

National Solid Waste Benchmarking

Changing Customer Behaviour and Mindset

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Outline of Presentation

- Examine the program goal: “Change customer behaviour and mindset”
- Attitudes towards participating in Waste Management programs - A Case Study
- Participation Rate
 - How is it measured?
 - How can it be increased?
- City of Markham – A Case Study
- Future Performance Measures



Public Attitudes Towards Participating in Waste Management Program

- Motivations

- Environmental Concerns
- Social Pressure and Norms
- Economic Incentives
- Personal Responsibility

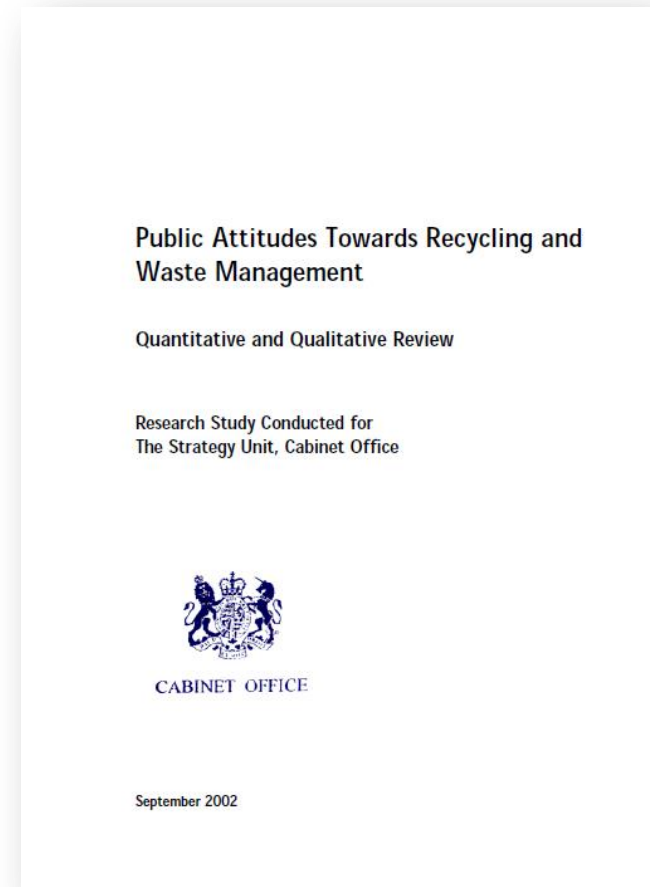
- Barriers

- Convenience and time
- Location of services
- Lack of information/awareness
- Apathy
- Feeling individual action does not make a difference



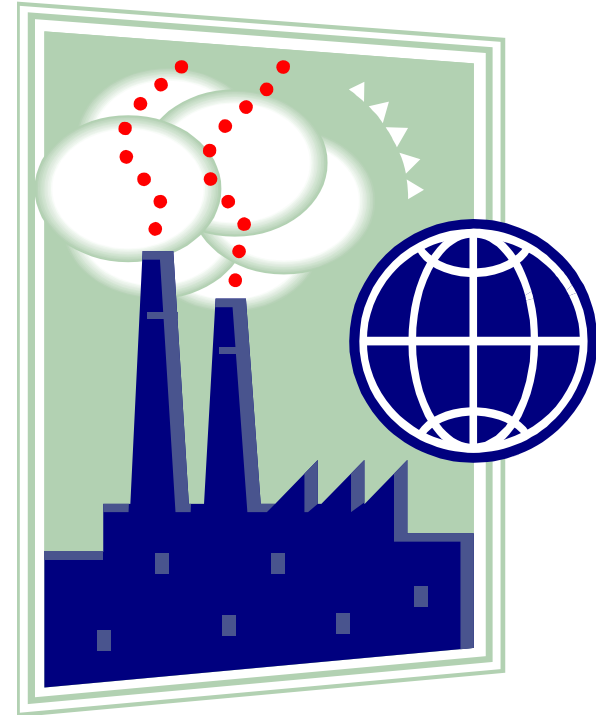
Case Study: “Public Attitudes Towards Recycling and Waste Management”

- Quantitative and Qualitative Review
- Conducted by MORI Social Research Institute for UK Waste Strategy
- Published in 2002



Key Findings of Research Study

- Linking waste with other local and global environmental issues may increase interest in waste issues
- Information gaps on life-cycle of waste and recycled materials
- Environmental motivations alone are insufficient to motivate recycling activities; convenience and time key factors in participation



Key Findings of Research Study

- Lack of information and awareness are key barriers to recycling.
- Household dynamics – presence of someone in the household who encourages recycling
- Recycling in the workplace may encourage increased household recycling



Goal: Change Customer Behaviour
and Mindset



PM: Participation Rate in
curbside collection (New in 2014)



Why is it important to benchmark participation rates?

