

→ Food for thought

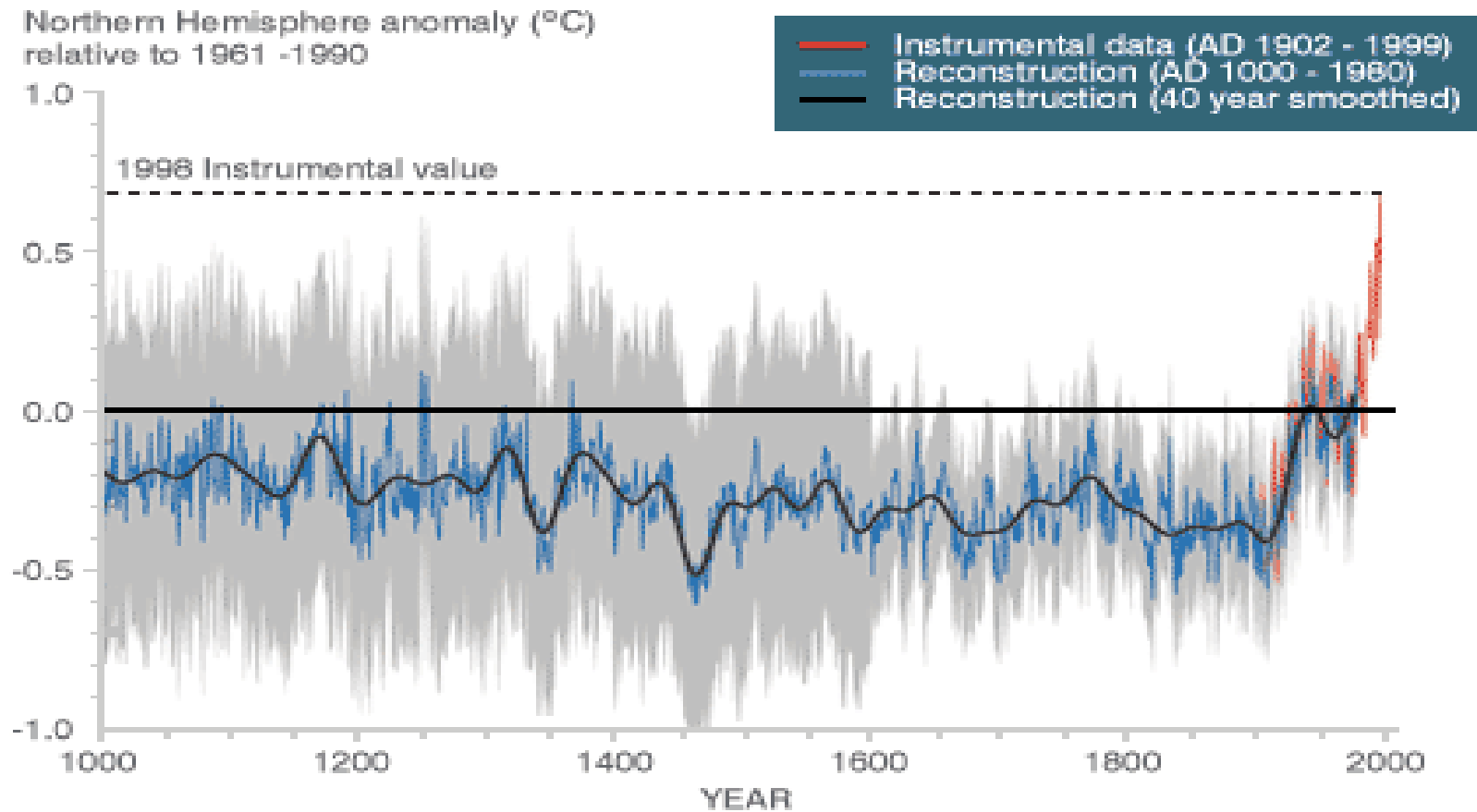
Andy Bond
Development Director
May Gurney Environmental Services



Climate change

- > 1970s CO₂ Question
- > 1980s Greenhouse effect is here
- > 1998 Kyoto
- > 2001 3rd IPCC report – 1.4 to 5.8 degree C increase predicted
- > 2006 “An Inconvenient Truth”

The hockey stick



What has this to do with us?

