

# Designing for Behaviour Change Toolkit

A Guide to Using Behavioural  
Economics with Service Design

**FOUNDATION & FRAMEWORK**

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**bridgeable**



This toolkit outlines Bridgeable's approach to **harnessing behavioural economics to design better products and services** that nudge users when faced with a decision.



Bridgeable is a strategic design firm based in Toronto, Canada. Our multi-disciplinary team of designers, strategists, and researchers use service design techniques to understand the world and create multi-faceted solutions that improve people's lives.

[www.bridgeable.com](http://www.bridgeable.com)



Common Cents Lab is a financial research lab at Duke University that creates and tests interventions to help low- to moderate-income households increase their financial well-being. Common Cents Lab leverages research and insights gleaned from behavioral economics to create interventions that lead to positive financial behaviors.

[www.advanced-hindsight.com/commoncents-lab/](http://www.advanced-hindsight.com/commoncents-lab/)

**Are you a service,  
interaction, or experience  
designer looking to impact  
people's behaviour?**

**This kit is for you.**

## **Designing Behaviour Change**

This toolkit explores how to design for behaviour change by leveraging behavioural economics (BE). Bridgeable has developed the Behaviour Change Framework to insert BE into your design process. The framework was crafted for design practitioners, assuming you are familiar with the foundational tools of service and experience design, but are new to the principles of behavioural economics or designing for behaviour change.

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In order for design  
to have an impact

it often involves  
modifying behaviour.

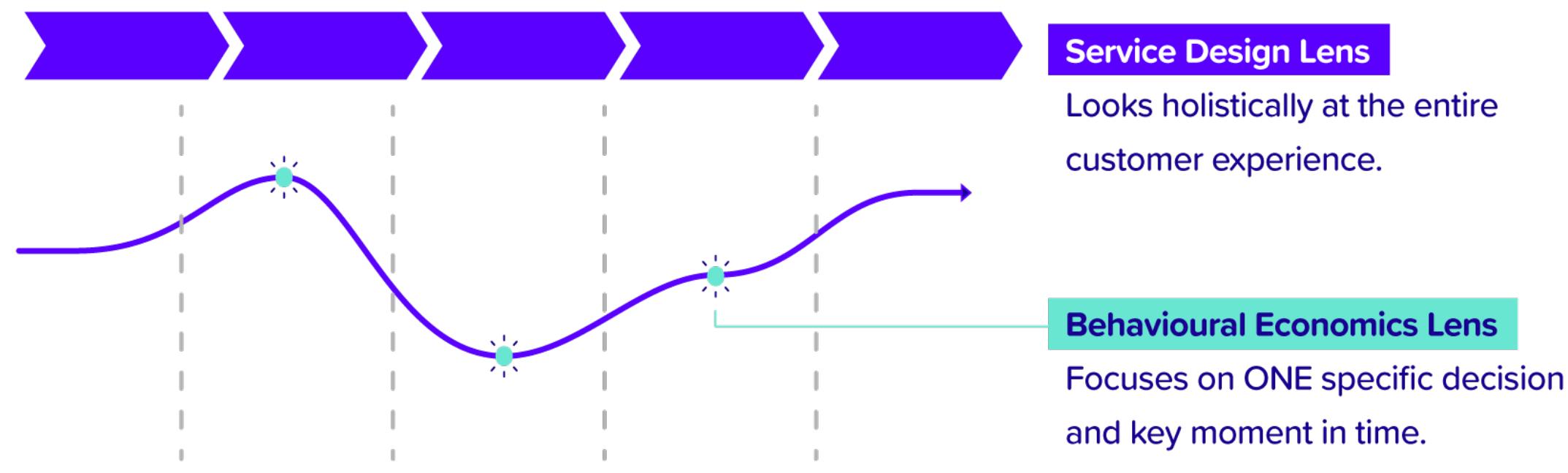
Whether that's helping people start saving money,  
encouraging more sustainable modes of travel, or  
establishing healthy eating habits:

All these actions require an element of change.

## Getting the Most Out of This Toolkit

**It's important to understand a fundamental difference between service design and BE. Design tends to look holistically at the entire experience, while BE zooms in at a single point of decision making.**

The Customer Experience



### WARNING

BE is mainly applicable at the feature level of a design, when users are making a single discreet decision. It's not applicable at the strategic level of design.

### Why Use BE?

The power of behavioural economics lies in understanding which decisions are crucial to nudging users' outcomes, and making a big impact where it counts. You won't be able to apply BE to holistically shape an experience, but you can learn to identify and tweak pivotal moments of decision making to exponentially increase your design's success. We hope to help strengthen your work by applying BE to your design process as a supplement, not a replacement for design thinking.

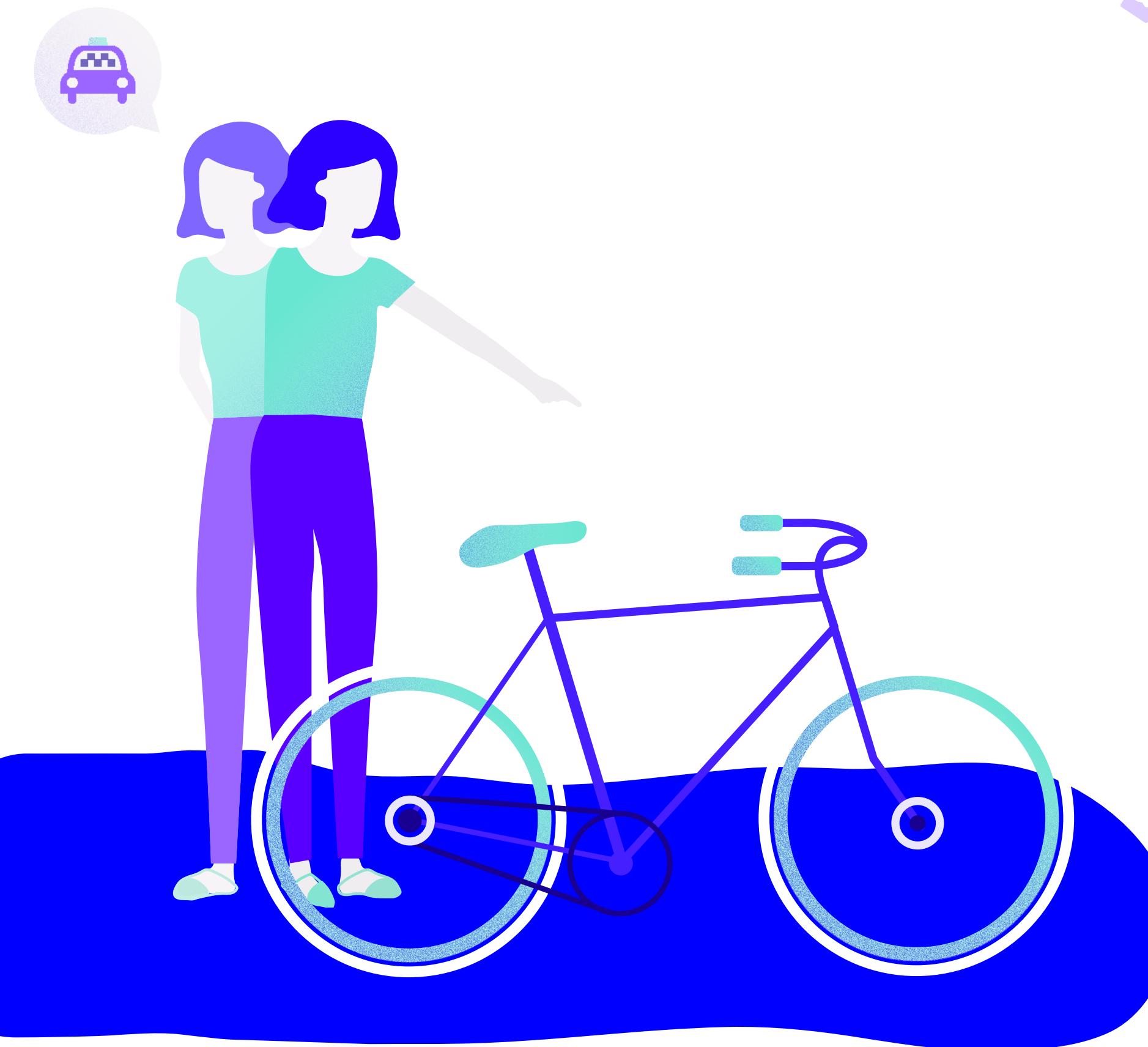


## What is Behavioural Economics?

Behavioural economics (BE) is a field of study that seeks to understand how humans make decisions through the lens of psychological, behavioural, emotional, and social factors. Contrary to dominant theories of economics, BE posits that people are irrational, meaning you cannot simply provide sound information and expect people to act on it accordingly. For example, I may have just read a book on personal finance, and vowed to begin putting 10% of each paycheque into my new retirement fund, yet every month I spend that money. Why is it so hard to change behaviour, especially when people know better?

It's not news to designers that people don't always behave as self-reported. This is fundamental to our practice of uncovering insights through primary research, and testing our designs by having users interact with prototypes. Rather than rely on self-reported assumptions, designers look to observe people's natural behaviour in-situ. Likewise in BE, the assumption is that humans will not behave in the most 'rational' manner; **however, as leading BE expert Dan Ariely concludes - people do behave in "predictably irrational" ways, and there are recognizable patterns that govern behaviour under certain circumstances.**

Let's revisit the example of my complacency around saving for retirement—despite the fact that I've decided to save 10% of my income, there's compelling supporting data, and I have the funds available. A behavioural economist might look to BE to **a) explain the cause of my complacency, but more importantly, b) predict how to intervene to successfully get me to save money.**



## Predicting Decisions Using Behavioural Economics Principles

To make sense of humans' irrational behaviour, behavioural economists have compiled a large series of '**Behavioural Economics Principles**'. Each principle describes at a high level how the majority of people will behave under specific circumstances. In practice, these principles can **a) help you understand current behaviour**, and **b) help you change behaviour** by leveraging relevant BE principles at the right moment of decision making.

