

# Unlocking Recycling's Potential: Framing, Empathizing, Mapping

February 21, 2024



**The Recycling  
Partnership**  
Solving for Circularity



**CENTER FOR  
BEHAVIOR & THE  
ENVIRONMENT**



**CRRA**  
Ending waste.

# Agenda

## DAY 1

**Welcome**

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**Why Behavior Change Matters in this Moment?**

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**Behavior Change & Behavior-Centered Design**

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**Equity & Recycling**

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**Interactive Adventures with Behavioral Insights**

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**Framing, Empathizing, Mapping**

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## DAY 2

**Opening, Reflections, and Warm-Up**

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**About Connected Recyclability**

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**Levers of Behavior Change**

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**Ideate, Prioritize & Refine Solutions**

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**Prototype, Test, Launch, Assess**

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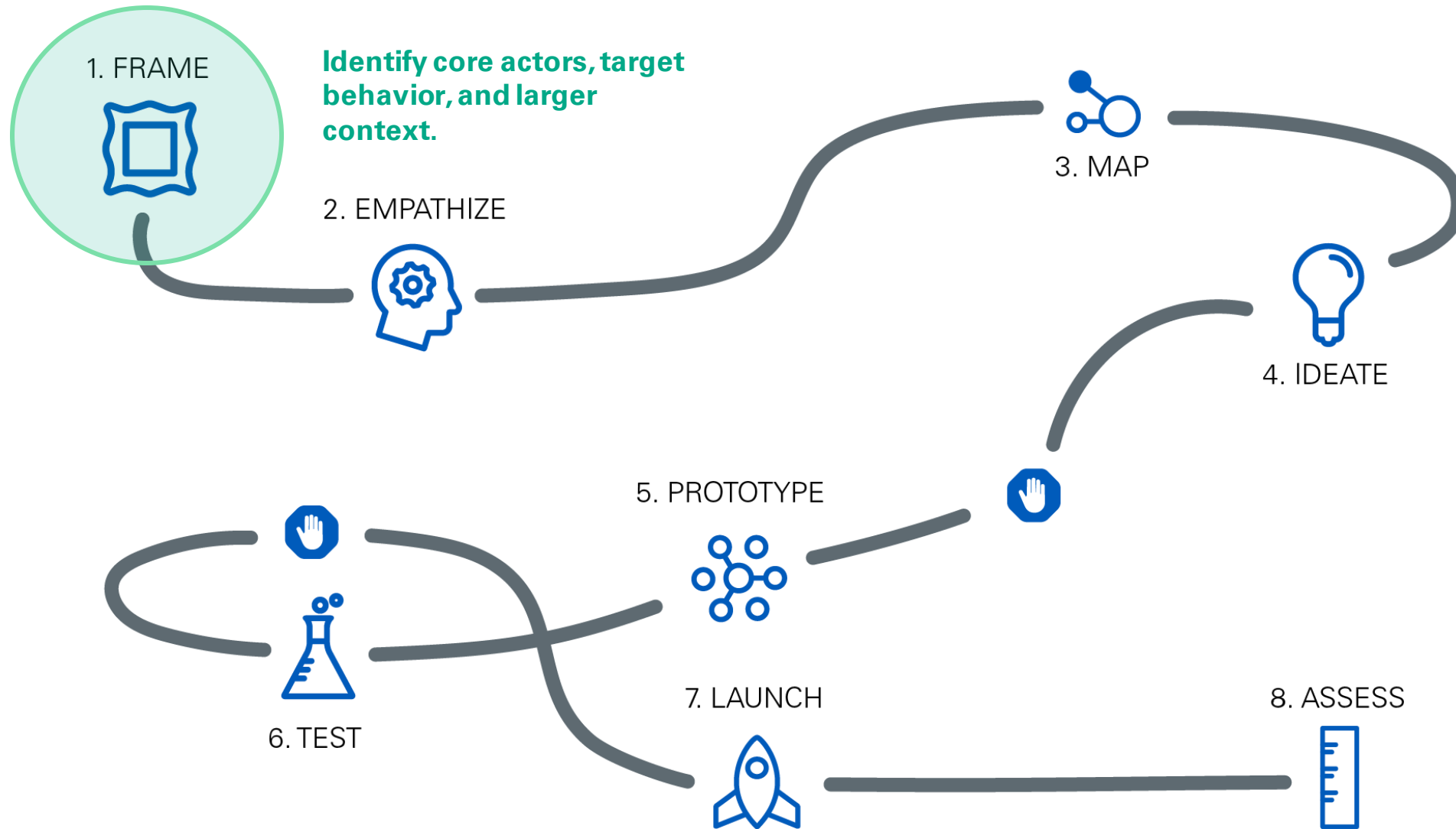
**Equity - What's next?**

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# Framing the Challenge



# The Behavior-Centered Design Journey



# Frame

**What?** Identify the target behavior, actors, and context for your environmental challenge.

**How?** Background research, problem-behavior-actor mapping, stakeholder-actor mapping, observation

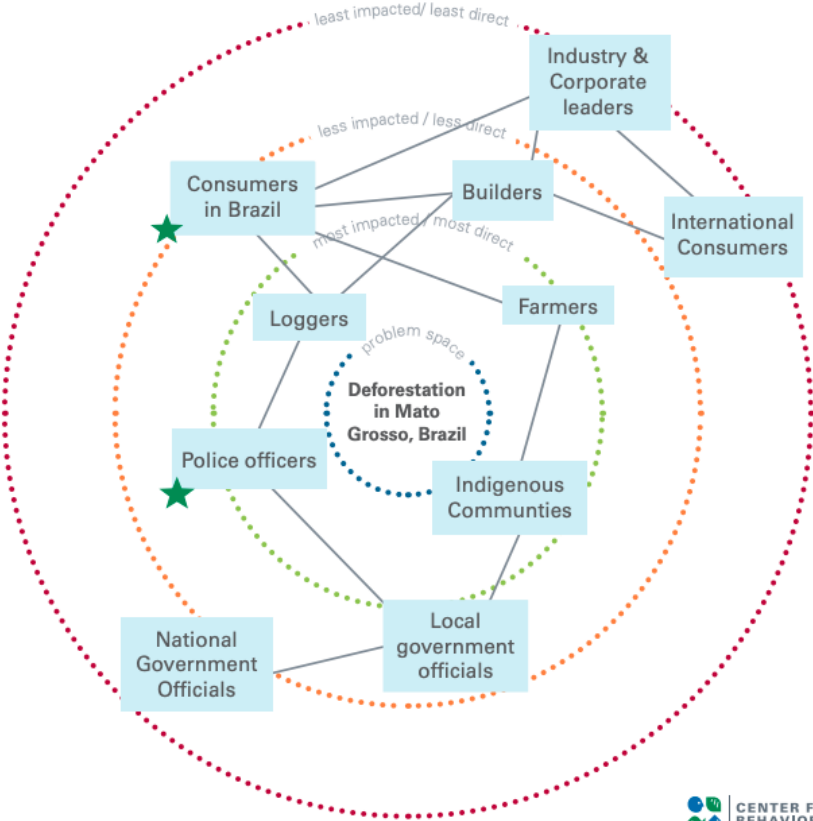
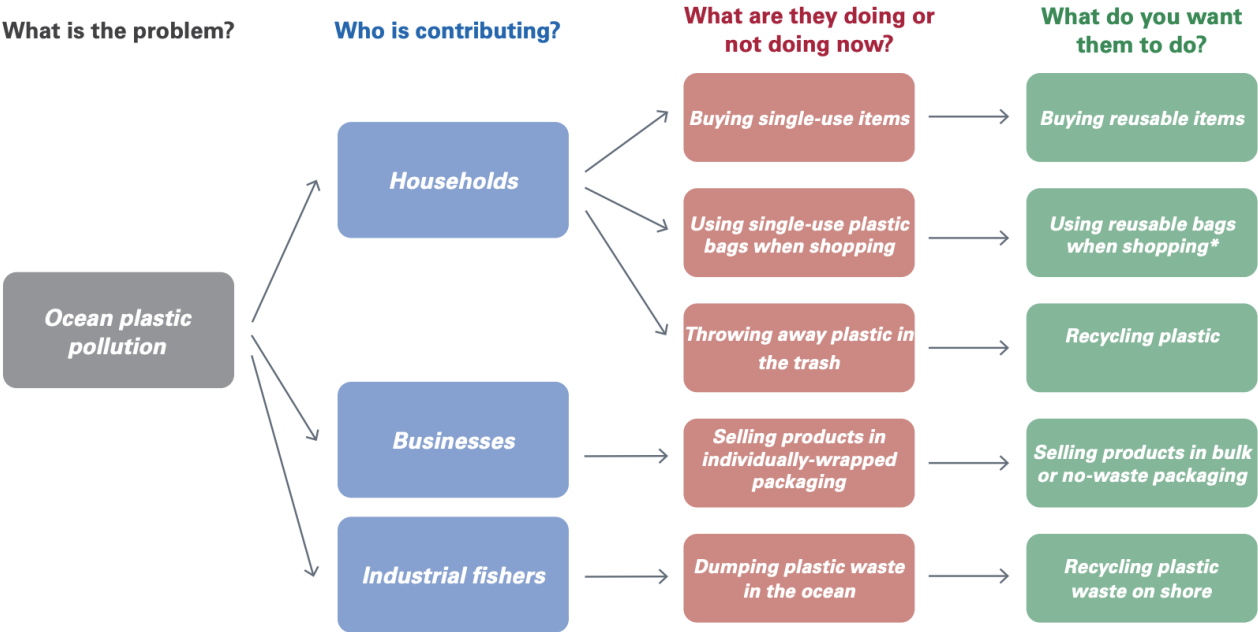
## Key Principles:

- It's important to identify the 'who' and 'what' of behavior change
- Behaviors operate within larger systems
- Beliefs, attitudes, intentions ≠ behaviors

## DEI Considerations:

- What are the power dynamics among actors in the larger system?

