

**Leveraging the '6Es' for food  
waste recycling  
Webinar for the Maryland Recycling  
Network**

**18<sup>th</sup> September 2019**

**Sarah Edwards and Gareth Morton  
Eunomia Research and Consulting**



# Welcome and introductions

- **Our Moderator:**
  - Peter Houstle - MRN Executive Director
- **Our Presenters:**
  - Sarah Edwards, Director, Eunomia Research & Consulting, North America, based in NYC.
  - Gareth Morton MCIWM, Senior Consultant (Behavior Change), Eunomia Research & Consulting

# Mark Your Calendars

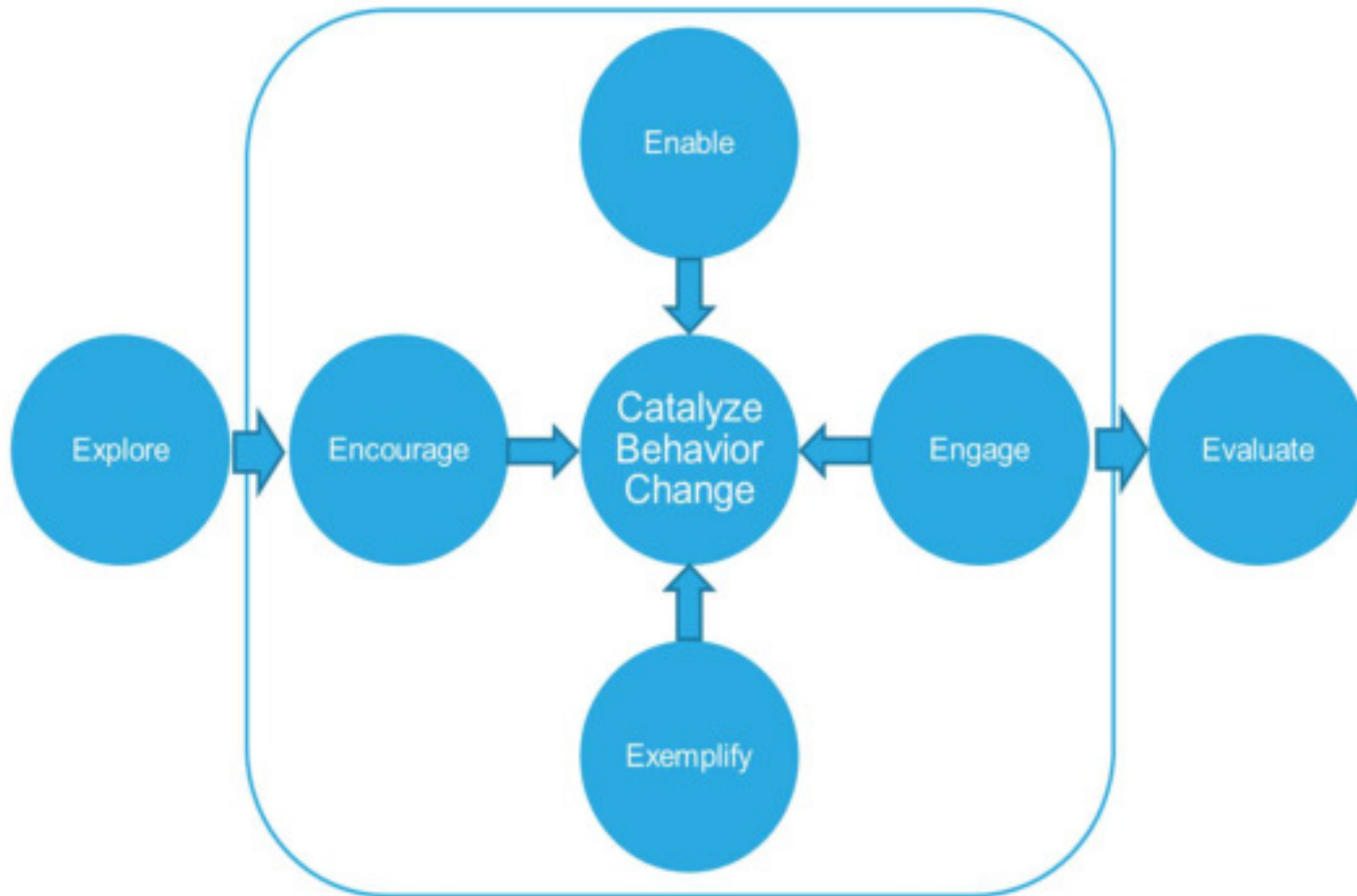
- **Take Back Control of Your Recycling Program (Webinar)**
  - **Tuesday, October 15, 2019**
- **Annual Conference**
  - **Thursday, June 11, 2020 – BWI Marriott**

