

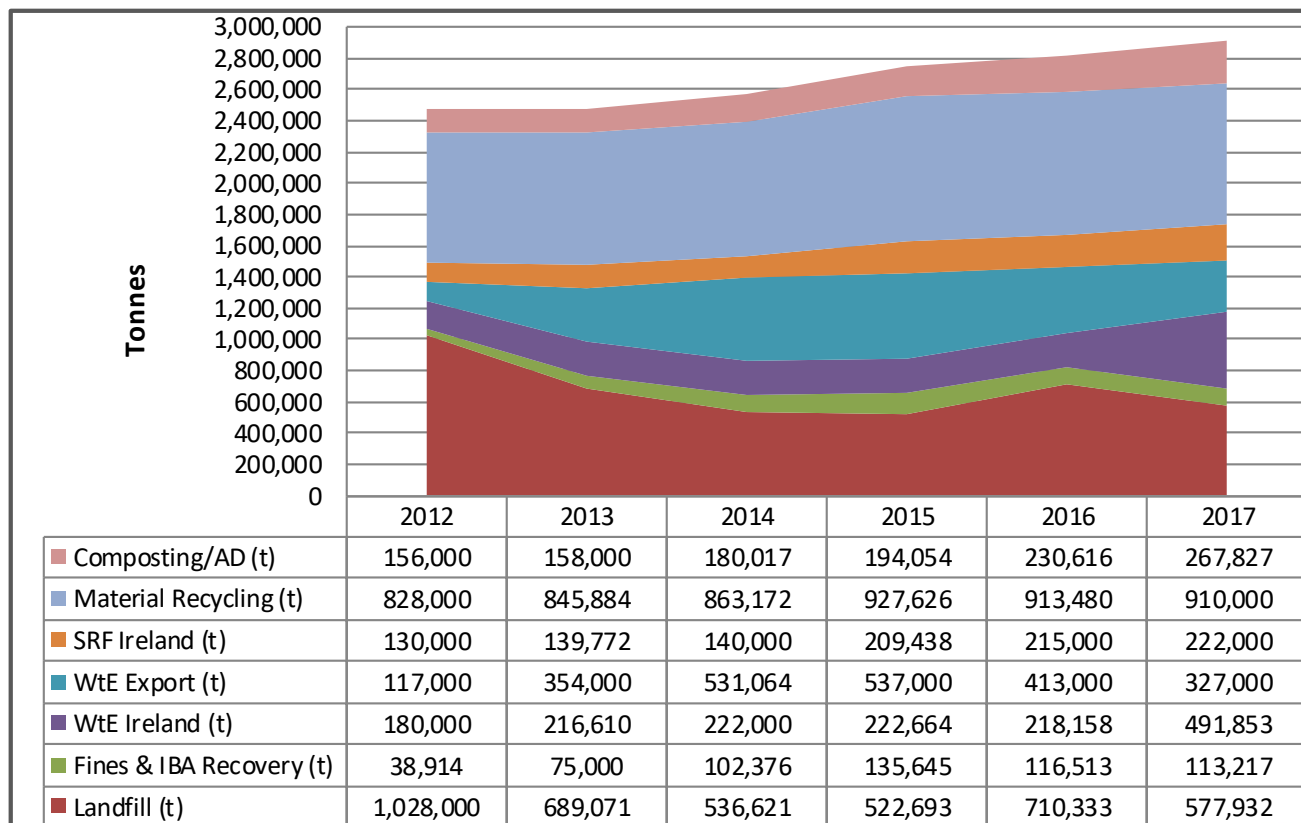
Deposit and Refund System (DRS)

➔ Likely Impact on Ireland

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Current Waste Management in Ireland



MSW Recycling Rate in Ireland (SLR Estimates)

- 2012 = 39.7%
- 2013 = 40.5%
- 2014 = 40.5%
- 2015 = 40.8%
- 2016 = 40.6%
- 2017 = 40.8%
- 2018 = 41.8%



Meeting Current Targets (MSW & Packaging)

EU Directive	Target Date	Target Specifics	Reference Year	Rate	Indicator
Waste Framework Directive (2008/98/EC)	12/12/2020	Preparing for reuse and recycling of 50% by weight of household derived paper, metal, plastic & glass (calculation method 1)	2017	50%	On track Due December 2020
Packaging Directive (94/62/EC as amended)	31/12/2011	60% as a minimum by weight of packaging waste will be recovered or incinerated at waste incineration plants with energy recovery.	2017	87%	Achieved
		55% as a minimum by weight of packaging waste will be recycled .	2017	66%	Achieved
		No later than 31 st December 2011 the following minimum recycling targets for materials contained in packaging waste will be attained:			
		(i) 60% by weight for glass ;	2017	84%	Achieved
		(ii) 60% by weight for paper and board ;	2017	79%	Achieved
		(iii) 50% by weight for metals ;	2017	72%	Achieved
		(iv) 22.5% by weight for plastics , counting exclusively material that is recycled back into plastics;	2017	34%	Achieved
		(v) 15% by weight for wood .	2017	74%	Achieved

Meeting Future Targets (MSW & Packaging)

EU Directive	By 2025	By 2030	By 2035	Target Specifics	Reference Year	Rate	SLR Comment
Waste Framework Directive (2018/851)	55%	60%	65%	Preparing for re-use and the recycling of municipal waste	2016	41%	Not on Track
Packaging Directive (2018/852)	65%	70%	-	Percentage of all packaging waste to be recycled.	2017	66%	On Track
	50%	55%	-	Percentage of Plastic packaging waste to be recycled.	2017	34%	Not on Track
	25%	30%	-	Percentage of Wood packaging waste to be recycled.	2017	74%	Achieved
	70%	80%	-	Percentage of Ferrous Metal packaging waste to be recycled.	2017	72% ¹	On Track
	50%	60%	-	Percentage of Aluminium packaging waste to be recycled.	2017	73% ²	On Track
	70%	75%	-	Percentage of Glass packaging waste to be recycled.	2017	84%	Achieved
	75%	85%	-	Percentage of Paper & Cardboard packaging waste to be recycled.	2017	79%	On Track

¹ The reported figure for 2017 is for 'metal packaging'. The EPA and REPAK data do not currently differentiate between ferrous and aluminium packaging.