- > Landfill and methane
- > Mandatory recycling targets 2001
- > Landfill Allowance Trading scheme
- > Recycling and residual waste systems
 - Reduce
 - Reuse
 - Recycle
 - Recover

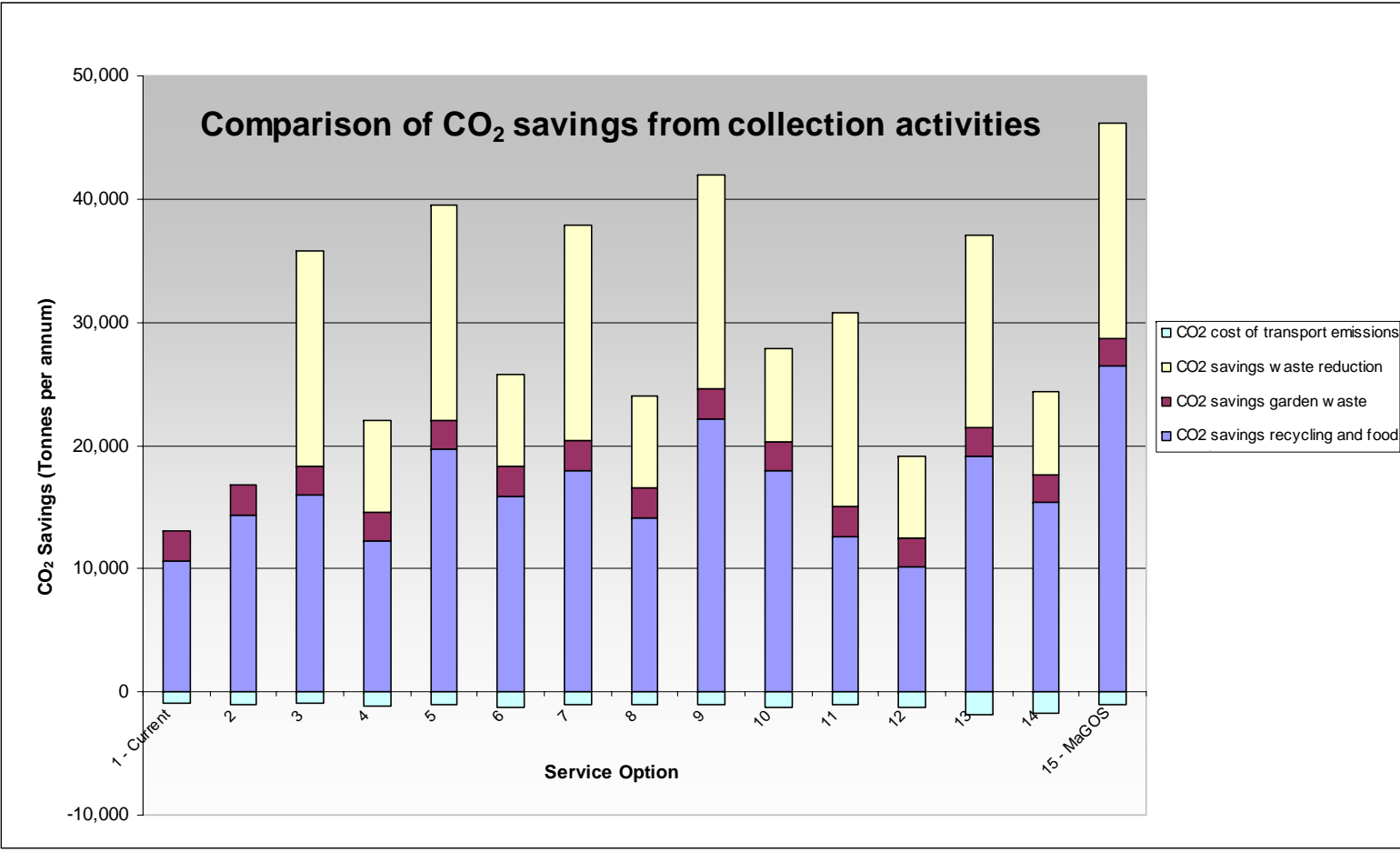
Kerbside Sort

- > Cost
- > Quality
- > Environmental performance

