Emerging Technologies Summit

MAKING THE CONNECTION:

From Energy Efficiency Innovation to Delivery

April 19 – 21, 2017

Theory and Case Studies for Community Based Social Marketing

SUSAN MAZUR-STOMMEN, JENNIFER TABANICO, MARILYN CORNELIUS

Community Based Social Marketing: An Overview

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INDICIA CONSULTING

Behavior as Technology

- The common thread that binds this track is that behavior is the hack
  - Behavior and technology always work hand in hand
  - Behavior change techniques are often delivered through technology
    - In-home devices
    - Smart phones
    - Thermostats
- We have developed technologies that can get out and interact with people on the go, in real-time
  - GOTV type program to get instant demographic local data to get a mesh of big data and community organizing
- Emerging tech enters the conversation here at the intersection of behavior and technology

Our goals for this session

- Today we have brought together some experts and practitioners in the world of Community Based Social Marketing (CBSM) for utilities and energy customers
- We will be discussing the field…
  - Where it is going
  - What challenges exist
  - How it fits with emerging technologies
- Jennifer will discuss CBSM and the process of behavior selection
- Kat will focus on implementing and challenges
- We will then have a discussion and some Q&A

What is CBSM?

- At it’s heart, CBSM is an alternative model about behavior change (e.g. Not Opower!)
  - The attitude-behavior model suggests that simply informing individuals will suffice for them to change a behavior.
  - The economic self-interest model assumes individuals will change behavior to maximize financial benefit.
  - Community-based social marketing precedes from the idea that both of these may be necessary, but insufficient to change complex and deeply rooted habits.

CBSM is..

1

More targeted, leaner, and more impactful

2

A way to overcome barriers and consider overlooked human behavior aspects

3

Appealing to our social selves, not just our economic selves:

4

Behavior change happens within a social context, which provides additional motivation and support (think Weight Watchers)

5

The thoughtful application of social marketing tools to specific, local, barriers

01

There is confusion in the brand: many people think it is social marketing, or outreach, some people think of it as just behavior change…

- Community-based social marketing is not a synonym for social media
- CBSM is not traditional marketing oriented around the four P's: Product, Price, Placement, and Promotion
- CBSM is not 'out-reach' in a tent at a fair
- CBSM is not an 'educational' effort
- Educational materials may be developed for the effort, but simple distribution is not CBSM

What CBSM is not

Applying CBSM

- A set of steps that any CBSM program must incorporate (from Mackenzie-Mohr):
- Selecting behaviors that will achieve program outcomes
- Identifying barriers and benefits, using local research when possible
- Developing strategies, addressing barriers
- Piloting the strategies, ensuring effectiveness of strategies
- Broad-scale implementation and evaluation,
- Using direct and observational measurement

CBSM works

A properly designed CBSM program is not easy or cheap – However, CBSM can be cost-effective due to:

- Higher participation rates
- Greater adoption of energy efficient products
- Deeper, longer lasting changes in energy-related behaviors.

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Community-Based Social Marketing



Emerging Technologies Summit

April 21, 2017

Presented by: Jennifer J. Tabanico, President

action RESEARCH

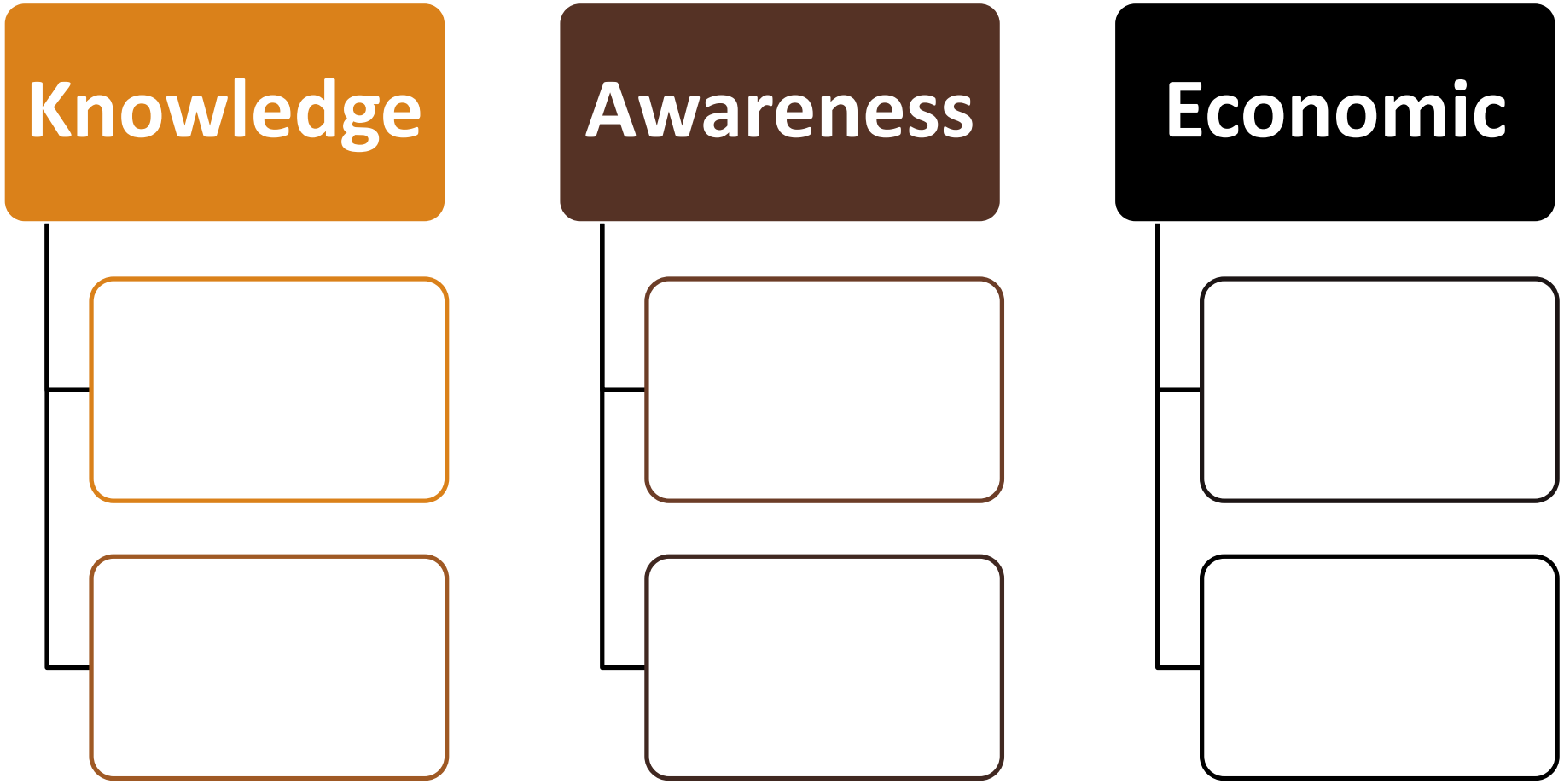
Behavior Matters

- Sustainability = Behavior
- Technology Solutions
- Policy Solutions
- Behavioral Solutions