# Some points to note

- **Questions?**
  - Post questions in chat box (Alt-H)
- **Listen again?**
  - Recording will be posted on MRN website
- **Not a Member?**
  - Join Today to Support Recycling in Maryland!
  - [www.marylandrecyclingnetwork.org](http://www.marylandrecyclingnetwork.org)

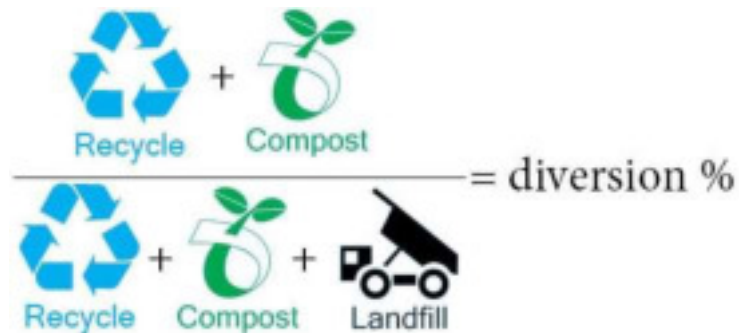
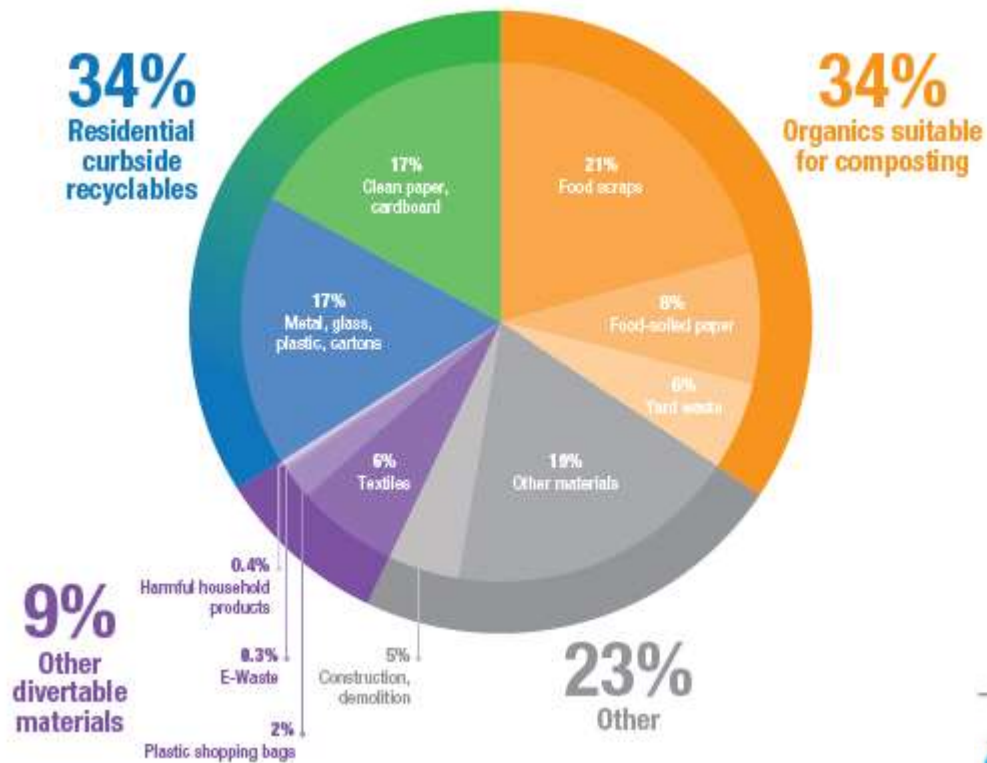
# What are the 6Es?