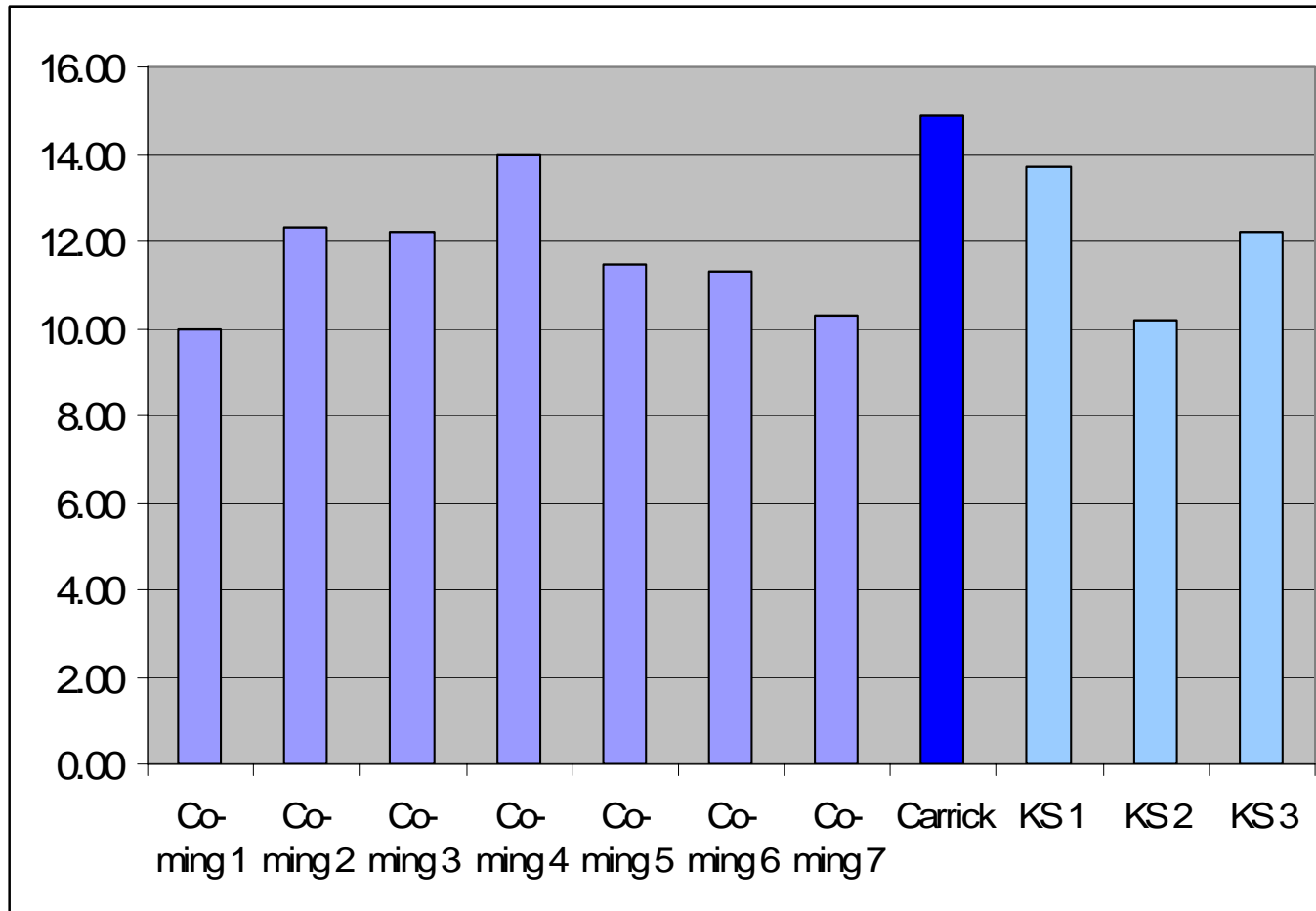
Contamination & quality

- > 10% in the co-mingled collection
- > 10% wrong materials sent to processor
- > EQUALS TIPPING EVERY 5th kerbside sort
Box in the bin!
- > Loss of value – aluminium and plastic sold as paper