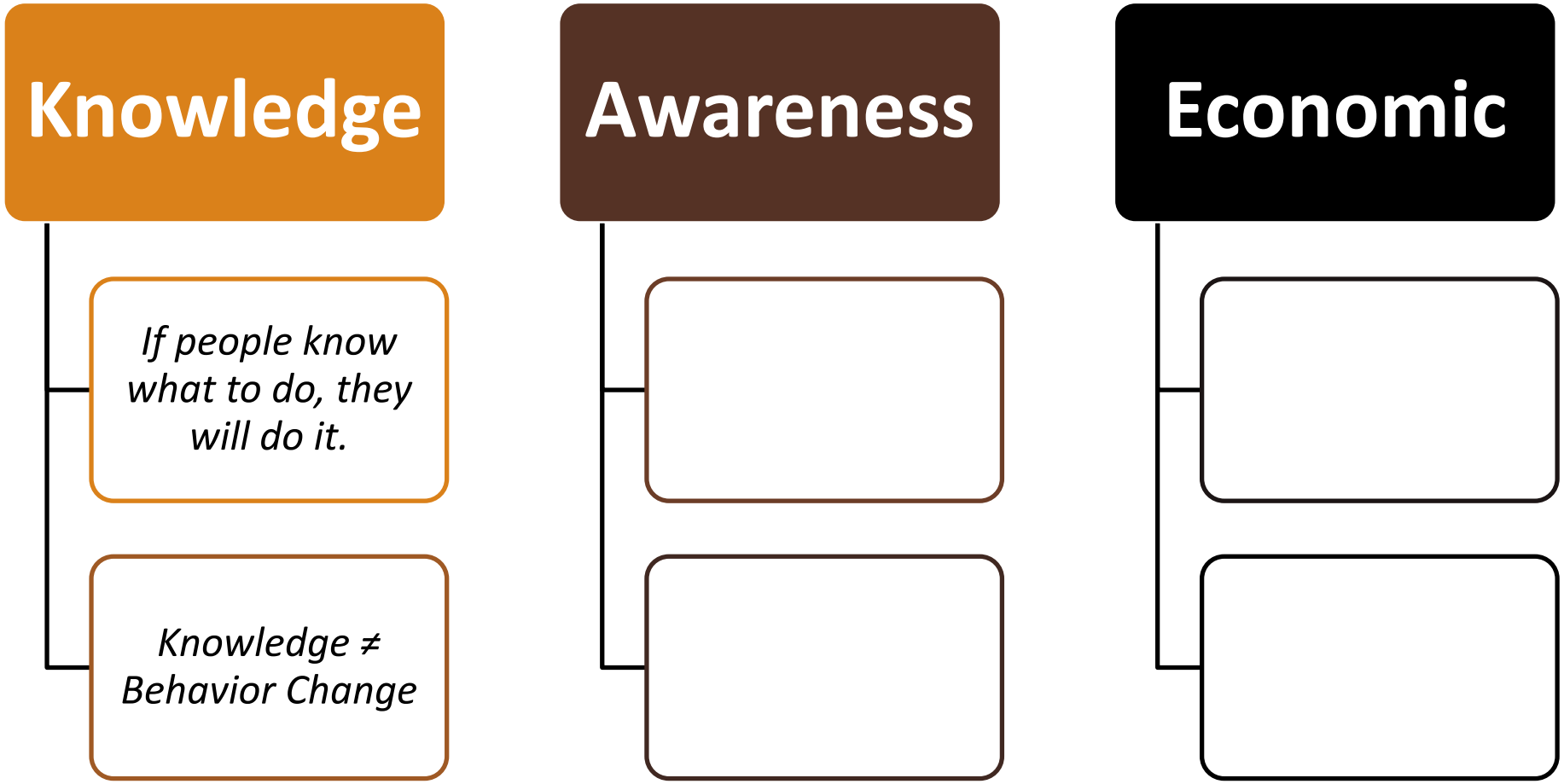
THE Behavior Matters

- Diverse Behaviors
- Diverse Barriers

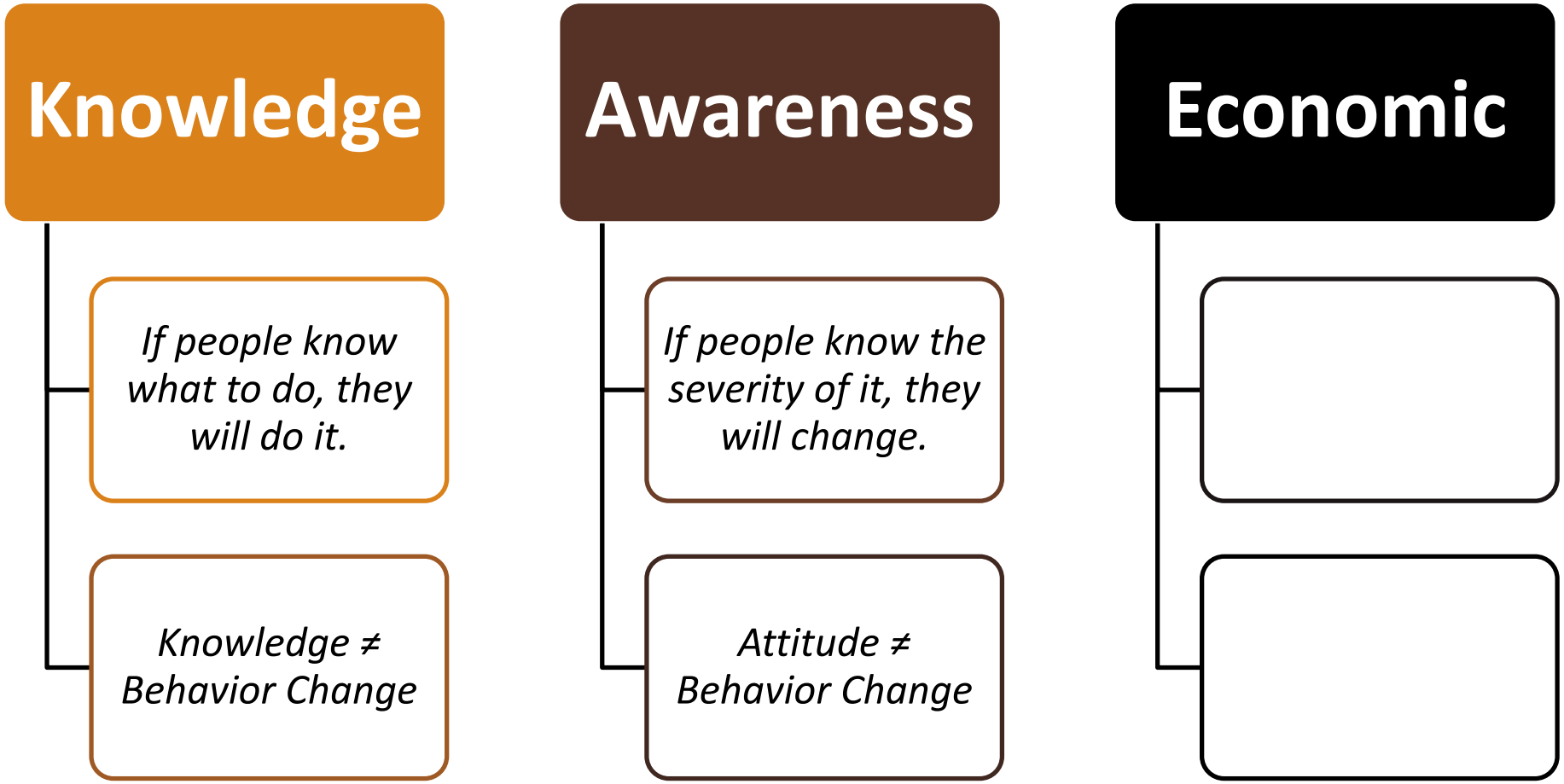
Information-Intensive Campaigns



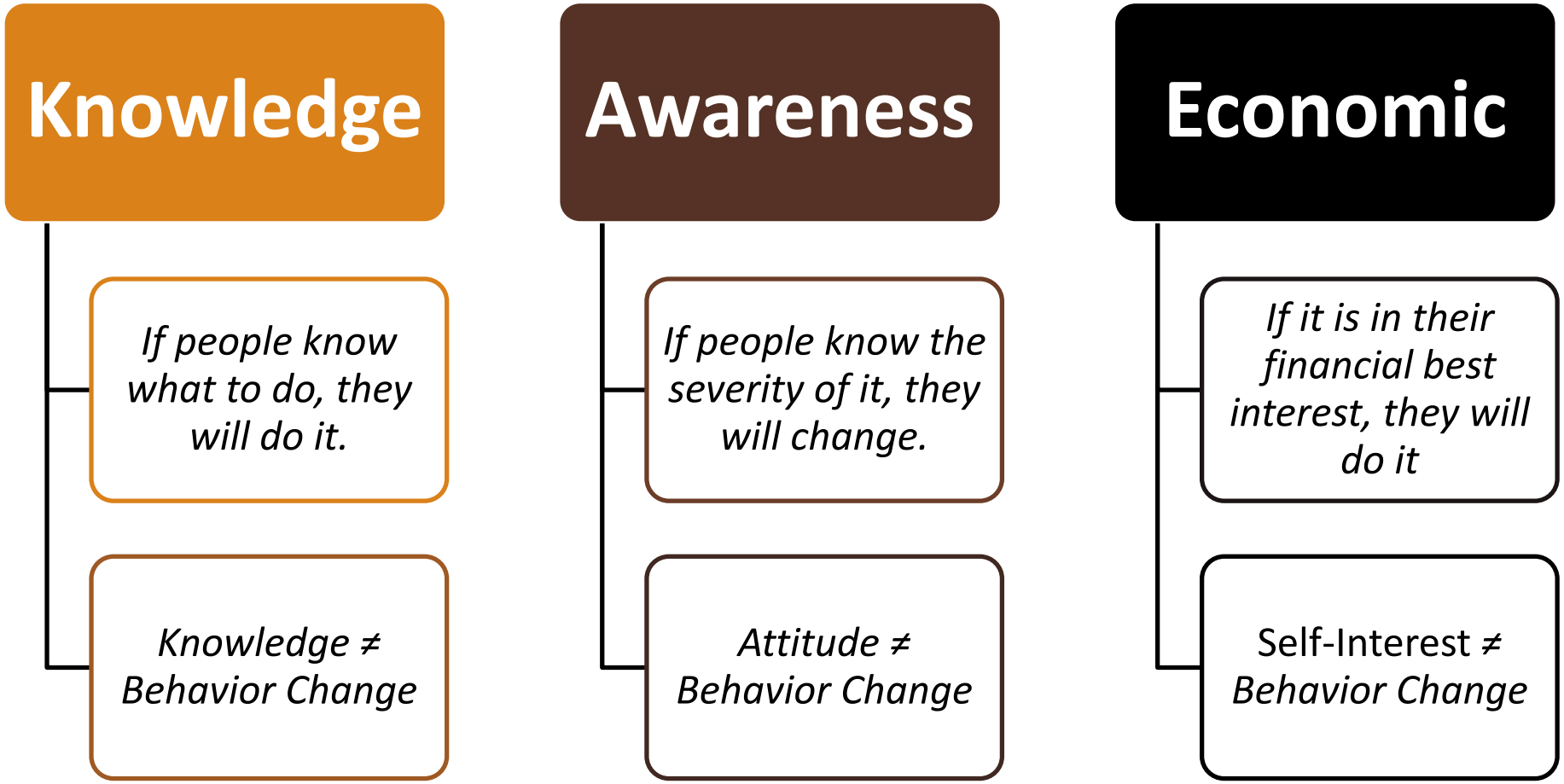
Information-Intensive Campaigns



Information-Intensive Campaigns



Information-Intensive Campaigns



Community-Based Social Marketing

- Origins in Social Science
- Community-based
- Removes Barriers
- Outcome-based

Community-Based Social Marketing

McKenzie-Mohr, D. (1999, 2011). Fostering sustainable behavior. Canada: New Society Publishers.

See also www.cbsm.com

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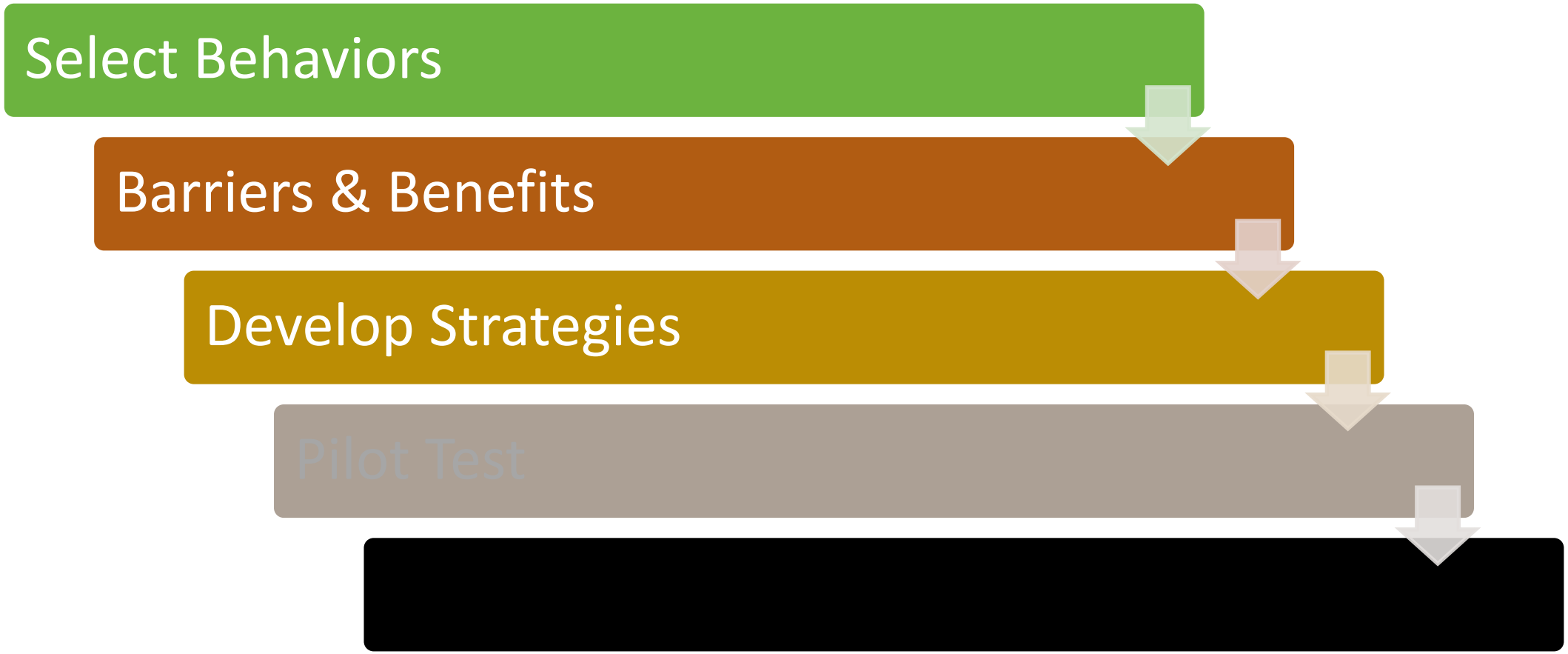

