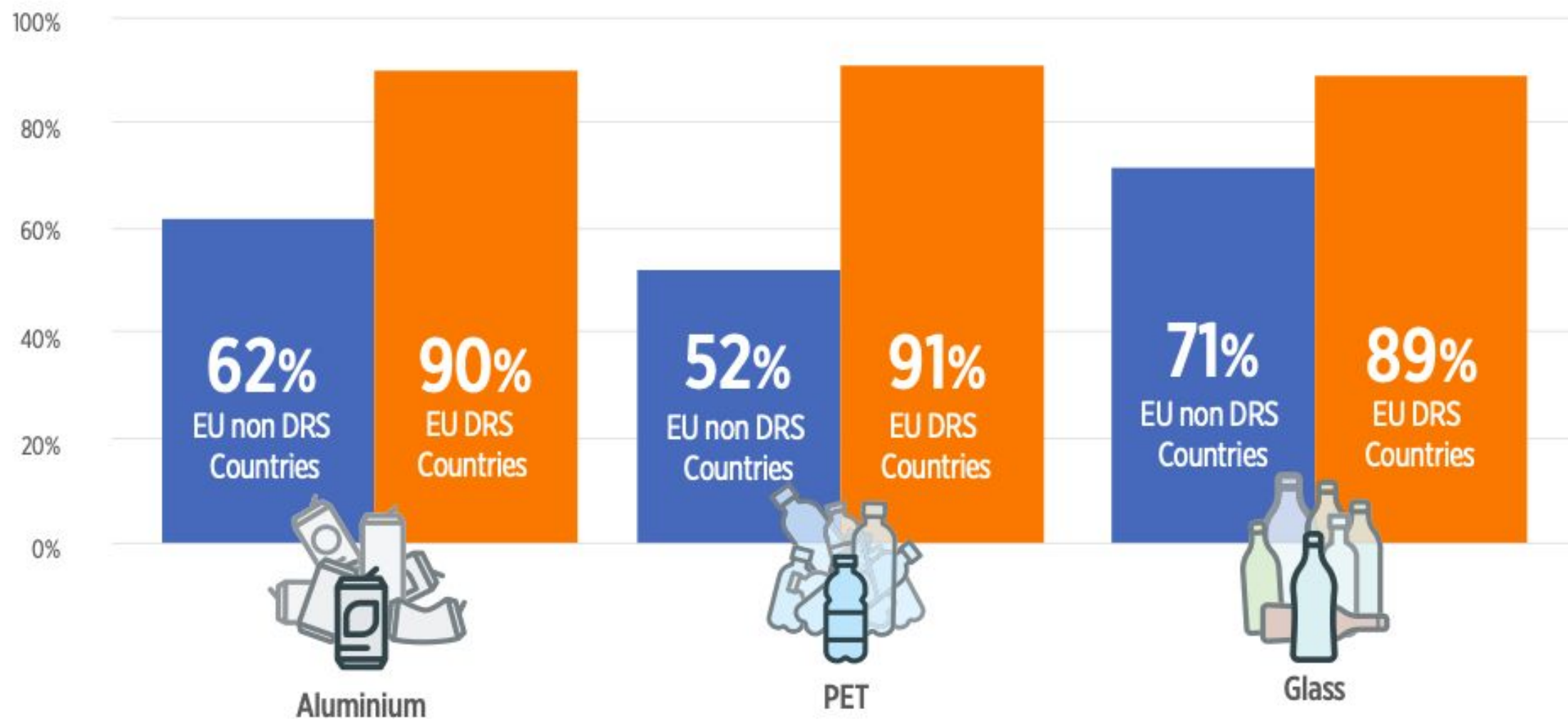
All 33 Studies show “net savings” for municipalities

