

Maximising Food Waste Collections

- Experiences of Pilots and Studies in
Ireland

Percy Foster, Cré





Composting & Anaerobic Digestion
Association of Ireland

Overview

- ▶ Setting the Scene
- ▶ Pilot 1: National Pilot Sligo City
- ▶ Pilot 2: How to Deliver on Wider Scale
- ▶ Surveys of Business and Public
- ▶ New Compostable Certification Scheme

About Cré & Sector

- ▶ Established in 2001- non profit trade body for composting and anaerobic digestion sector
- ▶ Approx 70 members
- ▶ Approx Sector in ROI processed 600,000 tonnes
- ▶ Market report currently being prepared



Setting the Scene

- ▶ National legislation to source separate food waste by households in pop above 500
- ▶ National legislation to source separate food waste by commercial sector since 2009
- ▶ Open waste collection market in Ireland
- ▶ Brown bin = term used for bin for collection of food and garden materials or food waste only
- ▶ Generally Brown Bin collected every fortnight
- ▶ Est. 25-30% of potential is collected



Pilot 1: Sligo City



National Pilot Sligo City

Aim To see how a range of educational tools, such as the use of door to door waste advisors and the provision of kitchen caddies to householders, can improve the quantity and quality of food waste in the brown bin.

Test the educational tools developed by **BROWNbin.ie**



Comhshaol, Pobal agus Rialtas Áitiúil
Environment, Community and Local Government



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NOVAMONT



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Partners:

Barna Recycling, Greenstar, Envirogrind & Institute of Technology, Sligo

Some Stats on Project

- ▶ Approx 3000 door to door conversations
- ▶ A total of 36 Waste Characterisation Surveys
- ▶ Approximately 80 working days just collecting and going through the samples never mind the actual compiling of stats and results
- ▶ Hand Sort Through 6 Tonnes of Waste
- ▶ 6000 kitchen caddys given to households
- ▶ Approx 0.5 million compostable liners



Tools: Kitchen Caddy



Caddy, 'what goes in/not sticker on lid + compostable liners



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Tools: Compostable Liners

Liners Customised Made by Novamont with
'what goes in/not'

- One roll with caddy
- Second roll during door to door education



Tools: Teaser & Instruction Leaflet



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Direct Education – Knocking on Doors



Overview of the Project

Area of City	Number of Households	Educational Tools Provided	Bin Presentation Number	Bin Weight	Waste Characterisation
A	2300	<ul style="list-style-type: none"> • Solid Sided Kitchen Caddy • Compostable Bags • Instruction Leaflet • Teaser Leaflet • Door to door education 	Before and After Pilot	Before and After Pilot	Before and After Pilot
B	1720	<ul style="list-style-type: none"> • Teaser Leaflet • Door to door education 	Before and After Pilot	Before and After Pilot	Before and After Pilot
C	3480	<ul style="list-style-type: none"> • Vented Sided Kitchen Caddy • Compostable Bags • Instruction Leaflet • Teaser Leaflet • Door to door education 	Before and After Pilot	Before and After Pilot	Before and After Pilot

Some Results.....



Project Results

The provision of the an education programme of door to door education, a kitchen caddy and compostable bags to households resulted in:

- ▶ The participation and capture of organic waste at least **doubling** on average in areas which received awareness information compared with those which did not
- ▶ A reduction in the level of contamination in brown bins from **18% to 1%** in 6 week period