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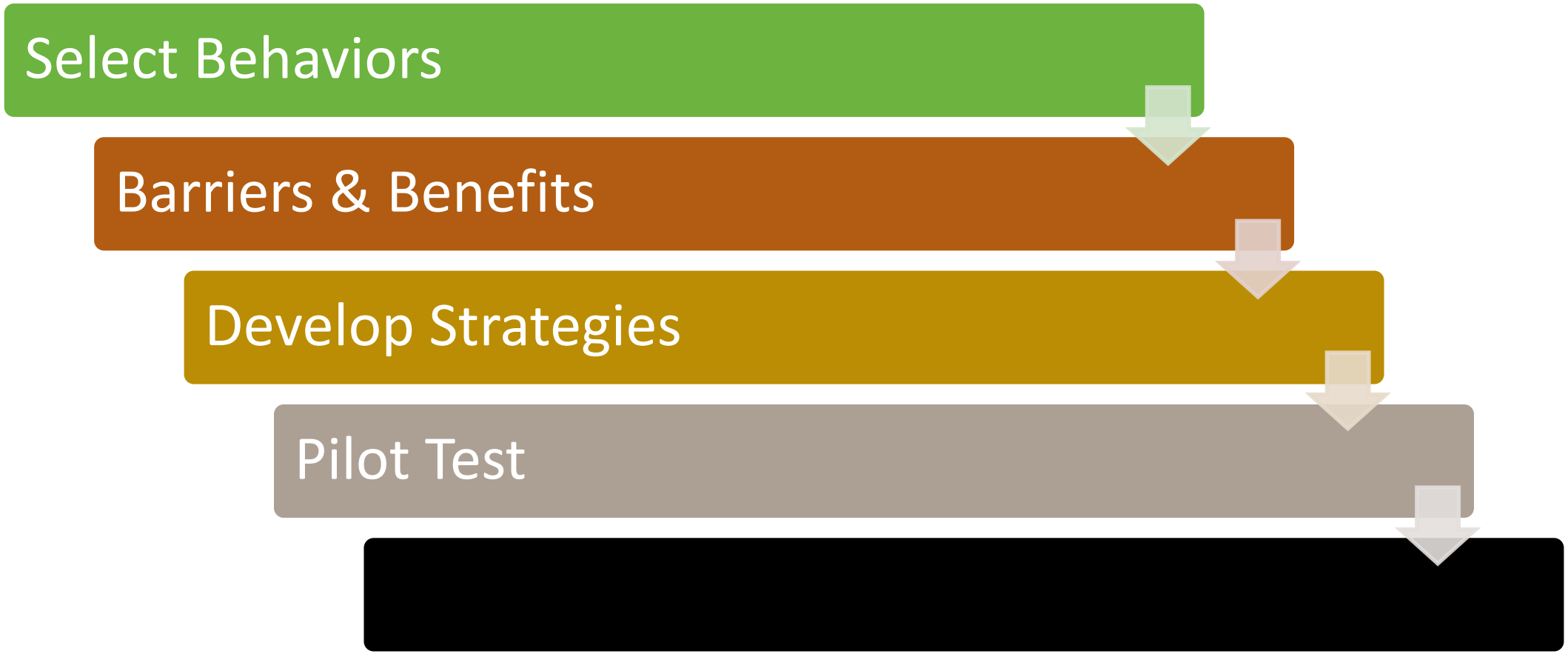

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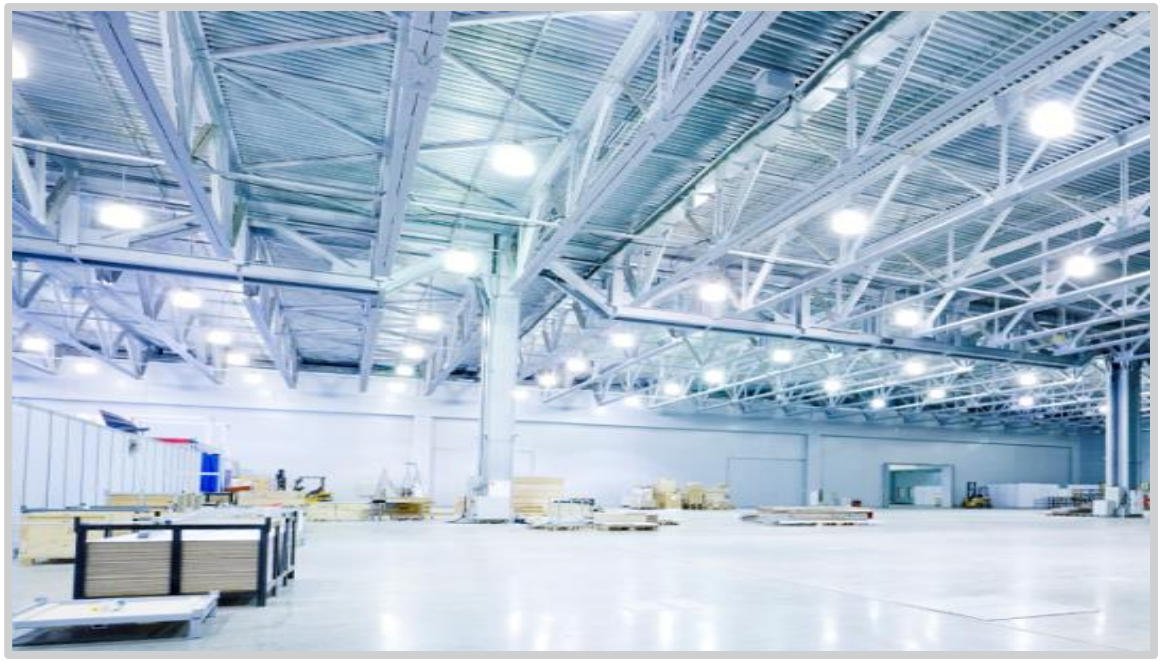
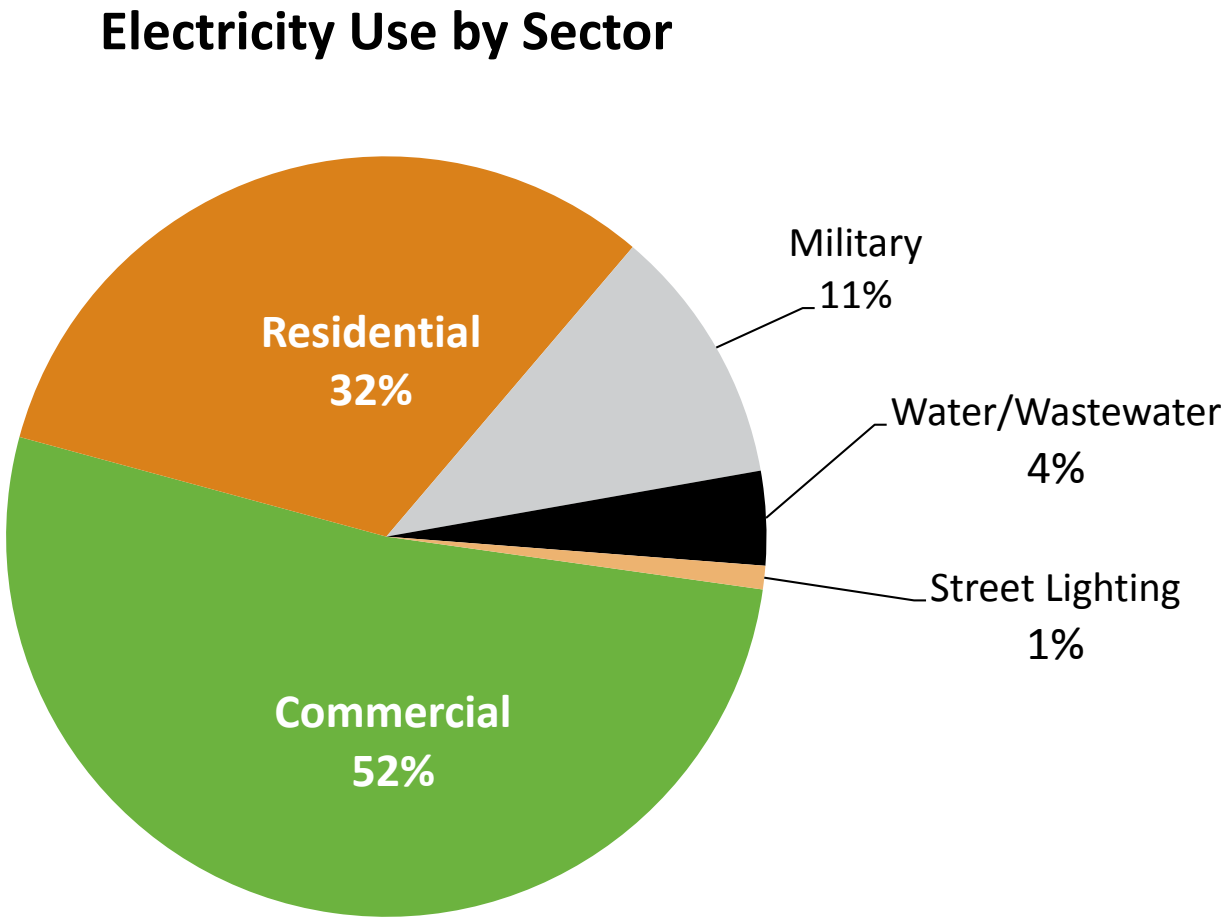
Step 1: Selecting Behaviors