As a designer, it can help to think of BE principles as universal research insights that describe the underlying currents that your users aren't consciously aware of, but are driving their decisions.

## Bridgeable's Top 5 Behavioural Economics Principles for Designers



### ANCHORING

The first fact, number, or figure a person hears will bias their judgements and decisions down the line.

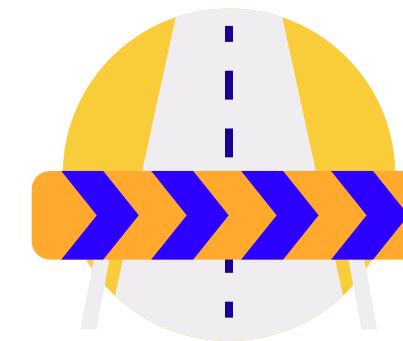
**TIP:**  
*Be very deliberate about the first fact or number you put in front of users. Consider how they might use that figure to anchor subsequent decisions.*



### DEFAULT BIAS

People pick the easiest option to avoid complex decisions. Defaults provide a cognitive shortcut and signal what people are supposed to do.

**TIP:**  
*Set the default to your desired outcome to encourage higher uptake.*



### FRICTION COSTS

People can be deterred from taking action by seemingly small barriers.

**TIP:**  
*Remove small barriers to direct users or help them complete a task. Conversely, add small barriers to hinder undesirable behaviour.*



### OSTRICH EFFECT

People who are worried they have fallen off track don't want to know how they're doing.

**TIP:**  
*Build strong guardrails to help users stay on track. Make course correction as easy as possible, knowing users may be in avoidance/ostrich mode.*



### SOCIAL PROOF

People want to be like everyone else and are heavily influenced by what they perceive everyone else is doing.

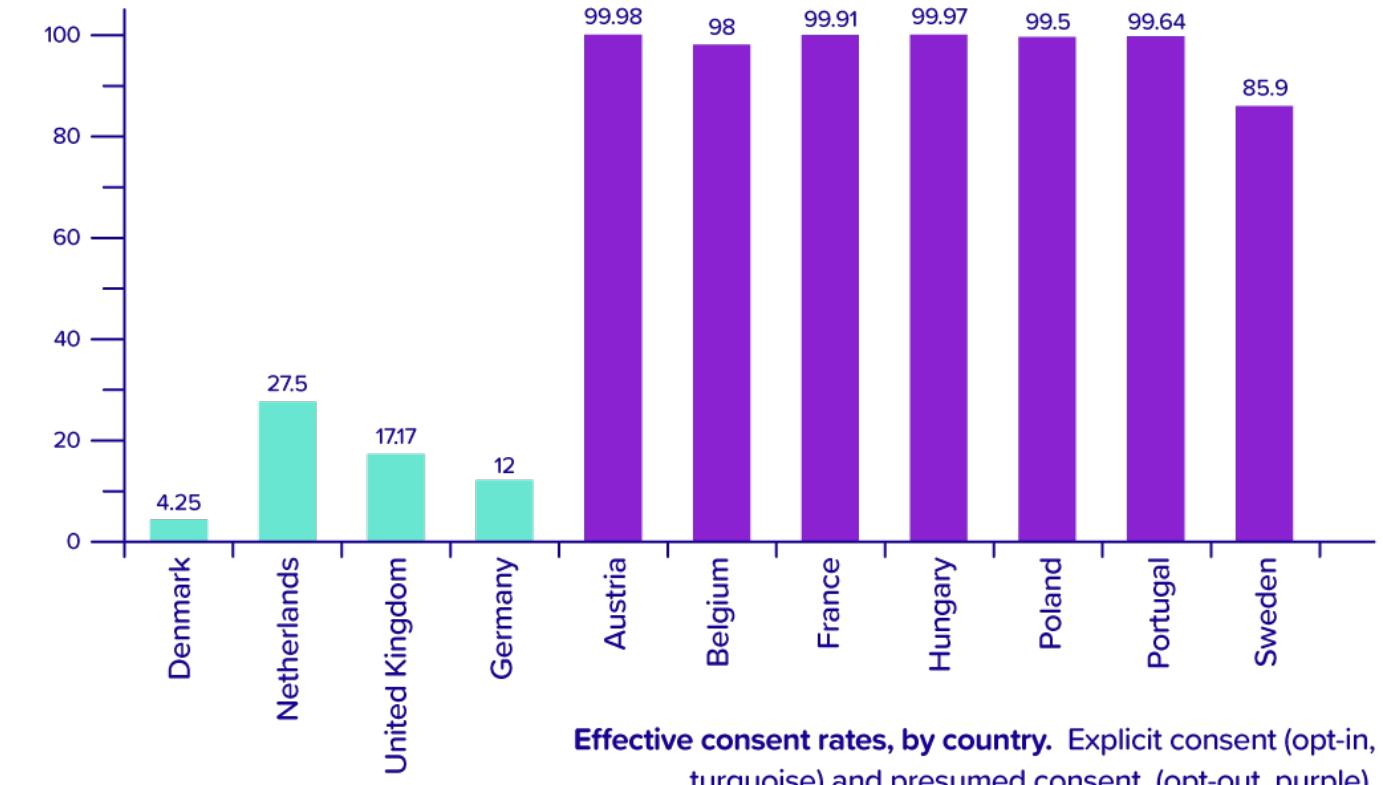
**TIP:**  
*Highlight the action you're trying to achieve by presenting it as the social norm, and invite the user to participate as part of the majority.*

## Leveraging Small Decisions to Make Big Behaviour Change

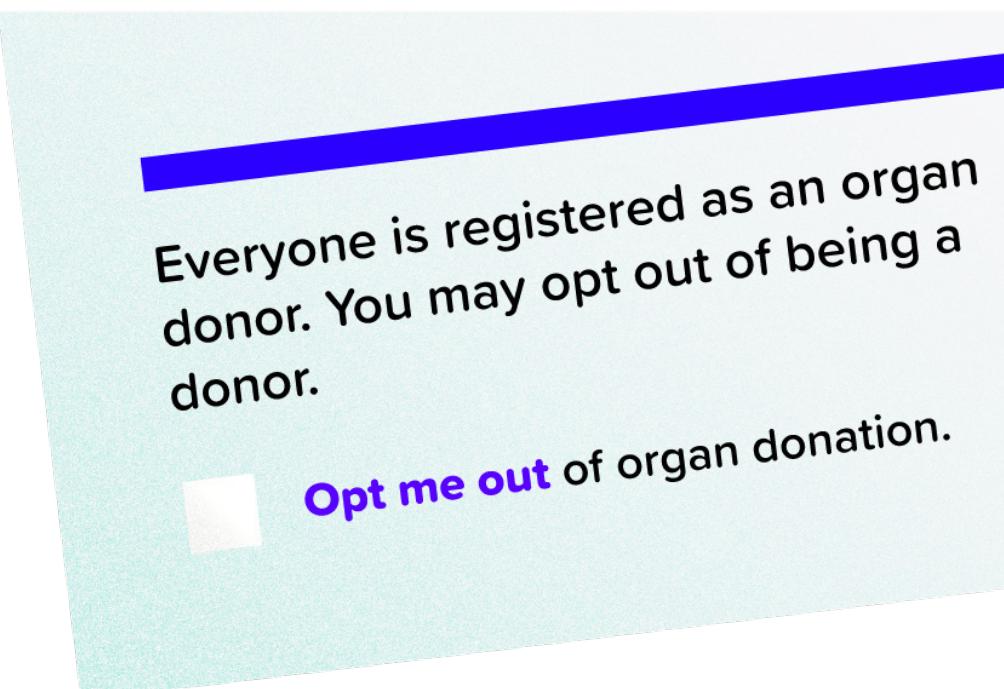
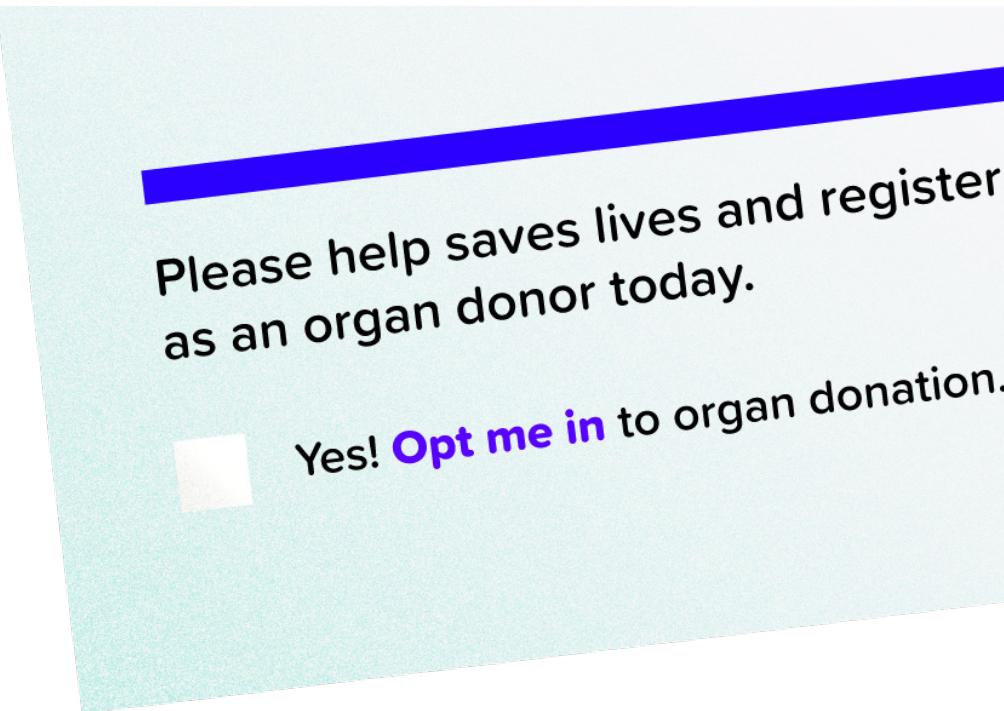
**BE seeks to understand and strategically intervene at key moments of decision making to nudge people towards a desired behaviour.**

**This ‘nudging’ at discreet moments can have a profound impact if implemented well.**

To demonstrate we'll use the famous example of organ donation rates in Europe, as researched by social scientists Eric Johnson and Daniel Goldstein. They charted organ donations by country and as you can see in this graph, the differences are stark. What was causing such drastic differences between countries?