# 6Es behaviour change approach



# Why Are The 6Es Important?

# WHY?



New York City Department of Sanitation

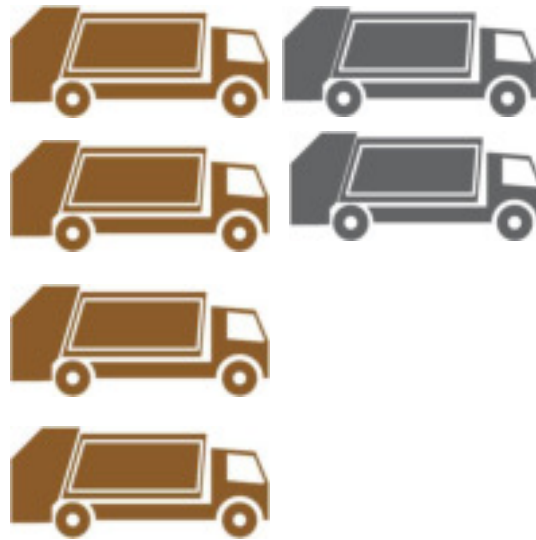


# WHY?

Low Capture



High Capture



# How - Multifamily

**Peter Cooper Village/ Stuyvesant Village  
NYC**

# Stuyvesant Town (StuyTown), Manhattan, New York City, USA

- **Case study published in Resource Recycling (USA), November 2018**



**G**etting people to recycle is a challenge. Getting them to recycle as much as they can and to do so correctly can feel impossible.

After all, different materials and housing arrangements present various barriers when encouraging recycling.

That notion is particularly clear when trying to recover food scraps from multi-family buildings: Is success in that realm even possible? The answer is yes – but an understanding of the human factor in changing deep-seated attitudes and behaviors is a requisite for success.

A food scrap collection pilot program in the Stuyvesant Town (StuyTown) residential complex on the east side of Manhattan shows how residents of multi-family apartment buildings can be encouraged to separate out their food scraps for composting efficiently and effectively.

#### LEVERAGING THE 'YES'

When food scrap collections were introduced at StuyTown in 2016, a 20-gallon cart lined with a large biodegradable bag (Bibag brand) was placed in the basement of each building, and collections were made three times a week by the New York City Department of Sanitation (DSNY). Residents were initially provided with a booklet telling them about the new collections and a list of what could and could not be put in the cart.

Consulting firm Eunomia Inc., along with the Italian Composting Association and bag manufacturer Novosort, in collaboration with StuyTown, carried out a 12-week pilot program in the fall of 2017 to investigate the best options for increasing residents' engagement with the food scraps program. (The Italian Composting Association was included because the group had successfully engaged in similar projects in densely populated areas of Italy.)

The aim of the project was to see which measures would increase participation, maximize capture rates and minimize contamination. The pilot ran in six buildings, comprising a total of 636 apartments and 1,375 residents.