CO₂ benefits from various recycling systems



Capture rates – Arc 21 Northern Ireland



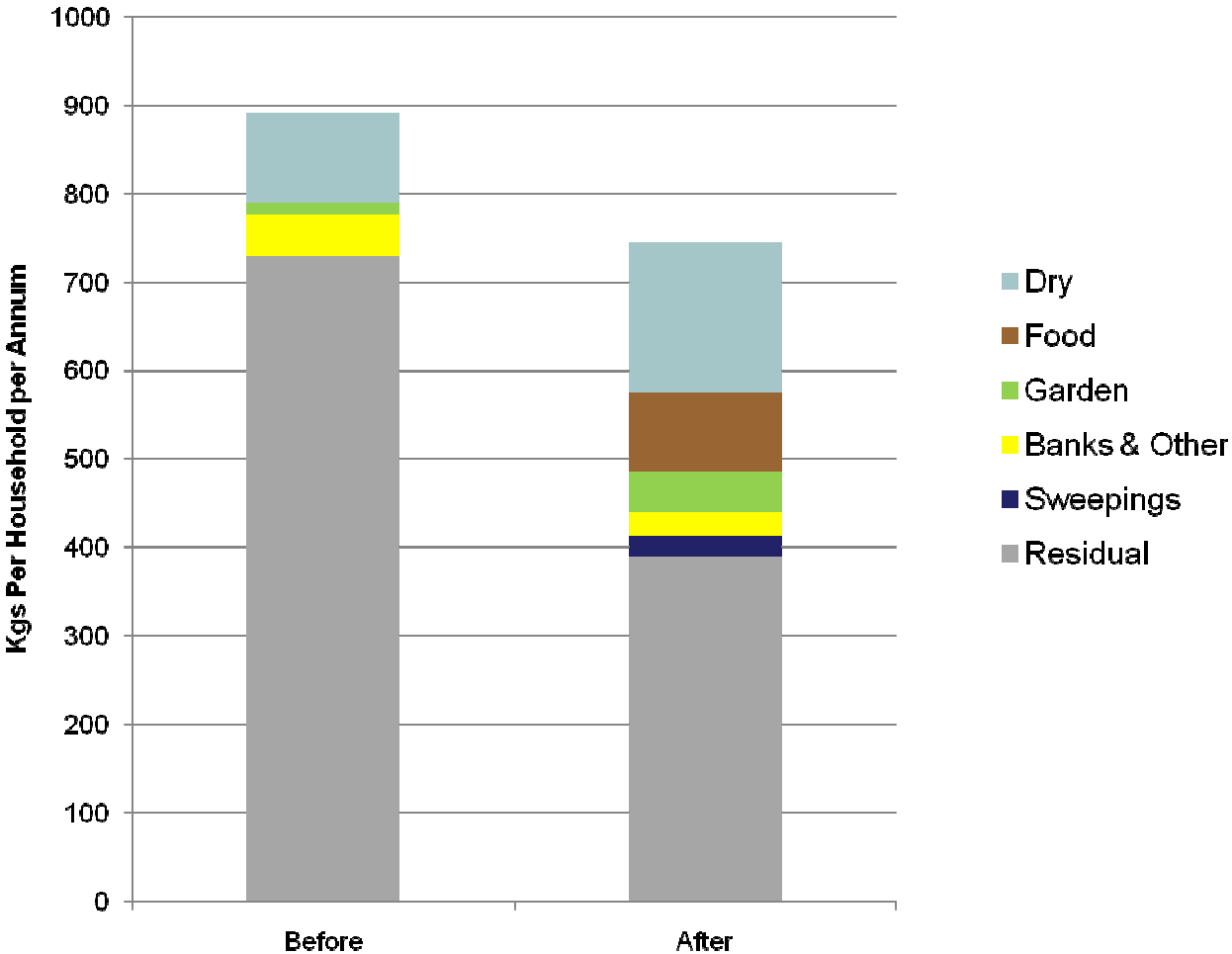
Choosing the right collection system - WRAP

“On the evidence available to WRAP, our view is that kerbside sort systems offer reliable material quality and lower net costs for council taxpayers”

What is so special about Somerset?