- Strategic Selections
- Informed Choices
  - Confirmation bias
  - Technical and survey data



Identify Sectors



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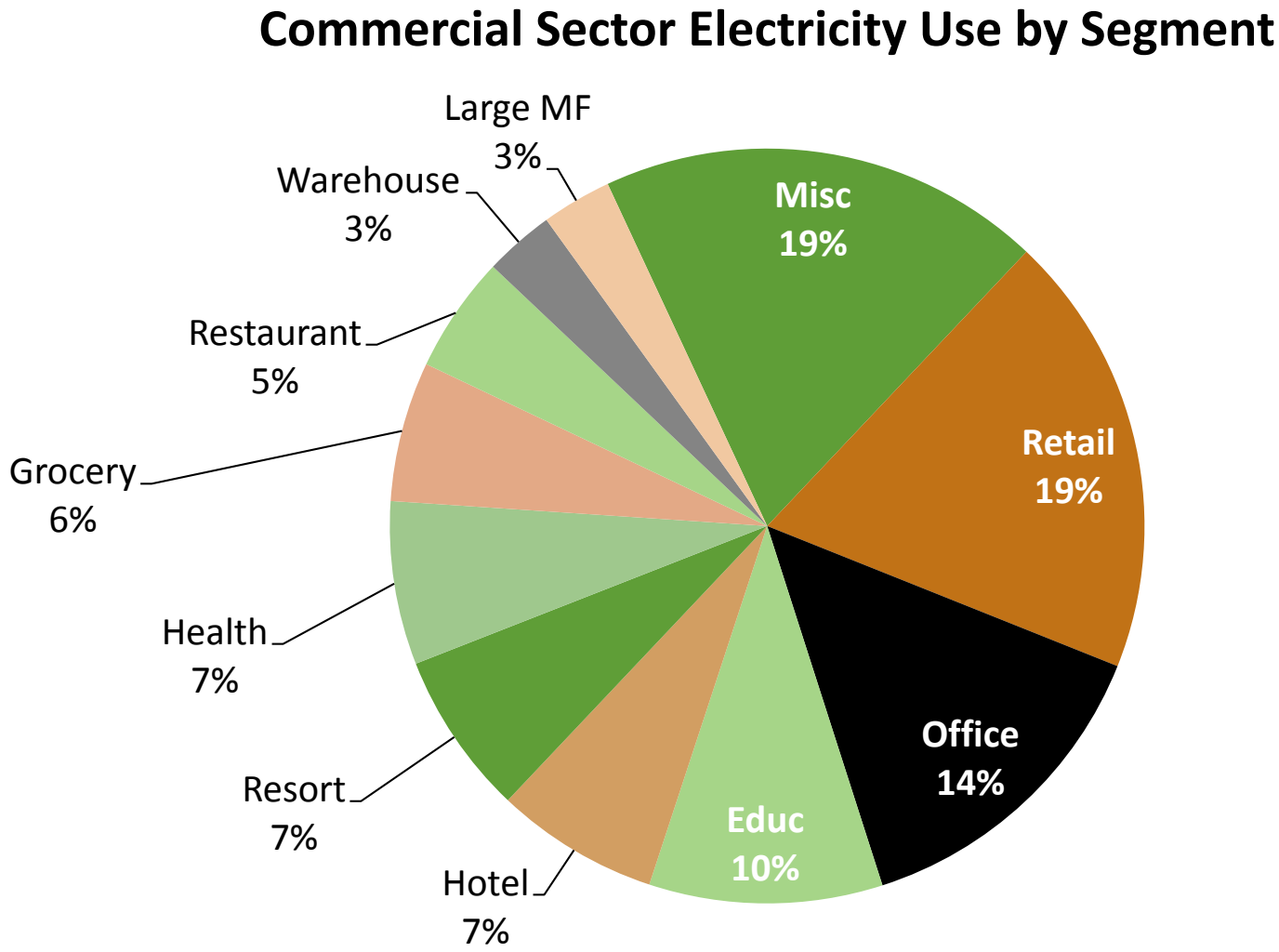

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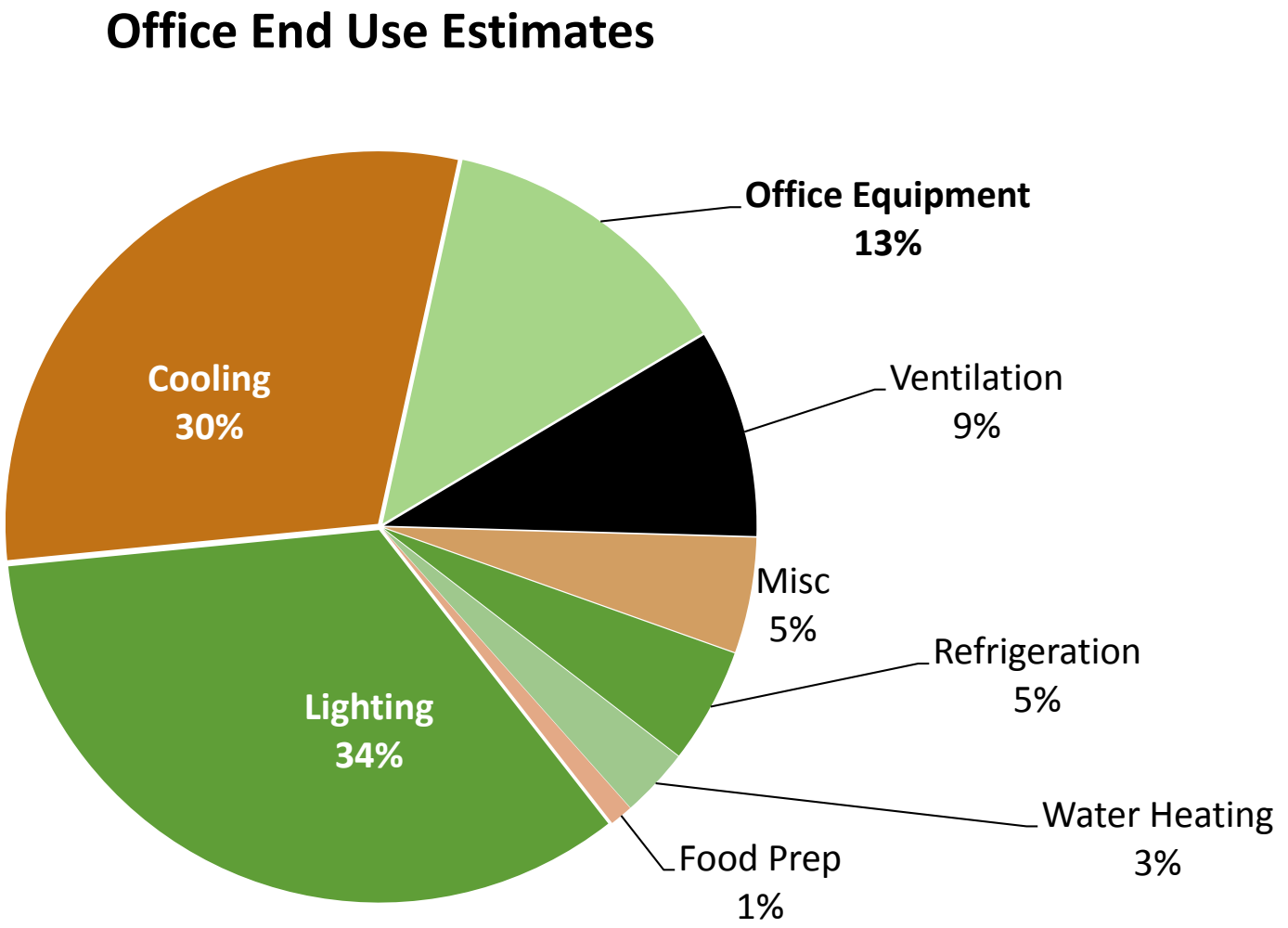


Create a List of Behaviors

End State

- **Action Causes the Outcome**
  - *Turn off computer monitor at end of day*

Non-divisible

- **Cannot be Broken Down into Smaller Actions**
  - *Conserve energy*

Avoid Strategies

- **Not Directly Linked to Outcome**
  - *Sign a pledge; Attend a workshop*

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday						
Turn off CPU at end of the workday						
Activate power management settings						
Unplug cell phone chargers when not in use						
Use smart strip to turn off computer and peripherals						

Prioritize Behaviors

Impact	• How significant is the behavior?
Probability	• How likely is adoption?
Penetration	• How many already engaged?
Applicability	• For whom is it relevant?

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3					
Turn off CPU at end of the workday	6					
Activate power management settings	8					
Unplug cell phone chargers when not in use	1					
Use smart strip to turn off computer and peripherals	9					

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9				
Turn off CPU at end of the workday	6	6				
Activate power management settings	8	3				
Unplug cell phone chargers when not in use	1	9				
Use smart strip to turn off computer and peripherals	9	2				

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9	.30			
Turn off CPU at end of the workday	6	6	.60			
Activate power management settings	8	3	.28			
Unplug cell phone chargers when not in use	1	9	.10			
Use smart strip to turn off computer and peripherals	9	2	.05			

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9	.30	.70		
Turn off CPU at end of the workday	6	6	.60	.40		
Activate power management settings	8	3	.28	.72		
Unplug cell phone chargers when not in use	1	9	.10	.90		
Use smart strip to turn off computer and peripherals	9	2	.05	.95		

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9	.30	.70	.90	
Turn off CPU at end of the workday	6	6	.60	.40	.60	
Activate power management settings	8	3	.28	.72	.75	
Unplug cell phone chargers when not in use	1	9	.10	.90	1.00	
Use smart strip to turn off computer and peripherals	9	2	.05	.95	.60	

Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9	.30	.70	.90	
Turn off CPU at end of the workday	6	6	.60	.40	.60	
Activate power management settings	8	3	.28	.72	.75	
Unplug cell phone chargers when not in use	1	9	.10	.90	1.00	
Use smart strip to turn off computer and peripherals	9	2	.05	.95	.60	