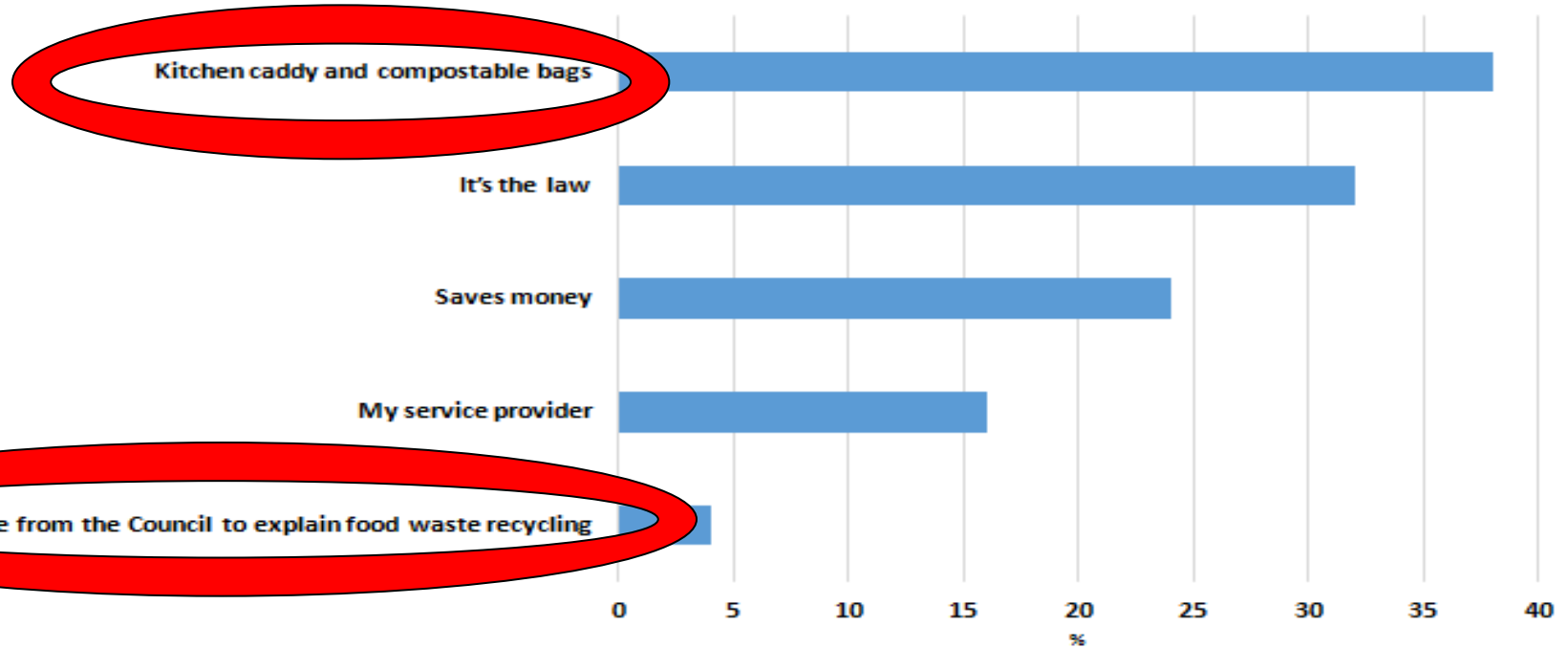
1 Year Later – Area A

3% Contamination

No intervention during the year

Survey Indication

Which of the following most encouraged you to recycle food waste using the brown bin?



Pilot 2: How to Deliver to Wider Scale



Food Waste Recycling Working Group



Composting & Anaerobic Digestion
Association of Ireland



Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil
Department of Communications,
Climate Action & Environment



IRISH WASTE
MANAGEMENT
ASSOCIATION



Composting & Anaerobic Digestion
Association of Ireland

Project Manager – Pauline McDonagh

Overview

- ▶ 3 towns of different size (500, 1000 & 10,000)
- ▶ Householder: kitchen caddy, paper bags, instruction leaflet, sticker for caddy & sticker on residual bin ' no food waste please'
- ▶ Contractor hired to do all instead of individual collectors providing items
- ▶ Funded by Department of Communications, Climate Action and Environment



- ▶ Ballaghaderreen, Co Roscommon
- ▶ Trim, Co Meath
- ▶ Borrisoleigh, Co Tipperary



Results Provisional

- ▶ Results are currently being compiled and report will be completed in April- so detailed results not available!
- ▶ Very positive response from public- want to recycle food waste
- ▶ 3 collectors in large town – all est at least 25% increase in tonnes from same households for same period 1 year earlier
- ▶ One town – contamination down from 8.1 to 4.5%



Results Provisional

- ▶ Education kit – positive even without door to door education
- ▶ Contamination improved
- ▶ Have yet to determine effectiveness of sticker on residual bin ‘no food waste please’
- ▶ Customer interaction very positive :

“I only rarely used my brown bin prior to this starting and now it's used as much if not more than my waste bin”



Factors Influenced Behaviour

Caddy & Liners	61%
Information Leaflet	9%
Sticker on the general bin	3%
It's the law!	10%
Incentivised charging	15%

Consumer Behaviour – RED C



Research assess attitudes & behaviours among businesses and consumers in relation to food waste recycling

