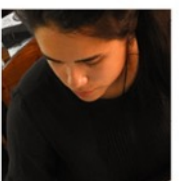


Behavior-Centered Design & Climate Philanthropy

December 7, 2022



Behavior Change & Climate Philanthropy Series

December 7

- 10:00-11:30am ET: Behavior-Centered Design & climate philanthropy
- 2:00-3:30pm ET: Framing the challenge: Systems thinking & behavior change

December 8

- 10:00-11:30am ET: Evaluating behavior change programs
- 2:00-3:00pm ET: Making the case for behavior change

March 2023

- Funders' Roundtable

Session Objectives

- Know the steps of Behavior-Centered Design for developing a behavior change solution
- Describe how behavior change principles and practices can improve philanthropic efforts in addressing climate change
- Describe the six levers of behavior change
- Identify what a successful behavior change program looks like through real-world, climate case studies
- Connect with other funders on applying behavior change principles



Some Virtual Training Norms...

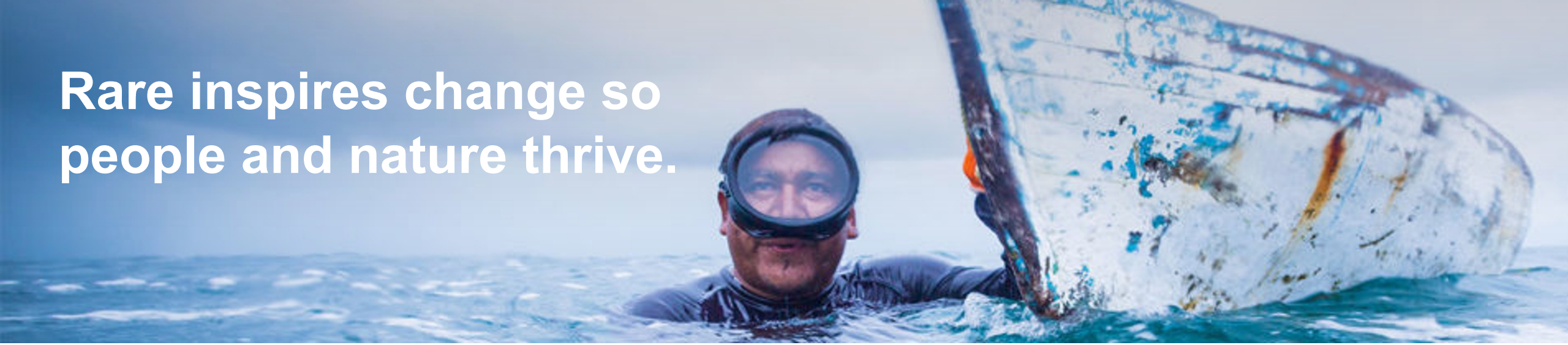
Virtual Training Norms

- Turn your video on (or add a photo)
- Display your name (and pronouns)
- Limit multi-tasking
- Mute your microphone when not speaking
- Use the chat and hand-raising functions if you have questions
- Be patient and compassionate

Agenda

1. Welcome and introduction
2. Developing a behavioral lens
3. Introduction to Behavior-Centered Design
4. Levers of behavior change
 - ~ Quick Break ~
5. Discussion: Applying the levers to grantmaking
6. Closing

Rare inspires change so people and nature thrive.



Rare has run nearly **500** behavior change campaigns in more than **60** countries




Rare's behavior change campaigns, on average, increase adoption by **18** percentage points



Transform the environmental field by equipping environmentalists everywhere with **the science of human behavior**

Premises

1. Environmental challenges are behavioral challenges.
2. Environmental changemakers and practitioners rely on a limited set of strategies for changing behaviors.
3. A more complete set of strategies drawing on behavioral and social science applied with a user-centered approach will lead to breakthrough solutions to climate, conservation, and sustainability challenges.



Today you would never find a conservation organization that doesn't have a deep bench around ecological or biological sciences, **but you really don't see the same thing when it comes to behavioral and social science.**"

– **Aileen Lee**, Chief Program Officer
The Gordon and Betty Moore Foundation



< 2%

of global philanthropic giving (\$5 to \$9 billion) was dedicated to climate change mitigation as of 2019.

0.12%

of all research funding on climate-related grants was spent on the social science of climate mitigation from 1950 to 2021.

Behavior Change and Climate Investment Opportunities

Driving consumer/end-user behavior change



Behavior Adoption Programs

Driving behaviorally informed technology



Innovation tournaments and platforms

Building evidence



Hypothesis testing

Building demand and capacity



Policy design support

Influencing environment



Corporate engagement

THE
KRESGE
FOUNDATION



**THE
GEORGE
GUND
FOUNDATION**



Grantham Foundation
for the Protection of the Environment

GORDON AND BETTY
MOORE
FOUNDATION



DORIS DUKE
CHARITABLE FOUNDATION

AVD The Arthur
Vining Davis
Foundations



Developing a behavioral lens



“Awareness is a place where you can really get stuck. What is so powerful about behavioral insights and strategies is that they can help folks **make that leap from awareness to active participation.**”

– Katharine Wilkinson, Best-selling author of *All We Can Save*, *Drawdown*

Types of Problem-Solving Lenses

Ecological lens



Helps us identify the connections within ecosystems that contribute to environmental problems and solutions

Behavioral lens



Helps us identify where human behavior contributes to environmental problems and solutions

Systems thinking lens

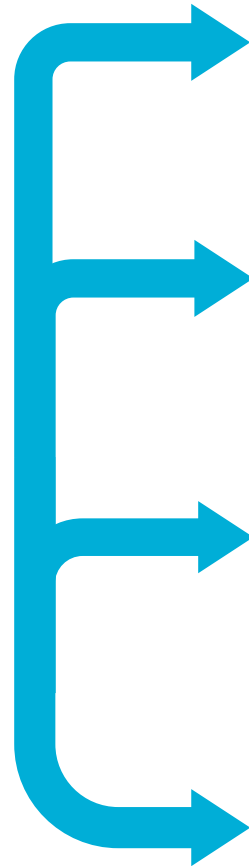


Helps us identify the relationships and feedback loops in a system that contribute to environmental problems and solutions

What Does it Mean to Focus on *Behavior*?

Behaviors

What you do
“I use public transport.”



Beliefs

What you know or accept to be true

“Using public transport is important for reducing emissions.”

Attitudes

What you think is good or bad

“I like using public transport.”

Intentions

What you plan or intend to do

“I want to use public transport.”

Context

The environment for the behavior

“Our city has a strong public transport infrastructure.”

Let's Practice!

“Our community plans to start a municipal composting program by 2030.”

Belief or Attitude | Intention | Behavior | Context

Let's Practice!

“Our community plans to start a municipal composting program by 2030.”

Belief or Attitude | **Intention** | Behavior | Context

Let's Practice!

“Reducing chemical fertilizers is the right thing to do.”

Belief or Attitude | Intention | Behavior | Context

Let's Practice!

“Reducing chemical fertilizers is the right thing to do.”

Belief or Attitude | Intention | Behavior | Context

Let's Practice!

“Our city just elected a new mayor who supports climate change policies.”

Belief or Attitude | Intention | Behavior | Context

Let's Practice!

“Our city has a new major who supports climate change policies.”

Belief or Attitude | Intention | Behavior | **Context**

Let's Practice!

“Our office staff reduced their meat consumption this month.”

Belief or Attitude | Intention | Behavior | Context

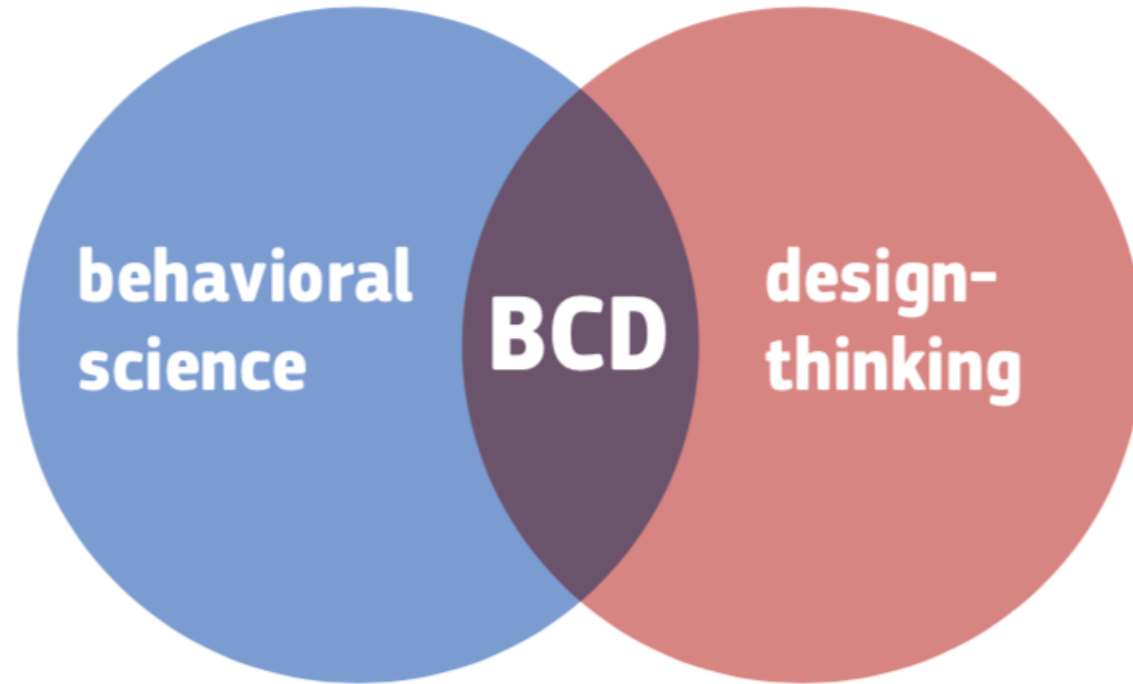
Let's Practice!

“Our office staff reduced their meat consumption this month.”

Belief or Attitude | Intention | **Behavior** | Context

Introduction to Behavior-Centered Design

What is Behavior-Centered Design?