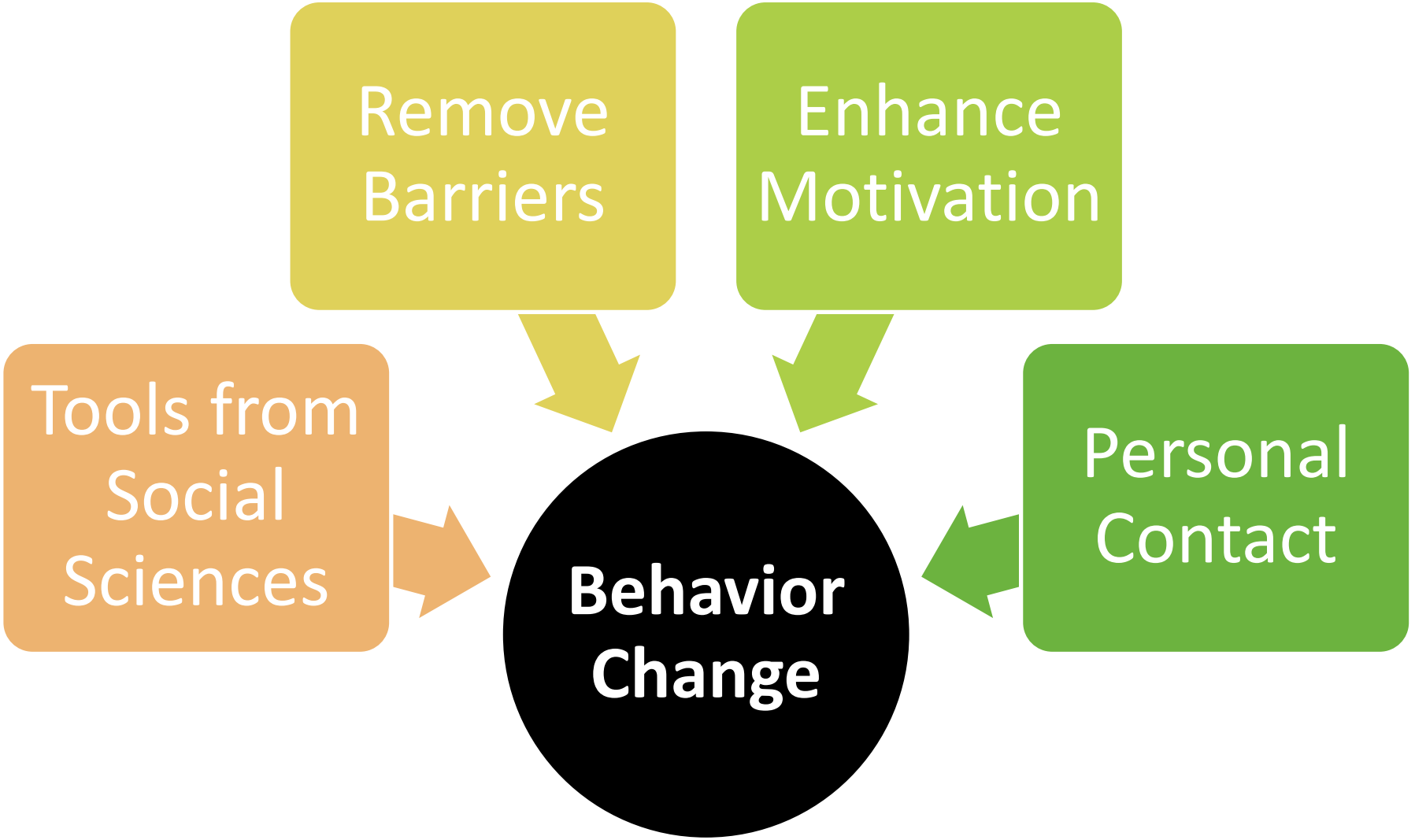
Behavior (end state, non-divisible)	A Impact (0-10)	B Probability (0-10)	Penetration (0.00 – 1.00)	C Reach 1-Penetration	D Applicability (0.00 – 1.00)	Weight A*B*C*D
Turn off computer monitor at the end of the workday	3	9	.30	.70	.90	**17.01**
Turn off CPU at end of the workday	6	6	.60	.40	.60	**8.64**
Activate power management settings	8	3	.28	.72	.75	**12.96**
Unplug cell phone chargers when not in use	1	9	.10	.90	1.00	**8.10**
Use smart strip to turn off computer and peripherals	9	2	.05	.95	.60	**10.26**

Step 2: Identify Barriers and Benefits

- Starting Point
  - Literature Reviews
  - Observations
  - Focus Groups
- Quantitative
  - Surveys

NOT Based on Hunches!

Step 3: Develop Strategy



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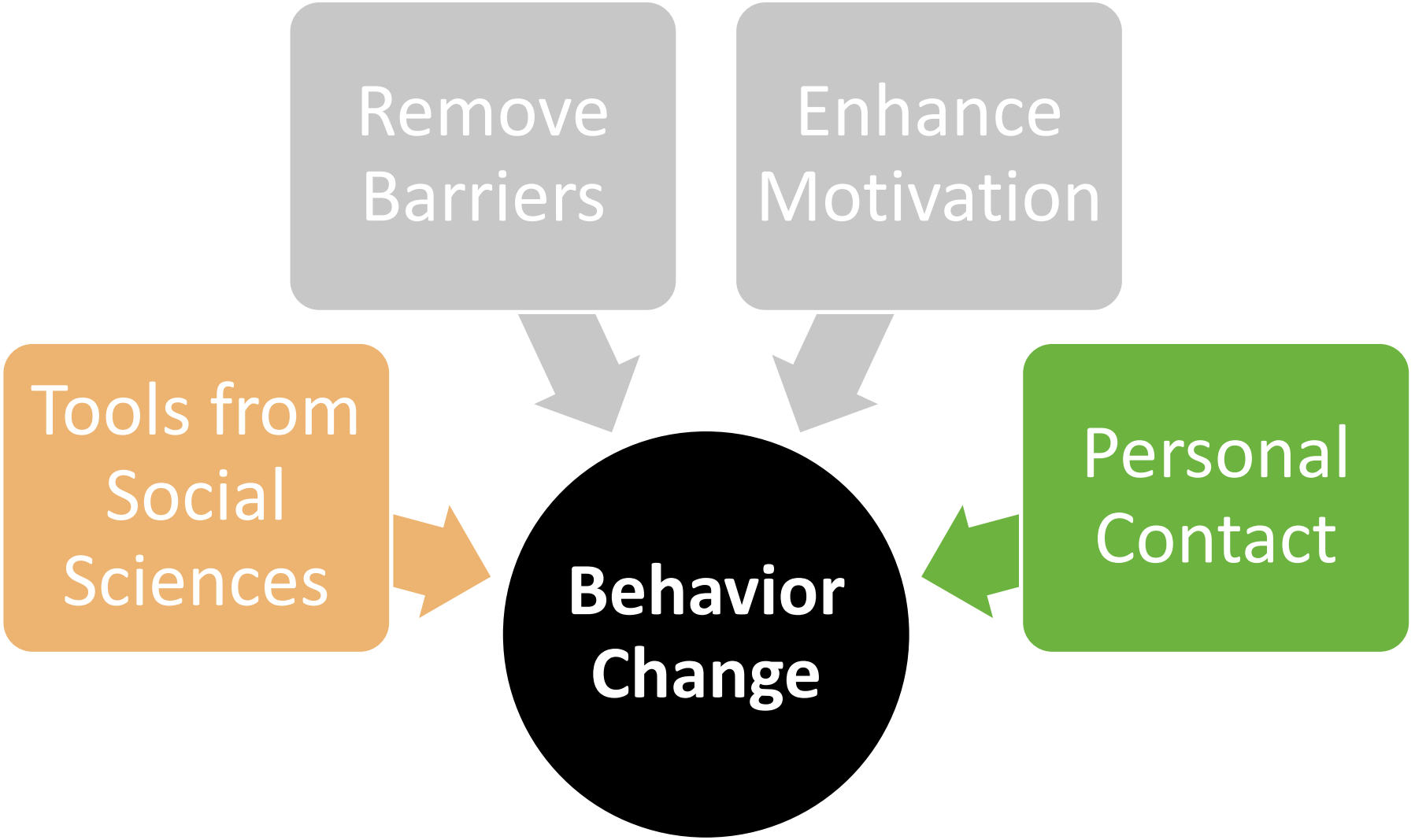

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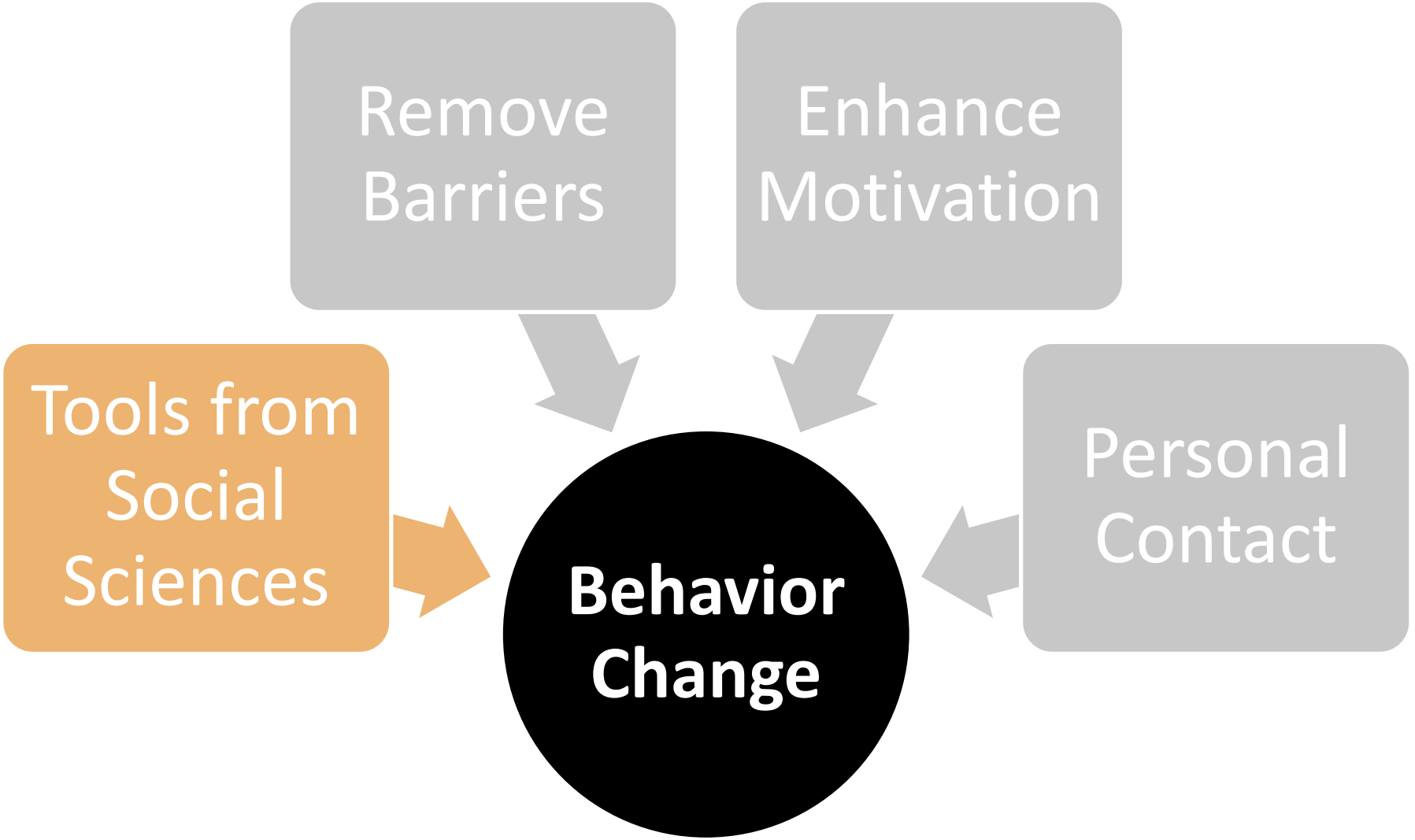

