



BE*works*

**Building a More Sustainable
World: *Moving from Caring
to Doing***

About BEworks

BEworks is a global management consulting firm specialized in applying behavioral science to business and policy challenges.

A collective of research scientists, strategists, and creatives, our team helps organizations in diverse domains re-cast their challenges through illumination of the psychological and behavioral factors influencing outcomes and develop innovative solutions and systems at the intersection of science, creativity, and technology.





Building a more **sustainable** world has been a complex challenge for decades.

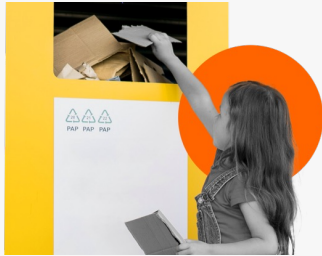
Understanding humans is the key to unlocking **new solutions**.

We see people as the complex individuals that they are with motivations, emotions, social influences, and biases that guide our behavior.

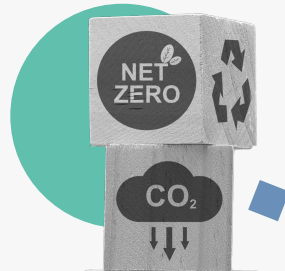
By understanding the **hidden forces that guide our behavior**, we help organizations develop products, campaigns, and solutions better able to target the root-cause of the problem and change behavior at scale.

What are the types of problems we can help you solve?

We work with governments and organizations to leverage behavioral science insights and rigorous scientific testing to **encourage the adoption of sustainable behaviors and decrease the consumption of non-sustainable products and services.**



Developing evidence-based **behavior change communications & initiatives**



Optimizing your existing initiatives to increase engagement and impact



Validating your initiatives to provide evidence of efficacy

Our behavioral science approach helped **deliver meaningful impact** for our clients

13%

Reduced peak demand **electricity consumption** by **13%**

46%

Reduced **household food waste** up to **46%**

5X

Drove a **five-fold increase** in uptake of **re-usable packaging**

>50%

Increased **consumer understanding of electricity pricing** and distribution by **over 50%**

Behavioral Science *for* Sustainability

A Perspective





A **sustainable lifestyle** requires consumer behavior change

- Increase plant-based foods
- Reduce red meat intake
- Portion food for gatherings
- Slow fashion
- Plastic-free alternatives
- Leave nothing behind
- Segregate waste
- Public transport or carpooling
- Switch to solar
- Shop local
- Plant resistant local trees
- Save energy at home
- Reduce household food waste
- Reduce hospitality-related food waste

There are **MANY** things
we want people to
**change, start, stop, do
more of, and do less of.**

Traditional routes, focused on **educating and building good intentions**, are falling short of driving real behavior change



Across 430 primary research studies, **interventions seeking solely to provide people information were the least effective.**¹

65% of consumers say they want to buy from purposeful, sustainable brands...



...but **only 26%** do

We are up against a **Value-Action Gap**

Sustainability initiatives can often fail because they do not account for the **behavioral and psychological barriers** that prevent us from acting in accordance with our values.



VALUES

ACTIONS

Present bias

Status quo bias

Misaligned incentives

And more...

We are **Boundedly Rational**

Our decision making is constrained by time and mental energy

In order to behave sustainably we are often required to:

- Make complex comparisons
- Override default choices
- Expend additional mental energy

These constraints can make us **vulnerable to biases.**



We are Present Biased

We value **immediate rewards** over larger future rewards

The sustainability **value proposition** can thus be unappealing:

Give this up **now**:

- Comfort
- Convenience
- Time
- Money

Get this in the **future**:

- Environmental benefits
- Money
- Better world for future generations

Sometimes the
solution is **not**
what you expect



Showcasing a product's sustainability is not always an effective approach



Given that people say they want to buy more sustainably, touting a product's sustainability attributes should make it more appealing.

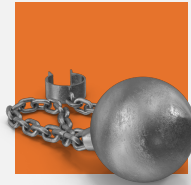
However, highlighting sustainability attributes can fail or even backfire, as it may lead consumers to believe they **need to make a trade-off between sustainability and other attributes they value (e.g. efficacy).**

Developing **novel and impactful solutions** to close the Value-Action Gap requires an understanding of **human psychology**



We highly value the present over the future

*Present Bias,
Need for Instant Gratification*



We prefer to do what we have always done

*Status Quo Bias,
Psychological Inertia*



We procrastinate

*Procrastination,
Psychological Inertia*



We do not relate to our future selves

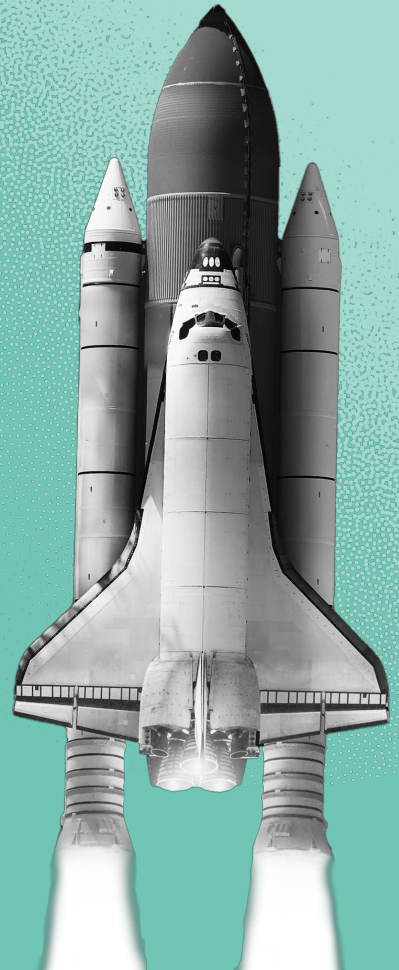
Future Self is a Stranger



We do not like to give things up

*Loss Aversion,
Endowment Effect*

Getting Started

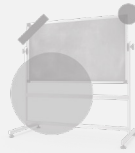


Our consulting engagements provide you with a **flexible approach** to solving your most pressing challenges