- ▶ Commercial food waste – 150 businesses
- ▶ Households – 1000 people



Commercial Food Waste Survey

Date: September 2019

Job Reference: 375319

Co-funded by:



southern
waste region



eastern - midlands
waste region



connacht-ulster
waste region



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Environmental Protection Agency
An Ghníomhaíocht um Chaomhnú Comhshaoil



Roinn Cumarsáide, Gníomhaithe
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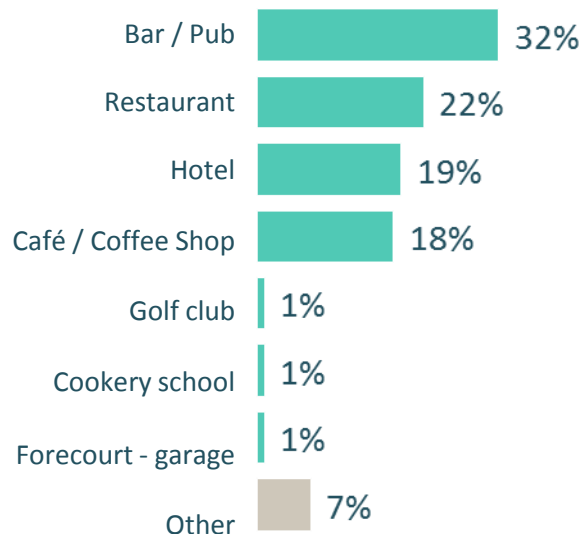


Profile Of The Sample

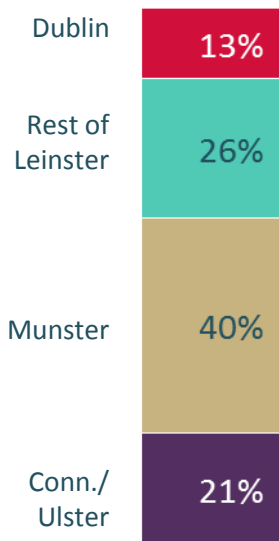
(Base: All Businesses; n= 151)



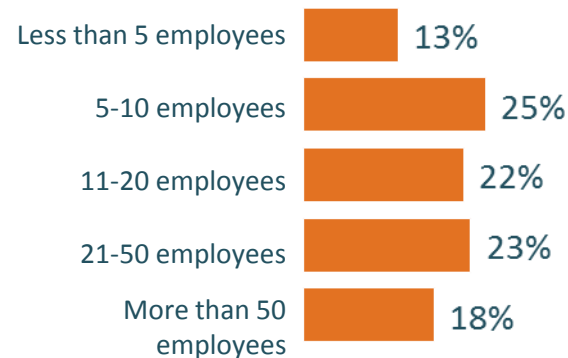
Type of Business



Region



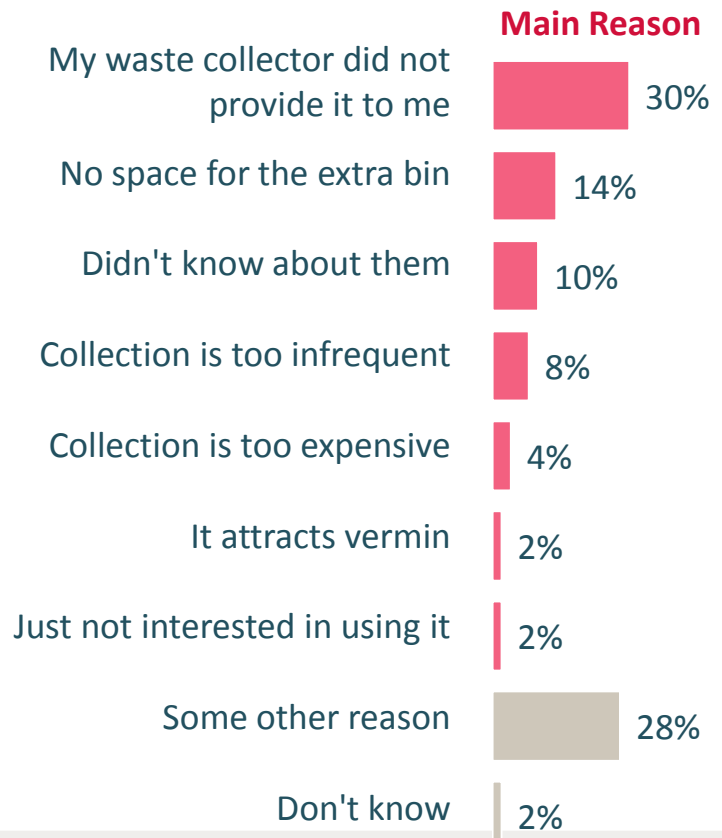
No of Employees



A mix of business types and sizes with a wide geographical spread was included in the survey.