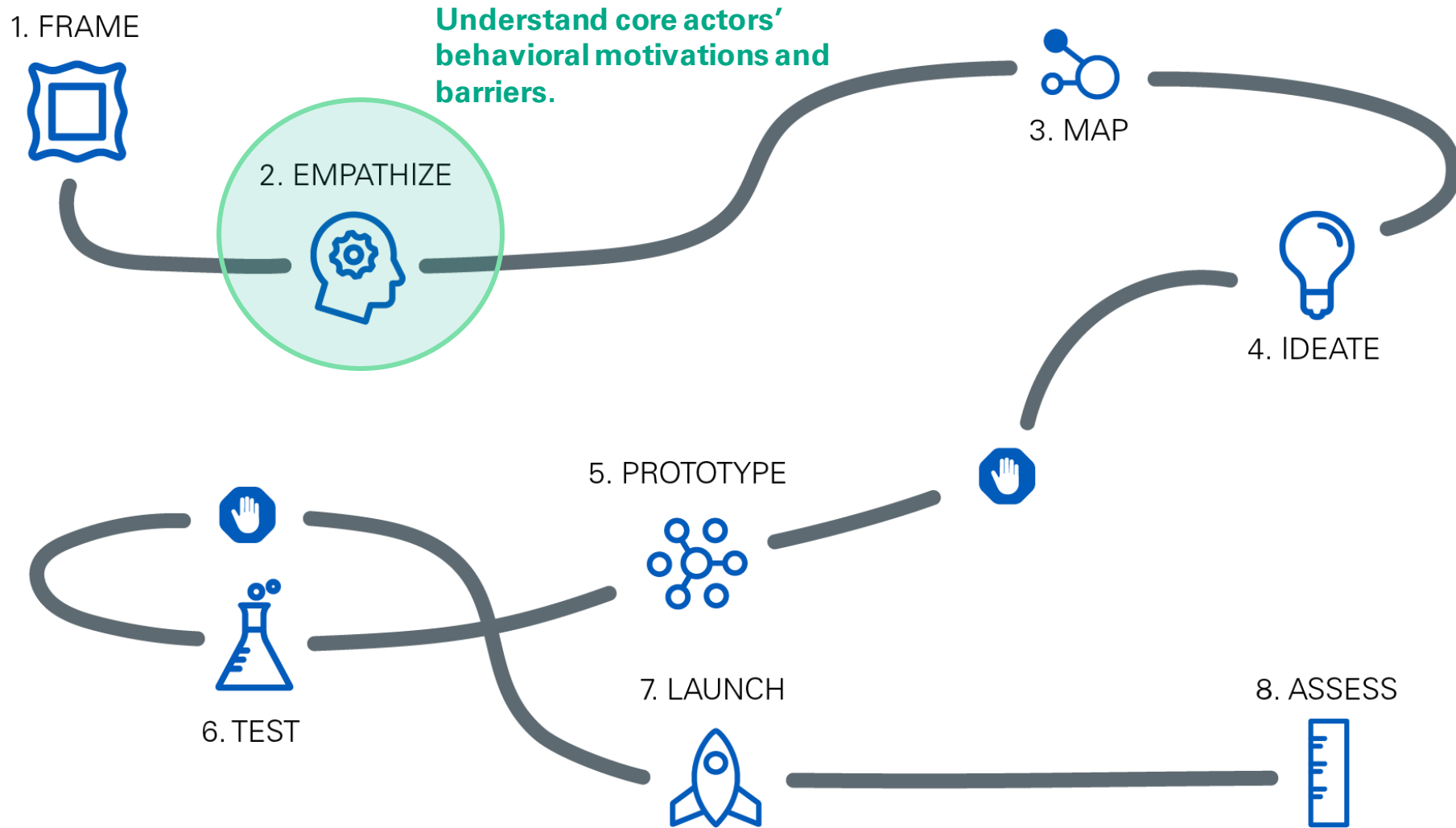
# Framing the Challenge Tools



# Empathizing with Our Communities



# The Behavior-Centered Design Journey





# Empathize

**How?** Surveys, key informant interviews, participant photography, observation

## **Key Principles:**

- Empathizing means understanding people in and on their own terms
- Recognizing your biases and assumptions can help you be more curious and open minded

## **DEI Considerations:**

- Follow ethical guidelines for collecting data
- Understand your position and identity during research
- Engage in deep and active listening

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## Behavior Change For Good



We often state that we want to use behavioral tools and strategies to influence the behaviors of other people for good. But we want to think about what that really means and how we make sure that we are indeed doing good.

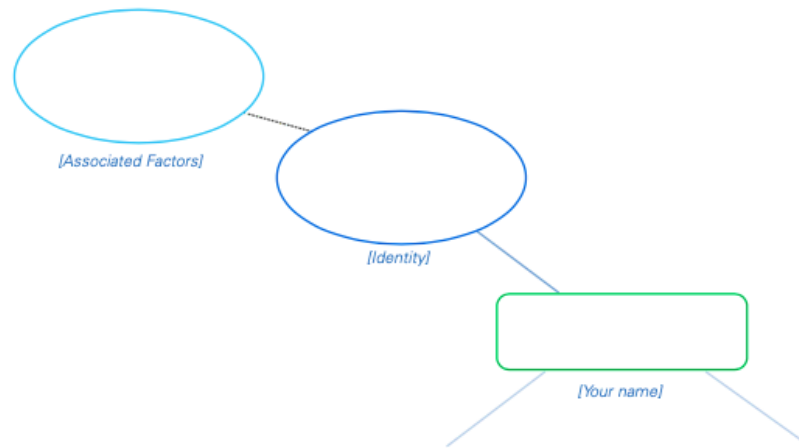
It can be tempting to assume that our audience thinks like we do, has the same values, or reacts the same way, but often, they don't. When we don't take the time to understand people, and in particular, the assumptions we might be making about them, we can replicate the same status quo conditions we're trying to change. Though we have the best intentions, we may in fact cause harm if we are not thoughtful about how we make decisions. It's crucial that we are responsive to the people we're working with and not to our own assumptions.



## EMPATHIZE

### Paseo Protocol

Use the space below to visualize the identities and experiences you are bringing to your design work. 1) Write your name in the center. 2) Draw lines to add words or phrases describing different identities you hold. 3) Add associated factors or meanings for each identity. 4) On the next page, use the questions to reflect on how your values, identities, and experiences could affect how you approach your current behavior change project.



Adapted from Tania Anaissie, Beytna Design and from National School Reform Faculty

# Pros/Cons, and Considerations to Make the Most of Research

	Quantitative	Qualitative
PROS	<ul style="list-style-type: none"><li>• Defined confidence in insights</li><li>• Correlations tell a story</li><li>• Comparable over time</li></ul>	<ul style="list-style-type: none"><li>• Exploratory</li><li>• Anecdotes can be powerfully real, relatable</li><li>• Most people like to talk about recycling</li></ul>
CONS	<ul style="list-style-type: none"><li>• Limited depth of individual insights</li><li>• Beware of canned answers</li><li>• Waste behaviors are complicated thus short questions may be flawed (and long questions may also be flawed)</li></ul>	<ul style="list-style-type: none"><li>• Uncontrolled, context specific settings</li><li>• Social dynamics are unpredictable</li><li>• Curiosity can take over</li><li>• Results lack defined confidence</li></ul>
CONSIDER	<ul style="list-style-type: none"><li>• Reasonable confidence within smaller demographic groups requires planning</li><li>• Standard methods may not be equitable</li><li>• Transcreation of questions</li></ul>	<ul style="list-style-type: none"><li>• Developing a panel of reviewers or participants</li><li>• Plan for developing sharable insights “snacks” for stakeholders</li></ul>