Early speculation hypothesized that perhaps cultural and religious differences were the root cause. Upon closer inspection that was debunked as countries that are considered culturally similar like Germany and Austria, or Denmark and Sweden, were appearing on opposite sides of the graph. The true cause of the difference was the default option in the organ donation form. In countries where the donation form had an opt-in default (check the box if you do not



No matter what the default was, most people left the box unchecked.

want to participate, otherwise you will be automatically enrolled), the donation rates had an average of around 97%. Conversely, in countries where the default was an opt-out (check the box if you would like to donate, otherwise you will not be enrolled), donations averaged around 15%. The BE Principle of 'Default Bias' states that people choose the easiest option to avoid complex decisions, and defaults provide a mental shortcut and signal what people are supposed to do. **In all countries, participants were essentially not checking the box and going along with whatever the default happened to be.**

What's brilliant about this example is the minuscule scale of effort that resulted in an enormous impact. Through the lens of another industry, the effort to achieve the same results may have been much higher. An interaction designer may have attempted to design a more engaging donation card, or a service designer may have tried to improve the delivery of the donation card to provide better education and an engaging overall experience—yet all that was needed was a new default.

### Are you saying BE is the answer to behaviour change?

Nothing will be a silver bullet to changing people's behaviours, just as every wicked design problem is multifaceted and impacted by surrounding systems, culture, and governance. BE can provide a valuable new lens to designers that can help you evaluate your user's decision making and maximize the impact of key features.



## Combining BE and Service Design - Core Differences

**Behavioural economics (BE) and service design are both frameworks that develop insight into human behaviour and translate these insights into behavioural interventions.**

**BE and service design have different ways of identifying and formalizing insights that are helpful to keep in mind when trying to combine the two approaches.**

### How Insights and Knowledge Are Formed

#### Service design - A holistic and generative approach to insight formation:

Service design lives in a business and commercial context, where insights are developed through a combination of primary and secondary research, synthesis, prototyping, testing, and iteration. Service design tends to view human behaviour as a holistic expression of broader social, economic, and cultural contexts, and takes a generative approach to influencing people's behaviour by creating a wide variety of outputs like curated experiences, cultural artifacts, and service touchpoints.

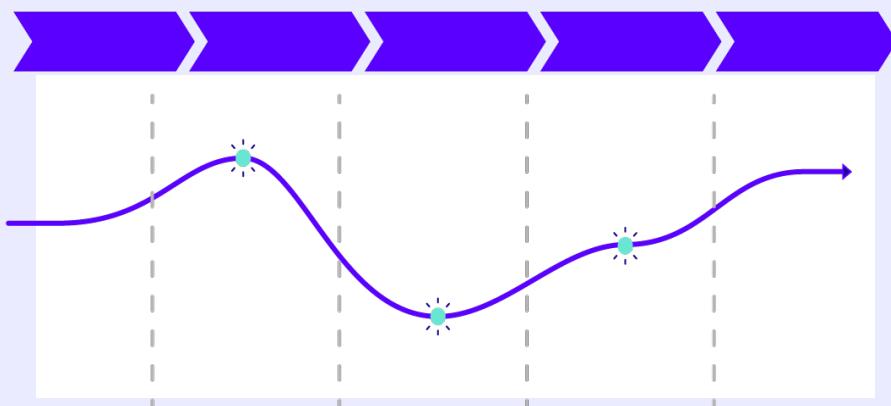
Design research aims to develop insights about user behaviour and needs in relation to products, services, markets or industries; relying on models (like journey maps or personas) to distill highly complex qualitative data into synthesized, actionable insights. Insights may evolve or become more robust as they move

along the design process — the act of hypothesizing, testing, and iterating generates new insights at every stage. The approaches for conducting research and the tools for synthesis are vast and it's up to the practitioner to determine the best methods for the job.

#### BE - A scientific lens on decision making:

BE explores human behaviour exclusively through the lens of decision making, and believes humans make decisions on the basis of cognitive shortcuts (heuristics) that often result in 'irrational' decisions. These heuristics are incredibly sensitive to *how choices are framed*, revealing opportunities to 'nudge' people's decisions by adjusting this framing. This research primarily occurs in academic settings, but is increasingly being leveraged in consumer contexts. Behavioural economists develop insights through empirical research, usually in the form of randomized control trials (RCTs). A study must follow the scientific method, and the scope is contained to a handful of discreetly measurable variables that live in a controlled, replicable circumstance.

**Finite vs generative insights:** Since BE insights must be supported with substantial quantifiable data (i.e. RCTs with hundreds to thousands of participants), this drastically narrows the scope of BE insights in comparison to design research outputs. Meanwhile, service design encompasses a vast span of interactions over time and lives in the context of business not academia, therefore it's not feasible or necessary to quantify every component of an insight: that would require excessive time and resources. In this generative approach to finding behavioural insights, the goal is to use qualitative and quantitative research methods to find out just enough to make an informed design or business decision.



## Translating Insights Into Behavioural Interventions

**Service Design - Designing for an open-ended future:** Unlike a controlled academic setting, the scope of interventions that service designers create are holistic and open-ended. They encompass varying users, multiple touchpoints/products/services over time, and must include all edge cases. While translating insights into designs, a level of inference and creativity is necessary to make the leap from a notional insight to a tangible product or service. Design is a craft rather than a science, and it's up to the practitioner to both draw out relevant insights, and figure out how to apply them in novel ways.

**Service designers are responsible for going wide on the whole experience.**

**Behavioural economists are responsible for going deep to optimize a single decision.**

## BE - Optimizing by testing variables:

Within BE, any form of inference or trying to deduct new meaning from research is strictly prohibited and frowned upon as unscientific. To translate a BE insight into a behavioural intervention, the scientific method is used once again to hypothesize, test, and measure a controlled study that tests a handful of variables at the feature level. Testing variables is akin to what designers know as A/B testing. The scope focuses on testing a few variations of a single feature, looking to see which variant produces the optimal result.

**Small tweaks for big impact:** If applied strategically, BE can drastically change behavioural outcomes with a few small tweaks. Imagine BE applied to the moment people divvy up their paycheque, or as we've seen, decide to become an organ donor. That's where BE's appeal lies – in nudging users towards a specific outcome, but only for a single decision. **For BE to make an impact in design, it must be applied to an appropriate decision-based problem. If applied well, the results can be exponential.**

# Tips for Combining BE and Service Design

As we've just seen, comparing BE to service design is not quite comparing apples to apples — they are different specialties created to serve different purposes, but there are ways we can combine the two to enhance your product or service.

As designers, you have the responsibility of shaping the moments where people interact with your product or service.

## Here's how BE can help:

### **See new opportunities**

BE provides a new lens to help you identify moments of decision making that could nudge users towards a desired outcome

### **Maximize impact**

Sharpen your ability to pinpoint crucial moments of decision making, and apply BE principles for maximum impact

### **Test hypotheses**

BE is fundamentally based in testing hypotheses, test and iterate until you find the best design by testing variables.

### **Recognize invisible barriers**

Learn to recognize and fix seemingly invisible barriers of people's inherent behavioural patterns

### **Evaluate key features**

Evaluate and rethink specific design features to leverage the insights of BE principles



## SECTION II

# The Behaviour Change Framework

Learn to design behaviour change by integrating behavioural economics into your design process

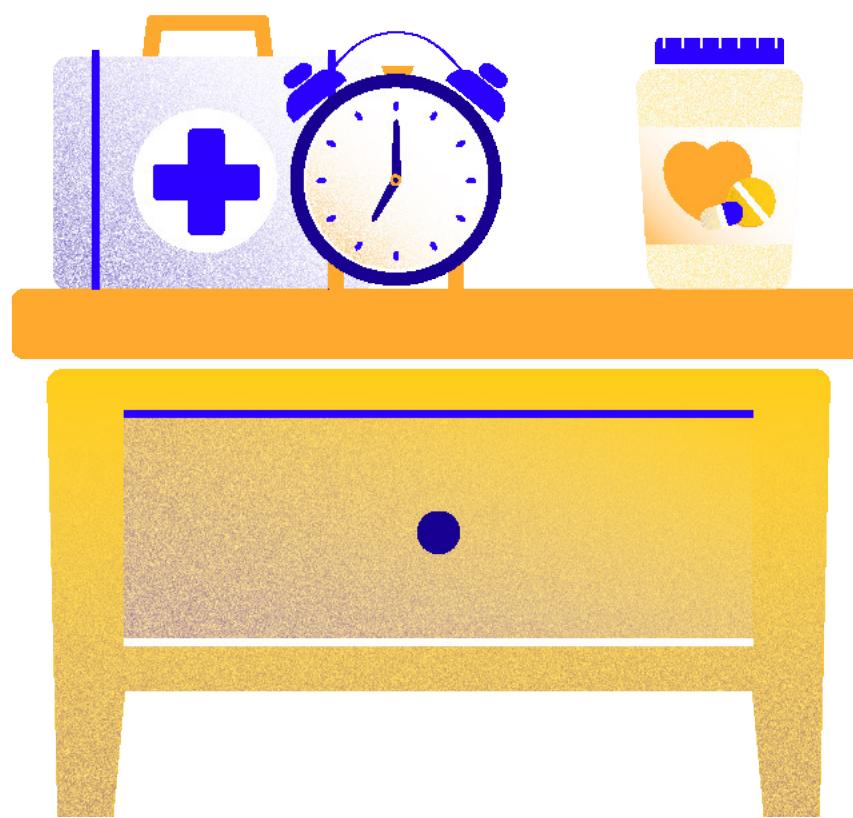
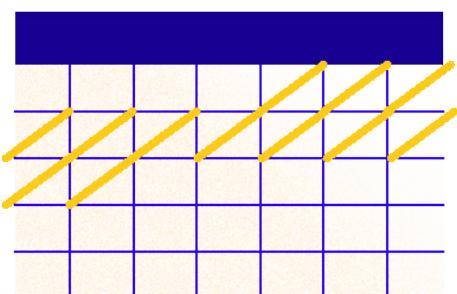