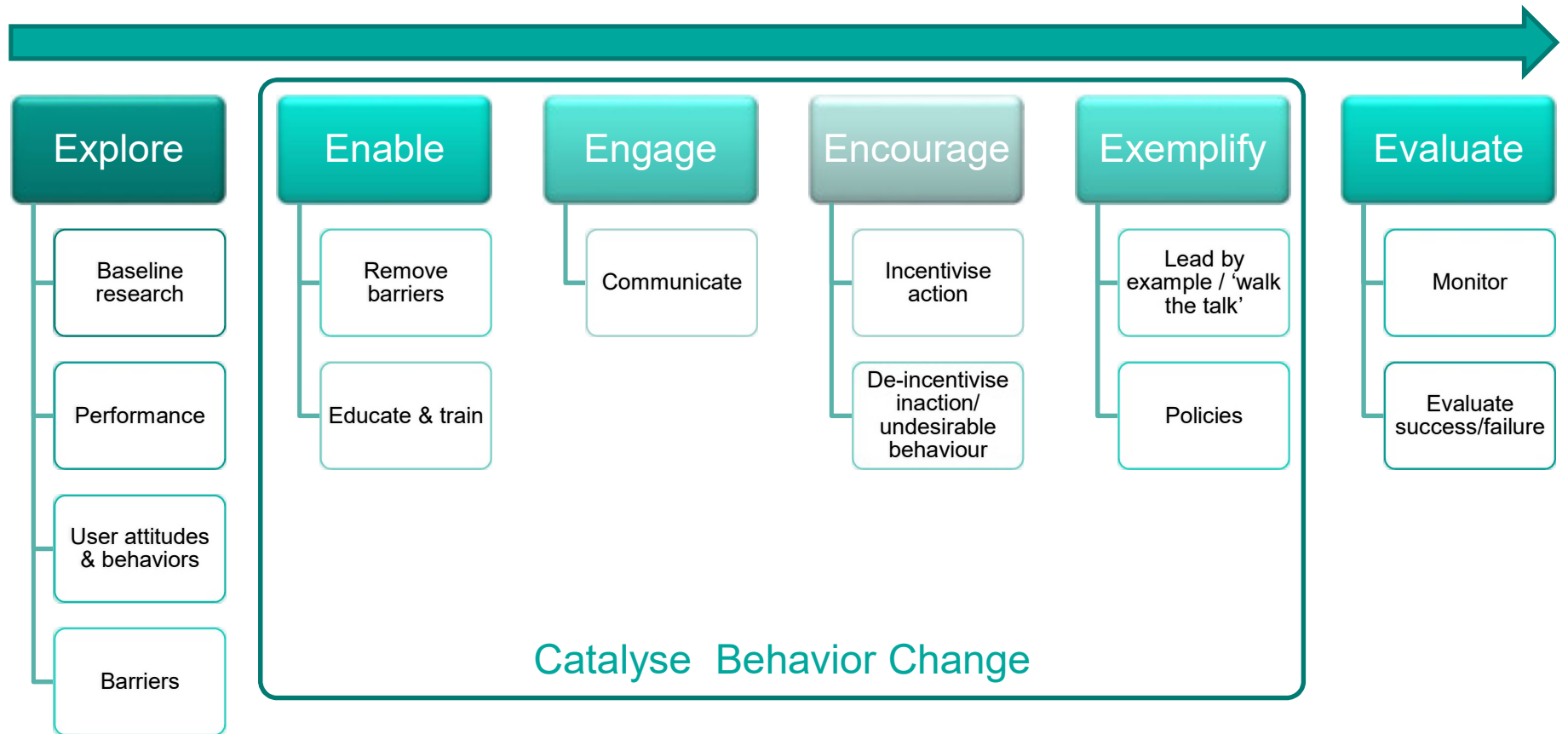
In developing the plan for the pilot project, the leaders of the effort focused on the 'YES' – six steps that can help shift behavior and maximize the impact of any recycling and waste-generation program. The strategy is already used by many in the U.K.