# There are many behaviors and data points to track





# Research Best Practices



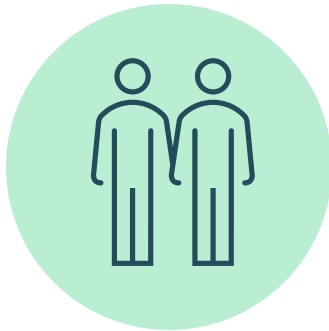
Ask for consent



Challenge your biases  
and be curious



Respect people's time  
and circumstances



Be honest and  
build trust

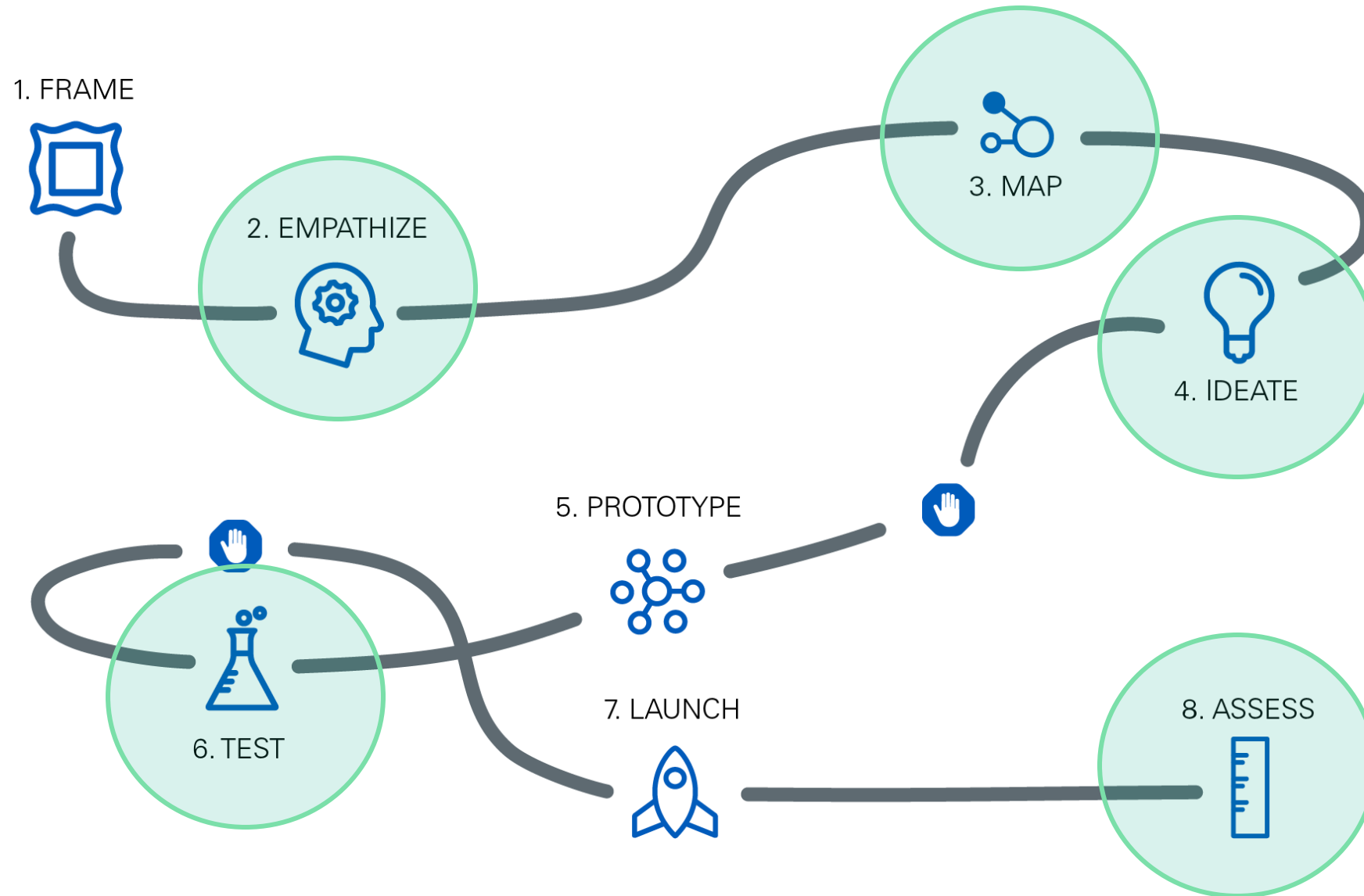


Test your tools and  
get feedback



Document your  
methods and  
processes

## The Importance of Good Data



# Types of Recyclers

Elizabeth Schussler

Sr Dir Social Change, Behavior, & Impact

February 21, 2024

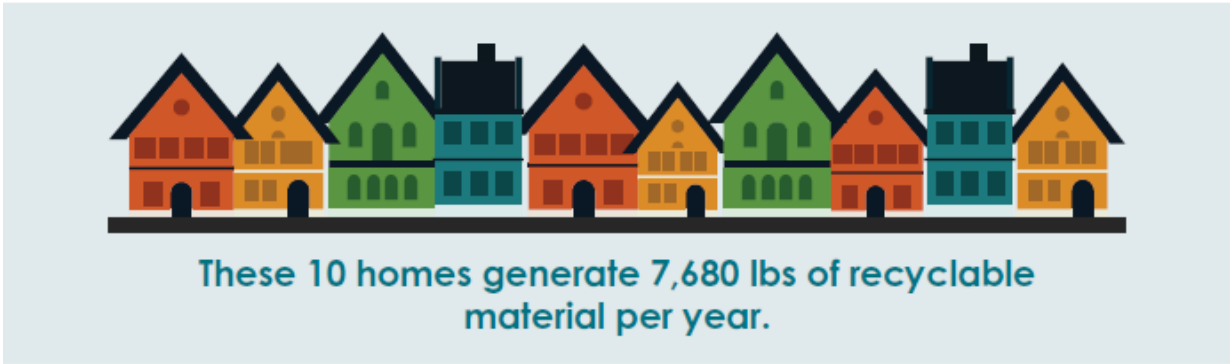


**The Recycling  
Partnership**  
Solving for Circularity

We mobilize people, data, and solutions across the value chain to reduce waste and our impact on the environment while also unlocking economic benefits.



# Despite High Levels of Public Support, 50% of Recyclables Lost Due to Behavior Gaps

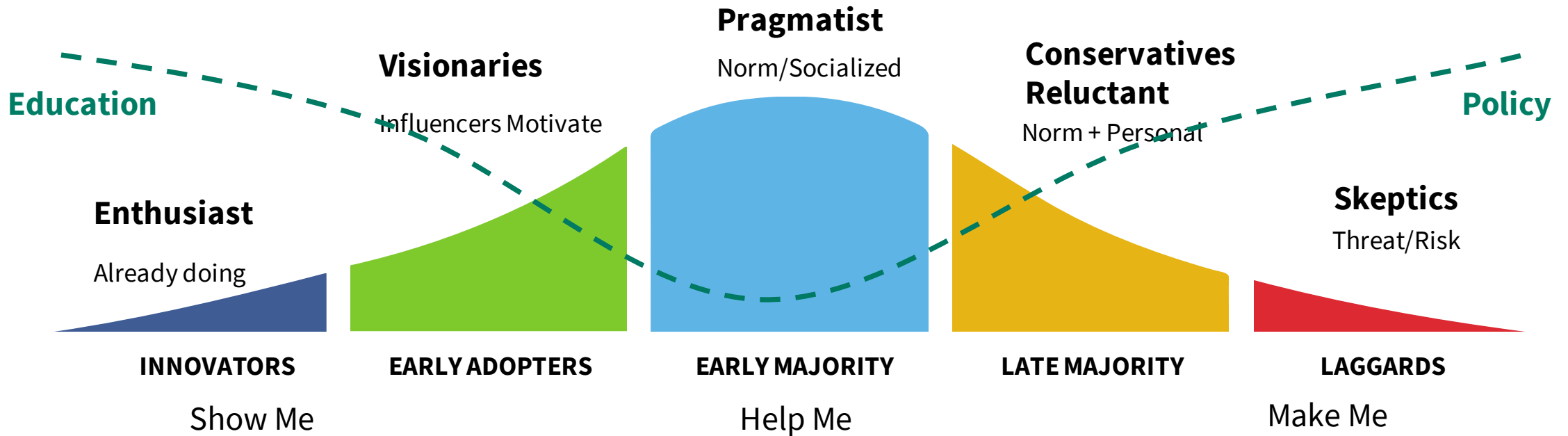


	Participant Capture Rate
Cardboard	81%
Natural HDPE Bottles	64%
Glass	62%
Mixed Paper	61%
Colored HDPE Bottles	57%
PET Bottles	56%
Aluminum Cans	55%
Aseptic/Cartons	51%
Steel Cans	48%
Non-bottle PET	44%
Bulky Rigid	39%
Polypropylene	30%