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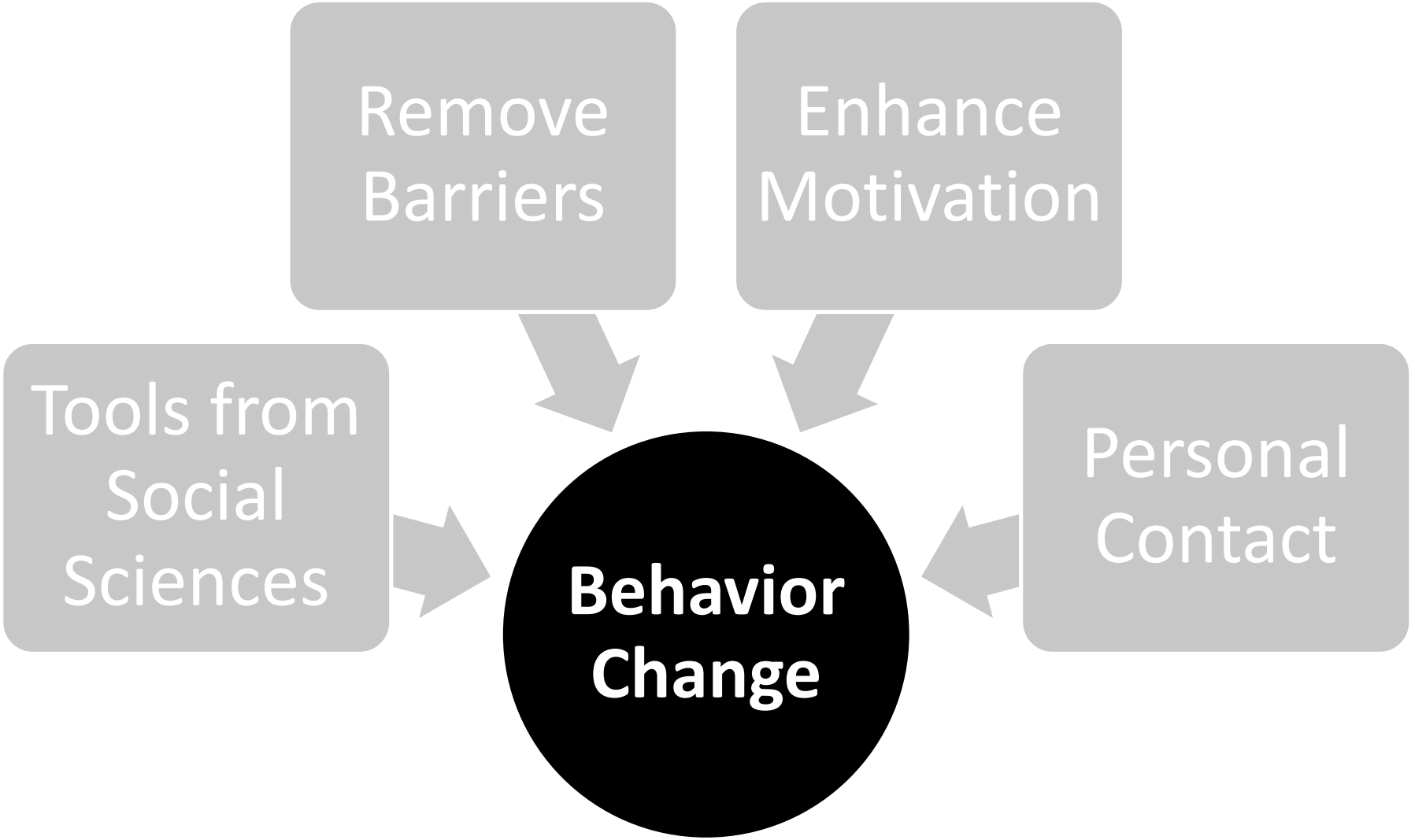
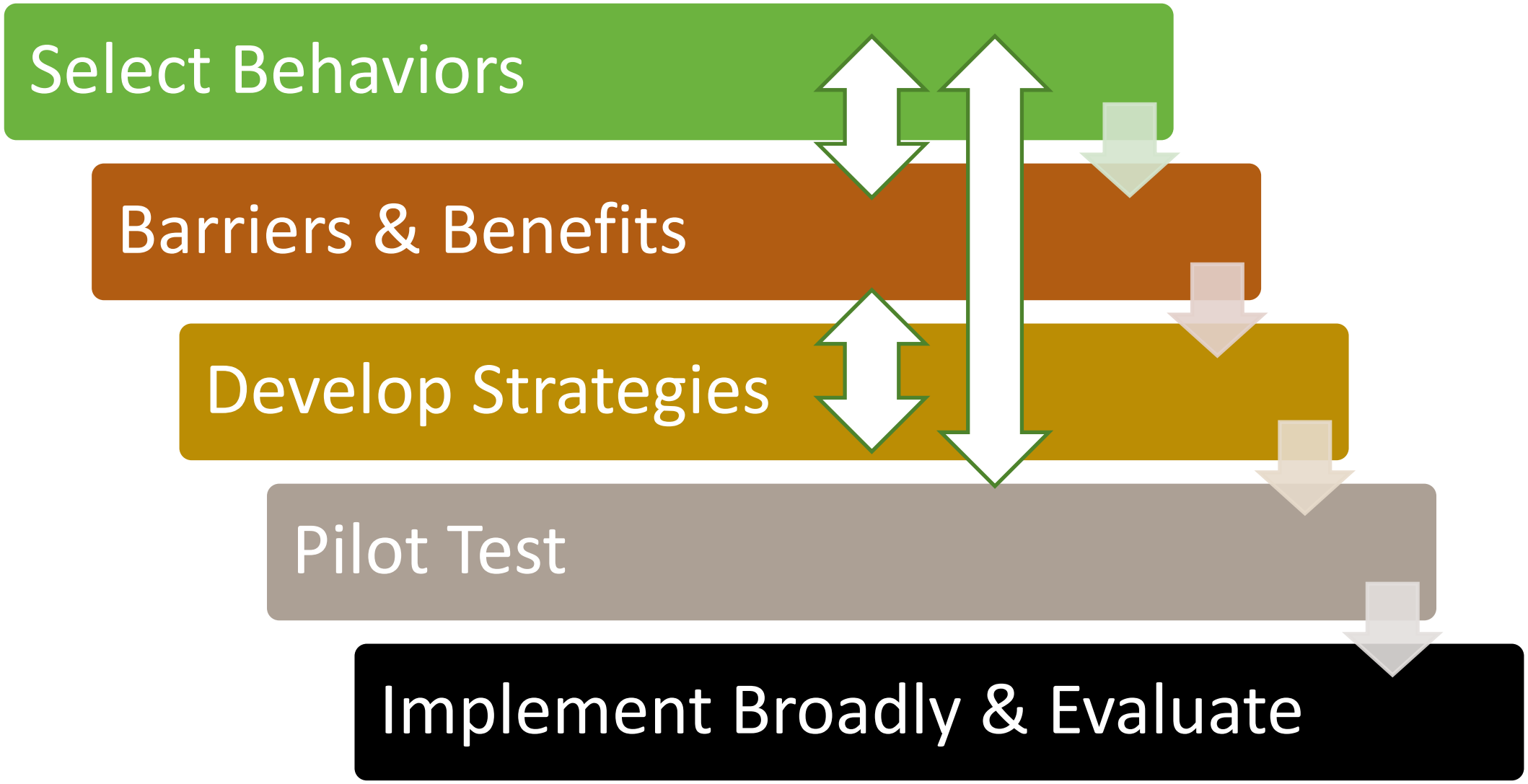


Social Science Tools

- Incentives
- Contests
- Social Modeling
- Social Norms
- Convenience
- Commitments
- Education
- Feedback
- Prompts

Step 4: Pilot Testing



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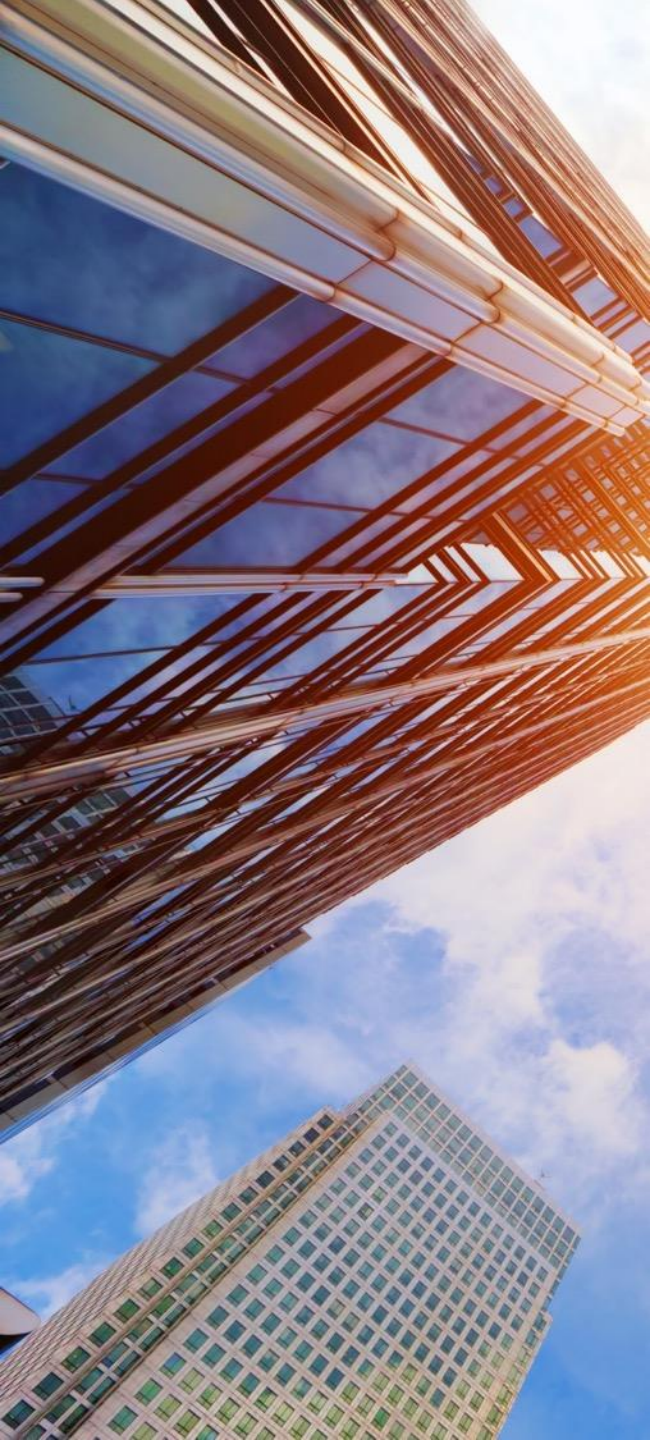
sparking behavior changes for good