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP



4. IDEATE

5. PROTOTYPE



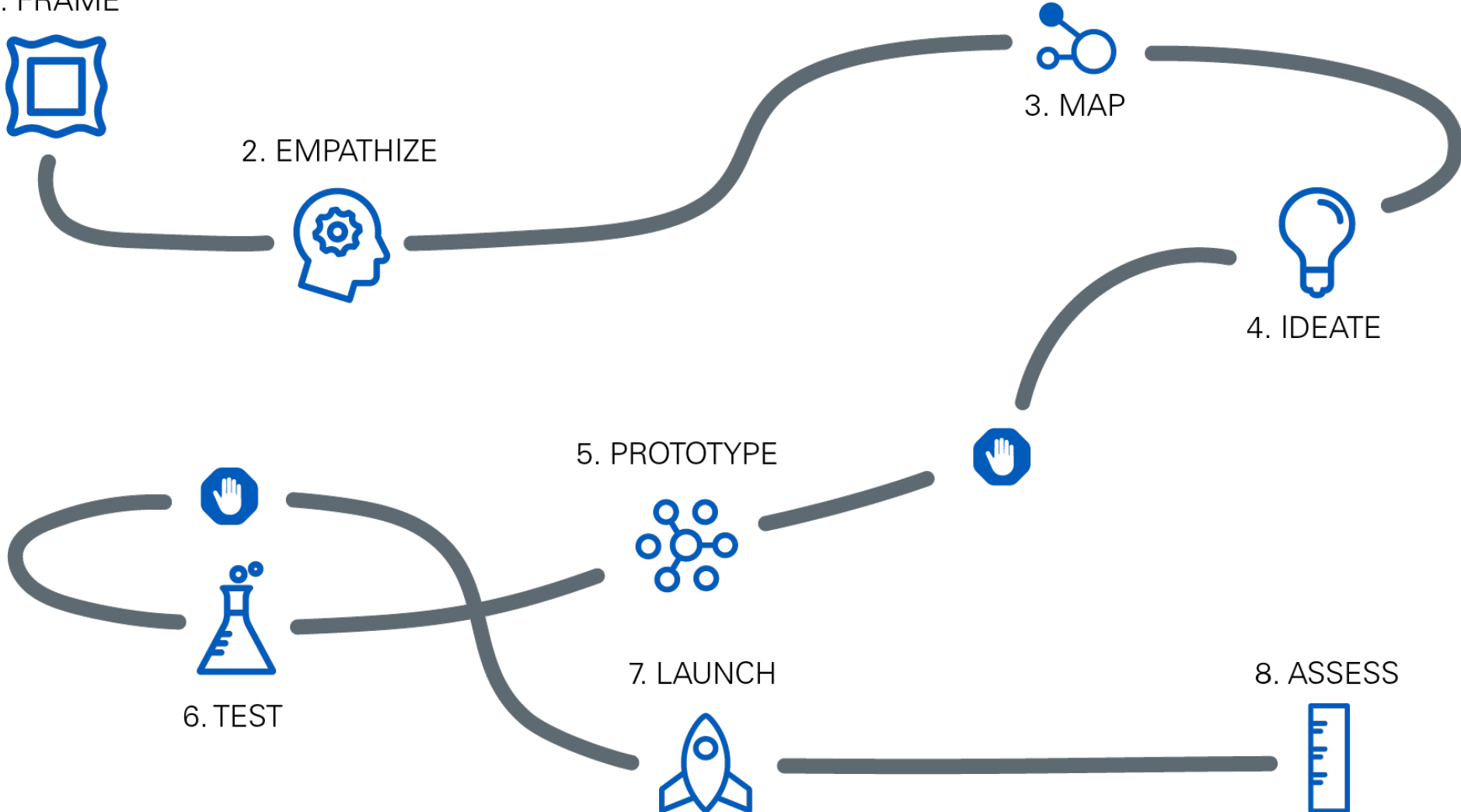
7. LAUNCH



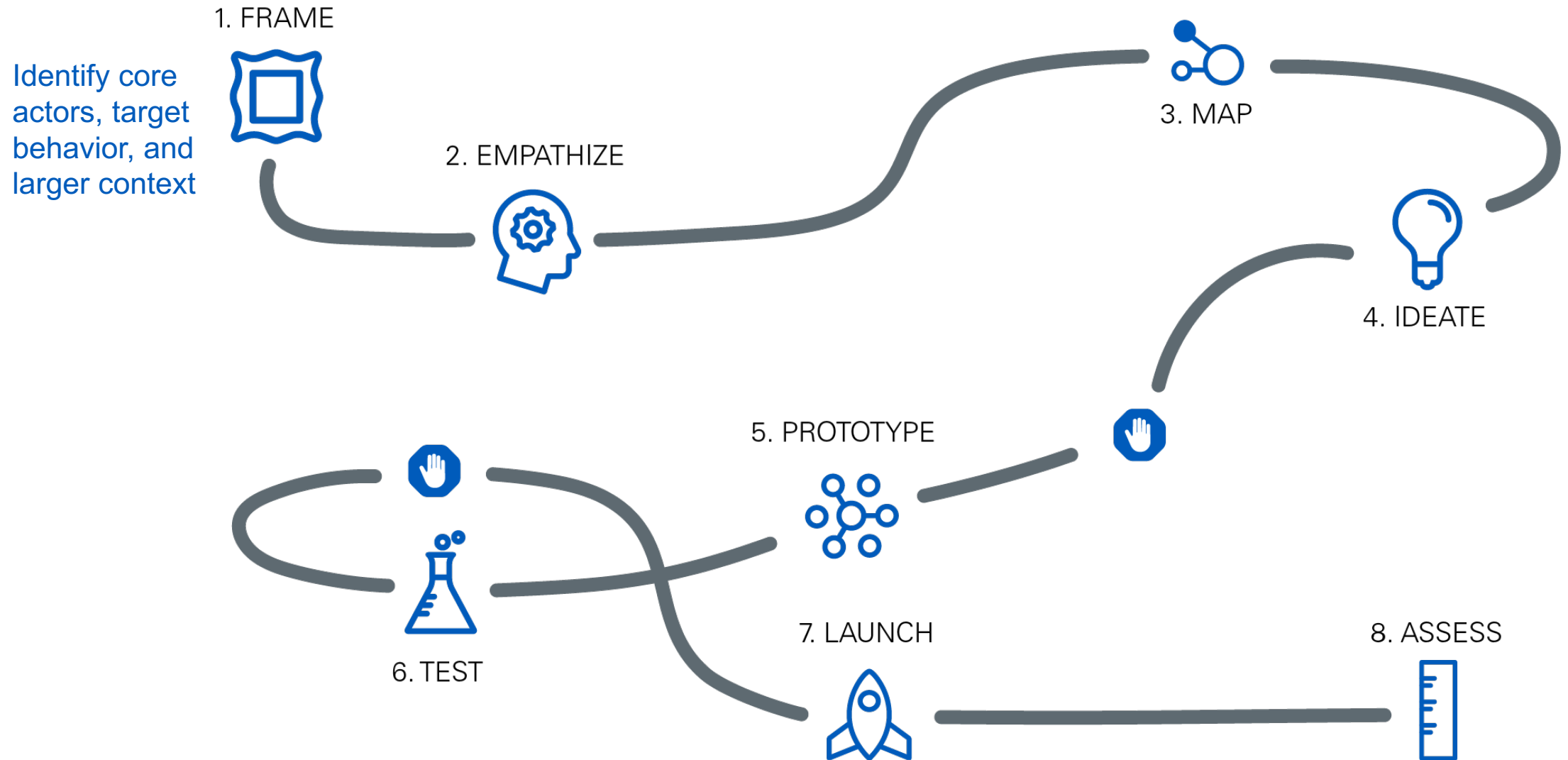
6. TEST



8. ASSESS



The Behavior-Centered Design Journey



The Behavior-Centered Design Journey

1. FRAME



Understand the core audience's behavioral motivations & challenges

2. EMPATHIZE



3. MAP



4. IDEATE

5. PROTOTYPE



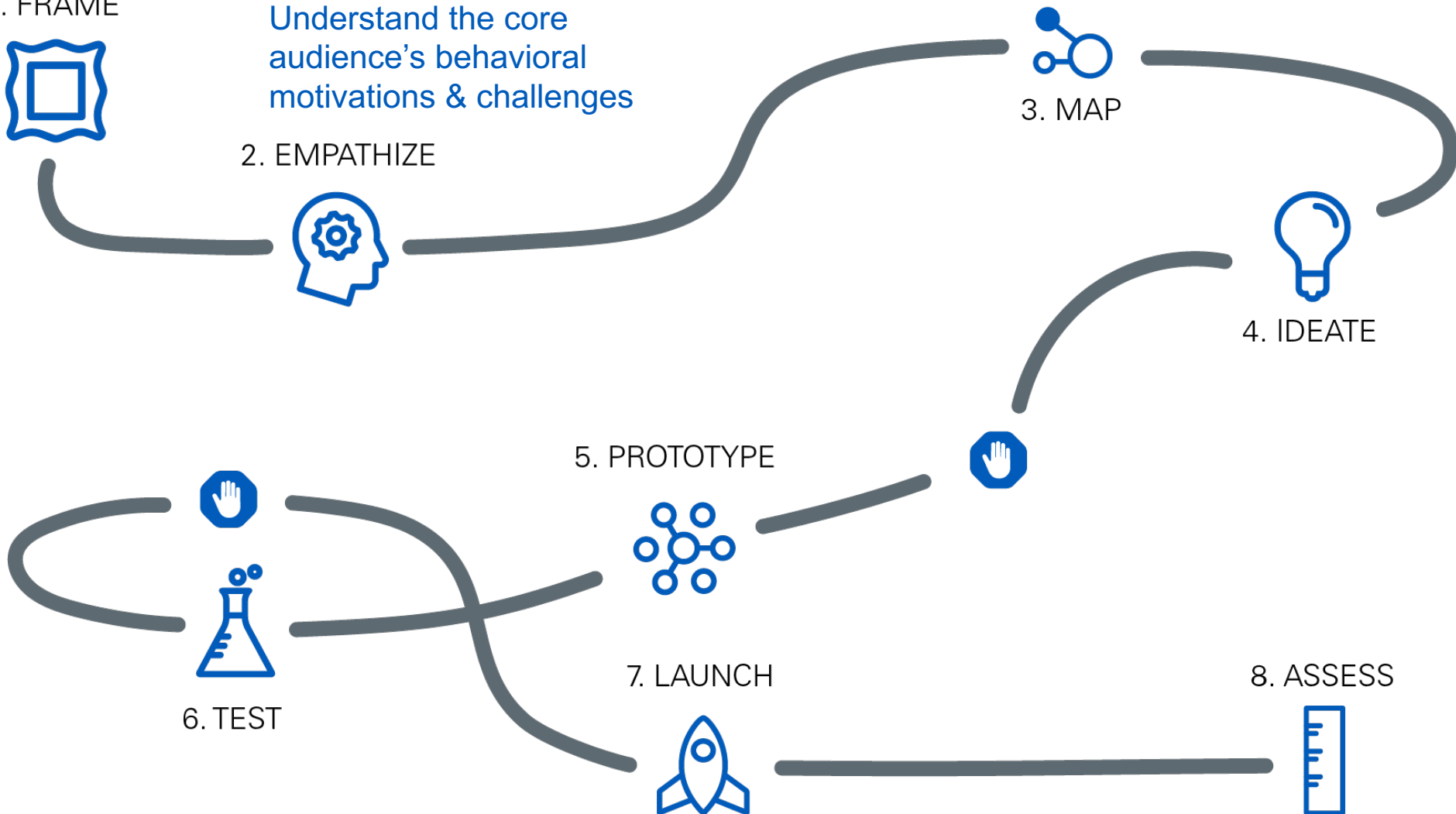
6. TEST



7. LAUNCH



8. ASSESS



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP

Make connections