RESEARCH

Evidence-based insights to define strategic priorities and understand the hidden drivers of human behavior



STRATEGY

Develop novel behavioral interventions that reduce friction and overcome psychological barriers to action



IMPLEMENTATION

Evaluate and iterate upon solutions at scale to maximize impact

Our **Research** Capabilities

What we do:

Identify which behaviors need to be stopped, started, increased, or decreased

Diagnose the psychological and practical barriers to behavior change

Our **Research** Capabilities

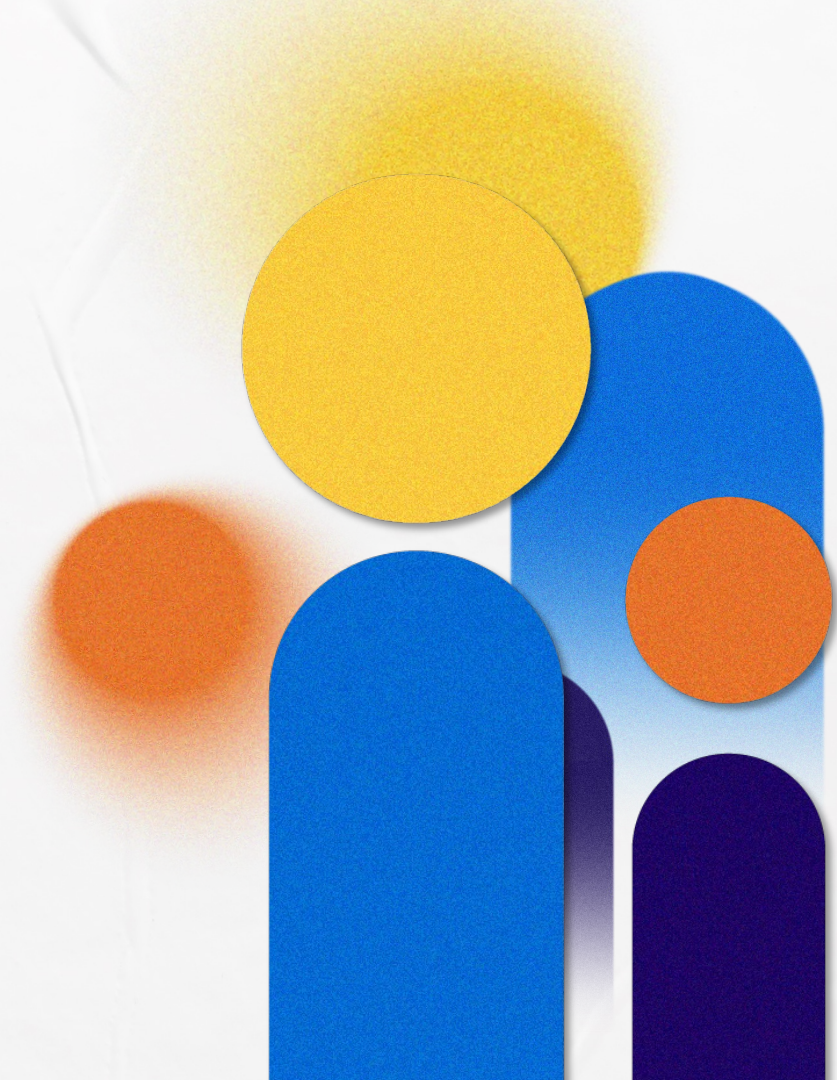
What we do:

Identify which behaviors need to be stopped, started, increased, or decreased

Diagnose the psychological and practical barriers to behavior change

How we do it:

Interviews, Surveys, Experiments, Literature Reviews, Exploratory Data Analysis, Behavioral Audits



Why is it important to **identify behaviors**?

Impactful behavior change needs to begin with **specific and actionable behavior(s)**.

Brands often identify broad outcomes they aim to drive, but it is critical to take the next step and identify the specific action consumers should take to achieve that outcome.

Minimize packaging:

- Buy bulk products
- Use refillable containers
- **Buy concentrates**
- ...



HOW WE CAN HELP:

Leveraging our **Research capabilities** will enable you to best identify the specific behavior(s) that aligns with your brand's sustainability purpose and business objectives.

Why is it important to **diagnose barriers**?

In order to design impactful solutions aimed at driving the desired behavior, we must first understand the **potential barriers to action** that will need to be addressed:

Environmental Readiness

Is the **environmental context** set up in a way to support the desired behavior?

*e.g. Is there an economic cost?
Is the sustainable option easily accessible?
Are people aware of the desired action?*

Psychological Frictions

Even if the environment is ready, people might not be. There may still be **psychological frictions** inhibiting change.

*e.g. What is the norm in this context?
Are the benefits long-term and abstract?
Is it a one-time or habitual action?*

HOW WE CAN HELP:

Leveraging the scientific literature and quantitative data collection, we can uncover the practical and psychological barriers to the desired behavior and surface opportunity areas to be capitalized on.