The 'Es' displayed in the figure on page 41 are described below:

- **Explore** – Conduct baseline research into the audience and the barriers at play.
- **Enable** – Address those barriers, which could be physical, knowledge-based, psychological or cultural, and devise ways

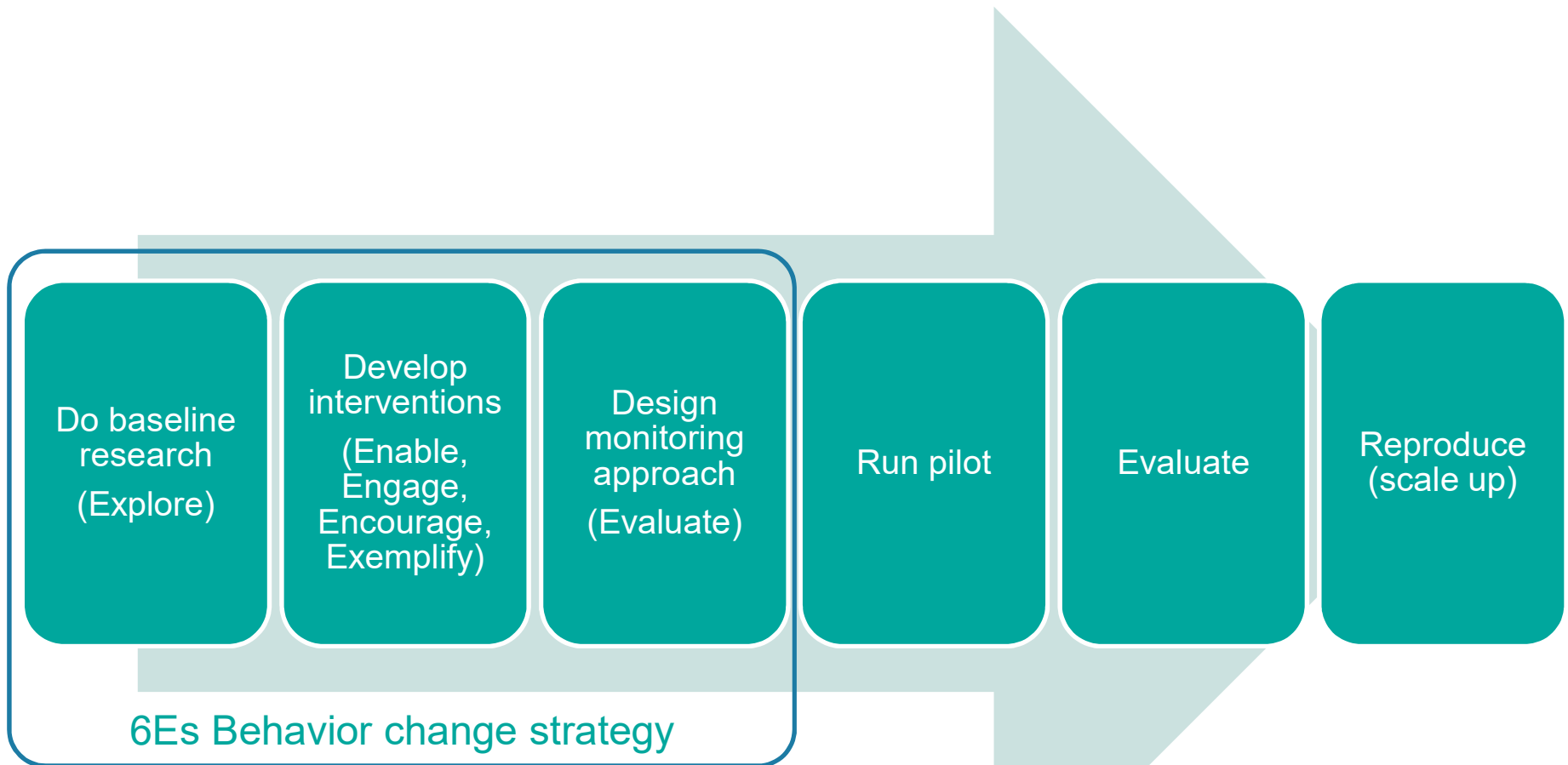
[https://www.eunomia.co.uk/case\\_study/informing-organic-waste-collections/](https://www.eunomia.co.uk/case_study/informing-organic-waste-collections/)

# The 6Es...



Aim: to make the desired behavior(s) simply 'the way we do things round here'