## SECTION II

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# About the Behaviour Change Framework



## WHAT IS THE BEHAVIOUR CHANGE FRAMEWORK?

The Behaviour Change Framework (BCF) is a tool for integrating behavioural economics into your design process to help you design behaviour change.

## WHAT WILL THE BEHAVIOUR CHANGE FRAMEWORK HELP ME DO?

In developing this framework, we found designers wanted help in three key areas when trying to use BE:

1. How do I figure out where to apply BE in a design context?
2. How do I choose the ‘right’ BE principle to use?
3. How do I turn a BE principle into a design?

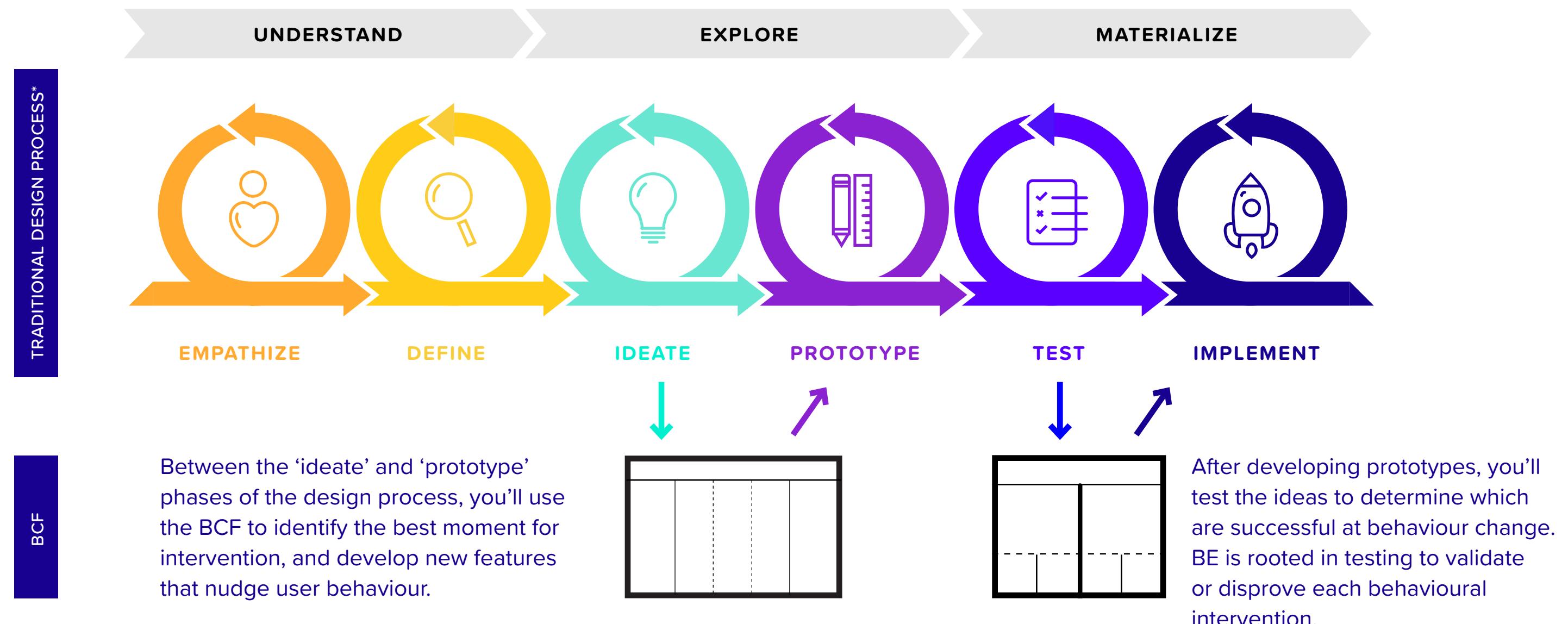
The BCF will answer all these questions as we explain the process.

## WHEN SHOULD I USE THE BEHAVIOUR CHANGE FRAMEWORK?

Use the BCF when you’re designing a product or service that requires users to change the way they currently make a decision. This might mean designing to help users adhere to their daily heart medication, follow through on saving money from each paycheque, or choose a healthy option from the lunch menu. The framework will be most handy when you’re ready to design features at the touchpoint level.

## How the Framework Fits Into the Design Process

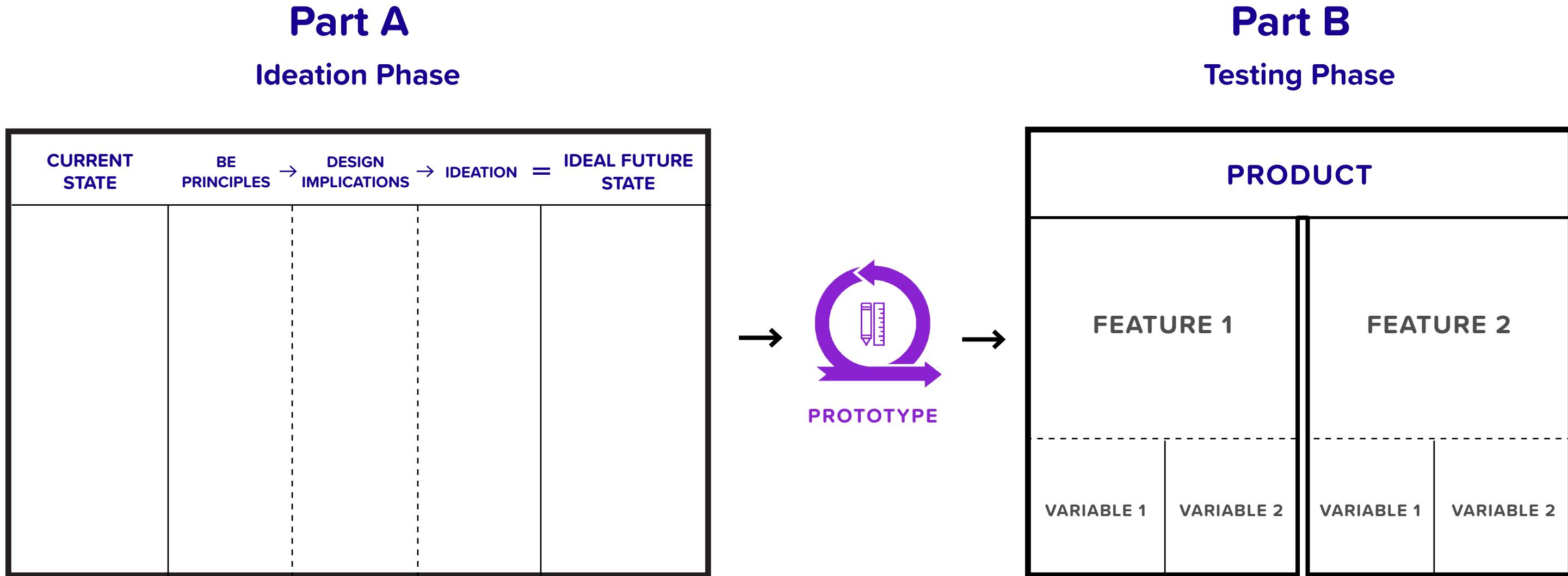
Use the Behaviour Change Framework in parallel to your design process; here's where it fits in:



\*Design Process diagram based on framework by Nielson Norman Group

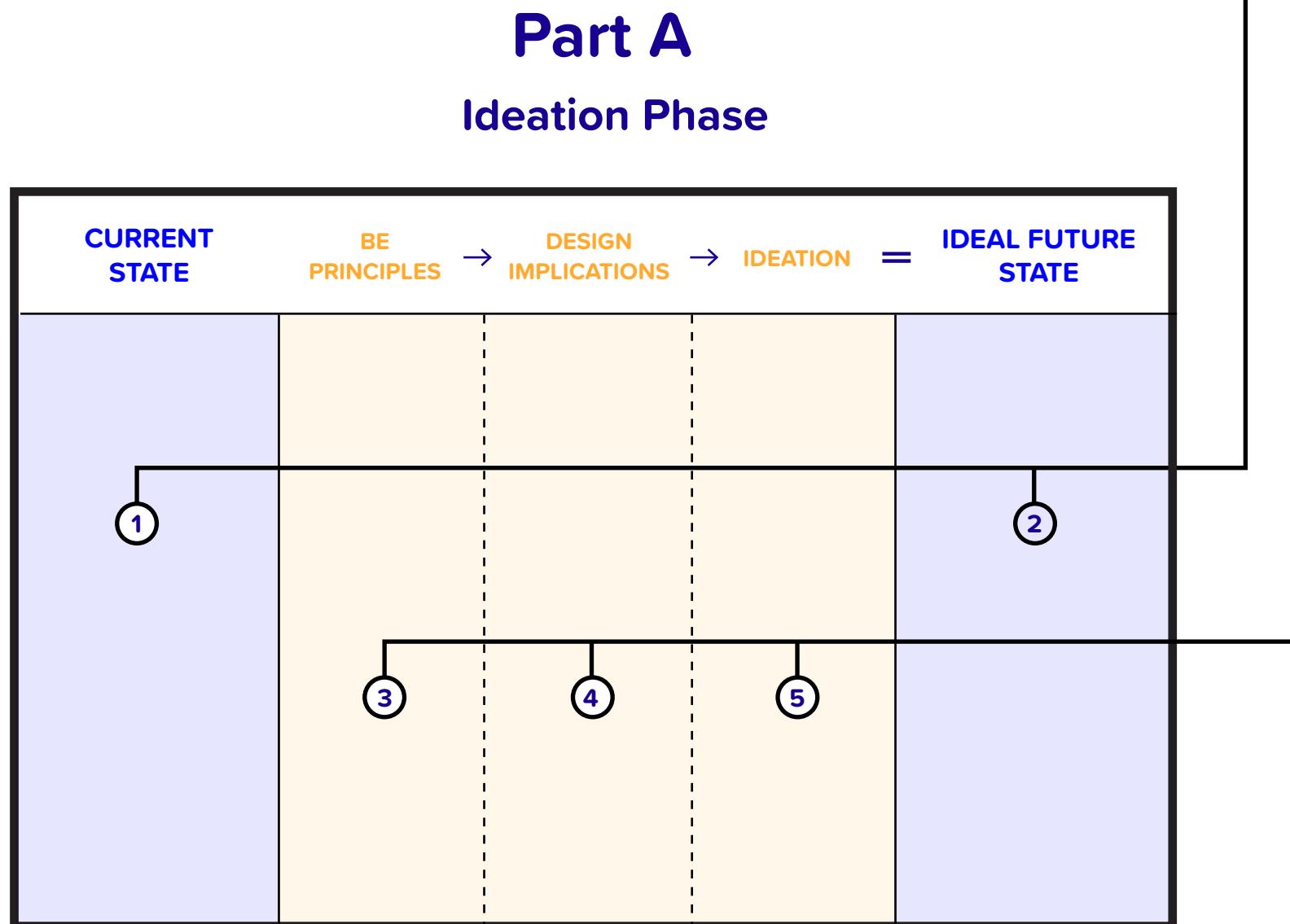
# Behaviour Change Framework Overview

**There are two parts to the framework.** In **Part A**, you'll leverage BE to ideate new features, in **Part B**, you'll test your ideas to evaluate which are most successful at creating behaviour change.



# Part A: Ideation Phase Overview

There are five stages to Part A:



**1:** First, use your research insights, experience maps, personas, etc. to understand your user's **Current State** behaviours and outcomes.

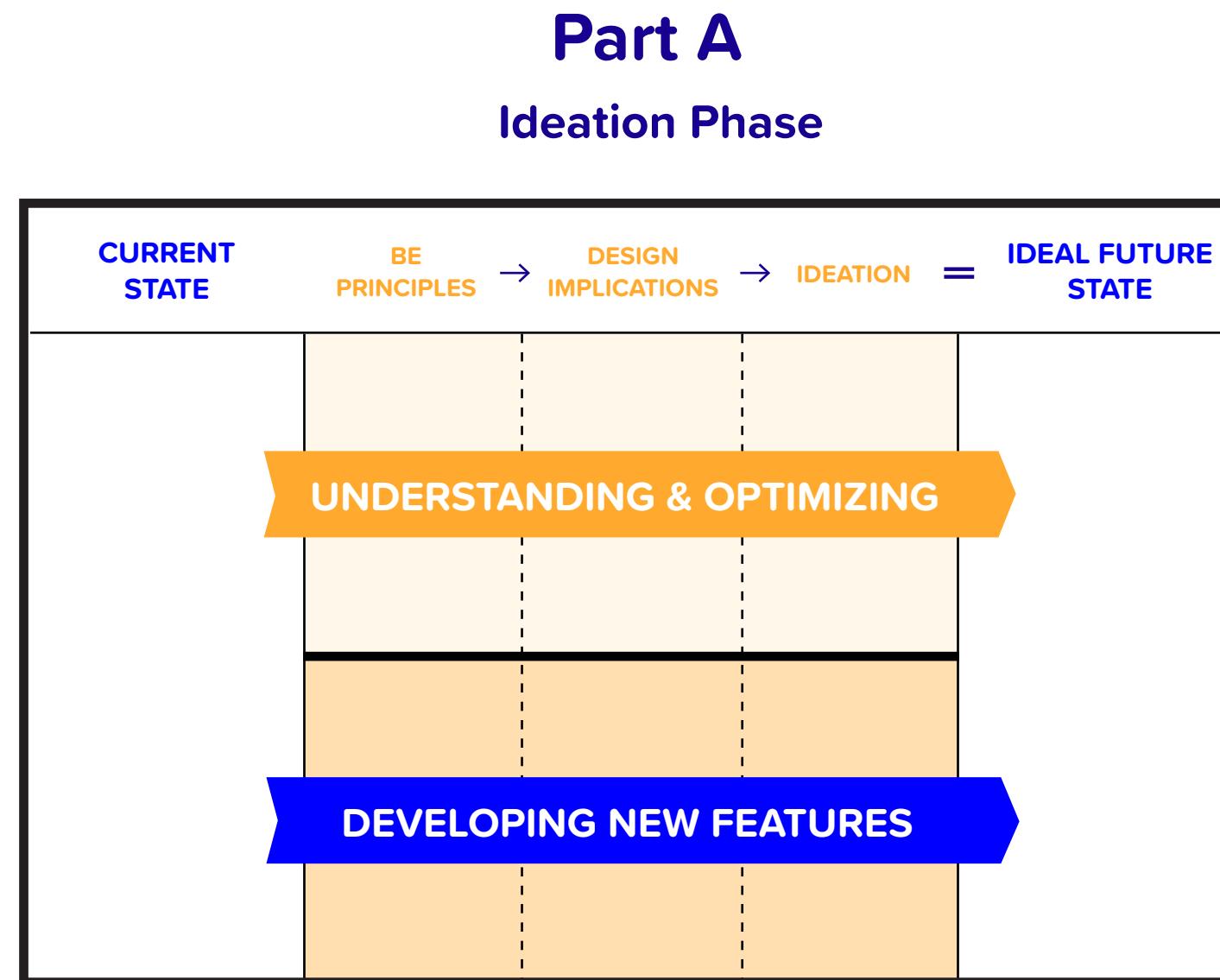
**2:** Then you'll concretely define the *new* behaviours and outcomes you plan to achieve through your design intervention in an **Ideal Future State**.

At the highest level moving from Current to Future State could be: 'not saving money' to 'saves money', or 'doesn't take transit' to 'takes transit'. We'll dive into more robust examples in a few pages.

**3 - 5:** Next, you'll bridge between the Current and Future States by identifying **BE Principles** at play, defining **Design Implications** to guide your thinking, then doing **Ideation** to come up with ideas that pull it all together to accomplish the Future State.

# Part A: Two Approaches to Using BE

Within the middle portion of the framework, there are two approaches to using BE:



## Understanding & Optimizing

This approach will help you:

- **Understand your user's current behaviour** through a BE lens (regardless of whatever service they're using)
- **Evaluate and optimize** your user's behaviour in relation to your existing product or service

E.g. In the organ donation case study (pages 9-10), they used BE to **understand** the power of defaults (most people choose the default, regardless of what it was), then could **optimize** based on this insight (always make the desired behaviour the default).

## Developing New Features

This approach will help you:

- **Develop net new products, services, or features** that leverage insights from BE principles

E.g. Your company wants to develop a financial product that helps customers stay within budget, and you want to leverage BE to help achieve this behaviour change.

# CHEAT SHEET

## Behaviour Change Framework - PART A Ideation

**CURRENT STATE** → **BE PRINCIPLES** → **DESIGN IMPLICATIONS** → **IDEATION** = **IDEAL FUTURE STATE**

Define **whose** behaviour you want to change:

What **key decisions** do you want to influence:

What are the **current outcomes** of the user's decisions:

**UNDERSTANDING & OPTIMIZING**  
Identify BE Principles that might be **causing** the Current State behaviour.

**DEVELOPING NEW FEATURES**  
Identify BE Principles that you think could **help nudge** users towards the Future State.

**DESIGN IMPLICATIONS**  
Develop Design Implications or rules **to combat or leverage** each BE principle you selected.

**DESIGN IMPLICATIONS**  
Develop Design Implications or rules **to leverage** each BE principle you selected. The goal is to take each BE principle, extract the insight, and create guidelines for what this might mean in a design context.

**IDEATION**  
Ideate ways to optimize your product or service's **features** based on your Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

**IDEAL FUTURE STATE**  
Ideate new features for your product or service based on the Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

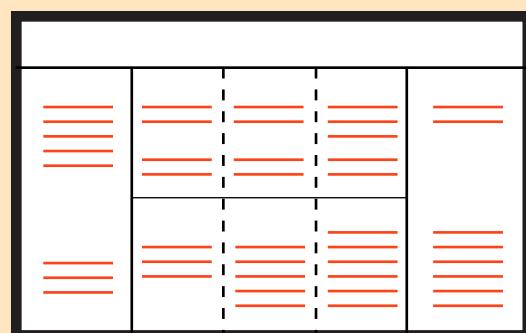
Anchor your project's strategic intention with a **'How might we'** statement that sums up the primary goal:

Define what an Ideal Future State would look like if users **adopted the behaviour changes** you hope to see. What **new outcomes** would result from these behaviour changes.