# Tailoring: What do we know about participation in a city?

## How can data shape our strategy?

### TYPICAL ADOPTION CURVE-Inverse reach

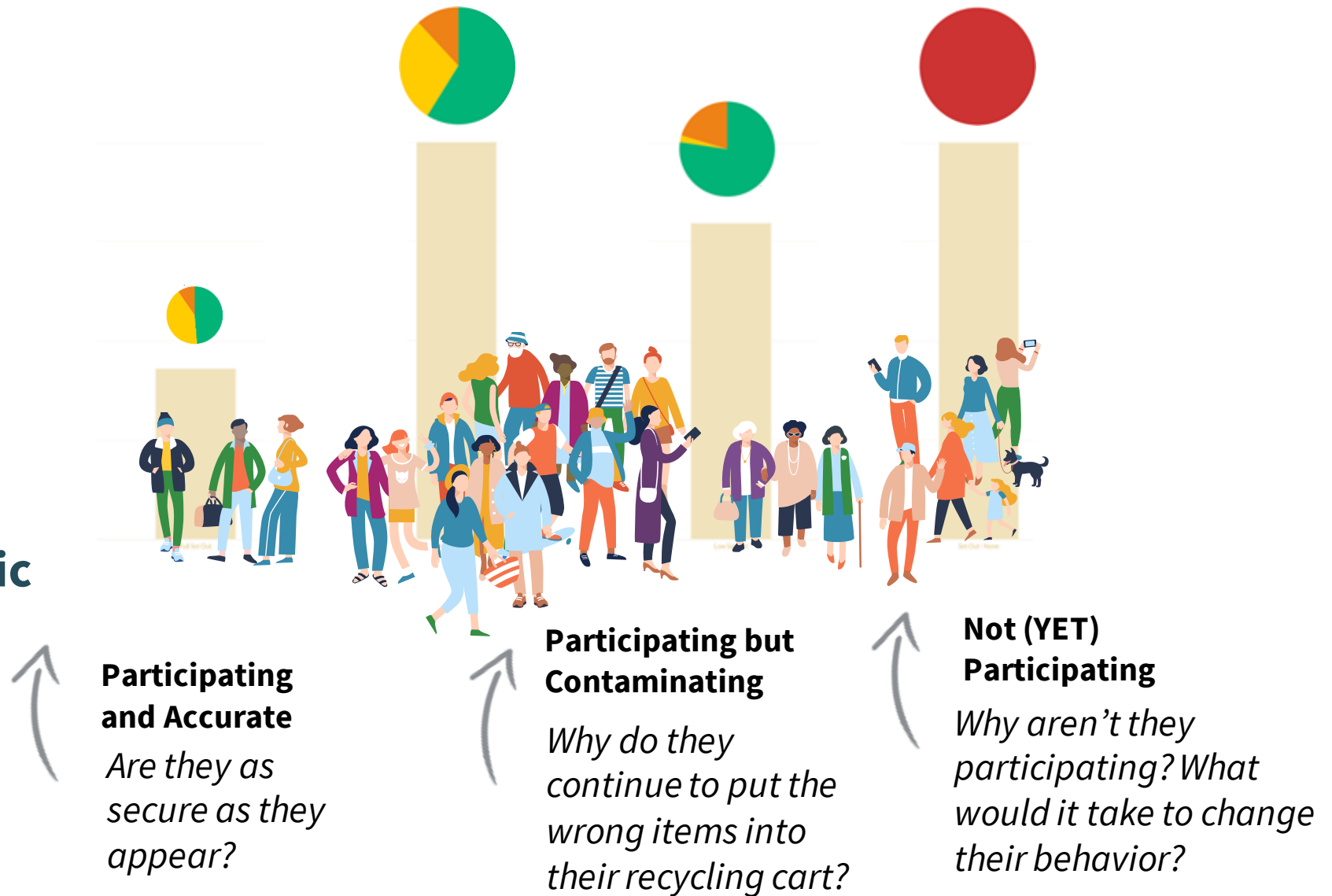


Typical outreach and policy serve the ends of the spectrum, but do not serve the "movable middle".

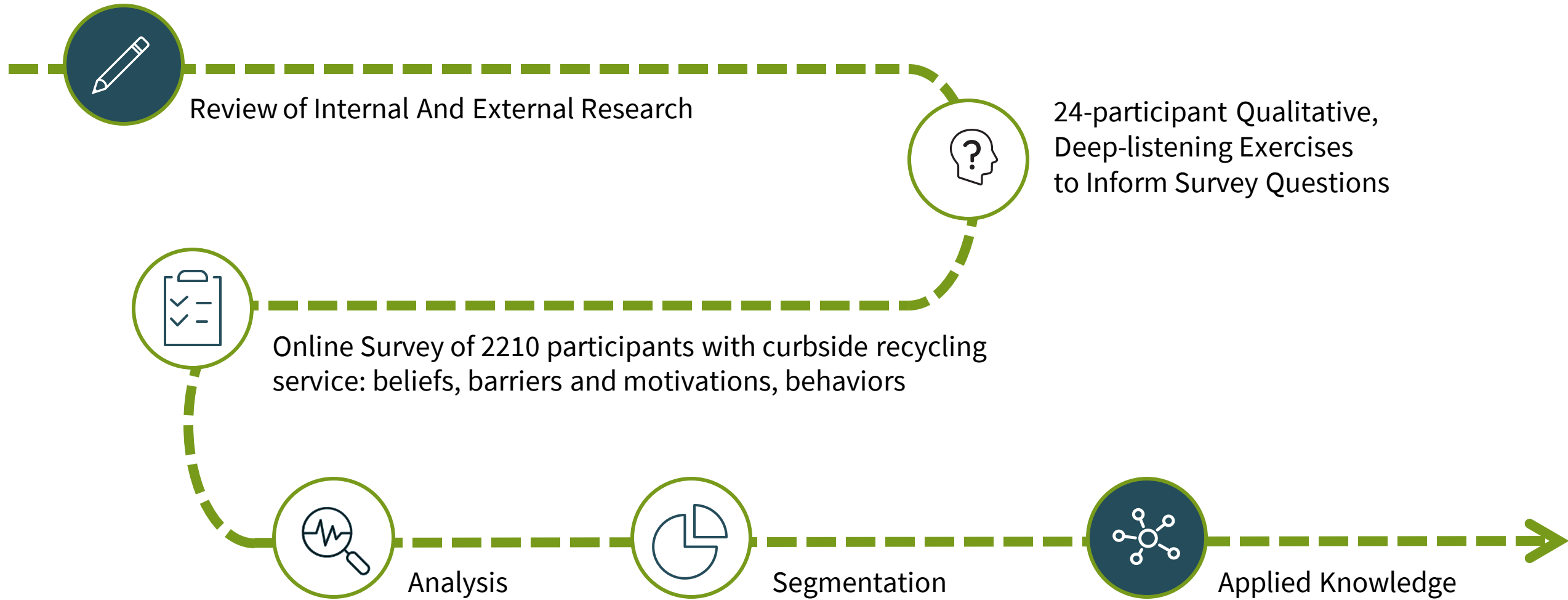
# Why Segment Audiences?

What people SAY about recycling informs our interventions...

Behavior measures (what they DO and how they respond), are more specific metrics of success.



# Our Process From Research to Applied Knowledge



# Segmenting Respondents into Predictive Groupings

## Categories of inquiry that shape segmentation

### Psychographic:

values, interests, lifestyle and personality characteristics.