between your data and
behavioral science



4. IDEATE

5. PROTOTYPE



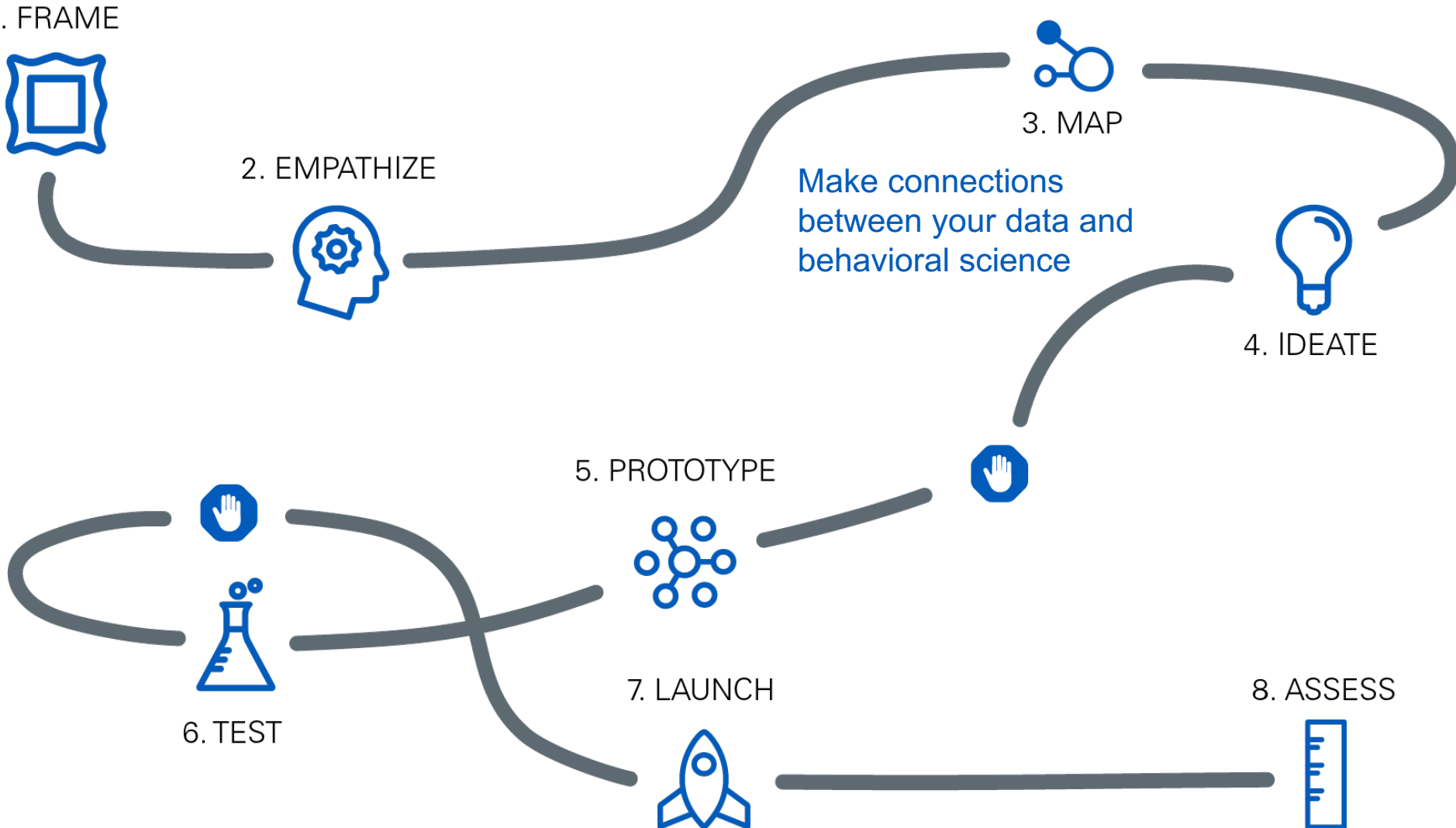
7. LAUNCH



6. TEST



8. ASSESS



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP



4. IDEATE



Generate and
prioritize solution
ideas

5. PROTOTYPE



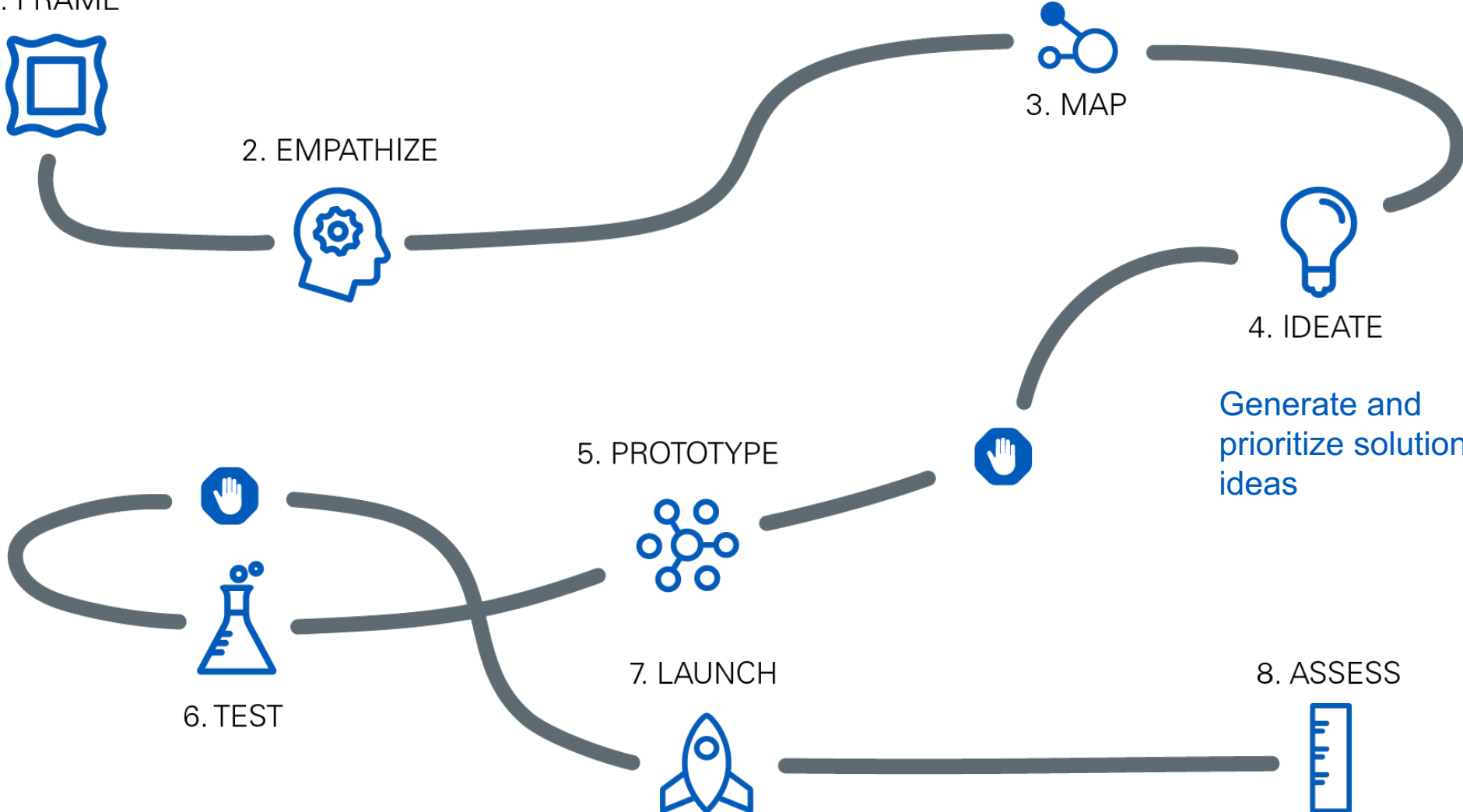
6. TEST



7. LAUNCH



8. ASSESS



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP



4. IDEATE

Build a small scale
version of your solution

5. PROTOTYPE



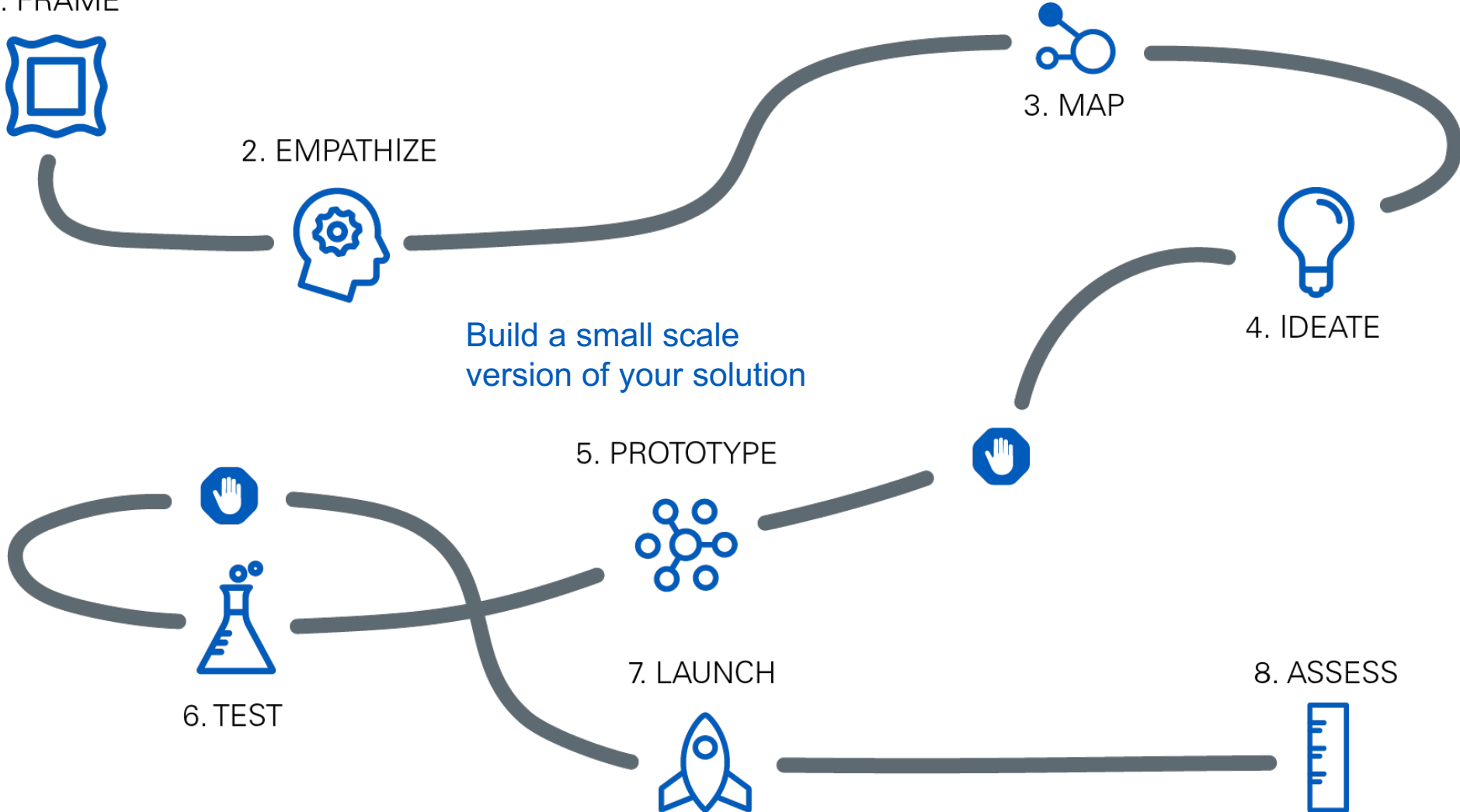
6. TEST



7. LAUNCH