Our **Strategy** Capabilities

What we do:

Develop or augment products, services, campaigns, and journeys, to change consumer behavior

How we do it:

SME consultations, Expert Think Tanks, Literature Reviews, Experimentation, Behavioral Design & Prototyping



Why is it important?

To spark behavior change, brands need to move beyond solutions that focus on education and awareness or technological innovations, as they can often fall short of driving real consumer action.

HOW WE CAN HELP

Our **Strategy capabilities** integrate evidence-based behavioral science tactics, aimed at overcoming identified psychological barriers, into creatively-designed strategies to promote behavior change.



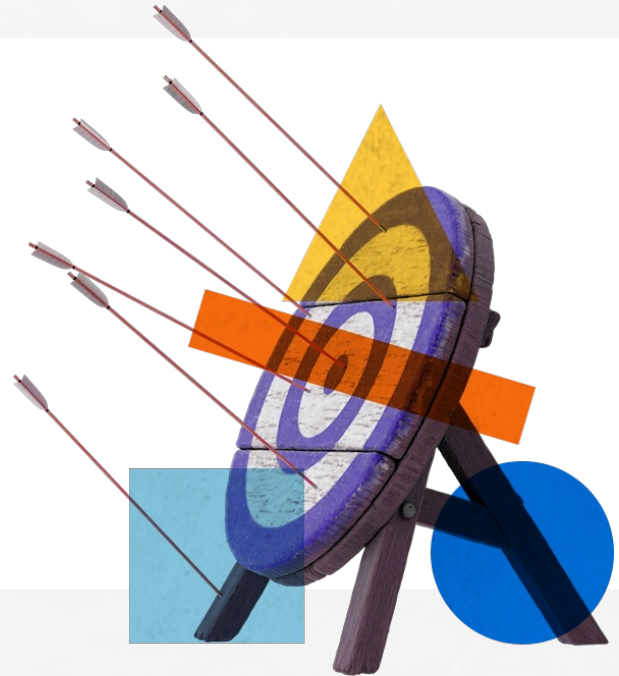
Our **Implementation** Capabilities

What we do:

Help our clients and third-party stakeholders undertake novel, behaviorally-informed approaches, validate their efficacy, and scale them

How we do it:

Validation testing, iterative prototyping ('test and learn'),
Process evaluations, KPI tracking, employee training



Why is it important?

Pre-launch pilot tests can be deployed to reveal additional insights and measure the success of the new research-backed strategies.

Measuring impact is essential to be able to claim meaningful behavioral change.

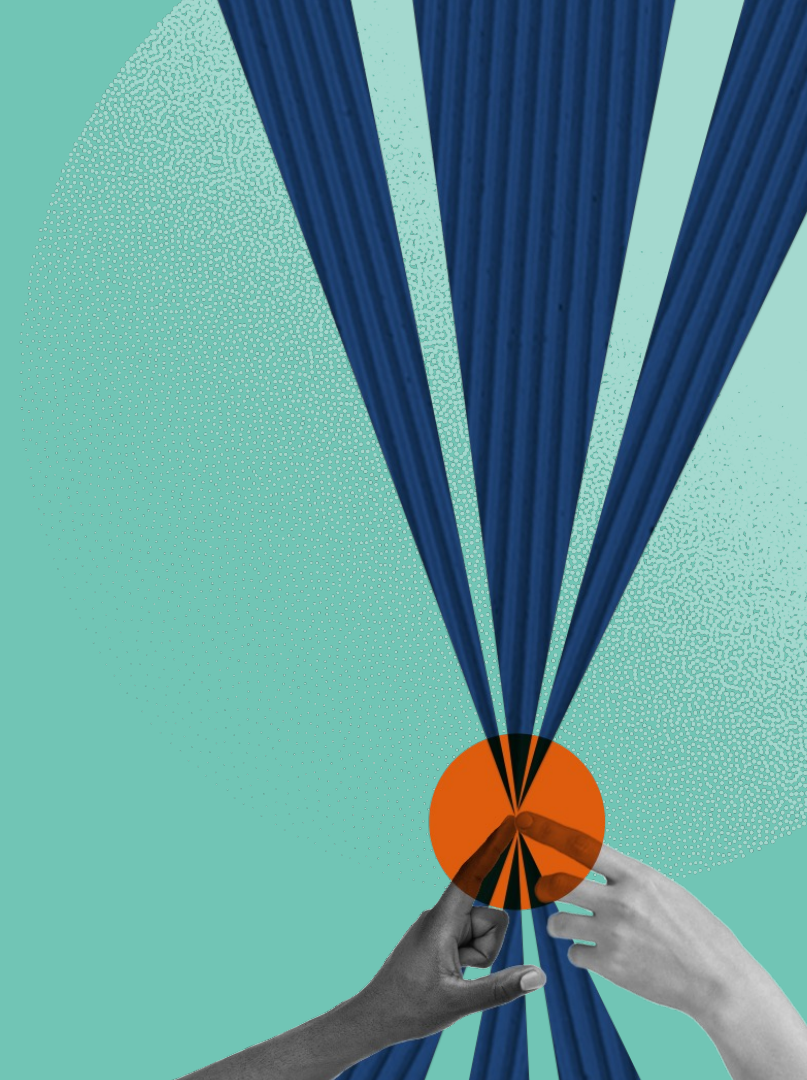


HOW WE CAN HELP:

Our **Implementation capabilities** include designing and deploying experimental trials (online or in field), which will:

- **Validate the behavioral impact** of the proposed strategy
- **Mitigate risk** prior to a large, public-facing launch
- **Prioritize and refine** the most impactful strategy to scale

Our Approach *in* Action



CASE STUDY: Unilever

Flexible Thinking to Reduce Household Food Waste



The problem of **food waste**



Approximately \$31 billion of food waste per year, with **47% occurring in homes**¹



Approximately **63% of food thrown away** was otherwise edible²

*This area is ripe for **behavior change***



Tackling the **Food Waste Challenge** with a global partner

Hellmann's partnered with BEworks and other collaborators to help design a **Behavior Change Program** to reduce household food waste among families.