AZENTIVE
inventive • adaptive • collective

Leveraging CBSM for Utilities

Emerging Technologies Conference April 2017

Kat A. Donnelly, Ph.D., P.E., CEO
Marilyn Cornelius, Ph.D., Behavioral Scientist

HEALTHY

PROFITS PEOPLE PLACES

Commercial Building Framing

April 21, 2017

The Energy Efficiency Opportunity

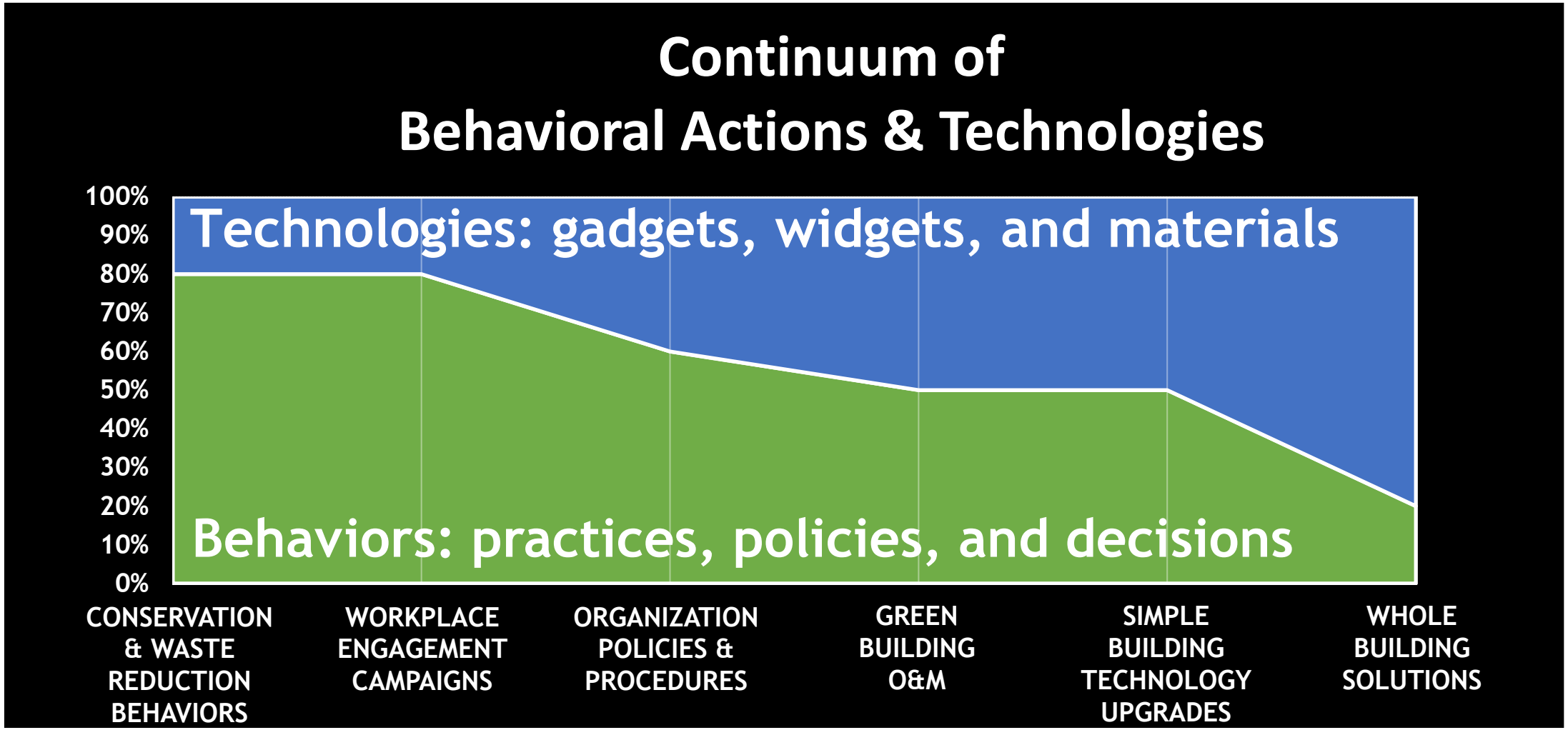
30% of a commercial building's energy use is **wasted energy**.

CO_2

$$$$$

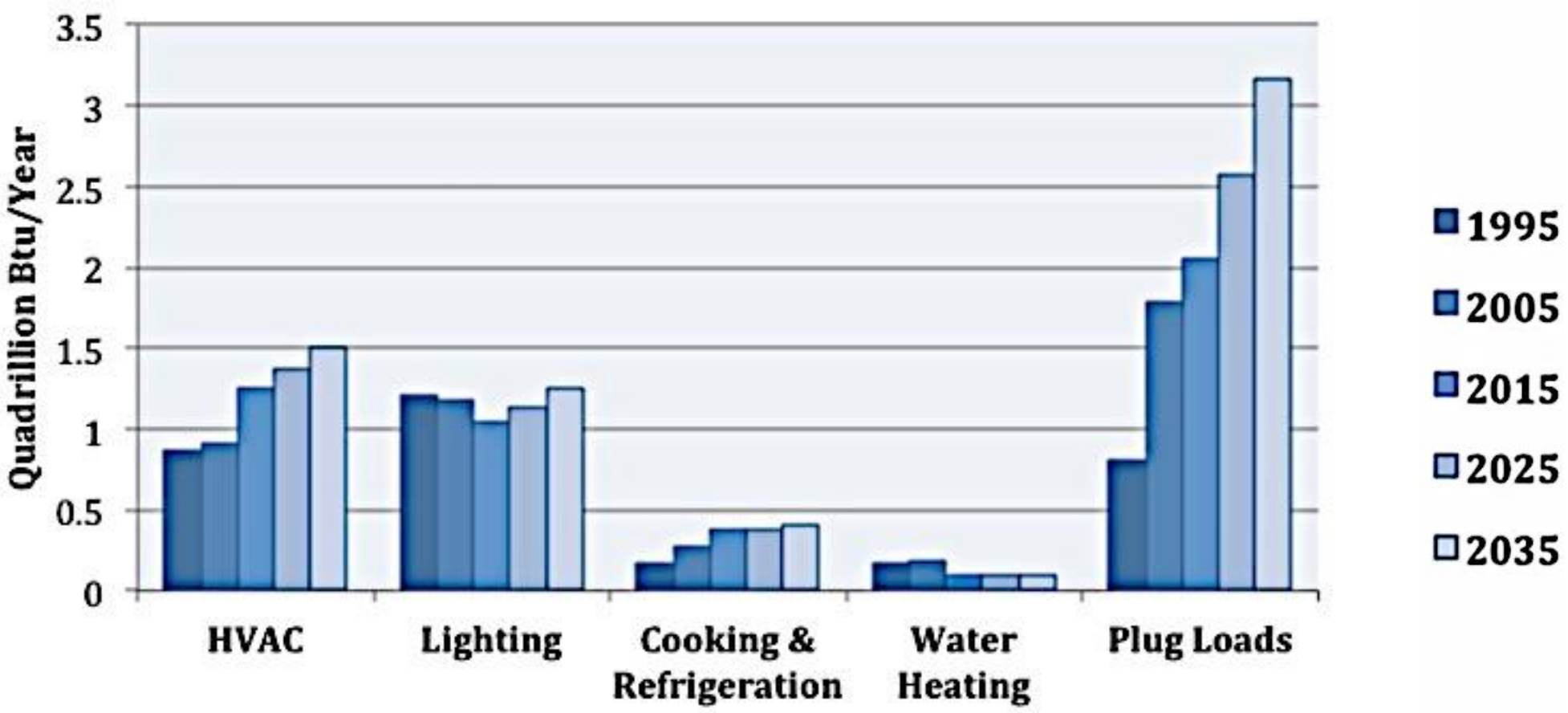
Source: U.S. EPA. https://energy.gov/eere/buildings/about-commercial-buildings-integration-program