8. ASSESS



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP



4. IDEATE



5. PROTOTYPE



6. TEST



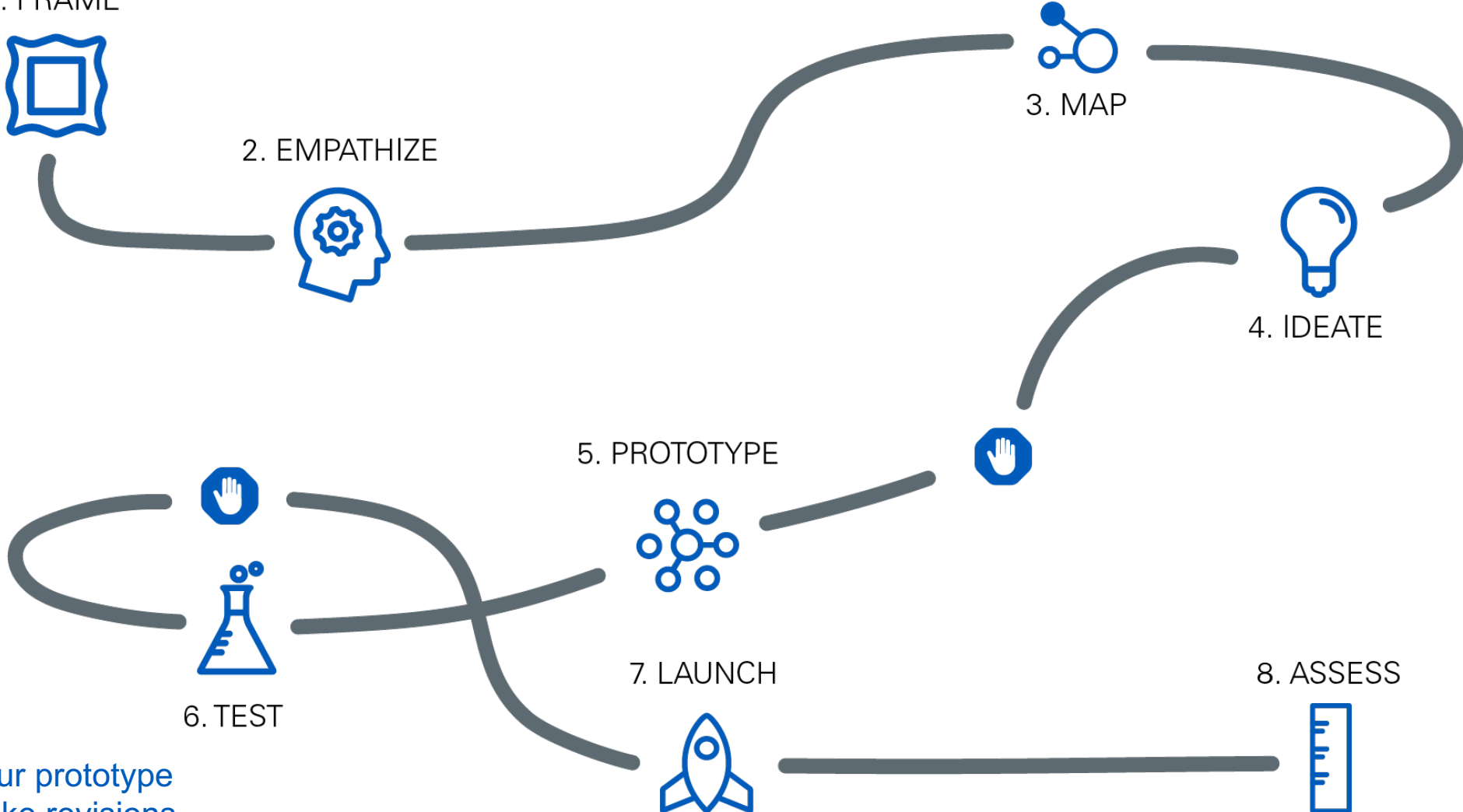
7. LAUNCH



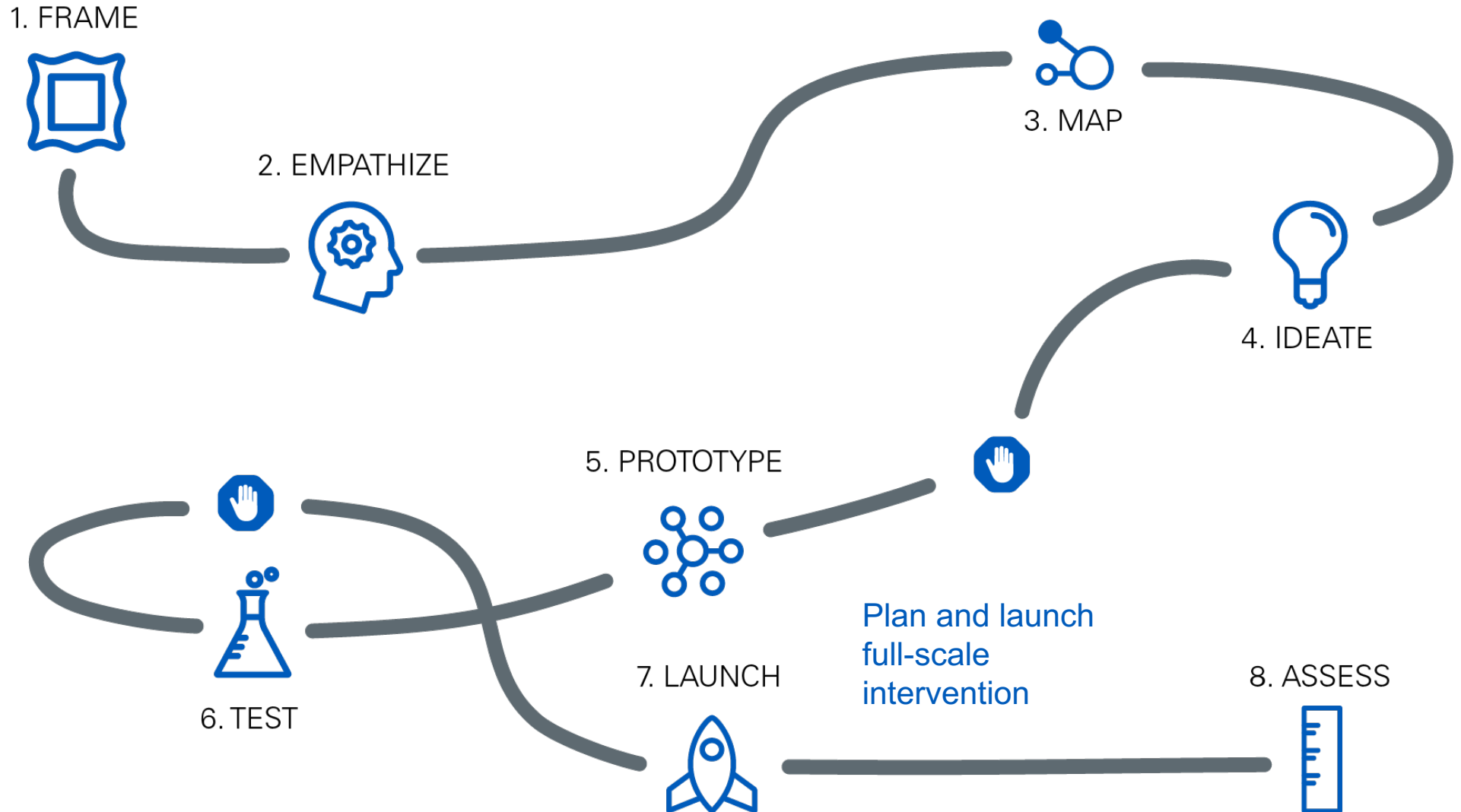
8. ASSESS



Test your prototype
and make revisions



The Behavior-Centered Design Journey



The Behavior-Centered Design Journey

1. FRAME



2. EMPATHIZE



3. MAP



4. IDEATE

5. PROTOTYPE



6. TEST



7. LAUNCH



Assess the impact of
your intervention and
measure behavior
adoption

8. ASSESS



BCD x Diversity, Equity, and Inclusion (DEI)