- Participation rate directly linked to diversion rate
- Decision-making tool for individual communities
 - Identify low participation areas
 - Allow for targeted marketing exercises
 - Modify collection services based on data
 - Evidence to support public policies
- Identify communities with greatest participation rates
 - Lessons learned



How is participation tracked by participating communities?

- Annual participation studies
- Surveys during collection days
- RFID with GPS
- RFID pilot programs

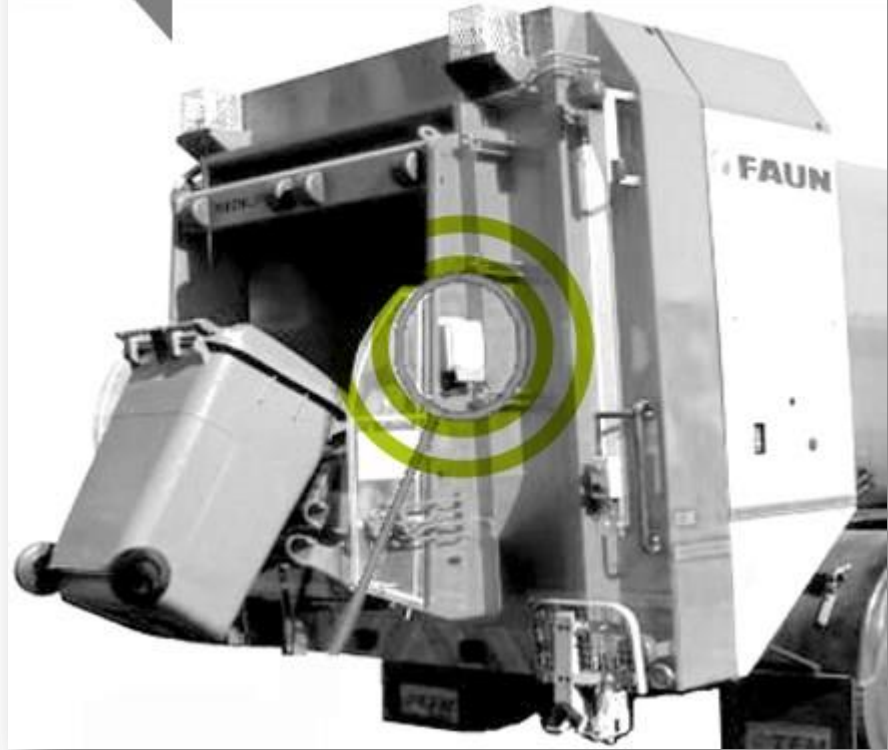
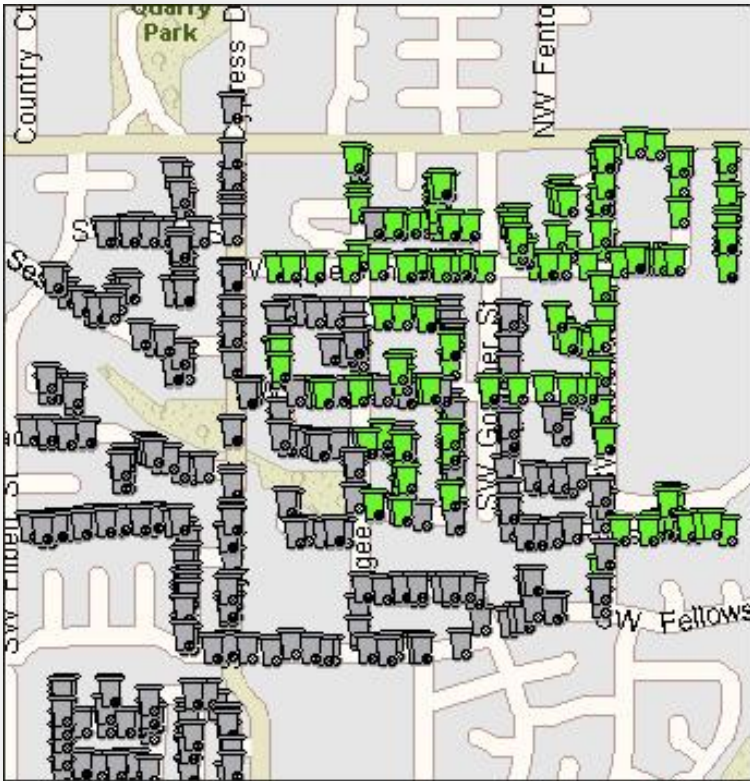


Performance Measure: Participation Rate

- How can participation rates for garbage, organics and curbside recycling programs be tracked?
 - Curbside services
 - Automatic vehicle location (AVL) with radio frequency identification (RFID)
 - Conduct surveys during collection days (count number of bins being used)
 - Household surveys
 - Drop-Off Facilities
 - Surveys (Data on items being dropped off, demographics, distance travelled, convenience of drop-off location, etc.)