Reasons They Don't Have/Use A Food Waste Bin

(Base: All Who Don't Have/Use A Food Waste Bin; n= 50)



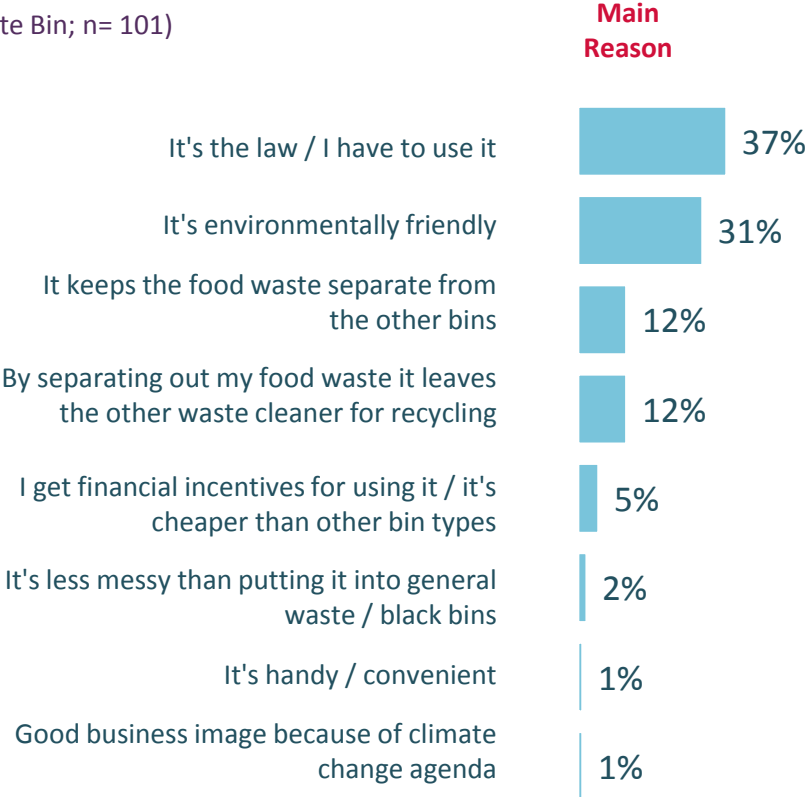
- Other reasons included:
- Composting food waste
 - Produce very little food waste
 - Take food waste home/to farm
 - Food waste collected by dog owners/ pig farmers

According to businesses, the main reason why they don't have or use a food waste bin is because it was not provided by their waste collector – this is despite the fact that legislation requires collectors and businesses to have and use a food waste bin. Not having the space needed for an extra bin and not knowing about food waste bins were also among the reasons cited.



Reasons For Using A Food Waste Bin

(Base: All Those Who Use A Food Waste Bin; n= 101)



On the other hand, over a third of those who use a food waste bin say they do so because it's the law. A slightly lower proportion use a food waste bin because it's environmentally friendly, while a quarter of businesses say using a food waste bin keeps the food waste separate from other types of waste and leaves other waste cleaner for recycling.



Cré – Residential Food Waste Management

Date: February 2020

Job Reference: 415819

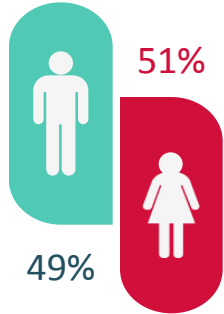


REDC

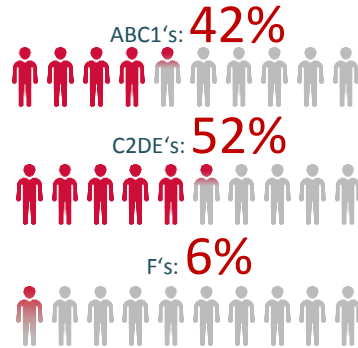
REDLINE

Weighted to be representative of all adults aged 18+ using the latest CSO census data on the following demographics