Behavior and Technology Interplay



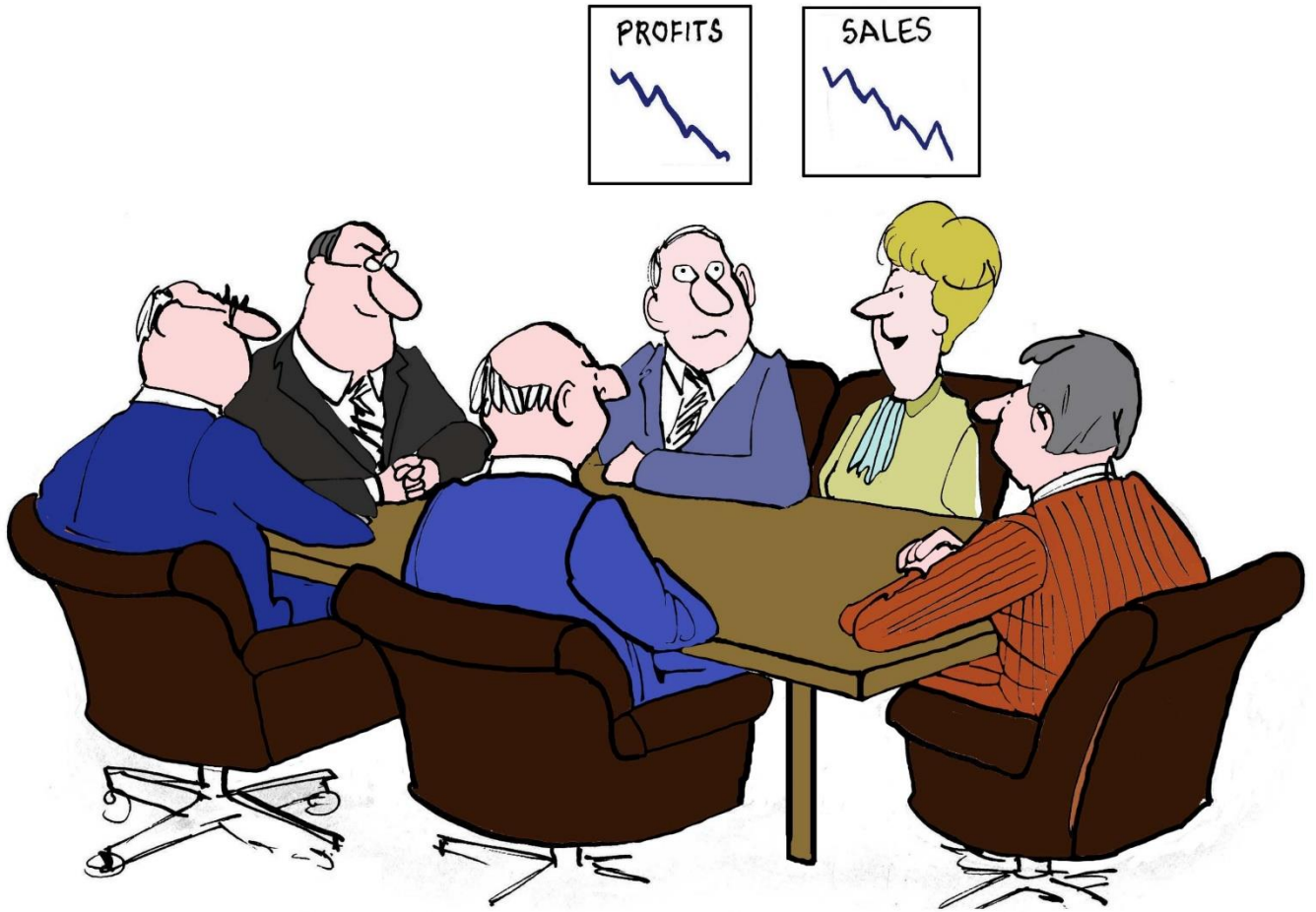
Source: Adapted from Karen Erhardt-Martinez

Commercial Building Electricity Use



Source: Rocky Mountain Institute. Source: Energy Information Administration, http://www.eia.gov/oiaf/archive.html

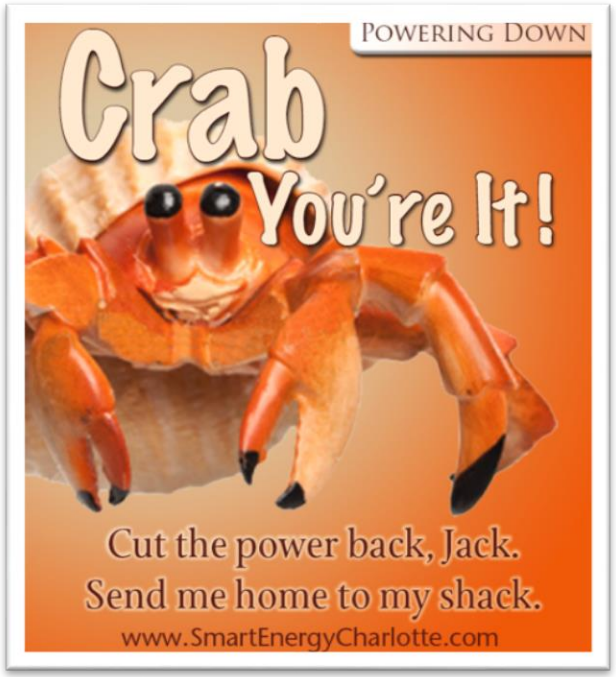
Engagement Campaigns



"What if we don't change at all ...
and something magical just happens?"

Engagement & Wellness Programs Are …

- Games, campaigns, and messaging that motivate employees
- Fun and thought-provoking initiatives that activate company core values
- Collective actions that build team cohesion



Employee Engagement Campaigns

- Turn-key engagement solutions
- Toolkit with step-by-step instructions
- Baked-in behavioral science
- Measured baselines and results
- Optional support from campaign facilitator

County Spotlight:
Mecklenburg County, North Carolina

“Crab, You’re It” CBSM Campaign

Goals:

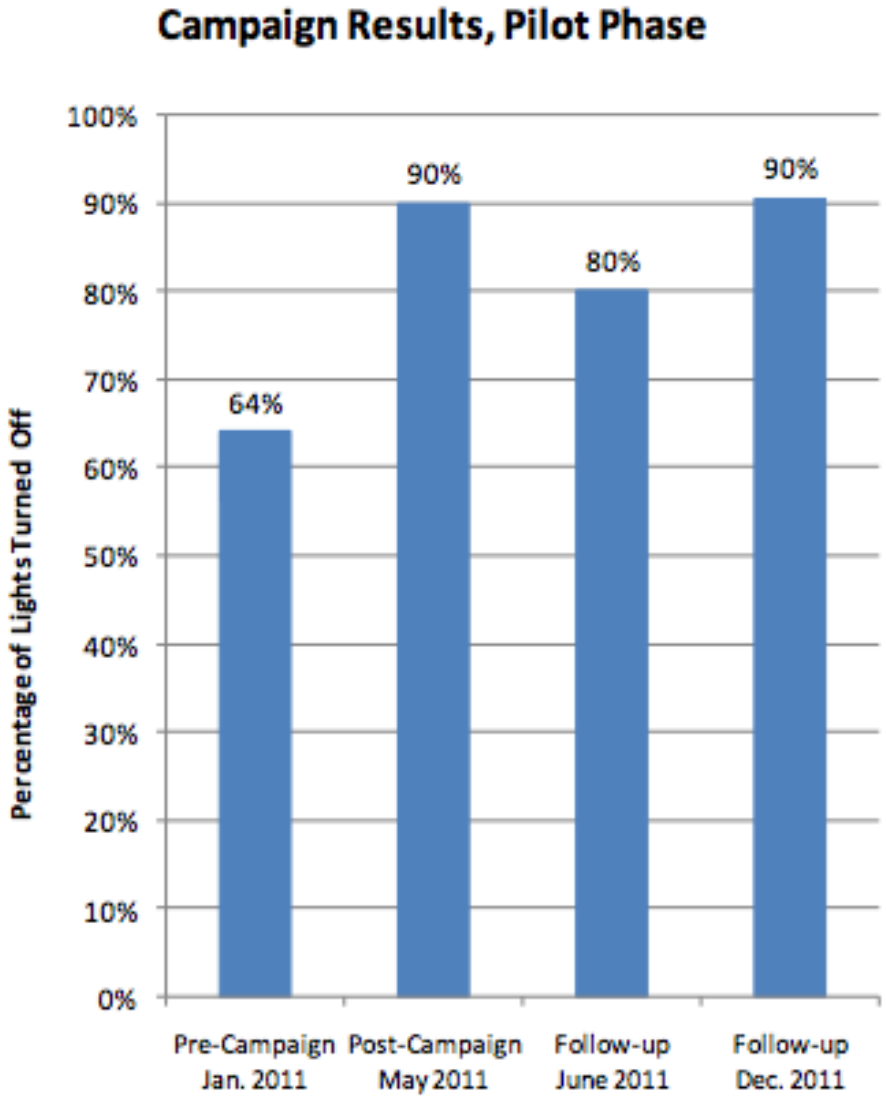
- Promote energy efficient behavior

Outcomes:

- Addressed engagement barriers
- Created new social norms
- Activated 350 employees (in the County office)

Results

- Lasting impact
  - 26% less unnecessary lights
- Scaled up and adopted by
  - Envision Charlotte
  - Charlotte Air Awareness Program - 250 businesses
  - Greenville County - 2,000 employee participants



Large-CBSM Energy Efficiency Case Studies

April 21, 2017

Envision Charlotte

empowerefficiency LLC

ENVISION:CHARLOTTE
UNITING FOR A SUSTAINABLE CITY

Energy Savings Goal:

- 5% behavior change
- 15% operational savings

Qualifying Buildings

- Office building > 10,000 sq. ft
- Represents 21.5 million sq. ft. of office space and 75,000 employees

Envision Charlotte

- Grassroots
  - “Energy champions” programs
  - Marketing & Grassroots Outreach
  - Town halls
- Participation
  - 98% of eligible sq. ft.
  - Digital infrastructure

64 of 66 qualifying building participate

Grassroots Program Design

ENVISION:CHARLOTTE
UNITING FOR A SUSTAINABLE CITY

- Engagement across stakeholders:
  - Building owners
  - Facility managers
  - C-Suite
  - Workers
- Over 1,500 energy champions trained
- Two waste-reducing actions
  - Flipping Out (Lights)
  - Powering Down (Office Equipment)

Results

ENVISION:CHARLOTTE
UNITING FOR A SUSTAINABLE CITY

- Goal: 5% behavior change
- Result 2013: 6.2% energy reduction

Size Category	SEN Net Savings
Overall	6.2%
>= 100,000 SF	6.4%
< 100,000 SF	1.1%

Source: (2014) Process and Impact Evaluation of the Smart Energy Now (NC) (Pilot), TecMarkets.

- Result 2015: 17.2% energy reduction

Source: McCord, Mac, Envision Charlotte Project, 2016 Building Technologies Office Peer Review, DE-EE0007066.

Lessons Learned and Engagement Best Practices

April 21, 2017

Test/Learn/Adapt Across Utility Programs

Barriers	Benefits
Continuous design process	Test/Learn/Adapt: Learn what works/what doesn't work
Long implementation times	Focus on a few strategies that worked well in other markets
Buy-in across utility	Unifying methodology: seek leadership support across org
Complex set of offerings	Organize customer journeys, engagement, & follow up opportunities
Direct customer involvement	Customers become ambassadors

Engagement Best Practices

1. Discover the right partners
2. Mobilize your champions
3. Release ownership
4. Facilitate responsibility
5. Support contractors

Further Questions?

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