# Putting it all together





# Barriers to recycling food waste

This Stinks



# Explore

- **Two main barriers:**
  - **Ease of use**
  - **The ‘yuck factor’**
    - **Slime, smell and general unpleasantness associated with food waste**
    - **Pests and vermin**
- **Solutions:**
  - **Make the service convenient for users**
  - **Reduce the ‘yuck factor’**

# Evaluation

- **A baseline evaluation of participation and capture rates was undertaken during the first four weeks of the pilot:**
  - Across the six buildings studied, an average of 4.14oz of food scraps was being collected per person per week
  - The initial average capture rate was 18.9%
- **Followed by post-intervention evaluation including a questionnaire**





# Interventions

Building No	Enable 23g (lined with compostable bag) basement bin	Engage Leaflet at start	Enable 13-gallon (lined compostable bag) floor bin	Enable Vented pail for apartments	Encourage Compostable bag supply
1	✓	✓			
2	✓	✓	✓		
3	✓	✓		✓	Unlimited (24+)
4	✓	✓	✓	✓	Unlimited (24+)
5	✓	✓		✓	Starter pack (6)
6	✓	✓	✓	✓	Starter pack (6)

# Tools

Put items like these in your brown bin.



Visit [nyc.gov/organics](http://nyc.gov/organics) for FAQs and videos.

[nyc.gov/organics](http://nyc.gov/organics) | call 311  
NYC Sanitation



## Organics StuyTown

For the next two months, your building will be part of a trial aimed at increasing participation in organics collection.

- Attached you will find guidelines for organic items that can be collected.
- Please separate organics from your other trash and recycling and place in the brown bin in the recycling area.
- If the bin is full, please contact Resident Services at 212-420-5000.
- If you have any questions about the trial, please email [organics@stuytown.com](mailto:organics@stuytown.com)
- To find out more about NYC's composting program or its Zero by 2030 challenge, visit <http://www1.nyc.gov/assets/dsny/zerowaste/residents/food-scrap-and-yard-waste.shtml>