### Behavioral:

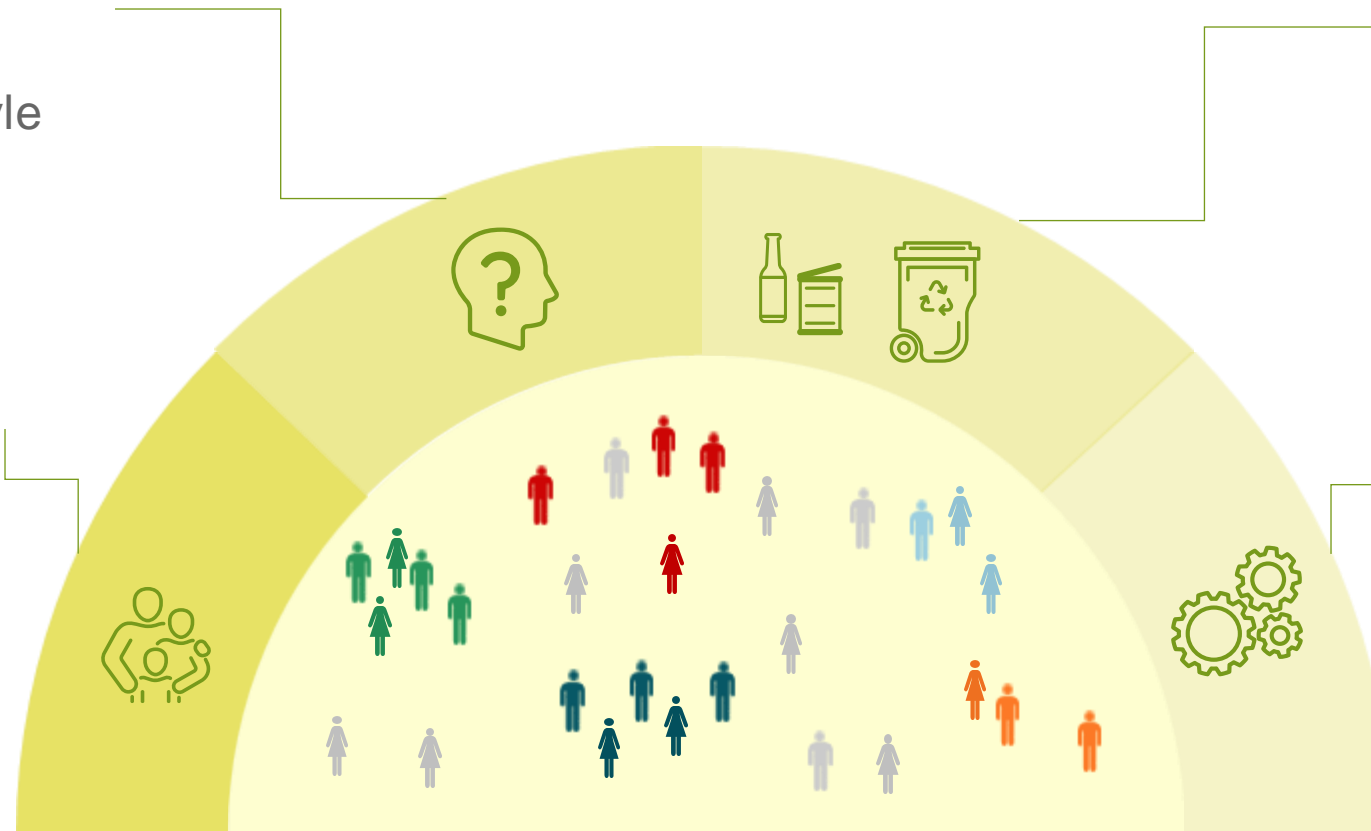
tendencies, habits, products and service usage.

### Demographic:






age, race, religion, gender, family size, ethnicity, income, education.

### Needs:

requirements for participation and confidence in recycling.



12% don't recycle and are distributed across the segments.

5 Types of Recyclers	Eco Activators (25%) 	Committed Followers (24%) 	Discouraged Self-Doubters (18%) 	Detached Abiders (16%) 	Conflicted, Overwhelmed (16%) 
Segment Tendencies (but not exclusives)	45+ yo, higher income & education, larger home, more Asian, fewer Black	45+ yo, higher income, average race/ethnicity mix	18-64 yo, lower income & education, smaller household, more Black	45+ yo, small households, more conservative	18-64 yo, mid-upper income, larger household, more Hispanic, Black, Asian

**Recycling** *fill in blank*  
+ Inclinations

*Protects the planet*  
• Social, Emotional






*Is right to do, a civic duty*  
• Private, Practical

*Reduces waste*  
• Private, Practical

*Is or feels required*  
• Private, Emotional

*Could help me and the planet*  
• Social, Emotional

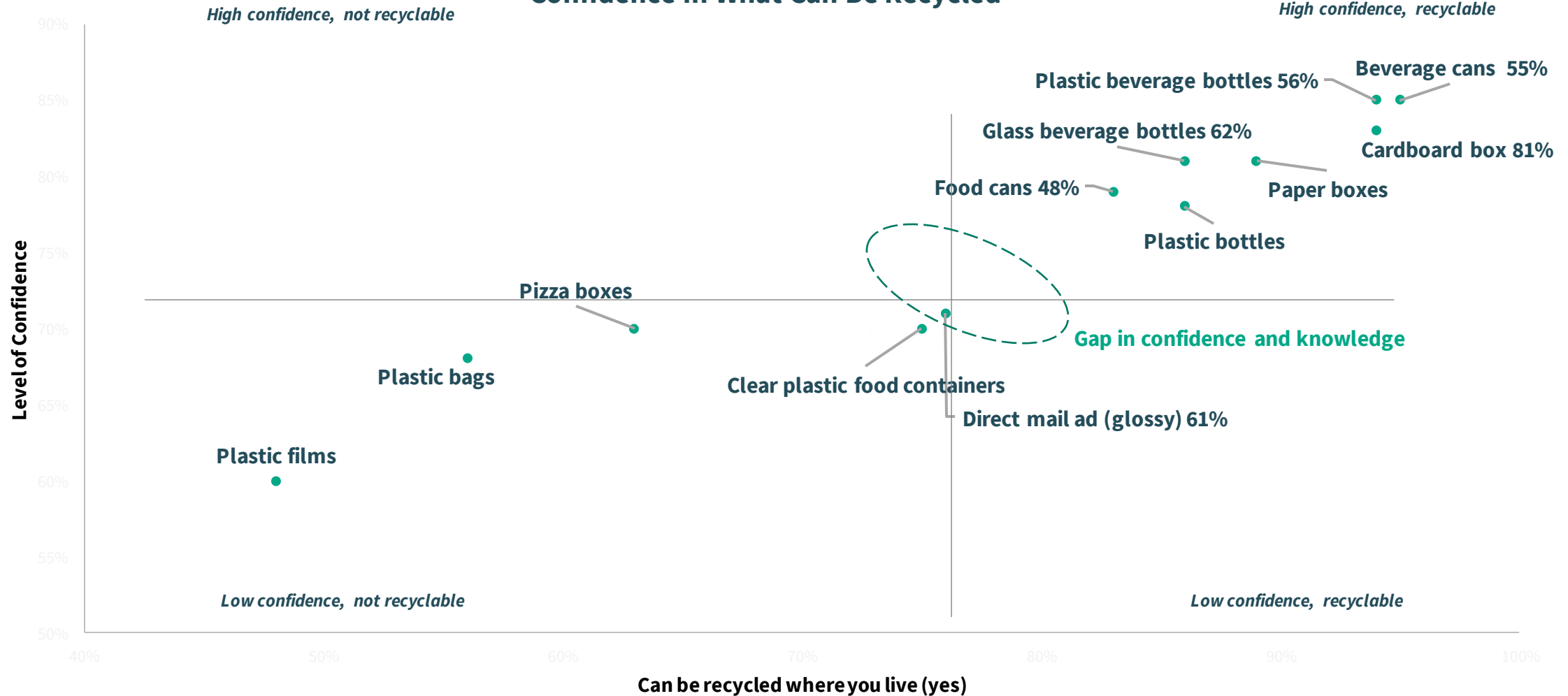
2 groups	MORE DEDICATED		LESS DEDICATED		
Feelings about recycling	HOPEFUL PROUD PASSIONATE FRUSTRATED	IMPORTANCE RESPONSIBILITY CONFIDENT COMMUNITY	GUILT CONFUSED TOO HARD ALONE	FOLLOWING ALONG UNSURE CONFUSED RESENTFUL	PASSIONATE JUDGED ANXIOUS TOO MUCH EFFORT
Behaviors around recycling	<ul style="list-style-type: none"> <li>Research and teach</li> <li>Overcome issues</li> </ul>	<ul style="list-style-type: none"> <li>Organized</li> <li>Intentional</li> <li>Consistent</li> </ul>	<ul style="list-style-type: none"> <li>Defer to labels (pkg, bin)</li> <li>Low effort</li> <li>Resent lack of support</li> <li>Doubt selves, process</li> </ul>	<ul style="list-style-type: none"> <li>Organized</li> <li>Defer to gov, friends</li> <li>Low effort, detail</li> <li>Doubt benefits</li> </ul>	<ul style="list-style-type: none"> <li>Research and teach</li> <li>Defer to digital, friends</li> <li>Resent warnings, fines</li> <li>Don't go out of the way</li> </ul>