² Figure provided by REPAK in 2019. We understand that this estimate includes the capture of aluminium can from residual waste and from incinerator bottom ash.

Meeting Future Targets (Single Use Plastics)

EU Directive	By 2025	By 2029	Target Specifics	Reference Year	Rate	SLR Comment
Single Use Plastics Directive (2019/904)	77%	90%	<p>Separate collection for recycling of single use plastic beverage bottles with a capacity of up to 3 litres, including their caps and lids, but excluding:</p> <ul style="list-style-type: none"> Glass or metal beverage bottles that have caps and lids made of plastic. Beverage bottles intended and used for food for special medical purposes that is in liquid form. 	2018	60.7%	Not on Track

Deposit & Refund System – Would it Help?



Some Good
Examples in
Australia

Deposit & Refund Systems – Likely Annual Cost for Ireland

Item	Description	Estimated Cost per annum (millions)
1	Installation of RVMs & Storage Room (spread over 10 years)	€ 25.0
2	Development of 3 Regional Depots (spread over 10 years)	€ 3.8
3	Set-Up costs (spread over 10 years)	€ 2.1
4	Ongoing labour and space costs at stores	€ 6.3
5	Logistics Costs	€ 22.4
6	Counting Centre Costs	€ 3.2
7	Central Administration Costs	€ 2.7
8	Labelling & Security Markings	€ 7.7
	Total Estimated Annual Costs (Gross)	€ 73.2
	Added Value of Additional Beverage Containers Captured	€2.6
	Total Estimated Annual Costs (Net)	€ 70.6

Deposit & Refund Systems – Impact on MSW Recycling Rates

PET Bottles:

- Total on the market = 25,490 t/a.
- Uplift from 60.7% to 90% = 29.3% = 7,469 t/a extra recycled.
- 7,469 t/a out of a total MSW generation of 2.8 million t/a = **0.27%**

Aluminium Cans:

- Total on the market = c.11,456 t/a.
- Uplift from 73% to 90% = 17% = 1,948 t/a extra recycled.
- 1,948 t/a out of a total MSW generation of 2.8 million t/a = **0.07%**

Total Uplift in MSW Recycling rate = **0.34%**

Total Uplift in Packaging Waste Recycling = **0.7%**

Total Uplift in Plastic Packaging Waste Recycling = **2.5%**



DRS in Ireland – Putting Costs in Perspective

- €70.6 million / 9,417 tonnes = **€7,497** per tonne for **DRS**
- We estimate **€497** per tonne for **kerbside MDR** recycling
- We estimate **€240** per tonne for **Civic Amenity Site** recycling

Breakdown Costs of Average Household Kerbside Service by Fraction

Fraction	Estimated Cost per House (ex. VAT) in euro
Residual Waste Cost	130.37
MDR Cost	66.98
Food Waste Cost	40.27
Total Cost	237.61



Deposit & Refund Systems – Impact on Kerbside Recycling

Expected Revenue Losses at MRFs if DRS Materials Removed

Material	Volume Handled (t/a)	Average Value of Material including REPAK subsidy (€)	Loss of Revenue per Annum (€)
Aluminium Cans	4,444	915	€ 4,066,260
PET Bottles	11,227	247	€ 2,773,069
Estimated Cost due to Loss of Beverage Containers			€ 6,839,329
HDPE Bottles	7,283	415	€ 3,022,445
Estimated Cost due to Loss of Beverage Containers and HDPE Bottles			€ 9,861,774

Material	Revenue Loss (€)	Household MDR Handled in 2016 (t/a)	Household MDR Handled after DRS materials removed (t/a)	Loss of Revenue per Unit / Potential Gate Fee increase (€)
Loss of Beverage Containers	€ 6,839,329	253,328	237,657	€ 28.78
Loss of Beverage Containers and HDPE Bottles	€ 9,861,774	253,328	230,374	€ 42.81

Deposit & Refund Systems – Potential Impact on Kerbside Recycling

MRF Gate Fees:

- MRF Gate fees are currently in €75 to €90 per tonne range in Ireland. This includes a recent increase of about €15/t due to crash in the soft mix paper market.
- MRF Gate Fees are likely to increase to €104 to €119 per tonne range if all beverage containers are removed.
- This could be as high as €118 to €133 per tonne if HDPE containers are also removed.
- REPAK subsidies could also be reduced as producers finance DRS instead of Kerbside Recycling.
- As MRF gate fees become as high as residual waste gate fees, the financial incentive to recycle is lost, so we must rely too heavily on enforcement. Fear of Rogue Operators.

Deposit & Refund Systems – Protection of Kerbside Recycling If a DRS is Introduced to Ireland

In order to protect Kerbside Recycling against the potential impact of a DRS, we recommend that MRF Operators should be allowed reclaim deposits for materials they process, as is the case in New South Wales in Australia.

Material	Approved Factor (eligible count per kg)	Assumed count per tonne	Assumed CDS income per tonne
Aluminium	59.17	59,170	\$5,917
PET segregated	18.96	18,960	\$1,896
HDPE segregated	0.69	690	\$69



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