Some examples of what this looks like:

- Inviting people to participate in framing the problem and solution design
- Considering enabling conditions and structural barriers for change
- Asking ‘whose perspective is not captured in this solution?’
- Conducting research with a diverse set of people
- Supporting people’s choices and agency
- Use data to design solutions, not assumptions

SOLARIZE YOUR COMMUNITY

An Evidence-Based Guide for Accelerating
the Adoption of Residential Solar



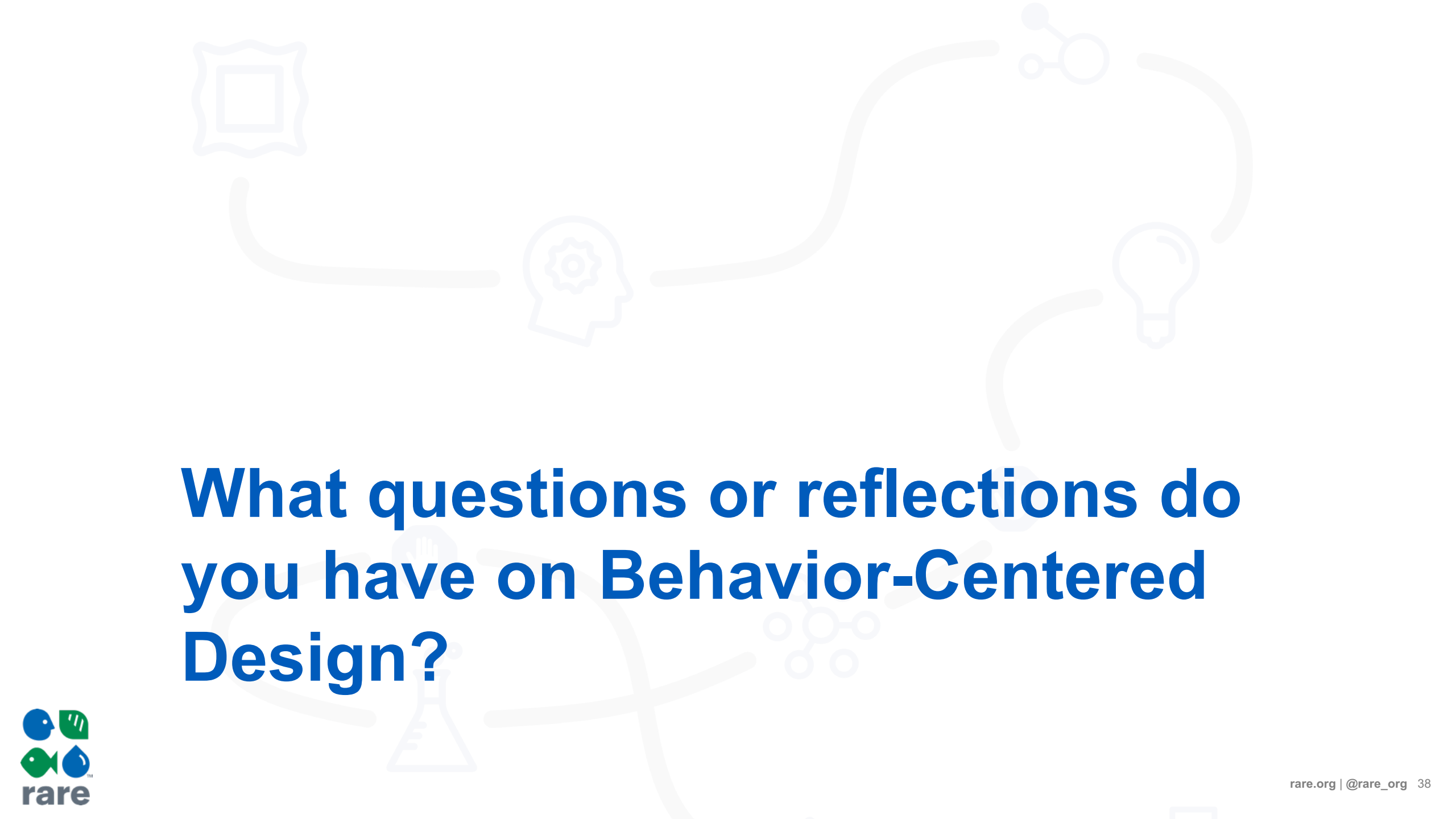
3X

INCREASE IN SOLAR
ADOPTION

LOWER AVG. COST

20%

A Case Study



What questions or reflections do you have on Behavior-Centered Design?

Levers of behavior change

The Levers of Behavior Change



We have a spectrum of effortful and automatic ways of thinking and deciding.



Weighing options, calculating costs and benefits



Reacting automatically, quickly

We have a spectrum of effortful and automatic ways of thinking and deciding.

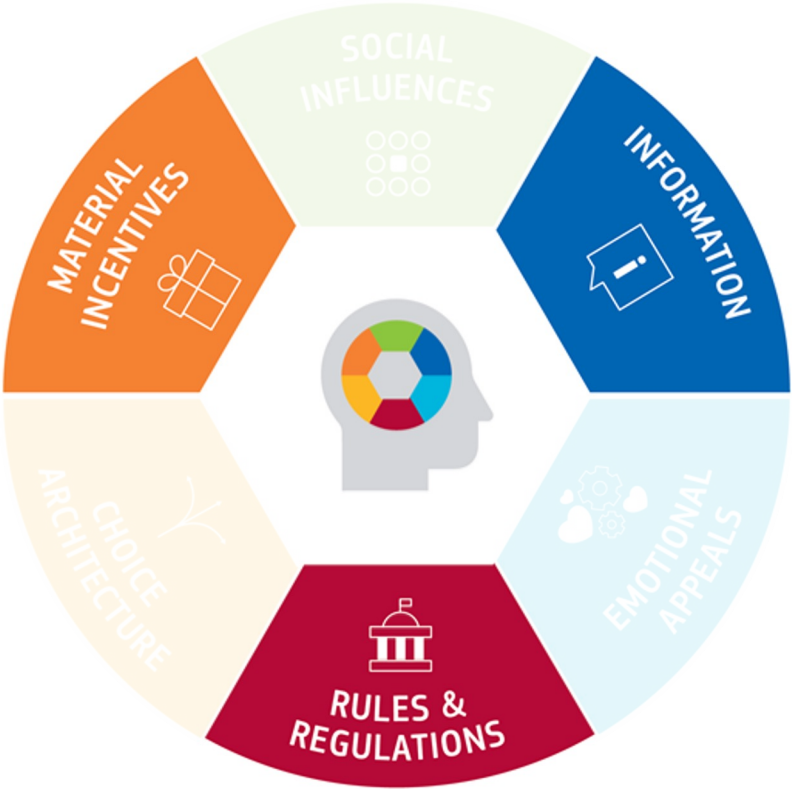


Weighing options, calculating costs and benefits



Reacting automatically, quickly

The most common tactics for driving behavior change are designed for one kind of thinking.



Material Incentives



Increasing or decreasing
real or perceived costs, time,
or effort for doing a behavior



Time



Money



Convenience or Effort

(Becker, 2013)

Understanding the impact of reoccurring and non-financial incentives on plug-in electric vehicle adoption – A review

Scott Hardman ✉



Incentives for EVs:

- ✓ Access to HOV, bus, or transit lanes
- ✓ Access to charging infrastructure
- ✓ Free, discounted, or preferred parking
- ✓ Toll fee waivers
- ✓ Gasoline prices
- ✓ Tax exemptions

Cash incentives avert deforestation

Juan Camilo Cárdenas

With cash
incentives

4.2%

FOREST LOSS

Without cash
incentives

9.1%

FOREST LOSS



Rules & Regulations



Enacting rules that promote or restrict a behavior



U

FACE
MASKS
REQUIRED



The importance of the Montreal Protocol in protecting climate

[Guus J. M. Velders](#)  , [Stephen O. Andersen](#), [John S. Daniel](#), [David W. Fahey](#), and [Mack McFarland](#)



90%

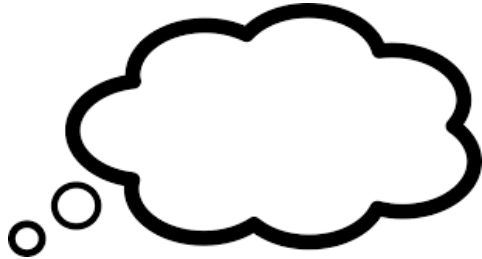
**DECREASE IN
OZONE-DEPLETING
SUBSTANCES**

Information

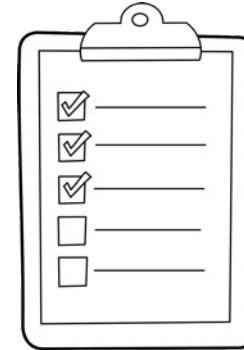


Providing information about what the target behavior is, why it matters, and how to do it

Information



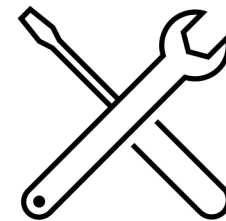
**Declarative
Knowledge**



**Procedural
Knowledge**



**Effectiveness
Knowledge**



**Self-efficacy
Knowledge**

**CLIMATE HAZARDS AND RISK STATUS: EXPLAINING
CLIMATE RISK ASSESSMENT, BEHAVIOR, AND
POLICY SUPPORT**

Hyung Sam Park¹ and Arnold Vedlitz²



These levers tend not to work on their own.



- Financial incentives can backfire.
- Payments can crowd-out other motivators.
- Incentives can drain limited resources.
- Fines can be seen as just the 'cost' for behavior.

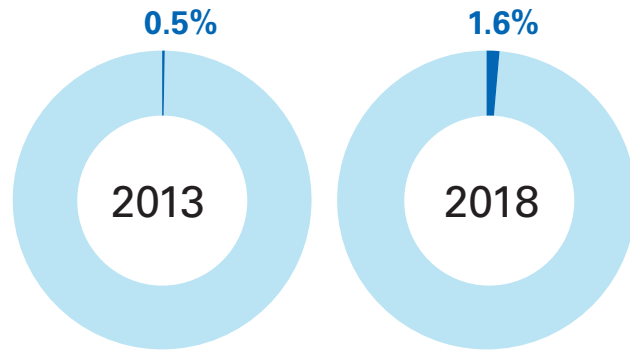


- Rules often need enforcement.
- Rules do not work if norms are misaligned.