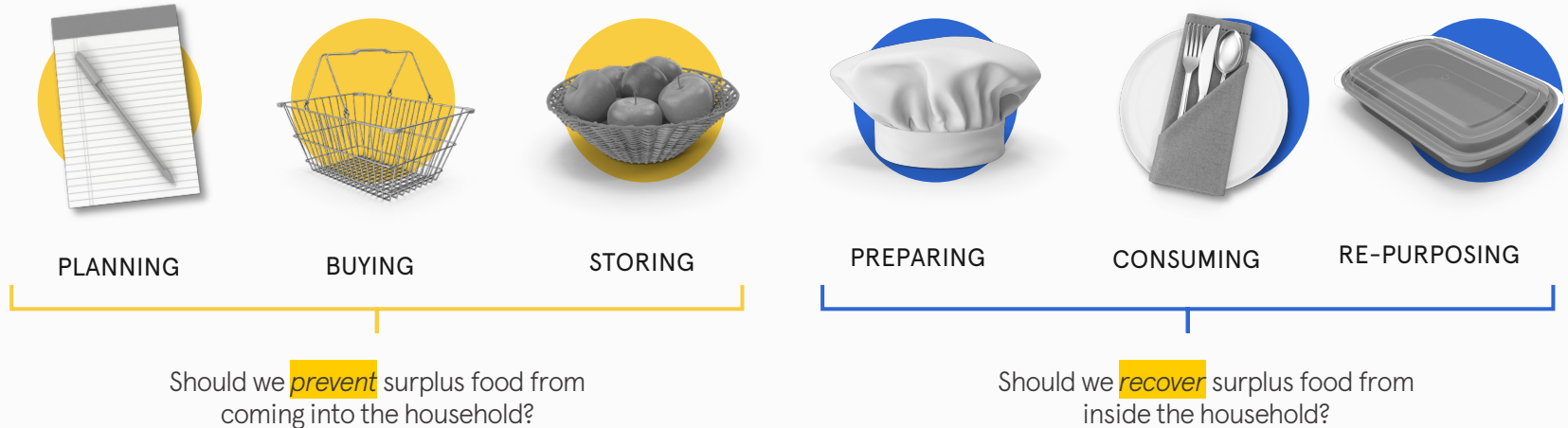


We've approached this challenge by engaging in a **multi-phase testing approach.**

This iterative approach facilitated the **design and refinement of a behavioral program** to drive food waste reduction.



There is a **Chain of Behaviors** that turn food into waste



Research: **Understanding the Practical & Psychological Barriers to Behavior Change**

We administered a survey to over **2000 people in Brazil and Canada** to gather data on the barriers to optimal food management

1

Forgetfulness

How often you forget what food you have

2

Energy

How much energy you feel you have to figure out what to make

3

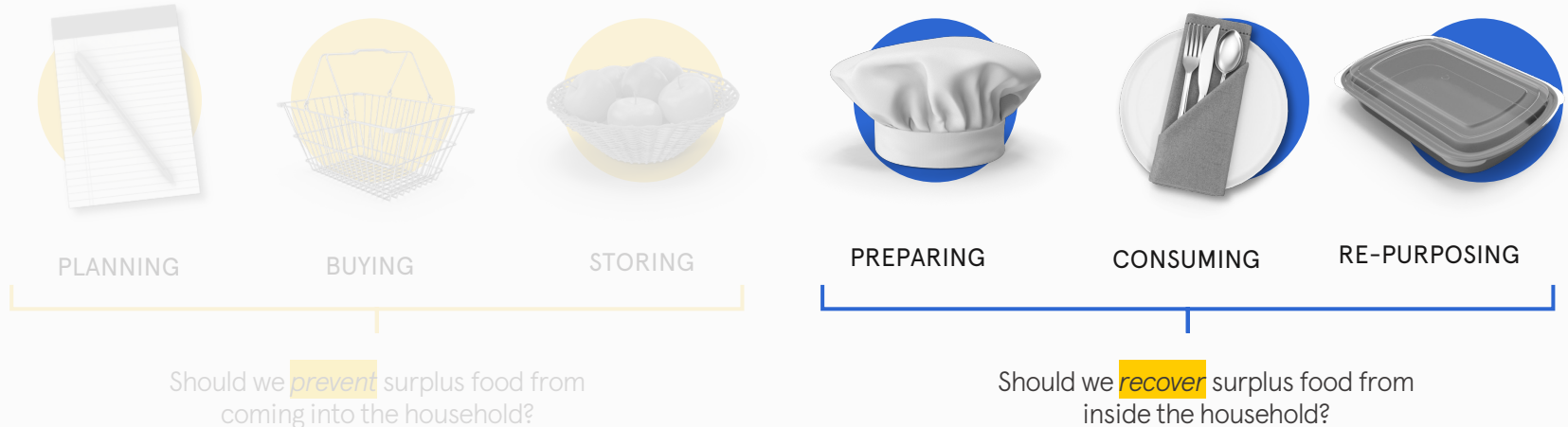
Time

How much time you have to cook

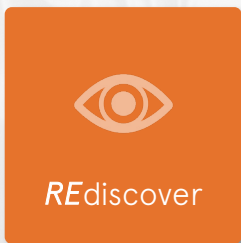
Those who scored low on **Perceived Behavioral Control** reported higher amounts of household food waste