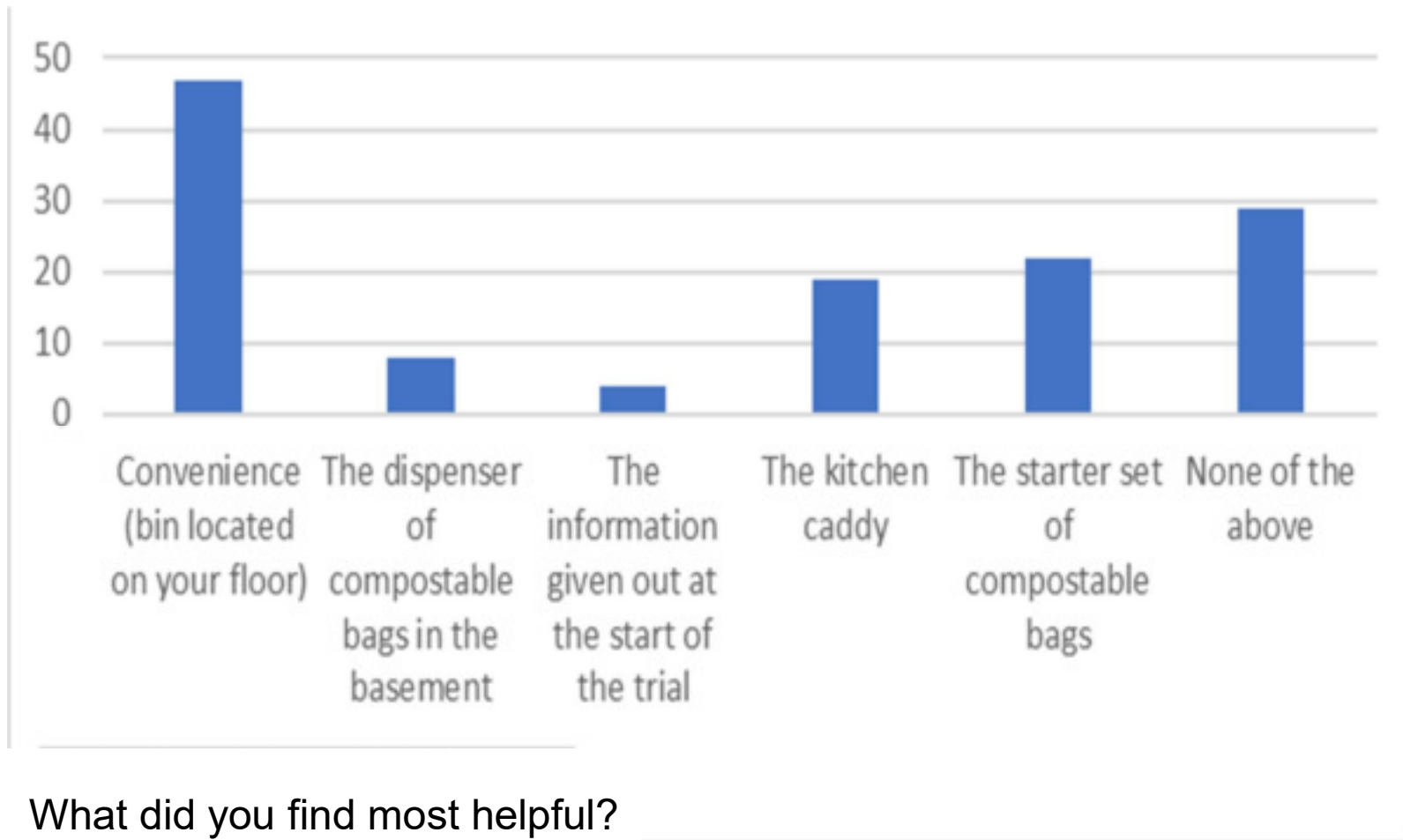
# Results - Capture

Building No.	Conditions	Pre-trial collection (oz)	Trial average (oz)	Original capture rate	Average capture rate in trial	Increase (percentage points)
1	Leaflet only	3.07	2.62	14.04%	11.96%	-2.08
2	Leaflet and floor bin	4.67	12.47	21.34%	57.04%	+35.70
3	Leaflet, vented pail, unlimited compostable bags	4.79	9.44	21.88%	43.18%	+21.30
4	Leaflet, floor bin, vented pail, unlimited compostable bags	4.91	14.21	22.43%	64.98%	+42.55
5	Leaflet, vented pail, 6 compostable bags, 1 <sup>st</sup> purchase voucher	4.68	6.03	21.39%	27.58%	+6.19
6	Leaflet, floor bin, vented pail, 6 compostable bags, 1 <sup>st</sup> purchase voucher	2.73	13.76	12.47%	62.91%	+50.44

# Results - Contamination

- **Levels of contamination low at the start**
- **Compostable bags replaced plastic bags in the waste**
- **Despite the increase in participation and capture contamination stayed less than 5%**

# Results - Post Trial Resident Feedback



# Findings

- **The presence of a floor bin made the largest impact on the amount of food scraps collected:**
  - Buildings with floor bins increased food scraps capture from the residual waste stream of between 200% and 400%
  - Floor bins are more convenient for residents and act as a daily visual reminder of the food scraps recycling service
- **Having a continuous free supply of compostable bags**
  - The highest capture rates were achieved where residents had access to an unlimited supply of bags as well as a floor bin.
  - The compostable bags also helped to reduce contamination

# Conclusions

- **Address the barriers**
- **Promote the benefits**
- **Make the service convenient**
- **Provide compostable bags**
- **Target your communications**
- **Deliver messages to all potential users**

# Leveraging the 6Es

- **Structured approach to investigating and addressing issues with recycling services:**
  - Increase participation
  - Increase collection quantities
  - Improve quality
- **Can be used for other environmental related behaviour change programs**





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