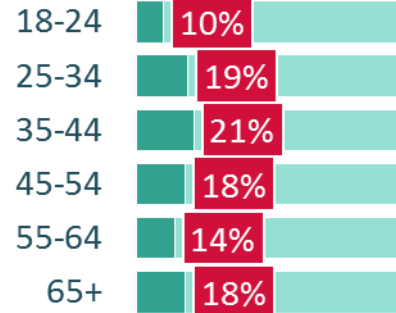
Gender



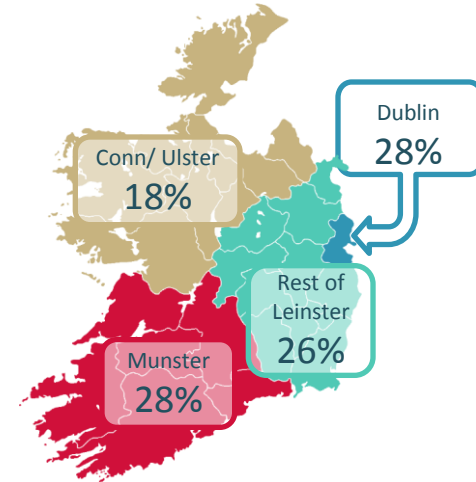
Social Class



Age



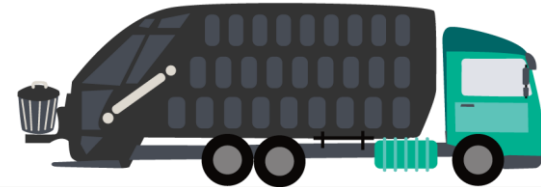
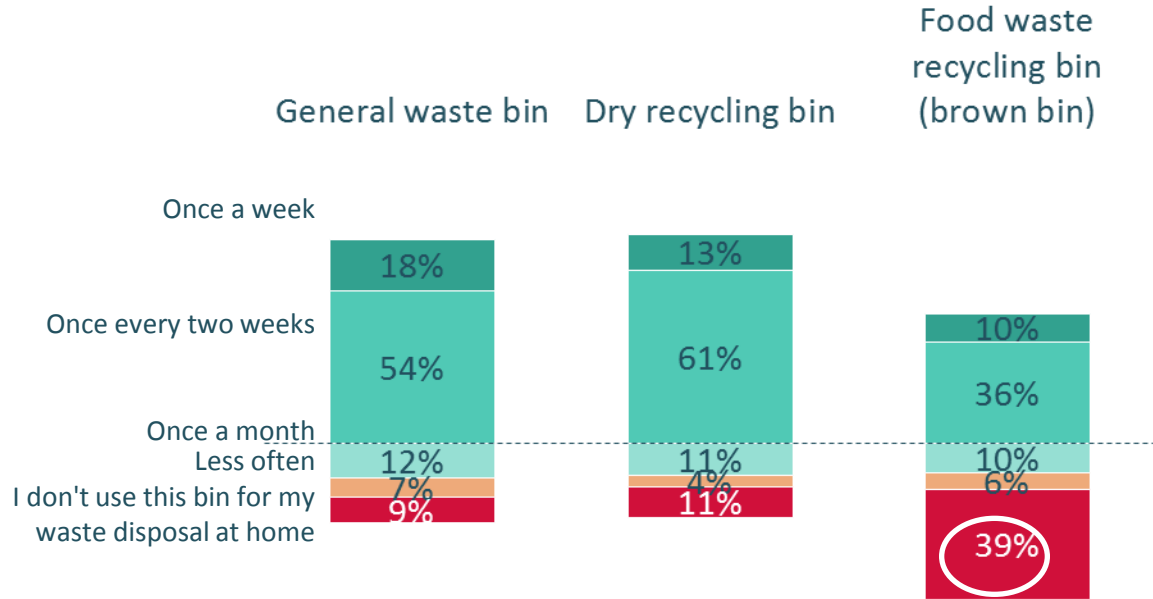
Region



Frequency of Bin Usage X Bin Type

(Base: All Adults 18+; n=1,012)

Q. Please indicate the frequency with which you put each of the following bins out for collection by your waste collector at home.