A good format is from the end-user's perspective:  
**"Now I (new behaviour), so that (new outcome)"**.

**BE + SERVICE DESIGN IN ACTION**

## How to use the framework - case study example



On pages 23-24 we'll use the Spend & Save case study to demonstrate the framework. For the full case study, see the Appendix, pages 49-50.

**SPEND & SAVE APP FOR CREDIT HUMAN**

## How might we help low-to-moderate income individuals spend less and save more?

Bridgeable partnered with Dan Ariely's Common Cents Lab to design an app for San Antonio-based Credit Human. Credit Human is a credit union\* dedicated to improving financial well-being for their members. They wanted to build app to help low-to-moderate income (**LMI**) members who live paycheque-to-paycheque better manage their finances by targeting the behaviour of 'balance checking'. This is where members keep all their money in one chequing account for spending, saving, and upcoming bills. When making purchases, they constantly check their balance and do mental accounting at the point of purchase to decide if they have enough money to spend. This is a risky way to manage finances that leaves members susceptible to borrowing payday loans to make ends meet in a pinch.

Credit Human hoped to introduce a new app called **Spend & Save** to do the heavy lifting by helping members plan and manage their finances in order to begin saving and move away from living paycheque-to-paycheque.

\*A credit union offers the same services as a bank, but operates as a non-profit cooperative where all customers are 'members' and have democratic rights.

# CASE STUDY EXAMPLE

## Helping LMI Individuals Spend Less, Save More

### CURRENT STATE

Define **whose** behaviour you want to change:  
Credit Human low-to-moderate income (LMI) members that currently live paycheque-to-paycheque.

What **key decisions** do you want to influence:

Balance checking and doing mental accounting at the point of purchase to see if they have enough money to spend right now.

What are the **current outcomes** of the user's decisions:

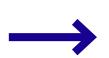
LMI members have one chequing account where they keep all their money including daily spending, bills, and savings. They prefer one account because they're not comfortable locking money away where they can't access it immediately.

One account for everything means LMI members are constantly checking their balance at the point of purchase, then doing mental accounting to determine if they can spend money right now, but still have enough left over to cover all bills.

Living paycheque-to-paycheque means when the water bill arrives every 3 months, they sometimes scramble to find money to pay it. This can lead to a spiral of payday loans and debt.

Note that some Credit Human members like to set aside small amounts of money from every paycheque, but this still lives in the single chequing account.

### BE PRINCIPLES



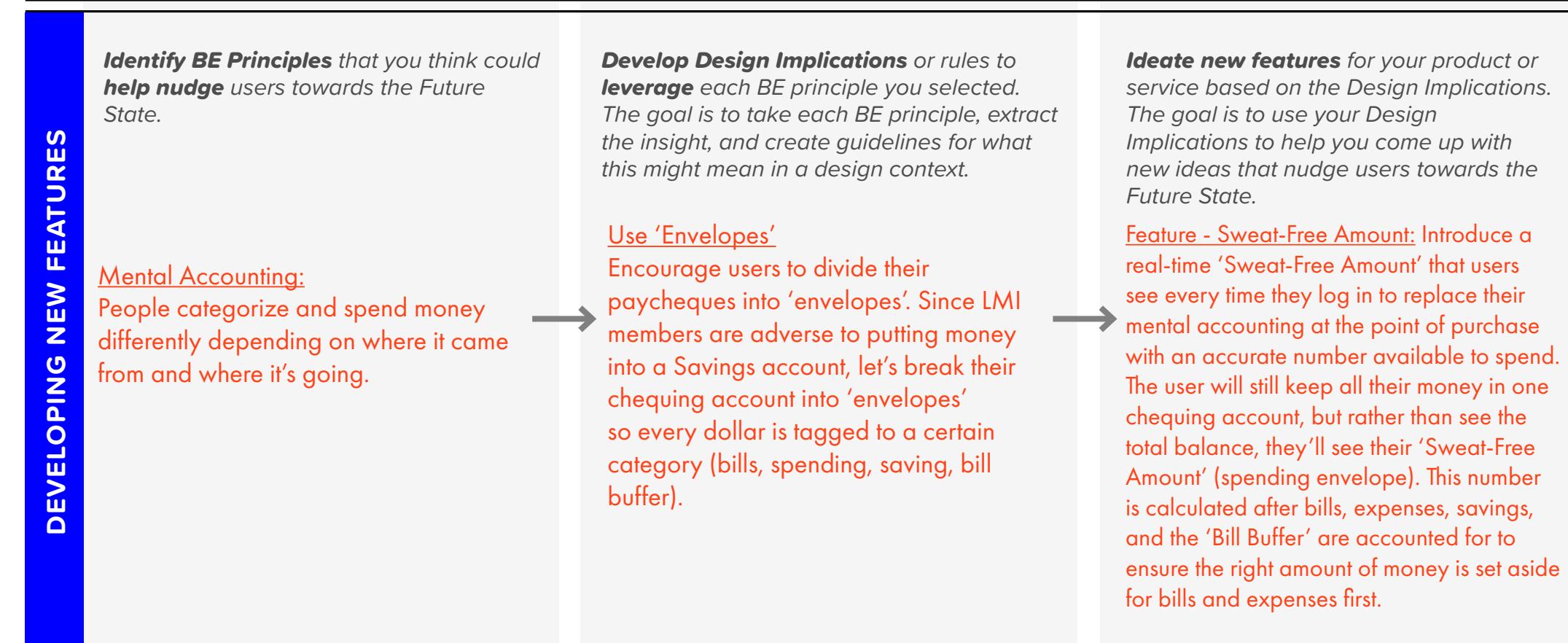
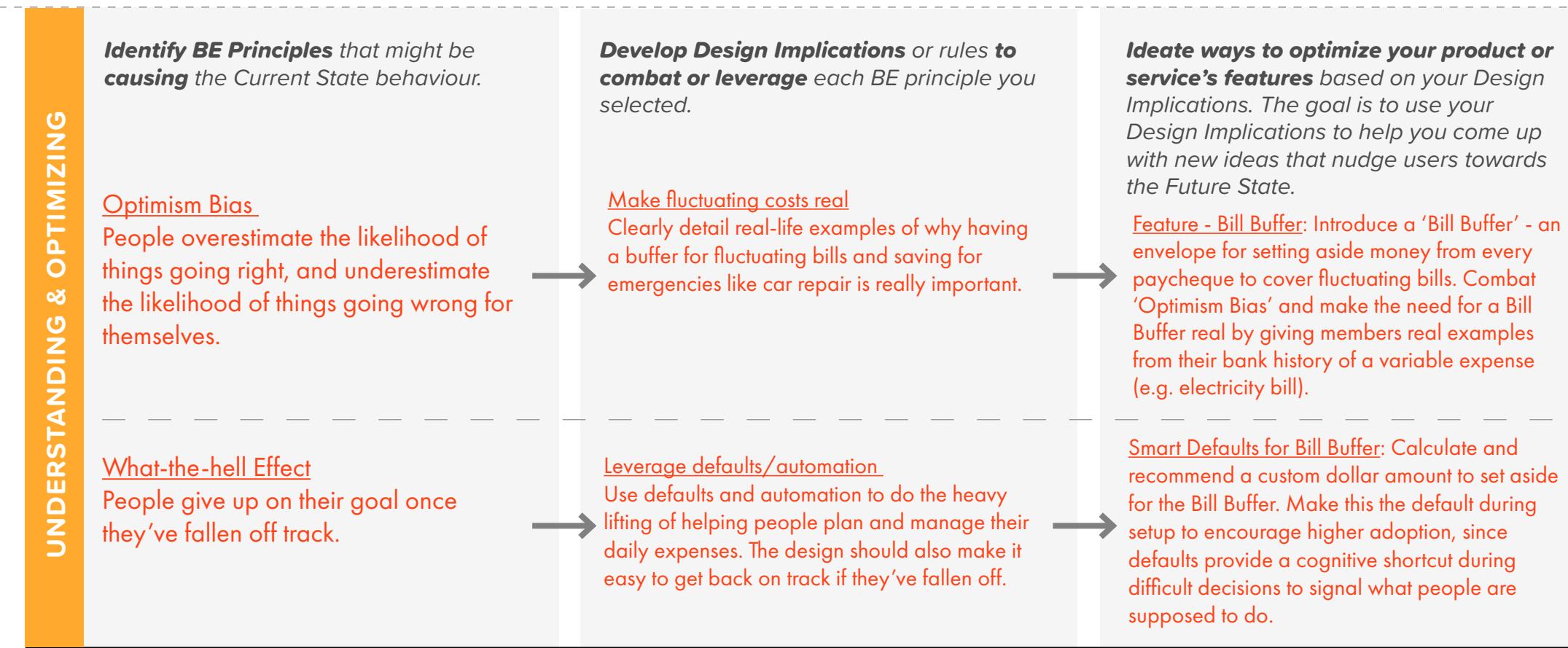
### DESIGN IMPLICATIONS



### IDEATION



### IDEAL FUTURE STATE



# CASE STUDY VISUAL EXAMPLE

## Helping LMI Individuals Spend Less, Save More

### CURRENT STATE

### BE PRINCIPLES

### DESIGN IMPLICATIONS

### IDEATION

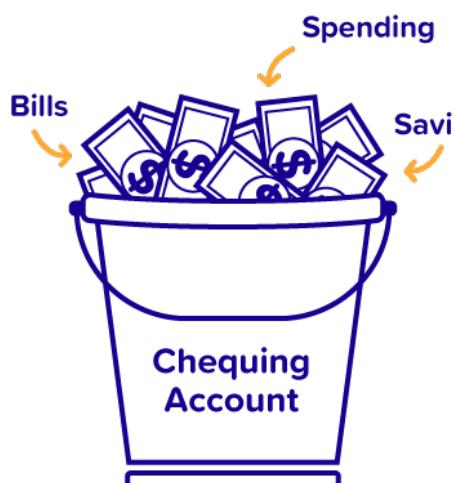
### IDEAL FUTURE STATE

#### Who we want to influence:

Credit Human members that currently live paycheque-to-paycheque.