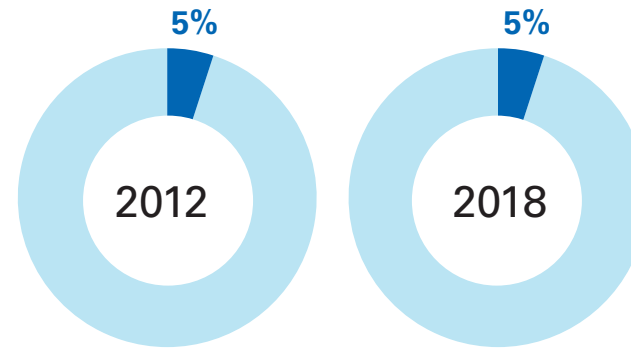


- Correcting an information-deficit rarely leads to lasting behavior change.
- Caring/knowing is not a pre-requisite to change.

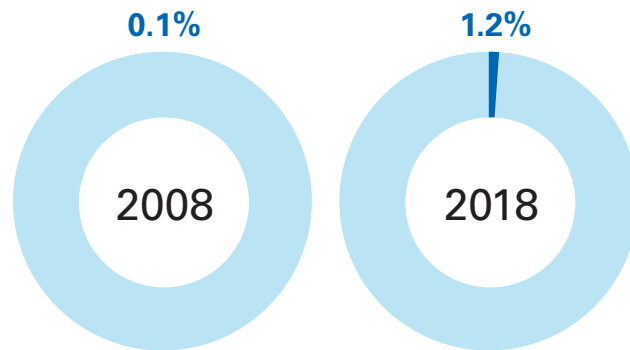
Despite technology and policy advances, change has been slow on key climate behaviors in the US.



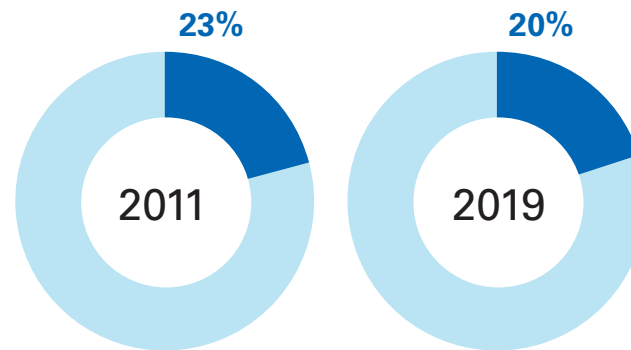
Electric vehicle sales as a fraction of all new car sales in the U.S.



% of U.S. adults identifying as vegetarian



% of U.S. households with solar panels



% of person-trips logged for business purposes by U.S. residents



Let's design more for the full spectrum of thinking.

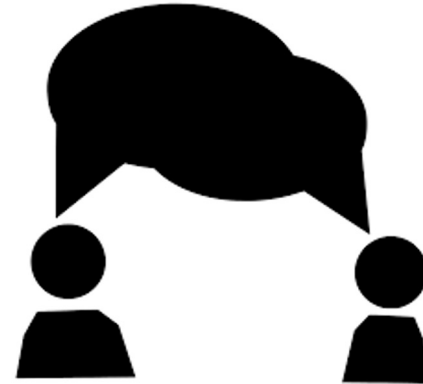
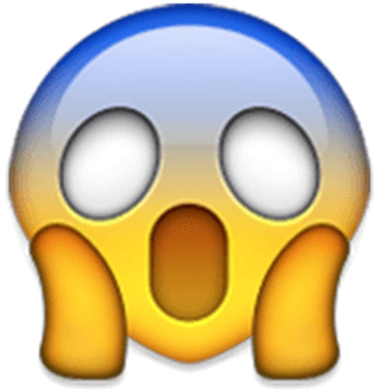
1. Emotions drive decision making.
2. We are an inherently social species.
3. The context of our decision-making matters.



Emotional Appeals



Using emotional messages to drive behavior



Fear, hope, anger, and guilt in climate activism

Jochen Kleres & Åsa Wettergren



Nonprice incentives and energy conservation

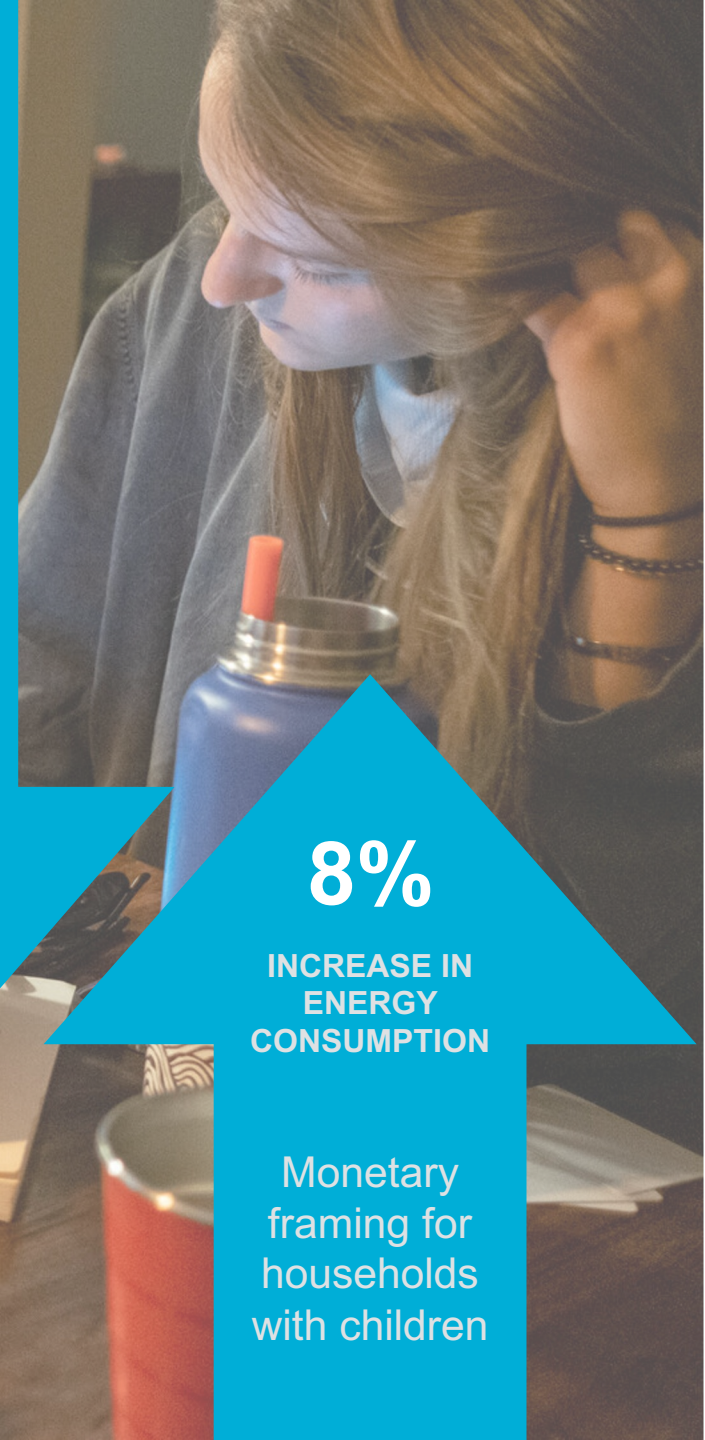
Omar I. Asensio^{a,1} and Magali A. Delmas^{a,b,1,2}

^aInstitute of the Environment and Sustainability and ^bAnderson School of Management, University of California, Los Angeles, CA 90095-1496