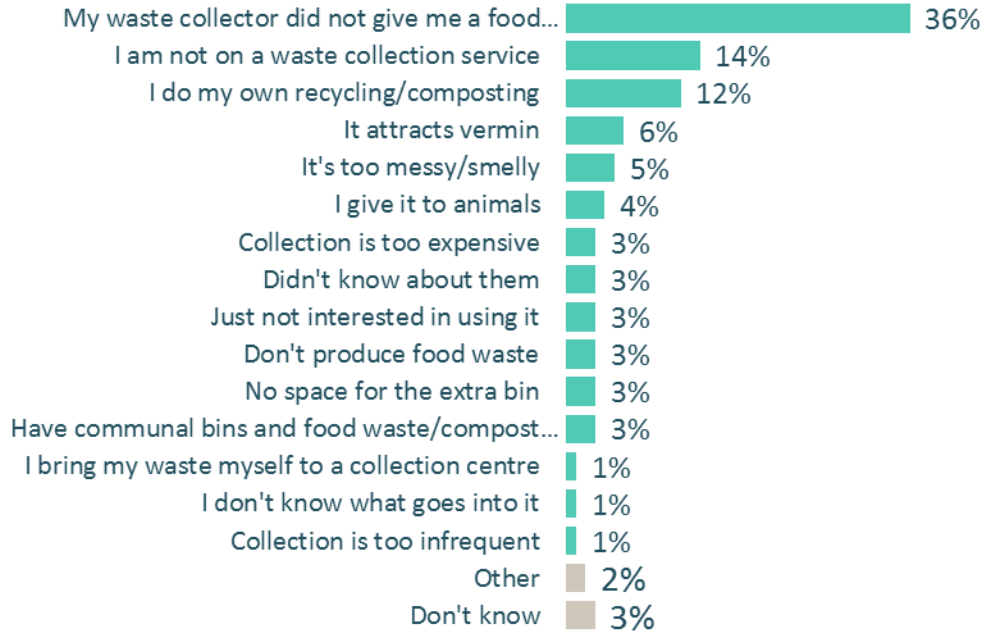


Just under 2 in 5 say they don't use a food waste bin at home, while 46% say they use this bin type more than once a month. In comparison, over 70% use their general waste bin or their dry recycling waste bin with the same frequency.

Main Reason For Not Using a Food Waste Recycling Bin

(Base: All Adults 18+ Not Using a Food Waste Recycling Bin; n=395)

Q. What is the main reason you do not use a Food Waste Recycling Bin?



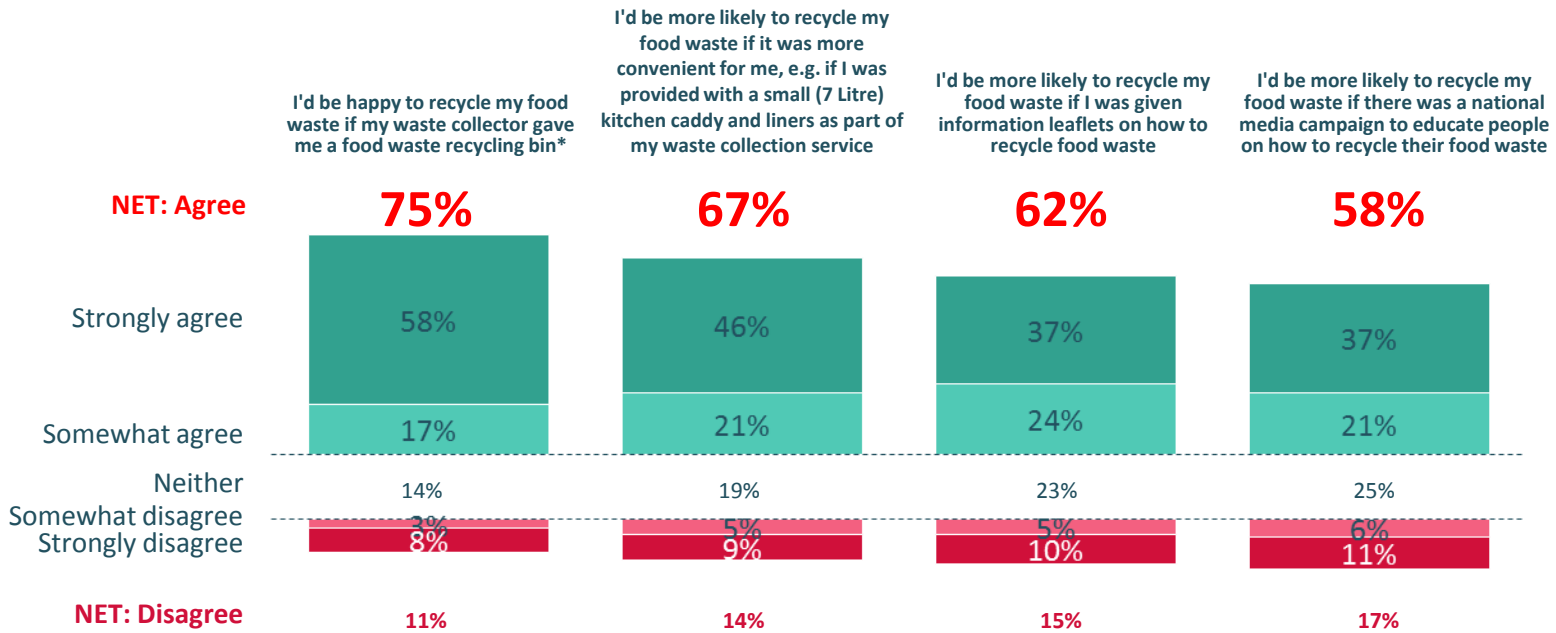
Over 1 in 3 of those who don't use a food waste recycling bin say this is because the waste collector did not provide them with this. Not being on a waste collection service and doing their own composting/recycling are also among the top 3 reasons. Those based in Dublin are also more likely to cite having communal bins where food waste recycling bin is not provided.