#### Current Decisions & Outcomes:

- Keeps all money (spending, bills, savings) in one chequing account
- Constant mental accounting since all money in one bucket
- Target for payday loans



*All money in one bucket*

#### Optimism Bias

People overestimate the likelihood of things going right, and underestimate the likelihood of things going wrong for themselves.



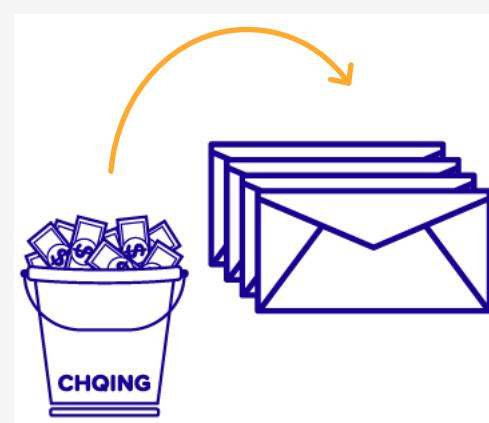
#### Mental Accounting

People categorize and spend money differently depending on where it came from and where it is going.



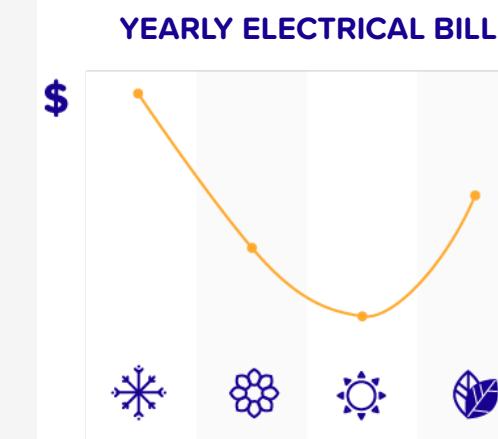
#### Make fluctuating costs real

Show real life examples of why having a buffer is really important.



#### Divide chequing account into envelopes

Tag all money in chequing account to necessary category (bills, bill buffer, spending, savings).



Some bills can fluctuate in cost. You can set money aside as a Bill Buffer to help cover these costs.

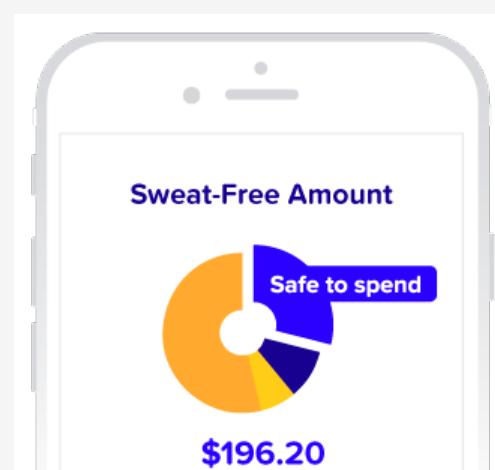
The average user's electricity bill is three times higher in the winter than in the summer.

How much do you want as a bill buffer in your account?

Note: Based on your account history we've identified your fluctuating bills and calculated an amount to maintain as a bill buffer.

#### Feature: Bill Buffer

Provide an automated option for setting aside money from every paycheque to cover fluctuating bills.



#### Feature: Sweat-Free Amount

Don't show members sum total of their chequing account, show them the 'Sweat-free Amount' that is safe to spend after bills etc. are accounted for.

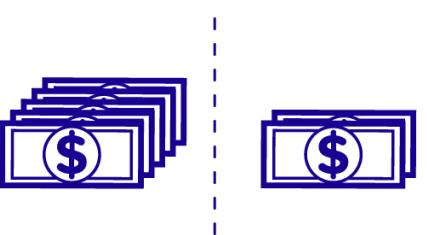
#### How might we:

Help members break the cycle of living paycheque-to-paycheque?

#### New Decisions & Outcomes:

Now I: Use the Credit Human app to set aside money for bills and expenses as soon as I get paid

So that: I always have enough to cover my bills, and can check the app to accurately see what's available to spend instead of doing mental accounting.



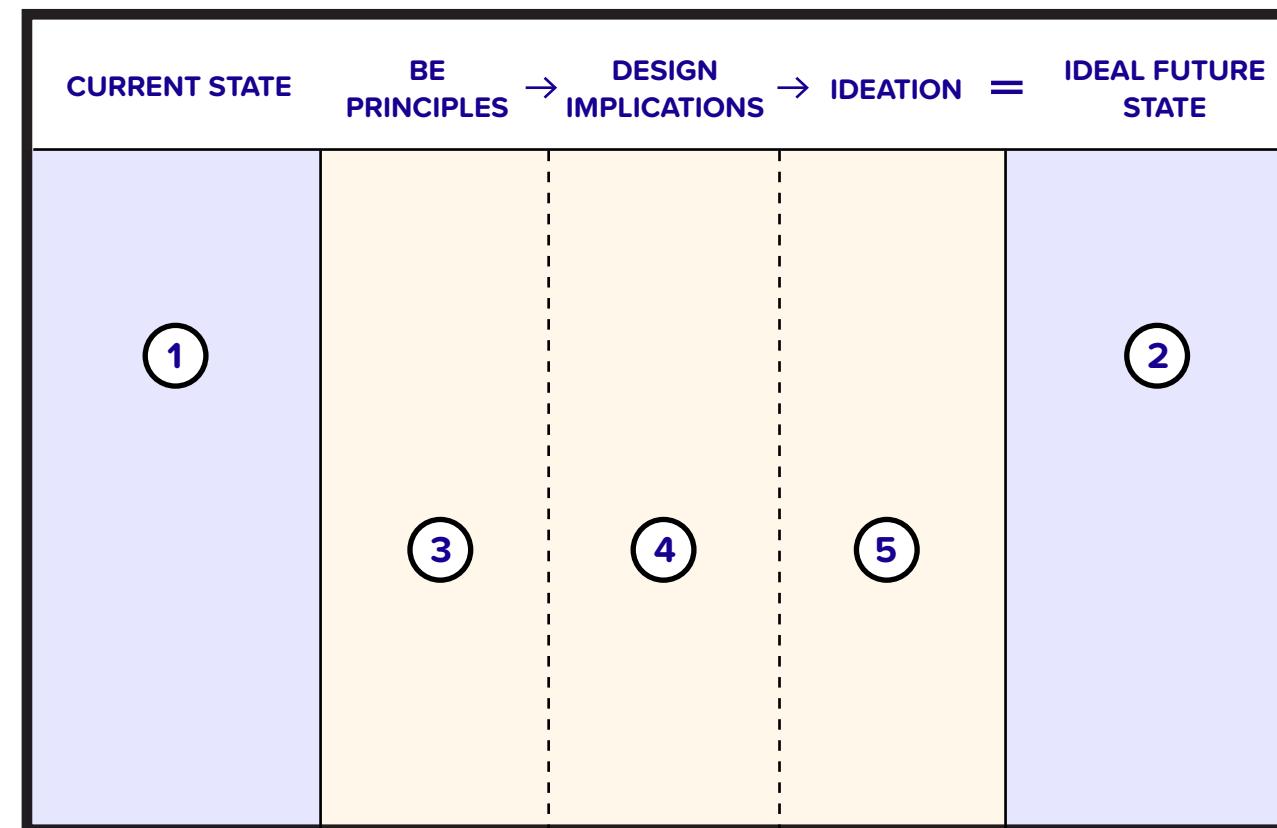
*Separates money for bills and expenses*

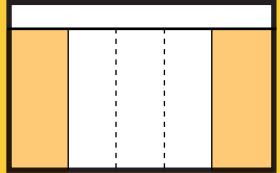
# Behaviour Change Framework - Deep Dive

In the following section, we'll walk you through a how-to guide explaining each step of the Part A: Ideation Phase framework. Afterwards, we'll dive into Part B: Testing Variables.

## Part A

### Ideation Phase





# Current & Ideal Future State

## KEY QUESTION

How do I figure out where to apply BE in a design context?

## ANSWER

Identify key decisions that are the root cause of the behaviour (Current State), and clearly define how you want the user to behave in an ideal future (Future State).

## INTRODUCTION TO

# Defining the Current and Ideal Future States

## Current State



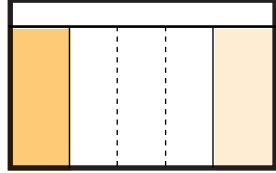
Dive into your research to pinpoint the decisions that cause the current behaviours.

This is a crucial step where you frame the behavioural intervention: who will it impact, what key decisions, and what outcomes do you want to change? Just as in design it's important to frame your brief to ensure you're solving the right problem, when using BE you need to understand and target specific user decisions.