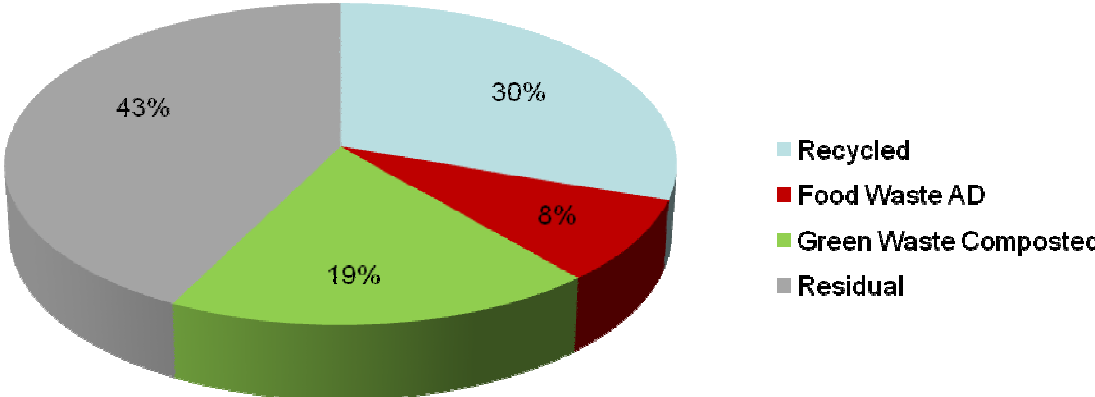
- > Lowest residual waste in UK – 162Kg per capita Sort It
- > 130 Kg per capita – Sort It Plus
- > UK target 225Kg by 2020
- > Food waste effect and behavioural change
- > Correlation between kerbside sort, separate food waste and low residual waste