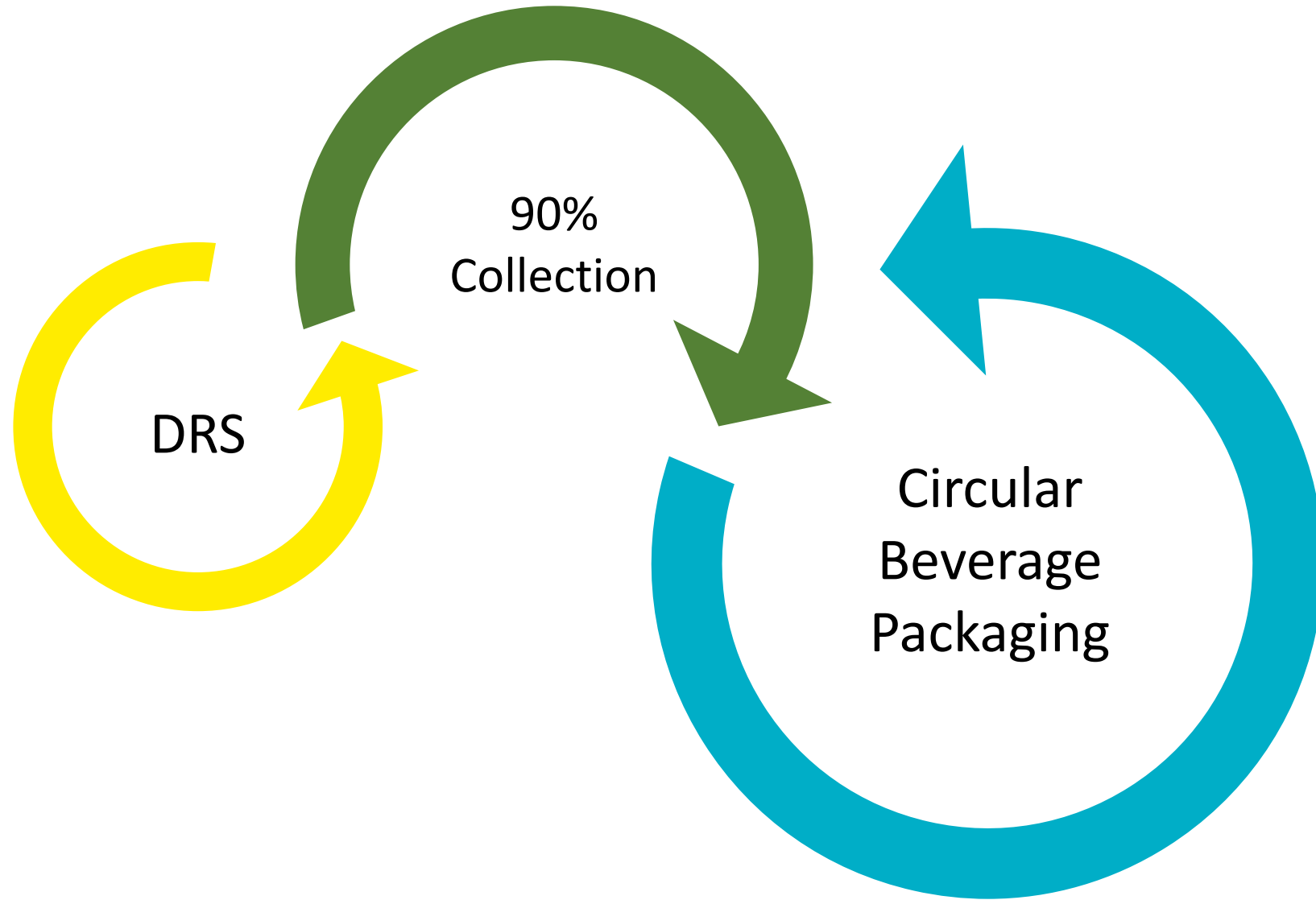


The background features a solid green color with two large, overlapping circles. Inside each circle, there is a white outline of a leaf. The text "Ecological impacts" is centered in white.