5 Types of Recyclers	Eco Activators (25%) 	Committed Followers (24%) 	Discouraged Self-Doubters (18%) 	Detached Abiders (16%) 	Conflicted, Overwhelmed (16%) 
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<b>Recycling</b> <i>fill in blank</i> <b>+ Inclinations</b>	<b>Protects the planet</b> • Social, Emotional	<b>Is right to do, a civic duty</b> • Private, Practical	<b>Reduces waste</b> • Private, Practical	<b>Is or feels required</b> • Private, Emotional	<b>Could help me and the planet</b> • Social, Emotional
<b>Feelings</b> about recycling	<ul style="list-style-type: none"> <li>• Hopeful</li> <li>• Proud</li> <li>• Passionate</li> <li>• I'm not doing enough</li> <li>• Disappointed</li> </ul>	<ul style="list-style-type: none"> <li>• Important, easy</li> <li>• Responsibility</li> <li>• Confident</li> <li>• Connected to others</li> </ul>	<ul style="list-style-type: none"> <li>• I could do more</li> <li>• Guilt</li> <li>• Confused</li> <li>• Takes too much effort</li> <li>• Alone</li> </ul>	<ul style="list-style-type: none"> <li>• It is expected</li> <li>• Unsure about benefits</li> <li>• Confused</li> <li>• Overwhelmed</li> <li>• Disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• I could do more</li> <li>• Passionate</li> <li>• Judged (do or don't)</li> <li>• Anxious, exhausted</li> <li>• Worried, embarrassed</li> <li>• Takes too much effort</li> </ul>
<b>Behaviors</b> around recycling	<ul style="list-style-type: none"> <li>• Research and teach</li> <li>• Overcome issues</li> <li>• Learned + improved</li> <li>• Like to sort</li> <li>• Doubt others recycle</li> <li>• No info = wishcycle</li> </ul>	<ul style="list-style-type: none"> <li>• Organized</li> <li>• Intentional</li> <li>• Consistent</li> <li>• Learned + improved</li> <li>• No info = wishcycle</li> </ul>	<ul style="list-style-type: none"> <li>• Defer to labels (pkg, bin)</li> <li>• Ignore, avoid</li> <li>• Low effort</li> <li>• Resent lack of support</li> <li>• Doubt selves, process</li> </ul>	<ul style="list-style-type: none"> <li>• Organized</li> <li>• Defer to gov, friends</li> <li>• Low effort, detail</li> <li>• Resent requirements</li> <li>• Doubt others recycle</li> <li>• Doubt benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Research and teach</li> <li>• Crave organization</li> <li>• Defer to digital, friends</li> <li>• Frustrated, too hard</li> <li>• Resent warnings, fines</li> <li>• Don't go out of the way</li> </ul>
<b>Needs + Conditions</b> to recycle (incl reassurance and positive impacts)	<ul style="list-style-type: none"> <li>• System investment</li> <li>• More participation</li> <li>• More information</li> <li>• Expand accepted</li> </ul>	<ul style="list-style-type: none"> <li>• Feedback</li> <li>• Expand accepted</li> <li>• More predictability</li> </ul>	<ul style="list-style-type: none"> <li>• Invitation, appeal</li> <li>• More encouragement</li> <li>• In-home bins, tips</li> <li>• Frequent reminders</li> <li>• Quick reference</li> </ul>	<ul style="list-style-type: none"> <li>• Invitation, appeal</li> <li>• Gratitude, incentive</li> <li>• Local pride, support</li> <li>• Address cost/benefit</li> <li>• Econ development</li> </ul>	<ul style="list-style-type: none"> <li>• In-home bins, tips</li> <li>• Address cost/fines</li> <li>• Gratitude, incentive</li> <li>• Frequent reminders</li> <li>• Customer service</li> </ul>
<b>Universal needs</b>	<ul style="list-style-type: none"> <li>• Recycling is worth the effort – benefits, impacts, reliability, actually happening? <ul style="list-style-type: none"> <li>• Tips: “How clean is clean?”</li> </ul> </li> <li>• Tailored instructional information</li> <li>• Social proof that others are participating, and that leadership supports recycling.</li> </ul>				

## Material Deep Dive

Confidence in knowledge deteriorates with items that have food residue, are complex materials (e.g., glossy vs plain paper), or are less consistently recyclable.

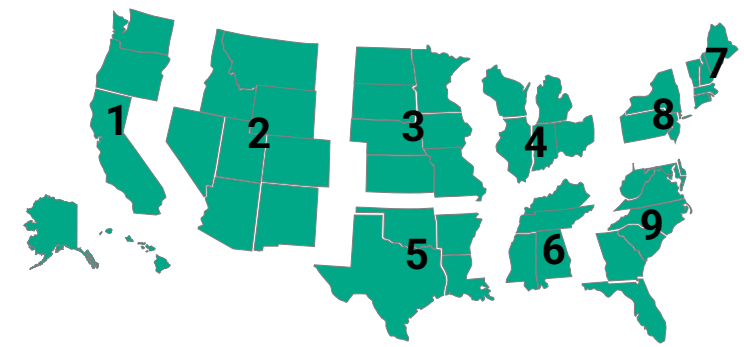
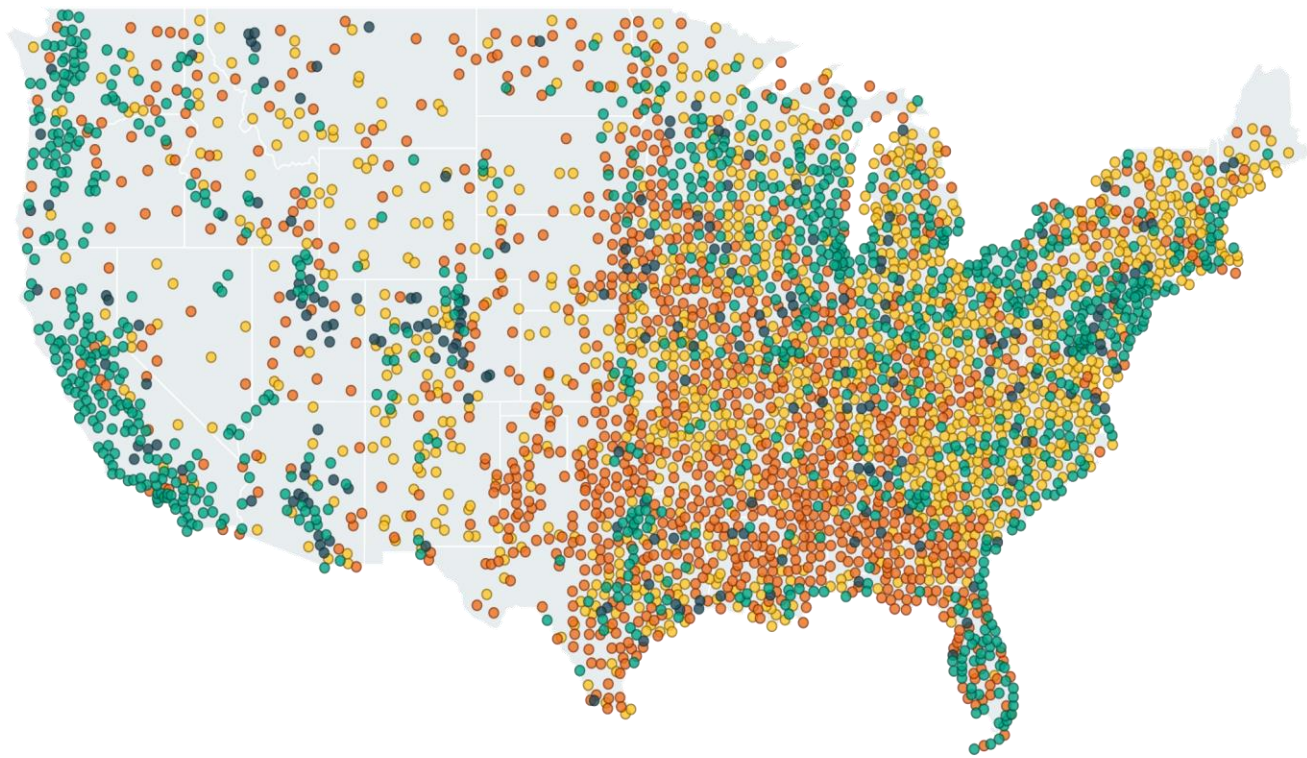
### Confidence in What Can Be Recycled