Health framing for households with children

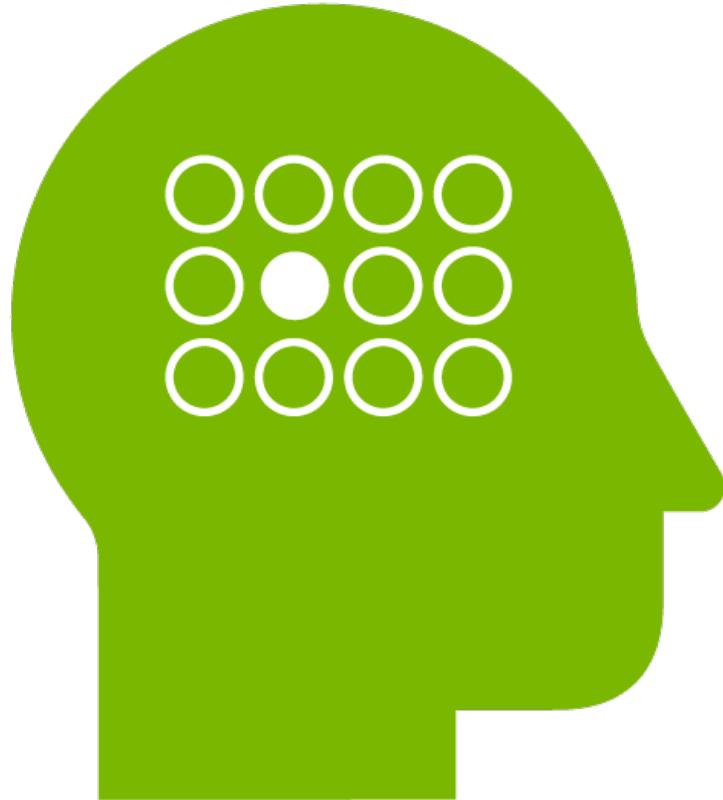
19%
DECREASE IN ENERGY CONSUMPTION



8%
INCREASE IN ENERGY CONSUMPTION

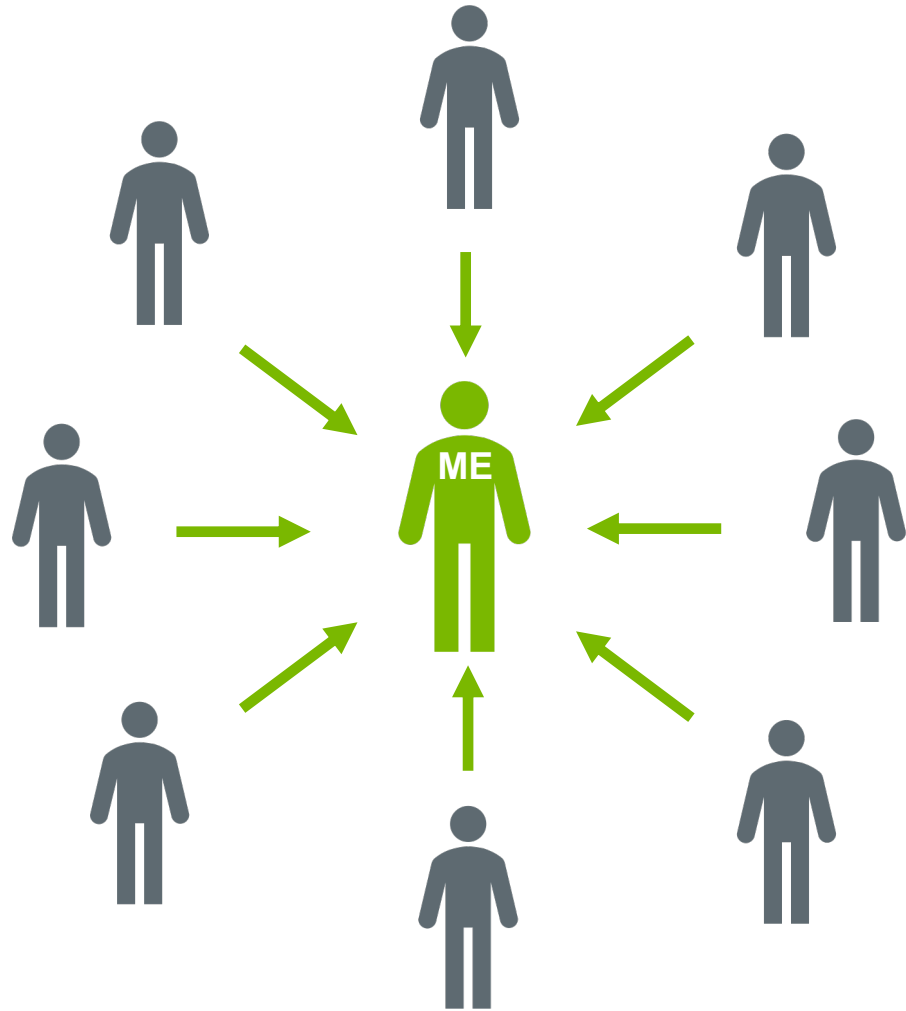
Monetary framing for households with children

Social Influences

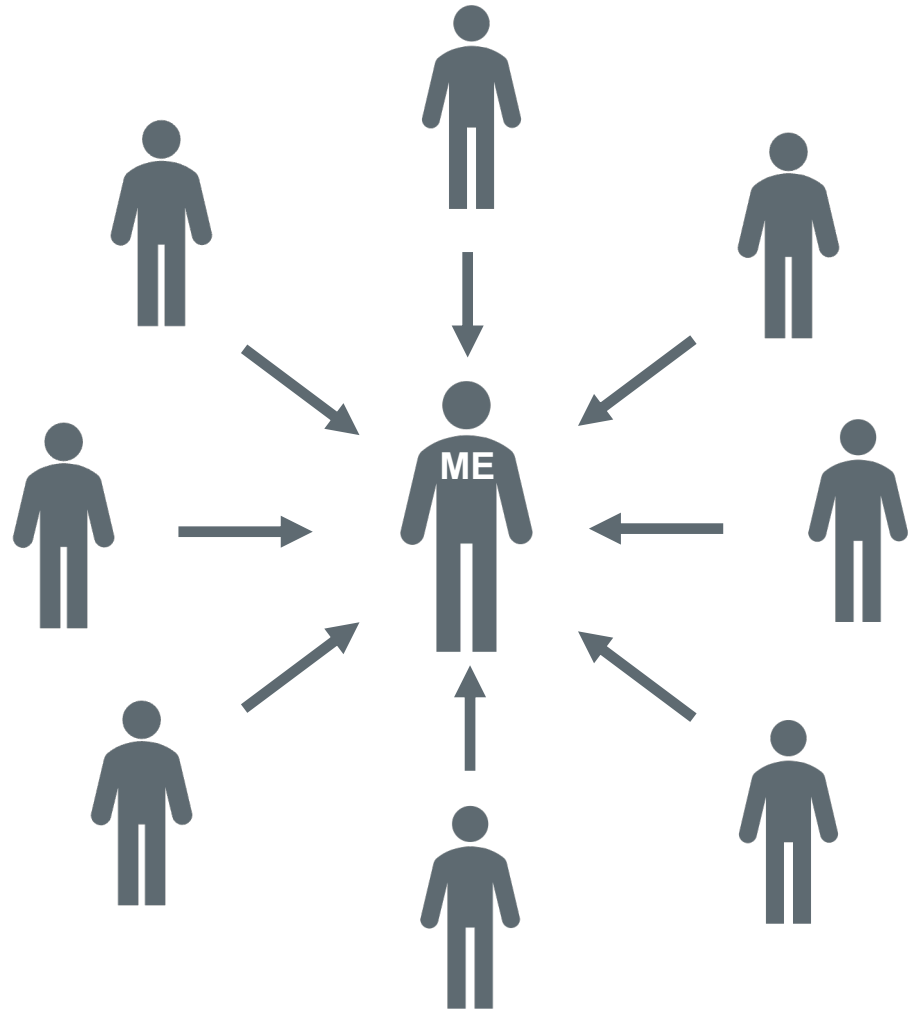


Leveraging the behavior, beliefs, and expectations of others

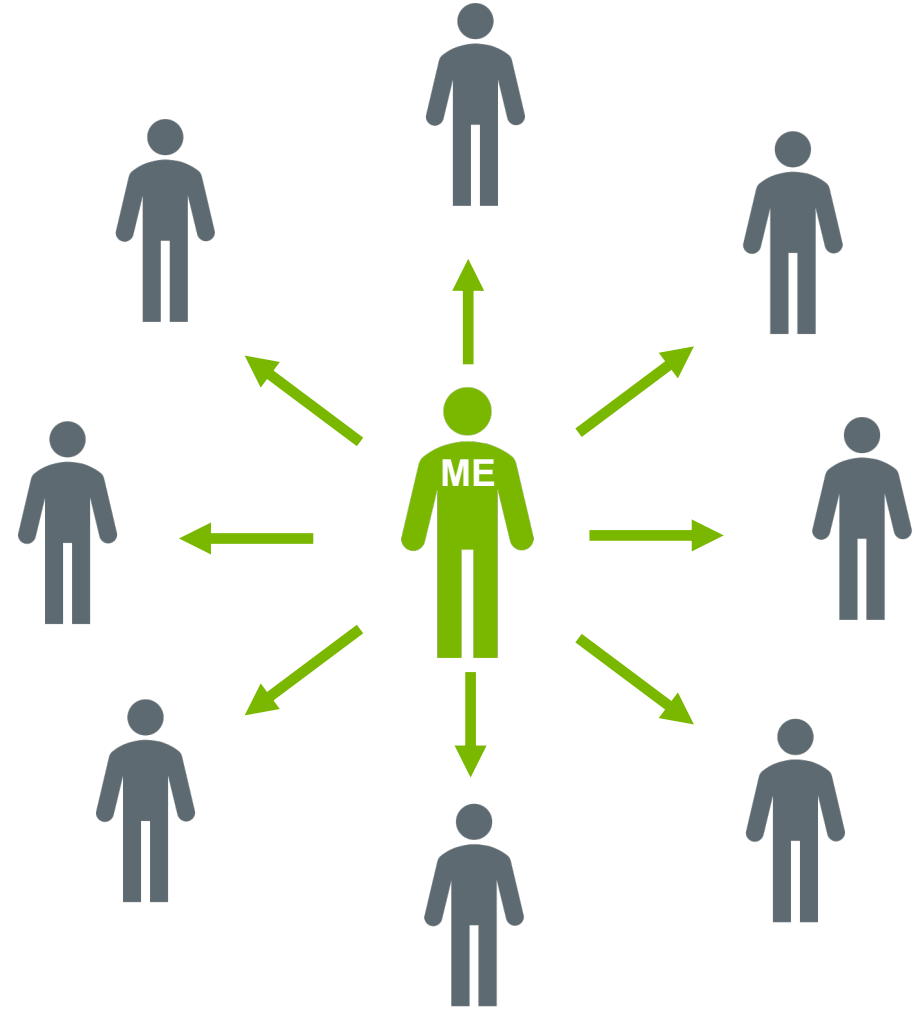
Reputational Influence



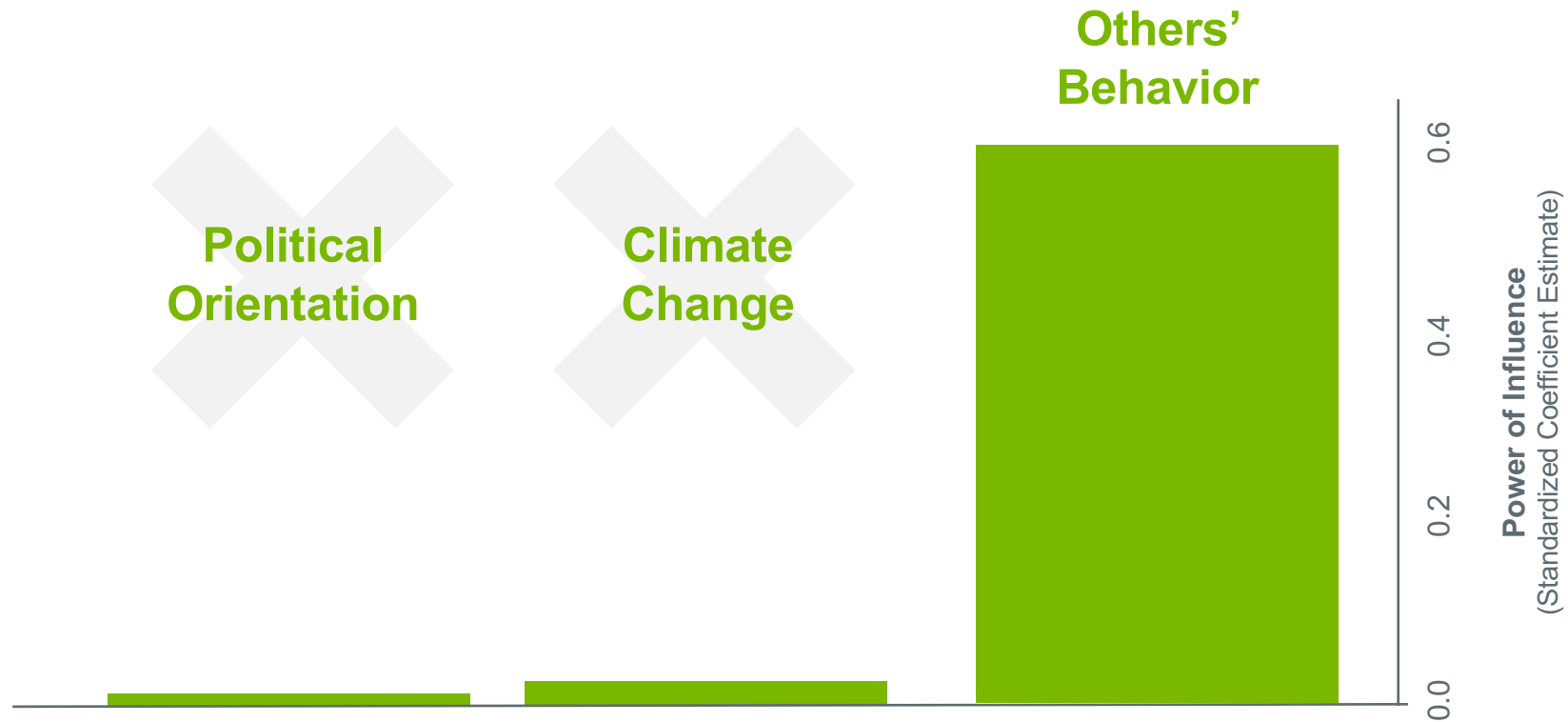
Reputational Influence



Descriptive Influence



Which Beliefs Predict Behavior Change?