Our focus is on **Food Recovery**

Key issues predicting food waste **revolve around what happens in the kitchen**



Strategy testing: **Helping people recover the food in their home**



Increase the salience of spare food items



Overcome or reduce disgust sensitivity



Think flexibly about the food you have on hand

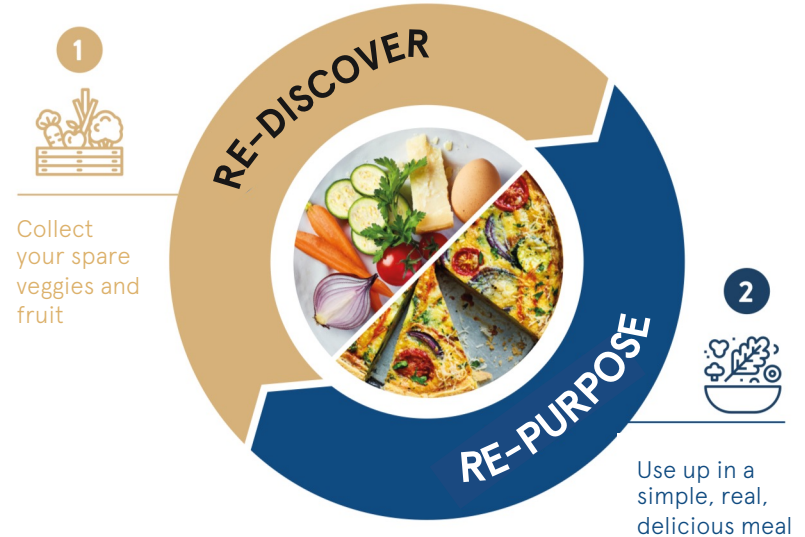
In a series of experiments with over 1200 people, we tested the impact of different **behavioral interventions** on the **psychological mechanisms underlying these hypotheses**

Strategy: **Creating a Behavior Change Program**

We created an **integrated behavior change program** that focused on 2 key steps to using up food:

Re-Discover: identify the food you have that needs to be used up

Re-Purpose: determine what you will make with those ingredients



Re-Discover: Increasing Salience Of Spare Food

We prioritized **3 different ways** to increase the salience of spare food items



A set of highly visible clips to **tag** food items that need to be eaten soon



A magnetic whiteboard to **track** food items that need to be eaten soon



A fridge basket to **collect** food items that need to be eaten soon


Re-Purpose: Encouraging Flexible Thinking

We created a 3 + 1 approach—flexible building blocks where ingredients could easily be substituted and **used up**




This approach came in the form of flexible recipes (“Flexipes”)


1 BASE




2 VEGETABLES & FRUIT



3 PROTEIN



+ A MAGIC TOUCH



CREAMY PASTA SALAD
Serves: 4 Prep Time: 10 min Cook Time: 10 min

1 Choose a **BASE**
Pasta

2 Use up your **VEGETABLES & FRUIT**
Cabbage, Celery, Apple
Changes: Tomato | Onion | Green Bell Pepper

3 Add an optional **PROTEIN**
Canned Tuna or Canned Chickpeas

+ **A MAGIC TOUCH**
MAYONNAISE & VINEGAR
3-4 Tbsp Mayonnaise & 1 Tbsp Vinegar
Changes: 1-2 Tbsp Yogurt & 1 Tbsp Olive Oil
Prep & 1 Tbsp Lemon Juice

QUICK & EASY WRAP
Serves: 4 Prep Time: 10 min

1 Choose a **BASE**
Tortilla

2 Use up your **VEGETABLES & FRUIT**
Lettuce, Cucumber, Red Pepper
Changes: Shredded Carrots | Cabbage | Apple

3 Add an optional **PROTEIN**
Cold Cuts & Cheese or Boiled Eggs & Potatoes

+ **A MAGIC TOUCH**
CHIPOTLE MAYONNAISE
1/2 Chipotle Mayonnaise
Changes: 1/2 cup Cream Cheese & Fresh Herbs

DIRECTIONS

1. Cook 3 cups of pasta in salted boiling water. If you want to include any cooked vegetables, boil the vegetables in the same boiling pasta water for the last 3-5 min (or until tender).

2. Add drained pasta to bowl along with your 2-3 cups of chopped vegetables/ fruits and 1 cup of protein.

3. Pour magic touch over top and toss to evenly coat. Season with salt and pepper to taste.

CHEF TIPS
Use a kettle to boil the water to reduce cooking time.

DIRECTIONS

1. Spread a tablespoon of magic touch on each tortilla.

2. Layer your vegetables and protein down the center of the tortilla.

3. Roll and fold the filled tortillas.


CHEF TIPS
Don't feel like a cold meal? Bake your wraps sprinkled with cheese.