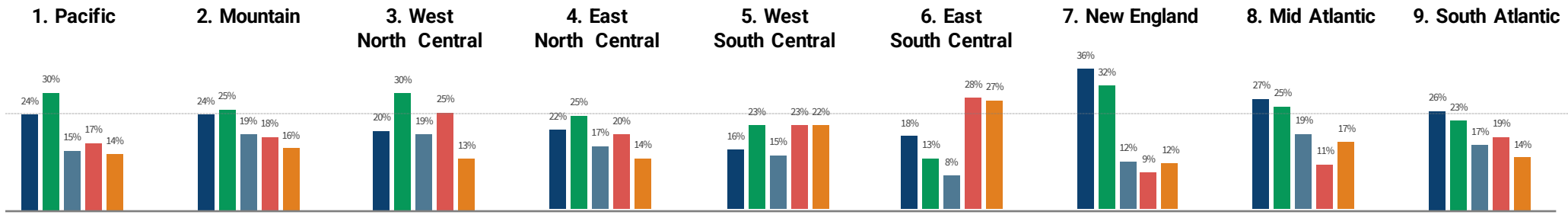
## ACCESS

- Curbside
- Subscription
- Drop-off
- None



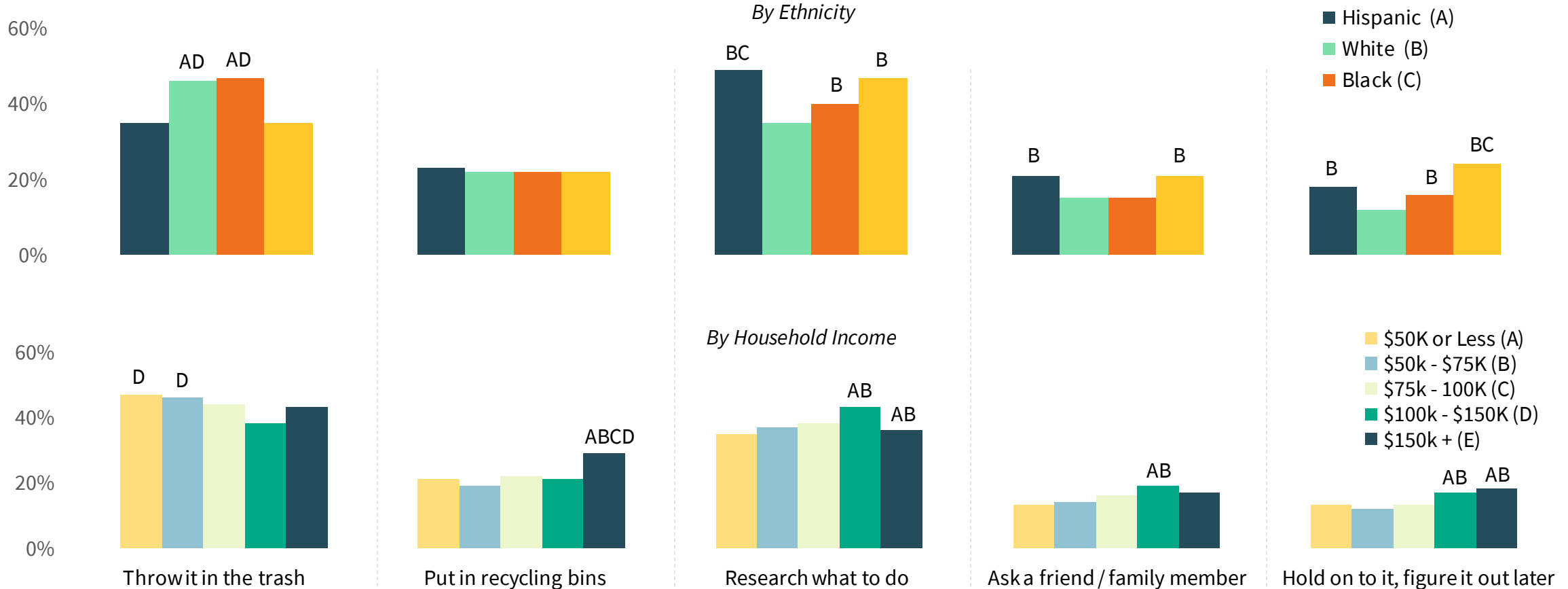
## SEGMENTATION

- Committed Followers
- Eco Activators
- Detached Abiders
- Discouraged Doubters
- Conflicted Overwhelmed

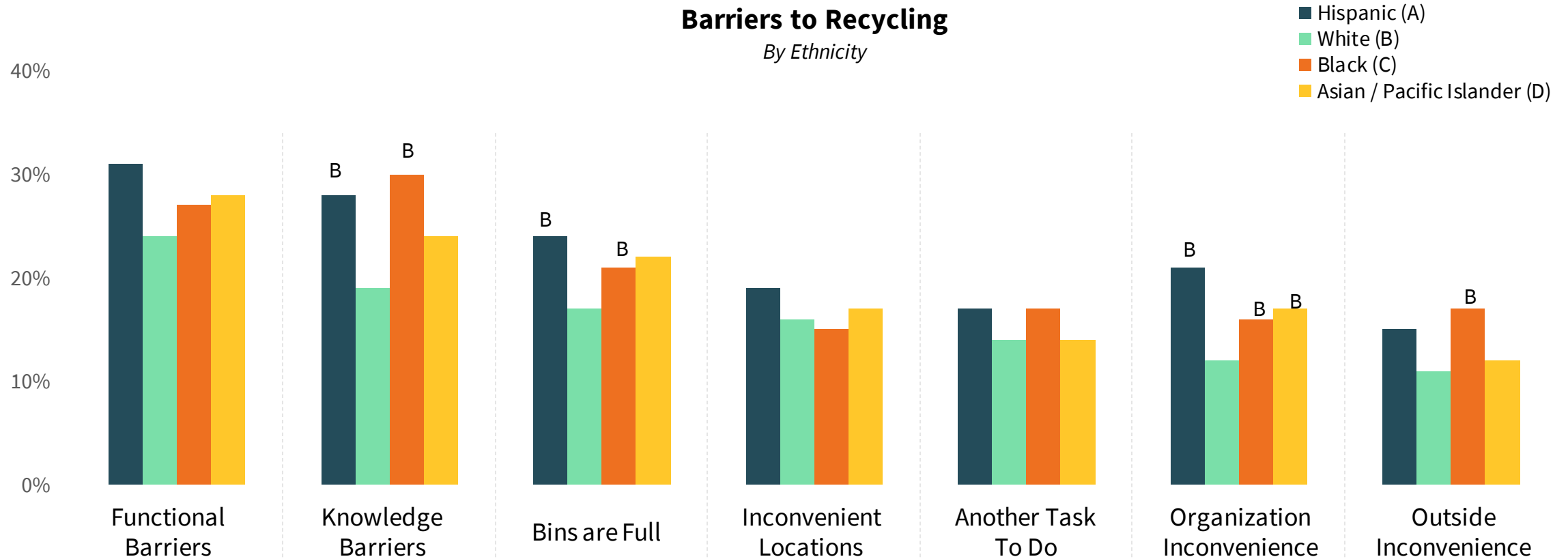


White, as well as lower income households, are less likely to figure out whether to recycle items.

## Action When Don't Know What To Do



## Hispanic/Black households report more knowledge barriers.



**How to read:** If there's a letter on top of the bar, it means that **bar is significantly higher** than the bar/sample with the corresponding letter for that attribute. Ex: Hispanic/black households are more likely to experience knowledge barriers than white households.

Get in Touch:

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 [recyclingpartnership.org](https://recyclingpartnership.org)



## Activity: Discuss how you can apply this audience segmentation to your case study?

1

Discuss key motivations and barriers from your case study dataset.

2

Why do you think the core actors are currently doing or not doing the target behavior?