34%

MORE LIKELY

“People have started to limit how much meat they eat”

17%

MORE LIKELY

“People limit how much meat they eat”

Dynamic Norms Promote Sustainable Behavior, Even if It Is Counternormative



Gregg Sparkman and Gregory M. Walton
Department of Psychology, Stanford University

Powering up with indirect reciprocity in a large-scale field experiment

Erez Yoeli^a, Moshe Hoffman^{b,c}, David G. Rand^{c,d}, and Martin A. Nowak^{c,e,f,1}

3X

PARTICIPATION IN
ENERGY REDUCTION
PROGRAM

When sign
ups were
observable
vs.
anonymous

Choice Architecture



Changing the context in which choices are made



CONTROL MENU

Risotto primavera (v)

Peas, mushrooms, lemon 14.00

Lobster & crab roll

Avocado, lettuce, lemon, mayonnaise 17.00

Sautéed king prawns

Chili, garlic & parsley, basmati rice 22.50

Deep fried haddock

Minted peas, hand cut chips, sauce tartar 15.50

Chicken cacciatora

Roasted chicken breast, mushrooms, tomato, olives 14.50

Steak frites

Rump pave, hand cut chips, béarnaise sauce 19.50

Hamburger

Relish, hand cut chips 13.50

Ricotta & spinach ravioli (v)

Asparagus, butter & sage sauce 13.50

v – suitable for vegetarians

VEGETARIAN MENU

Lobster & crab roll

Avocado, lettuce, lemon, mayonnaise 17.00

Sautéed king prawns

Chili, garlic & parsley, basmati rice 22.50

Deep fried haddock

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Hamburger

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VEGETARIAN DISHES

Risotto primavera (v)

Peas, mushrooms, lemon 14.00

Ricotta & spinach ravioli (v)

Asparagus, butter & sage sauce 13.50

Domestic uptake of green energy promoted by opt-out tariffs

Felix Ebeling¹ and Sebastian Lotz^{2,3*}

10X

GREEN ENERGY
ENROLLMENTS

When the
default was
set to green
energy

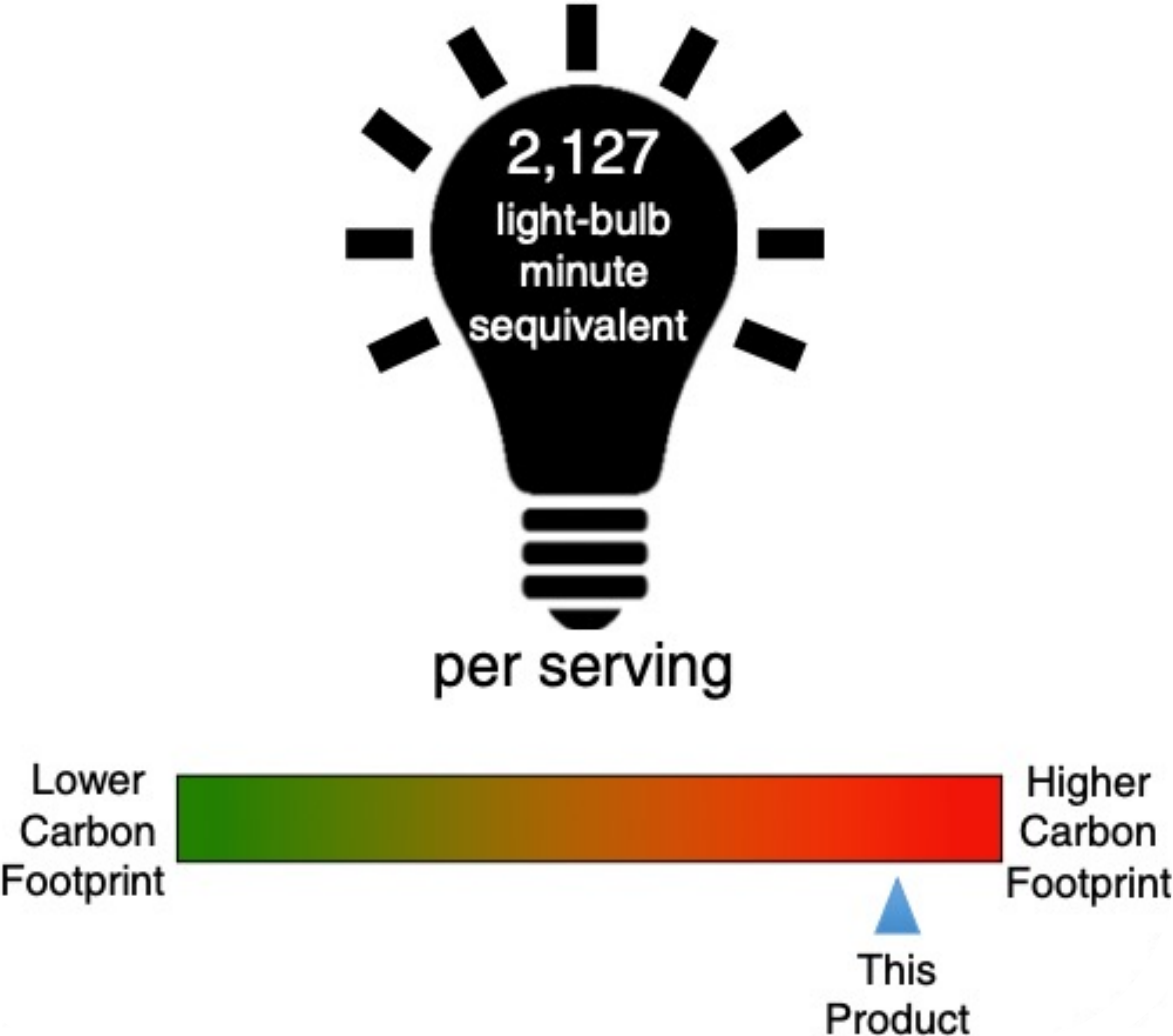
Empowering interventions to promote sustainable lifestyles: Testing the habit discontinuity hypothesis in a field experiment

Bas Verplanken*, Deborah Roy





Consumers underestimate the emissions associated with food but are aided by labels

[Adrian R. Camilleri](#) , [Richard P. Larrick](#), [Shajuti Hossain](#) & [Dalia Patino-Echeverri](#)



What's the Difference?

	Choice Architecture 	Material Incentives 
Definition	Changing the context in which choices are made	Increasing or decreasing real or perceived costs, time, or effort for doing a behavior
Costs/Benefits	Negligible benefit or cost	Substantial benefit or cost
Rational actor perspective	Would not affect a rational actor's choice	Would affect a rational actor's choice
Key strategies	Timely moments, salience, defaults implementation intentions, commitment devices, simpler messaging	Rewards, penalties, saving time, saving effort, convenience



Comprehension Check

How well do you know the levers?

People that received information about their neighbors' lower energy use led them to reduce their own energy.

1. Material Incentives
2. Social Influences
3. Information

People that received information about their neighbors' lower energy use led them to reduce their own energy.

1. Material Incentives

2. Social Influences

3. Information

A campaign asking individuals to 'be a voter' (noun) rather than 'to vote' (verb) led to an increase in voter turnout.

1. Information
2. Emotional appeals
3. Social influences

A campaign asking individuals to 'be a voter' (noun) rather than 'to vote' (verb) led to an increase in voter turnout.

1. Information
- 2. Emotional appeals**
3. Social influences

Putting green footprints on the ground leading to trash cans led to less littering in public areas.

1. Choice Architecture
2. Information
3. Rules and Regulations

Putting green footprints on the ground leading to trash cans led to less littering in public areas.

- 1. Choice Architecture**
2. Information
3. Rules and Regulations

The Levers of Behavior Change



Movement Break



Discussion: Applying the levers to grantmaking

Discussion

In your breakout groups, consider the following questions:

- Which behavior change principles (from Behavior-Centered Design and the levers) do you see or not see in your grantees' programs?
- What concerns or challenges do you see in applying behavior change principles to your grantmaking?
- What excites you about applying behavior change principles to your grantmaking?



What were some highlights from your discussions?

Reflections & closing

What's a word or phrase that describes this session?

What's a key takeaway for you from this session?

**What resources would be helpful to apply
what you learned?**

Behavior Change for the Environment Starts Here




behavior.rare.org



CENTER FOR
BEHAVIOR & THE
ENVIRONMENT

Behavior Change for the Environment



Climate Change Funding Needs Behavior Change

A case for funding behavior-centered solutions

rare | CENTER FOR BEHAVIOR & THE ENVIRONMENT



CHANGING BEHAVIORS TO REDUCE U.S. EMISSIONS:

Seven Pathways to Achieve Climate Impact

rare | CENTER FOR BEHAVIOR & THE ENVIRONMENT

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Levers of Behavior Change



PRINCIPLES AND STRATEGIES

CC BY NC SA

Behavior Change & Climate Philanthropy Series

December 7

- 2:00-3:30pm ET: Framing the challenge: Systems thinking & behavior change

December 8

- 10:00-11:30am ET: Evaluating behavior change programs
- 2:00-3:00pm ET: Making the case for behavior change

March 2023

- Funders' Roundtable



 **CENTER FOR
BEHAVIOR & THE
ENVIRONMENT**
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