The Bonus Meal Mission

We asked **Canadian families** to:

- complete a validated weekly survey on food waste and other food management behaviors
- make a meal once a week with food on hand, using the 3+1 approach/Flexipes
- use the salience tool (if provided)
- read weekly tips on food management



*Sustainability was never mentioned as the reason for this pilot; it was framed as a means of **improving household food management***

Behavioral Tactics Employed

- Social and Environmental consequences communicated via information booklet
- Material incentive (cost savings)
- Concretization (instructions on how to perform the behavior using the 3+1 approach)
- Goal setting/Action planning by selecting a 'use-up day'
- Restructuring the physical environment with salience cues (clips, basket, tracker)



Implementation: **Randomized Controlled Trial**

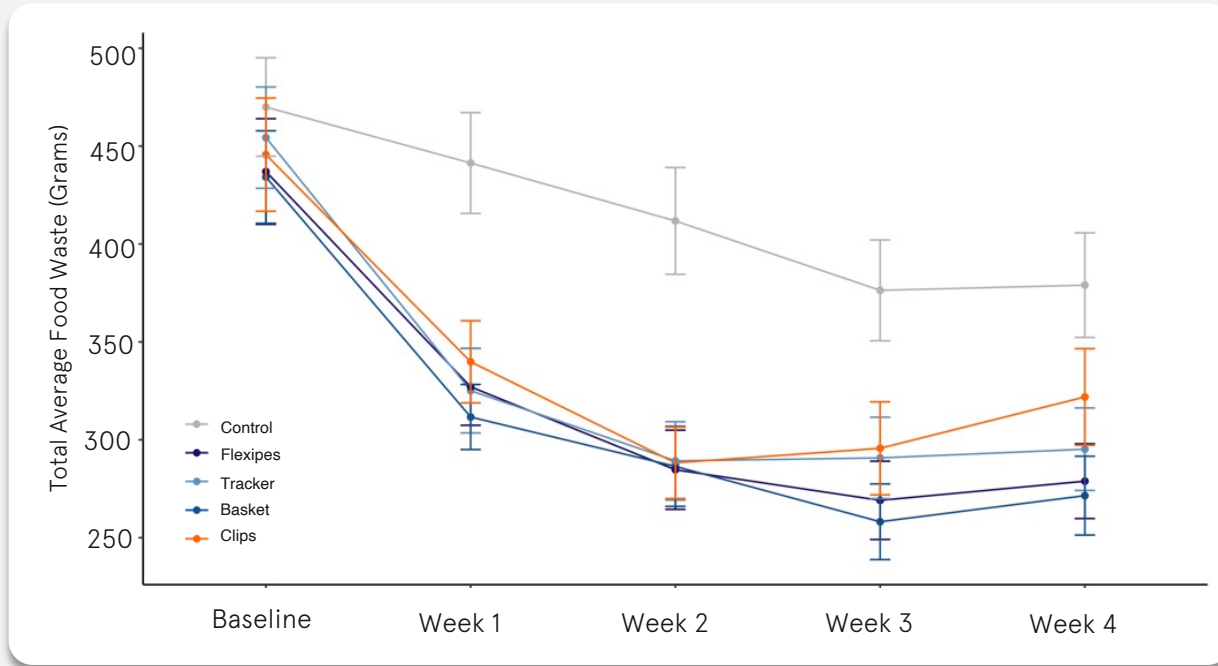
1470 Canadian households were randomly assigned to one of five conditions.
All participants completed a weekly Food Management Survey for 5 weeks.



What was the **program impact** on estimated **food waste**?



Our behavioral interventions reduced self-reported food waste

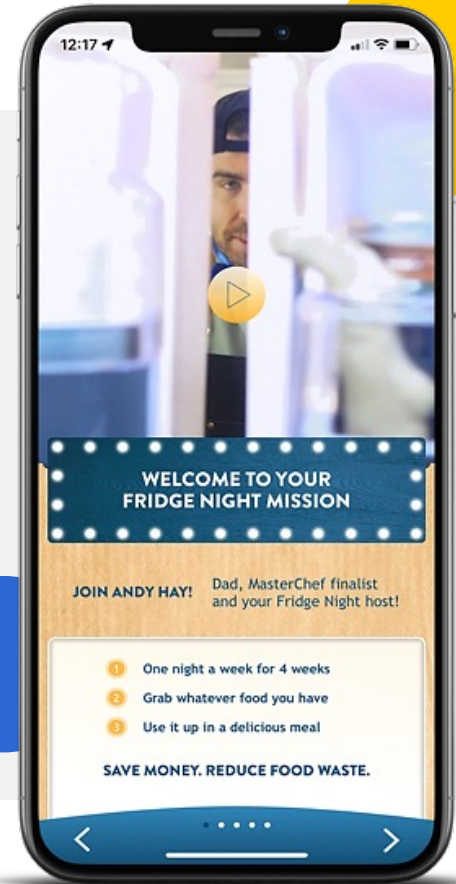


Flexible thinking intervention **reduced reported food waste by 33%** over the duration of the program

Our visual salience tools yielded no additional food waste reductions

Scaling **Globally**

To maximize reach and potential food waste impact, Hellmann's has turned this validated behavior change program into a **free, digital app.**



Check it out and join the movement yourself at <https://www.hellmanns.com/ca/en/fridgenight.html>

Providing people with a **method** to think differently and flexibly about their spare food **drove behavior change.**