Exact time and place of bin lifts
Precision technology enables cost saving
and time efficient management of fleets



www.liftlogger.com

www.fleetmind.com





www.rfidjournal.com

www.rfid24-7.com



Performance Measure: Participation Rate

- Challenges/issues with measuring participation rates:
 - Additional effort and investment required
 - Misleading data
 - If recycling bin is not placed outside for curbside pickup, does this mean the resident is not participating, or simply reduced waste production?
 - Importance of collecting long term data and observing trends
 - Back alley collection services – Recycling and organics bins are permanently left in the alley
 - Is the resident actually participating?
 - Waste from other residents?
 - Definition of Participation?



Performance Measure: Participation Rate

- How can participation rates be increased?
 - Make participation mandatory through bylaws
 - Enforcement through rejections or surcharges
 - Clear garbage bags
 - Case study – City of Markham
 - Education Programs
 - Financial incentives – Pay as you throw



Case Study: City of Markham, ON – Clear Garbage Bag Collection Program

- City of Markham population = 320,000
- On April 30, 2013 – “Small Change – Big Benefit” program implemented for all residents (~90,000 households)



**SMALL CHANGE
BIG BENEFIT!**

WHY THE CHANGE?
As Markham moves from land filling to processing and incinerating waste in the new York/Durham Incinerator, it is our responsibility to ensure that the garbage we send to these facilities is free of hazardous, toxic, recyclable and compostable materials. We owe this to the communities that have agreed to manage our waste for us.

Clean waste supports cleaner air and energy. Clear bags will remind us to be careful about what we throw in our garbage.

Using clear bags also keeps our collectors safe from injuries and supports Markham's new Mandatory Separation Bylaw; everyone must do their part!

Switching to clear bags is a small change that has proven to deliver big benefits.

CLEAR BAG BASICS
Starting April 30th, 2013, City of Markham is switching to clear bags for garbage.

- No more limits!
- No more tags!
- No added cost!
- Residents must place only non-recyclable/non-compostable garbage in clear bags for collection
- No more than 4 small (grocery) bags may be placed within your clear garbage bag for privacy items per collection
- You may place clear bags of garbage in a garbage can

Clear bags containing large amounts of recyclable/compostable material and dark bags may not be collected.

DID YOU KNOW?
Confidential bills/papers, feminine hygiene products, diapers (adult & baby) should go in your Green Bin.

For more information on clear bags and other waste programs, visit:
www.markham.ca • 905-415-7535

MARKHAM

FSC
www.fsc.org
PAP-1708-100

www.markham.ca



Program Features

- Full scale rollout for all residents (~90,000 households).
- No limit on clear plastic bags.
- Only non recyclable/non-compostable garbage in clear bags.
- Allowed 4 small (grocery size) bags for privacy items per collection
- Bags containing large amounts of recyclables/compostable material not accepted.



www.yorkregion.com



Results

- Within 12 weeks of launching program, diversion increased from 72 percent to 81 percent.
- 100 percent participation in program.
- Increase in participation in recycling and organics collection.
- No increase in collection costs to City or residents
- Significant increase in green bin and blue box sales



www.markham.ca



Program Issues

- Initial start-up resistance
- Resident complaints related to non clear bag users
- Privacy less of an issue
- Lack of communication - Residents unaware of transition



Keys to Program Success

- Initial grace period (“soft launch”) – Approx. 2 months
- Political, staff, public education programs
- Bylaw revisions
- Co-ordination with waste collection contractor
- Communication with local retailers in advance to ensure availability of clear bags
- Engaging public and other stakeholders during planning phase



Communities using Clear Bag Strategy

- Implemented in 35 of 55 municipalities in Nova Scotia
- City of Charlottetown, Prince Edward Island
- Municipalities in Ontario
- Mostly in Canada, very uncommon in US or Europe.



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Customer Behaviour
and Mindset



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New Performance
Measures?



Discussion:

Additional PMs to address the goal “change customer behaviour and mindset”?