Attitudes Towards Food Waste Recycling

(Base: All Adults 18+; n=1,012)

Q4. Here are some statements other people have made in relation to recycling their food waste. Please indicate the level to which you agree or disagree with these statements.



*Only asked of those who were not provided a food waste recycling bin by their waste collector, n=395

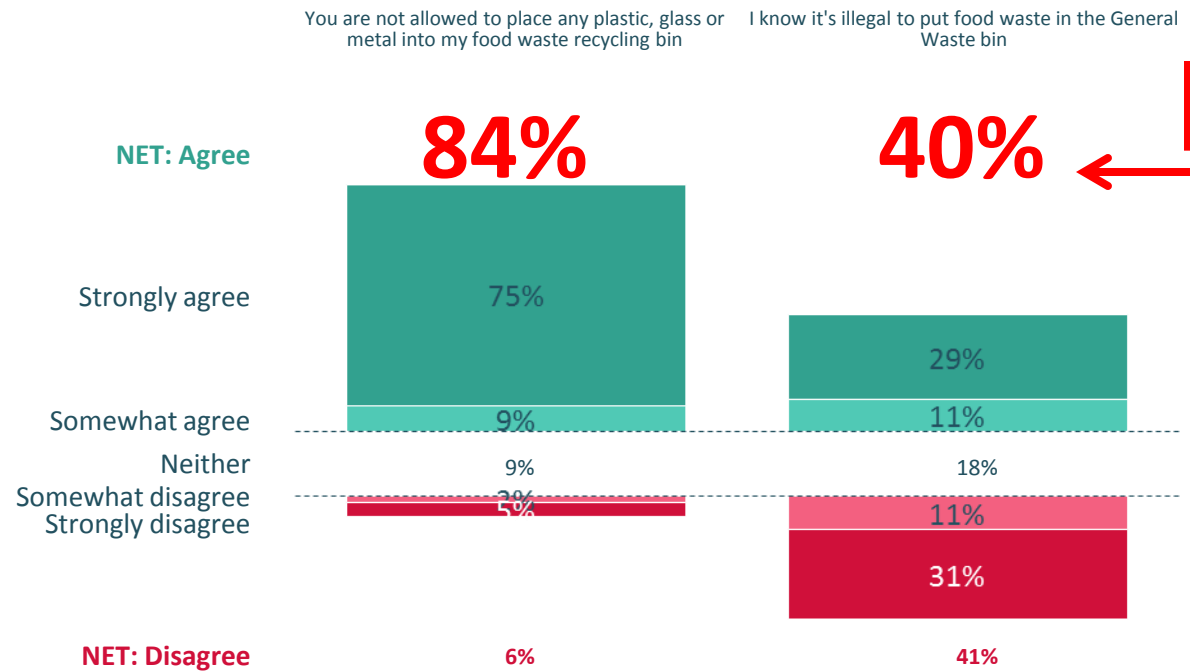
3 in 4 say they'd be happy to use a food waste recycling bin if they were given one*. Approx. 5 in 7 say they'd recycle food waste more if they were given a convenient kitchen caddy. Just over 3 in 5 would like more information on how to recycle food waste and a similar proportion are in favour of a national media campaigns to inform and encourage them on the issue.