Additional Case Studies



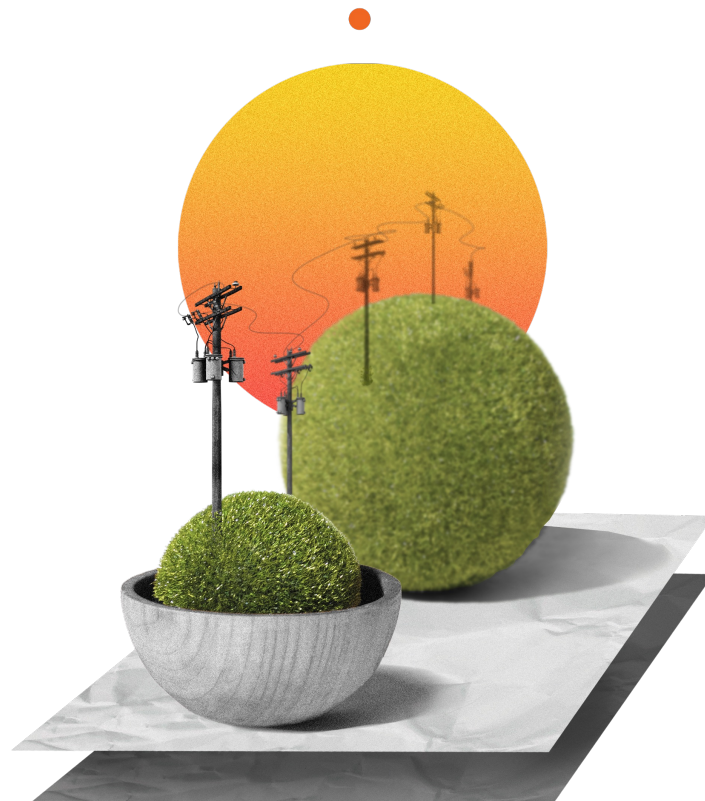
Gaining customers' endorsement of energy infrastructure investments

THE CHALLENGE

To serve the evolving needs of their customer base and maintain service reliability, energy companies are making long-term investments in their energy infrastructure, which translates into increased costs for their customers.

Our client, a large Canadian electricity distribution utility, needed their **customers to understand, accept, and endorse their investment plans and efforts.**

We designed and tested communication strategies, integrating evidence-based behavioral insights, aimed at strengthening the company's relationship with their customers and their endorsement of infrastructure spending.





WHAT WE DID

In order to design an impactful communication strategy, we first surfaced key psychological barriers that would need to be overcome, including:

- **price misattribution:** overestimating the amount of money going towards profit as opposed to infrastructure, green energy, etc.
- **future discounting:** unclear value of the immediate costs, compounded by a lack of tangible benefits for customers
- **availability bias:** customers' awareness of energy infrastructure is often restricted to when it fails

To address these barriers, we designed and tested different strategies, such as providing greater transparency or concretizing how investments were translating into innovative solutions that customers can benefit from.

Spotlight: [Company] is testing the world's first underwater compressed air energy storage project, near Toronto Island.

Working together with [Company], this project will allow us to store energy so we can use it when we most need it!

- Build a smart, adaptive, and reliable grid
- Keep electricity affordable
- Reduce restoration times and improve responsiveness

[Company] is investing in new technology to help...

We're Innovating to [Company]

Toronto has an ambitious climate action plan to reduce greenhouse gas emissions by 80% by 2050 and a strategic priority for us is to adapt to electric vehicles.

[Company] is currently working with the city to implement an on-street electric vehicle (EV) charge station pilot where up to fourteen EV charge stations will be installed on electrical and streetlight poles. This is a critical first step for a healthier future for Torontonians!

Behind-the-Scenes

Where's your money going and why

Category	Percentage
To Generators for the 778 kWh you used this period	50%
To [Company] for making sure you're connected and you receive reliable power	32%
To Transmitters and then to [Company] for delivering electricity from generators	10%
Regulatory Agencies	5%
HST	3%

At [Company] we're here to:

- Ensure every customer receives high quality billing service and customer care
- Keep Toronto's power grid reliable
- Efficiently operate the business and make energy affordable

Behind-the-Scenes

Where is your money going and why

Category	Percentage
To Generators for the 2129 kWh you used this period	50%
To [Company] for operating expenses to serve our customers	12%
To [Company] for capital investments into our city	20%
Regulatory Agencies	10%
HST	3%
To Transmitters for delivering electricity from generators	3%

We serve 766,000 customers in Toronto and this money is spent to ensure every customer receives high quality billing service and customer care.

We continuously monitor and maintain distribution lines, poles, transformers, and stations to keep Toronto's power grid reliable.

In 2018, we'll be upgrading 26% of the distribution poles with new technology that will extend their lifetime decades into the future.

We make a 9.8% regulated amount of profit to efficiently operate the business.



With our strategy, customers were...

more **willing to round up their bill to fund infrastructure investments**

20%

8%

higher in **favorable brand attitudes**

8%

higher in their **approval of conservation initiatives**

THE RESULTS

Compared to the company's current approach, our communication strategy highlighting innovative initiatives led to **increased support for infrastructure spending and improved attitudes towards the energy company.**

55%

more **willing to support increased energy investments**

Encouraging consumers' shift to sustainable personal care products

THE CHALLENGE

Liquid soap products have significant environmental consequences, leaving a 25% larger carbon footprint than bar-format alternatives. However, despite the availability of these more sustainable options, the market share of bar personal care products is relatively small.

Why?

We worked with a large, multinational consumer product goods corporation, who sought to understand how they can position these bar-format products to encourage uptake.