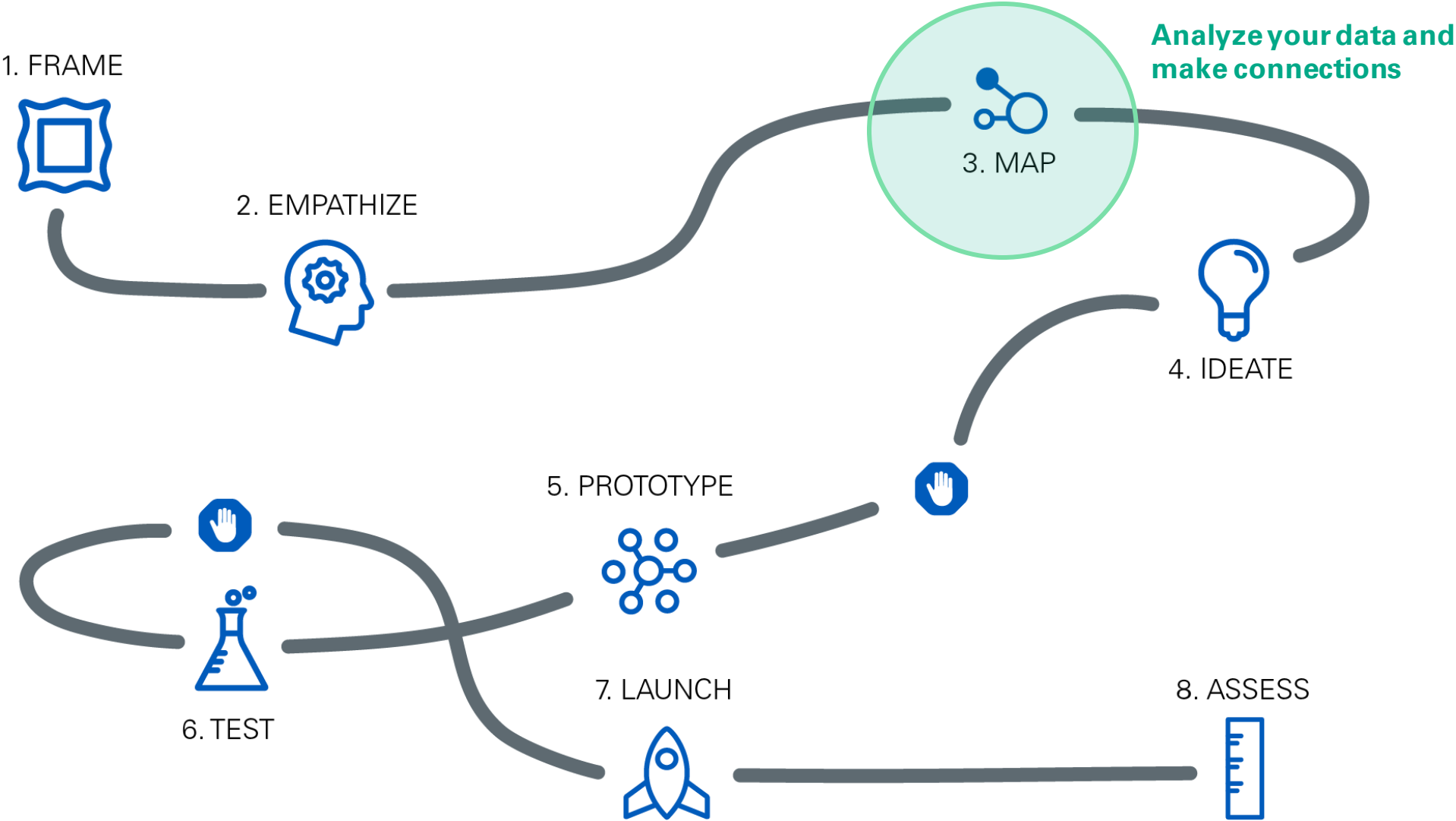
3

Are there any trends you notice among segments of people represented in the data?

# Mapping Behavioral Insights



# The Behavior-Centered Design Journey





# Map

**What?** Draw causal links between data and behavioral science.

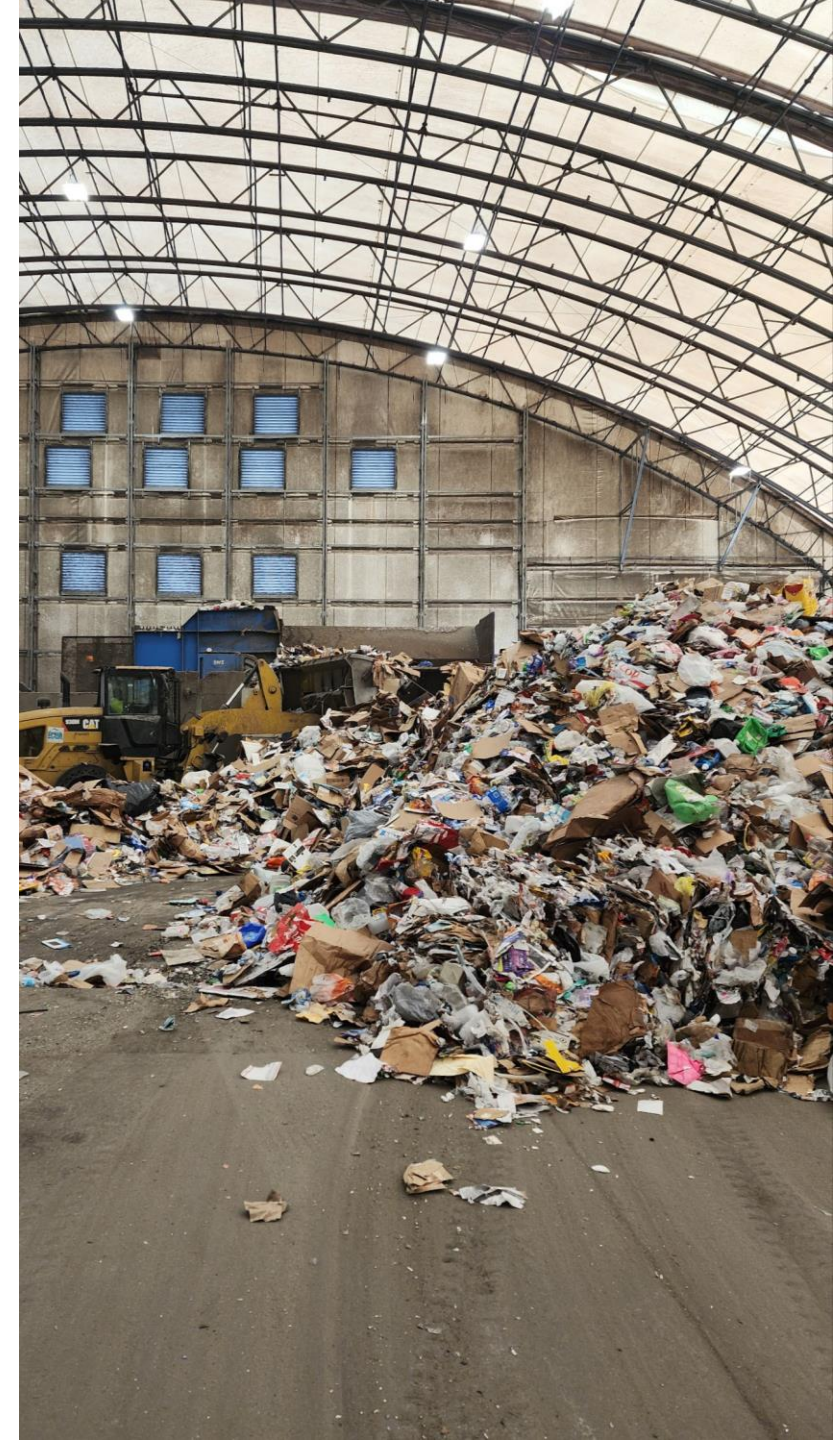
**How?** Write hypotheses about the motivations and barriers that are likely to increase our target behavior.

**Key Principle:**

- Ground your hypothesis about what could change behavior in observation and science

**DEI Considerations:**

- Build your hypotheses based on data, not assumptions
- Consider how context affects motivations and barriers





## Step 1

# Activity: Data Processing

1

Review your data for your case and notes from the Empathize step.

2

Remember to question your assumptions! Based on your experience and data, what do you think is most likely to make a difference?

3

In your groups, select 1-2 key motivations/barriers you find most insightful or likely to cause behavior change

## Step 2

# Write a Hypothesis

**Data point:** What you learned from your research.



**Hypothesis:** Why this data point is relevant for creating behavior change.

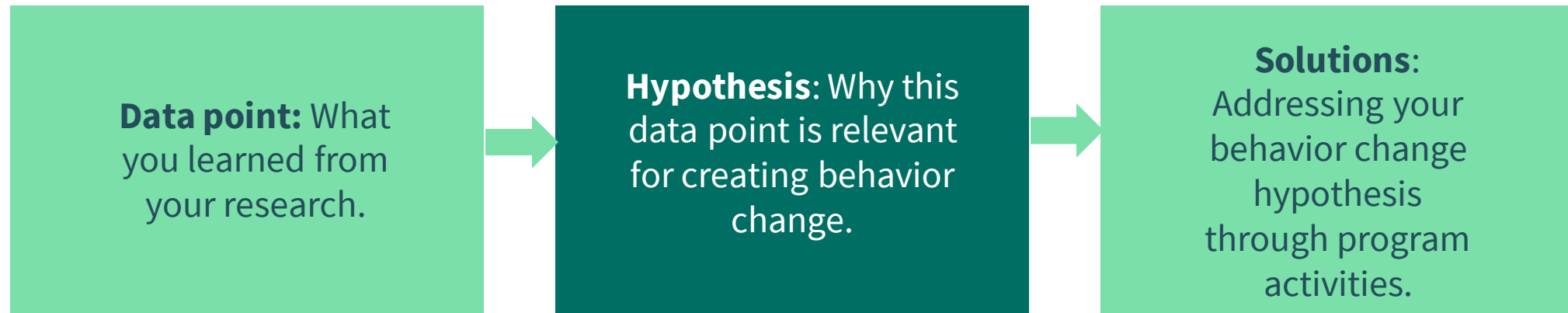


**Solutions:**  
Addressing your behavior change hypothesis through program activities.



## Step 2

# Write a Hypothesis



# Translating Data to Hypothesis

## Example formula:

If [target actor] believe/know/think/feel/see [desired state based on motivation or barrier] then [target actor] will [target behavior].

**Example barrier:** *Using a reusable bag is not a visible behavior by others.*

**Example desired state:** *Believe other people are using reusable bags*

**Example hypothesis:** If households believe other people are using reusable bags, then I expect households to bring reusable bags.

## Step 2

# Activity: Write a Hypothesis

1

Based on the 1-2 key motivations and barriers you selected as a group, identify key beliefs, attitudes, or context you want to change.

2

Use your worksheet to develop hypotheses for behavior change.

3

Refine hypotheses and vote on your favorite.