

## Dataset

```
waste_type total_waste_generated_tonne
1 Construction & Demolition
                                                   1624000
2
             Ferrous Metals
                                                   1269000
3
            Paper/Cardboard
                                                   1054000
4
                    Plastics
                                                    949000
5
                        Food
                                                    763000
6
                Wood/Timber
                                                    521000
  total_waste_recycled_tonne year total_waste_not_recycled_tonne recycling_rate
1
                      1618000 2018
                                                                                1.00
2
                                                                1143
                       126000 2018
                                                                                0.10
3
                       586000 2018
                                                                 468
                                                                                0.56
4
                        41000 2018
                                                                 908
                                                                                0.04
5
                       126000 2018
                                                                 637
                                                                                0.17
6
                       428000 2018
                                                                  93
                                                                                0.82
  wasting_rate
1
          0.00
2
          0.90
3
          0.44
4
          0.96
5
          0.83
          0.18
6
```

#intend to add shiny to allow user to chose the material and then the graph x axis will be the year and y axis will be waste generated, waste recycled and waste not recycled. -> to be able to see the number when u hover over it.

#another shiny interaction to see the recycling rate for each material. x-axis: year; y axis: rate (interactive scatter plot)-> to be able to see the number when u hover over it.

#Column

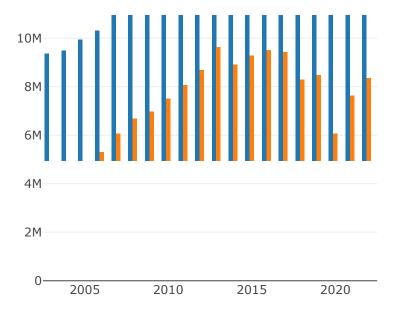
Chart B

Material	Total Waste Generate¹	Total Waste Recycled <sup>2</sup>
<chr></chr>	<dbl></dbl>	<dbl></dbl>
1 Overall	131824000	75119000
2 Paper/Cardboard	23530000	11504000
3 Ferrous Metals	22414000	20472000
4 Construction & Demolition	22245000	21970000
5 Plastics	15797000	1280000
6 Food	13681000	1836000
7 Wood/Timber	6608000	4440000
8 Horticultural	5521000	3197000
9 Others (stones, ceramic, rubbe	5426000	197000
0 Used Slag	5003000	4786000
1 Textile/Leather	2854000	199000
2 Non-Ferrous Metals	2094000	1865000
3 Glass	1413000	236000
4 Used slag	1366000	1347000
5 Scrap Tyres	502000	431000
i abbreviated names: 1`Total Was	ste Generated (tonnes)`,	

waste_type	total_waste_generated	total_waste_recycled	
<chr></chr>	<dbl></dbl>	<dbl></dbl>	
1 Overall	131824000	75119000	
2 Paper/Cardboard	23530000	11504000	
3 Ferrous Metals	22414000	20472000	
4 Construction & Demolition	22245000	21970000	
5 Plastics	15797000	1280000	
6 Food	13681000	1836000	
7 Wood/Timber	6608000	4440000	
8 Horticultural	5521000	3197000	
9 Others (stones, ceramic, rubber,	5426000	197000	
10 Used Slag	5003000	4786000	
11 Textile/Leather	2854000	199000	
12 Non-Ferrous Metals	2094000	1865000	
13 Glass	1413000	236000	
14 Used slag	1366000	1347000	
15 Scrap Tyres	502000	431000	

## Chart C

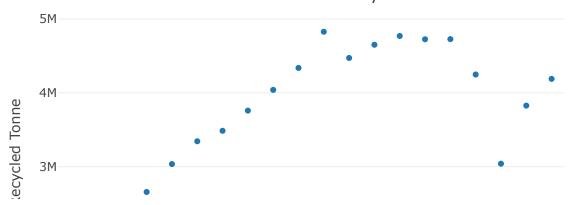


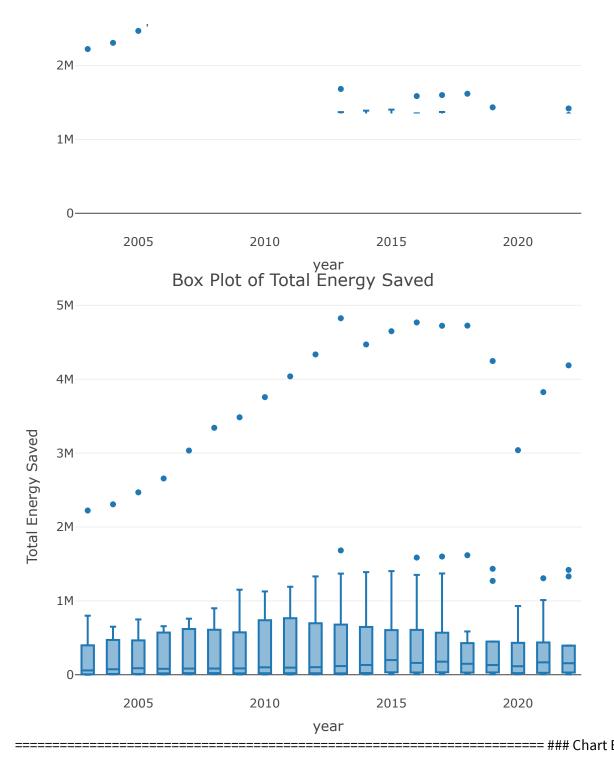


## Chart D

	W	aste_type to	otal_waste_gener	ated_tonne		
1 Cons	truction & D	emolition		1624000		
2 Cons	truction & D	emolition		1440000		
3 Cons	truction & D	emolition		825000		
4 Cons	truction & D	emolition		1013000		
5 Cons	truction & D	emolition		1424000		
5 Cons	truction & D	emolition		1595000		
tota	l_waste_recy	cled_tonne	year total_waste	_not_recycled_	tonne recy	cling_rate
1		1618000	2018		6	1.00
2		1434000	2019		6	1.00
3		822000	2020		3	1.00
4		1011000	2021		2	1.00
5		1419000	2022		5	1.00
6		1586000	2016		9	0.99
wast	ing_rate ene	rgy_saved c	rude_oil_saved			
1	0.00	34644	96.00			
2	0.00	252	0.72			
3	0.00	1926	5.40			
4	0.00	28000	80.00			
5	0.00	20500	55.00			
6	0.01	3600	9.90			

## Box Plot of Total Waste Not Recycled Tonne





 $\#```\{r\}\ \#scatter\ plot\ graph\ fig <-\ plot_ly(\ data=total_data,\ x=\sim year,\ y=\sim energy\_saved,\ size=\sim total\_waste\_generate\_tonne,\ color=\sim material,\ sizes=c(10,60),\ type="scatter",\ mode="markers")$ 

fig