OUR APPROACH

To enable the development of strategies aimed at driving adoption, we needed to understand:

1. what attributes people are looking for in their personal care products
2. the attitudes and perceptions around bar-format alternatives (and how they differ from liquid products)
3. the key psychological barriers to adoption

To get at these questions, we collected data using behaviorally-informed methods from **nearly 3000 consumers in the US, UK, and Canada** to gather assessments of adult body wash and hair products as well as baby wash products.



OUR APPROACH

Surfacing gaps between consumer ideals and perceived reality

Consumers selected and ranked the top 5 characteristics (e.g. efficacy, convenience, value, sustainability) that best represented **their current personal care product** as well as the top 5 attributes that came to mind when considering **a bar-format alternative**.

Comparing these ratings enabled us to **identify the relative importance of these attributes** to consumers and **surface any important gaps** where perceptions of bar-format options fall short relative to liquids.

Taking a data-driven approach to finding the ideal value proposition: *What attributes really matter?*

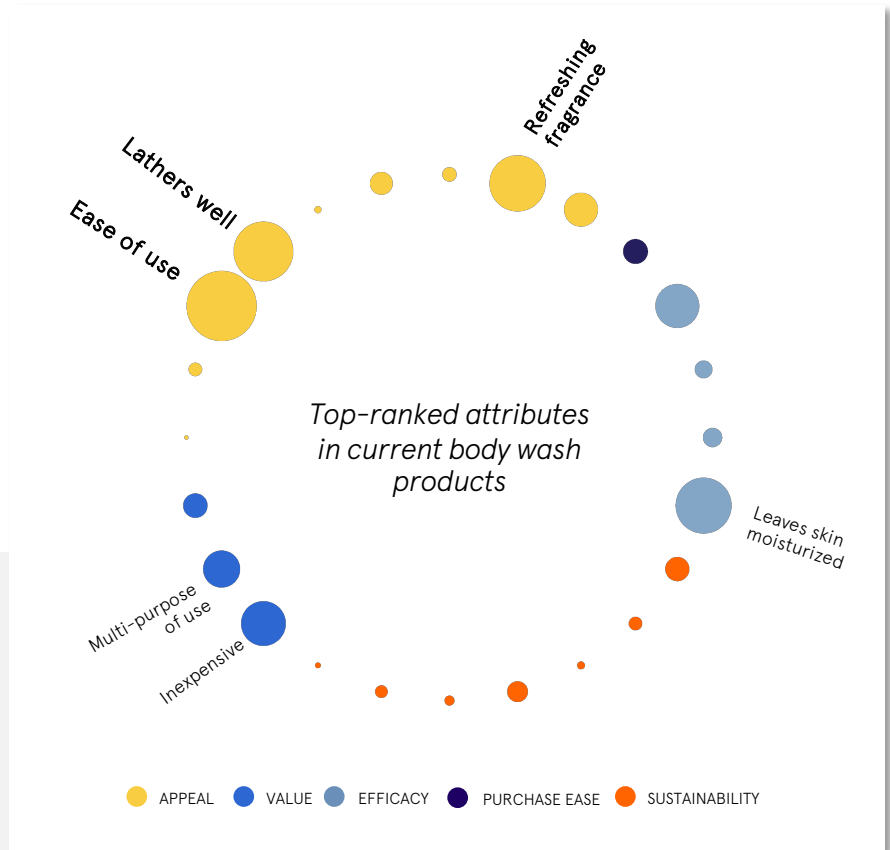
Efficacy	Cleanses without drying Leaves skin moisturized Hypoallergenic Dermatologist tested	Sustainability	Natural ingredients Low emissions Plastic-free No animal testing Recyclable packaging
Appeal	Lathers well Easy to use Leaves no residue Hand-made Refreshing fragrance Made from high-quality ingredients Looks appealing Compact Easy to travel with	Value	Inexpensive Multi-purpose usage Long-lasting

THE RESULT

Our work revealed a disconnect between what people value in their personal care products and how they perceive more sustainable bar alternatives:

- Consumers **prioritized the experience and efficacy** of their personal care products **over potential sustainability benefits**
- Even those who self-identified as being **environmentally-minded** were not more likely to already be purchasers of bar-format products
- The surfaced gaps in how people perceive bar-format products **provided areas of opportunity for our client to address**

These findings **informed our recommendations for the strategic direction of their product positioning**, shifting away from an emphasis on sustainability to a focus on shifting consumer mindsets of the bar-format experience.



CLIENT

World Cocoa Foundation

The World Cocoa Foundation (WCF) is a non-profit international membership organization whose vision is a thriving and sustainable cocoa sector, where farmers prosper, communities are empowered, and the planet is healthy.

GOAL

Our client wanted to understand the physical and psychological barriers preventing farmers from adopting innovative, effective and sustainable practices to increase Cocoa yield.



APPROACH & SOLUTION

We conducted stakeholder interviews and an academic literature review from which we identified 8 physical and psychological barriers to adopting more sustainable farming practices. We then developed interventions to address the psychological barriers, followed by an experiment to test our interventions effectiveness.

Our interventions addressed **two key psychological barriers:**
Loss Aversion and Present Bias.



OUTCOME/RESULTS

We created a novel behavior change strategy that included solutions to both practical/systemic barriers to sustainable cocoa farming but also to previously unconsidered psychological barriers. Our solution served to complement existing programs implemented by the World Cocoa Foundation and included a detailed plan for evaluation and tracking against key KPIs. Our solutions were presented at the Annual Partnership Meeting of the World Cocoa Foundation and are being integrated into the broader sustainability initiatives taking place in South America and Africa.

BE*works*

Creating solutions that truly work for people

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