Ecological impacts

Figure 1: Average recycling rates by material, EU DRS vs Non-DRS countries





connecting waste to climate change





waste

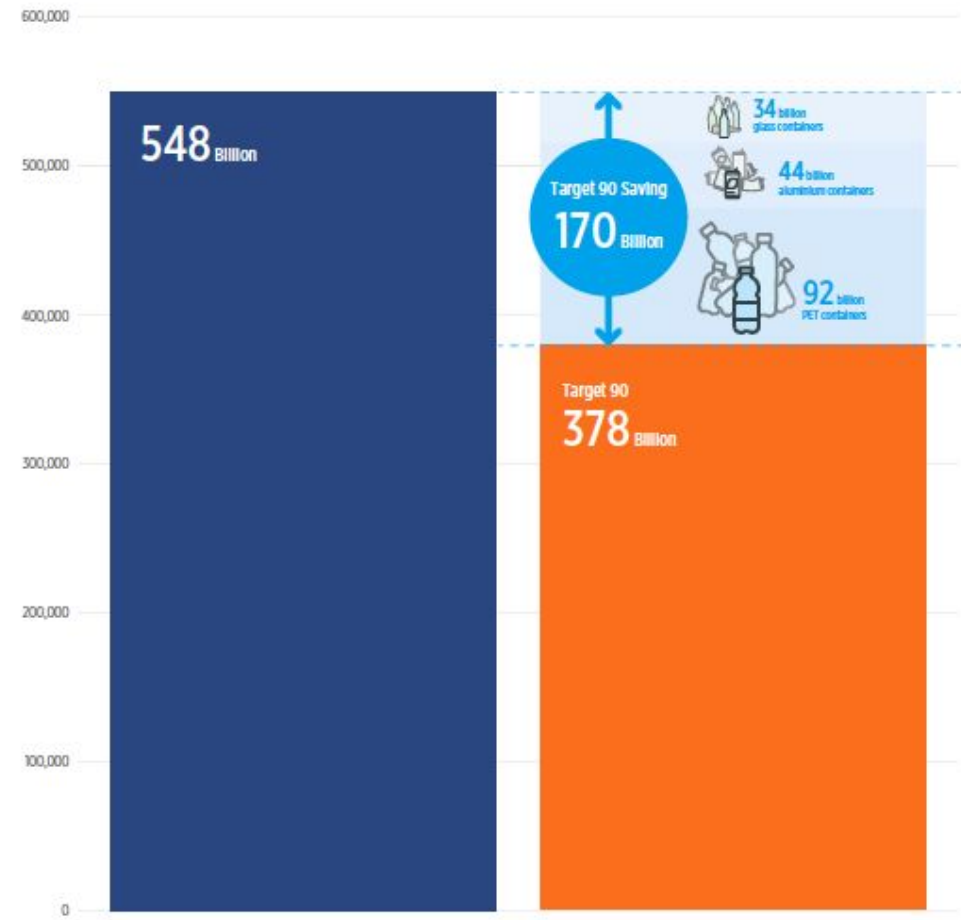
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Target 90: The dual-action approach for circular drinks packaging in Europe





Figure 4: Cumulative Total Containers Wasted (Billions) 2022-2030 EU27 - Status Quo vs Target 90





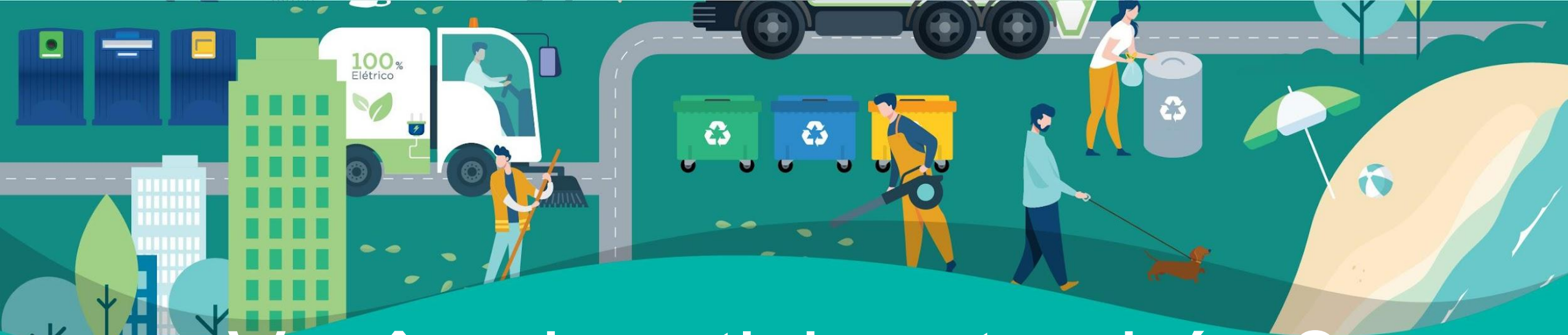
Our proposal to accelerate a **circular economy** for **beverage packaging**

**90% separate
collection
target**



**Well-designed
deposit return
systems**





Você vai participar também?



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Obrigada !