Sort It Results

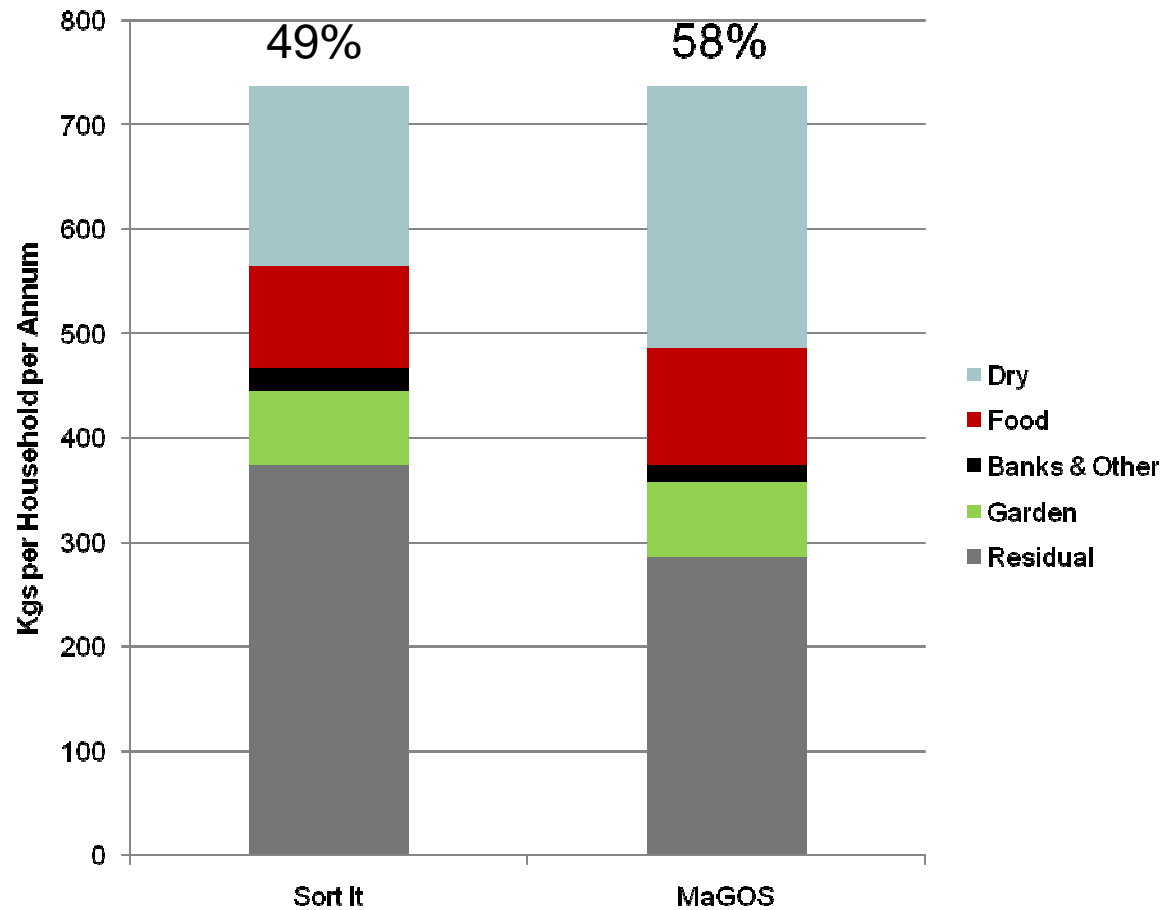


Slicing the cake

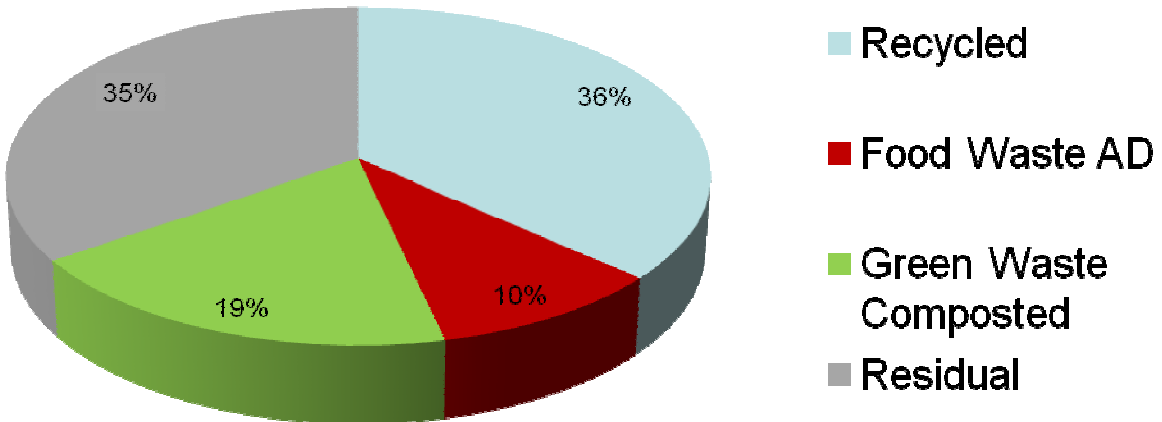
Overall Recycling rate in Sort It areas



Extra streams & Extra capacity



Implication of Sort It Plus



The food we waste

- > WRAP - £420 wasted food per household
- > 25% of all food waste avoided in Sort It
- > £105 per household
- > Saving greater than the whole system cost –
collection, food waste processing, landfill/disposal
- > 4.5 tonnes of CO₂ per tonne avoided food waste

Modelling costs and benefits

Outcomes	Recycling weekly residual weekly	Commingled & residual fortnightly	Recycling weekly residual fortnightly
	Ealing system	3 bin system	Sort It Plus
BMW to Landfill/end of pipe process	40,858	30,383	22,544
% BMW to Landfill	55.58%	41.33%	30.67%
Net Costs	10,138,800	11,989,787	8,945,160
Total Carbon Offset	25649	28578	48377

Differences

> Co-mingled 3 bin

- more waste collected in total and more disposal/processing
- garden waste requires ABO process and lots of it
- not much kitchen waste
- gate fee to sort

> Kerbside Sort - Somerset model

- less waste collected in total
- more kitchen waste collected & avoided
- Less garden waste & windrow composting only
- significant value in material

More for Less

- > **In high landfill/disposal cost environment:**
 - Avoided disposal/residual treatment costs greater than extra collection costs
 - More local jobs in collection
 - Difference in cost between kerbside sort and “commingling” widens
 - CO₂ savings highest

- > **70% recycling rates achievable**

The waste we won't have

- > Gap between planning assumption for waste growth and reality – 3% pa
- > LATS
- > White elephants – the PFI way
- > Symmetry between landfill and residual treatment costs
- > Competition for waste – drift down waste hierarchy rather than up

Opinionated - Moi

- > WAG – driven by sustainability = better policy
- > Traditional waste industry:
 - more is best
 - cost growth exponential for higher recycling
- > Curse of the “recycling targets”
- > Curse of the RCV
- > Weekly recycling and food = 85% targeted weekly.
- > Why every two weeks - why not every four!

Sustainability

- > Recycling systems really matter
- > Remember the hierarchy - waste reduction can be significant with the right systems
- > Smaller residual footprint and system flexibility