Attitudes Towards Food Waste Recycling

(Base: All Adults 18+; n=1,012)

Q4. Here are some statements other people have made in relation to recycling their food waste. Please indicate the level to which you agree or disagree with these statements.



Key Finding



Over 8 in 10 agree that they are not allowed to put plastic, glass or metal into the food recycling bin. However, there is some confusion in relation to whether or not it is illegal to put food waste into the general waste bin, with equal proportions agreeing and disagreeing with this statement.



Attitudes Towards Compostables

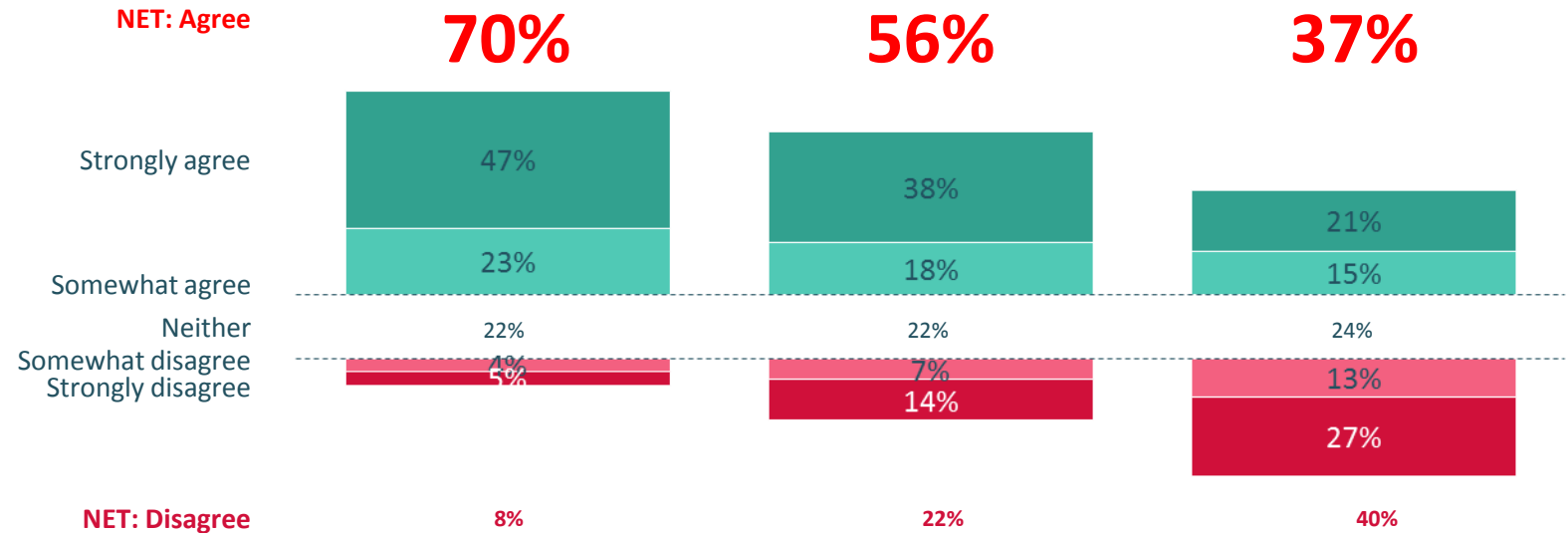
(Base: All Adults 18+; n=1,012)

Q. Here are some statements other people have made in relation to recycling their food waste. Please indicate the level to which you agree or disagree with these statements.

I would be more inclined to buy products in compostable packaging if I knew they were independently certified compostable in large scale composting plants

I know to put compostable packaging into my food waste recycling bin

I don't know how to identify compostable plastics



7 in 10 say they would be more likely to buy products in compostable packaging if they knew these were compostable at large scale. And while 56% know that they can put compostable packaging in this bin, just under 2 in 5 say they don't know how to identify compostable packaging.



Main Conclusions

- ✓ Willingness from business and public to recycle food waste
– just provide me the service
- ✓ Caddy and liners are key for householders
- ✓ Pilots will hopefully led to national awareness campaign