## Ideal Future State

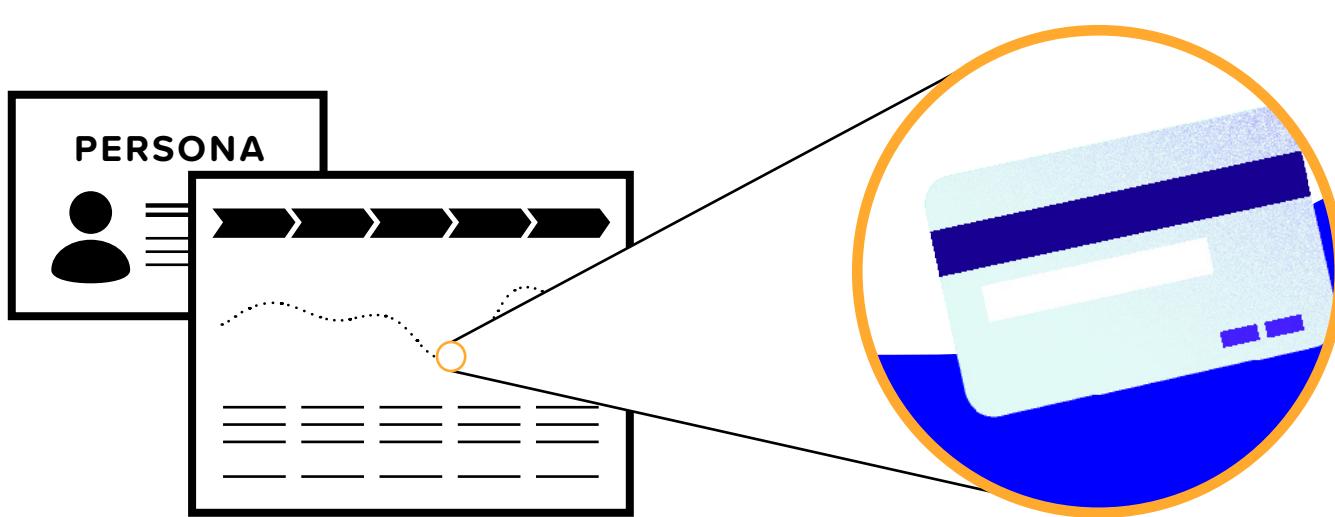
Concretely define how you want the user to behave in an ideal future state. What new behaviours and decisions should they embody?

Articulating a future state forces you to concretely define how you want behaviours and outcomes to look after your intervention. Defining this up front will provide a north star to evaluate if your ideas are on track.



## HOW-TO-GUIDE

## Current State: Understanding the User's Behaviours



### Review your data to look for pivotal moments of decision making

- Review your data on the current experience (experience maps, personas, etc.).
- Look for pivotal moments where there's an opportunity to make a huge impact if an intervention were to succeed steering users towards a new path.

### Unpack the players, key decisions, and outcomes of the current situation

- BE is about nudging a target audience at a single point of decision making. Get granular about the decision and the moment in time you want to influence.
- Dive deep into those pivotal moments to understand **who** owns the key decision, and pinpoint **which** decisions are causing the current outcomes.

## CURRENT STATE

Define **whose** behaviour you want to change:

Credit Human low-to-moderate income (LMI) members that currently live paycheque-to-paycheque.

What **key decisions** do you want to influence:

Balance checking and doing mental accounting at the point of purchase to see if they have enough money to spend right now.

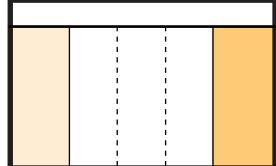
What are the **current outcomes** of the user's decisions:

LMI members have one chequing account where they keep all their money including daily spending, bills, and savings. They prefer one account because they're not comfortable locking money away where they can't access it immediately.

One account for everything means LMI members are constantly checking their balance at the point of purchase, then doing mental accounting to determine if they can spend money right now, but still have enough left over to cover all bills.

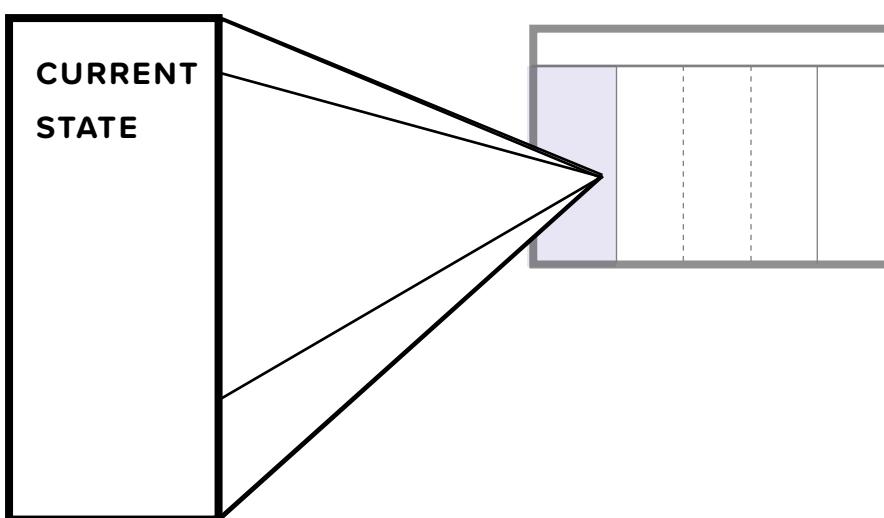
Living paycheque-to-paycheque means when the water bill arrives every 3 months, they sometimes scramble to find money to pay it. This can lead to a spiral of payday loans and debt.

Note that some Credit Human members like to set aside small amounts of money from every paycheque, but this still lives in the single chequing account.



## HOW-TO-GUIDE

## Ideal Future State: Defining New Behaviours



### Anchor in the Project's Strategic Direction

- This framework is an extension of your design process, and thus needs to fit within the project's core objectives and criteria.
- Reference your design brief and relevant material to capture the strategic intent of the project.

### Build an Antithesis to the Current State

- Combine the strategic intent with a vision of an ideal future. What new **behaviours** and **outcomes** do you want the user to adopt as a result of your design intervention?

## IDEAL FUTURE STATE

Anchor your project's strategic intention with a '**How might we**' statement that sums up the primary goal:

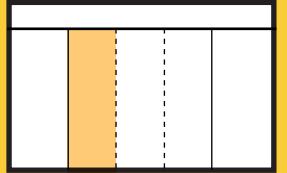
**How might we:** provide a new, free financial product that helps Credit Human members break the cycle of living paycheque-to-paycheque.

Define what an Ideal Future State would look like if users **adopted the behaviour changes** you hope to see. What **new outcomes** would result from these behaviour changes.

A good format is from the end-user's perspective: "**Now I (new behaviour), so that (new outcome)**".

**Now I:** Use the Credit Human app to set aside money for bills and expenses as soon as I get paid

**So That:** I always have enough to cover my bills, and can check the app to accurately see what's available to spend instead of doing mental accounting.



# BE Principles

## KEY QUESTION

How do I choose  
the ‘right’ BE  
Principle to use?

## ANSWER

There’s no shortcut to selecting BE Principles. It will require a bit of research, hypothesizing, and testing to determine the most suitable intervention.

## INTRODUCTION TO

### Selecting BE Principles to Leverage in Your Designs

There’s two ways to utilize BE Principles. You might use one or both approaches:

#### Understanding & Optimizing

Identify BE Principles that might be causing your user’s current state behaviour.

#### Use this method if:

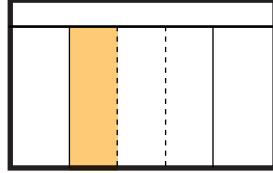
- You want to understand the user’s current behaviour through a BE lens (regardless of whatever service they’re using)
- You want to evaluate and optimize the user’s behaviour in relation to your existing product or service

#### Developing New Features

Identify BE Principles that could theoretically help nudge users towards the Ideal Future State.

#### Use this method if:

- You’re developing a net new product, service, or feature



HOW-TO-GUIDE

## Selecting BE Principles



### Review and Sort the Full Index of BE Principles

- Review the full list of BE Principles (see appendix, we recommend using the card deck).
- As you review, pull out the ones that sound relevant to your user.
- For ‘Understanding and Optimizing the Current State’: Look for BE Principles that sound like plausible explanations for your user’s current behaviour.
- For ‘Developing New Features’: Look for BE Principles that could inspire new designs that would nudge users towards the Ideal Future State.

### Research Principles to Evaluate Fit

- Research the BE Principles you’ve selected.
- Look for deeper descriptions and case studies to help you a) **understand how the principle works**, and b) **determine if it’s relevant to your users and design**.
- The depth of research you choose to do is discretionary.
- At this stage you’re looking for just enough information to help you evaluate and down-select the BE Principles you’ve chosen.

### Down-select Relevant BE Principles

- Once you understand the BE Principles you’ve researched, down-select the ones you think will be relevant for this project.
- You may end up with principles for one or both approaches (Understanding & Optimizing vs. Developing New Features).

UNDERSTANDING & OPTIMIZING

*Identify BE Principles that might be causing the Current State behaviour.*

Optimism Bias

People overestimate the likelihood of things going right, and underestimate the likelihood of things going wrong for themselves.

What-the-hell Effect

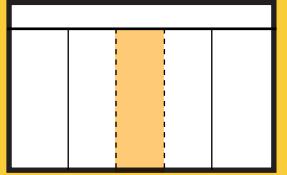
People give up on their goal once they’ve fallen off track.

DEVELOPING NEW FEATURES

*Identify BE Principles that you think could help nudge users towards the Future State.*

Mental Accounting:

People categorize and spend money differently depending on where it came from and where it’s going.



# Design Implications

## KEY QUESTION

**How do I turn a BE Principle into a design?**

## ANSWER

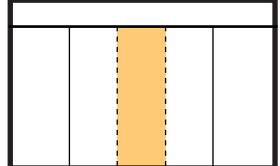
Translate the BE Principles you selected into actionable Design Implications that will guide your ideation to accomplish the Ideal Future State.

## INTRODUCTION TO

### Developing Design Implications

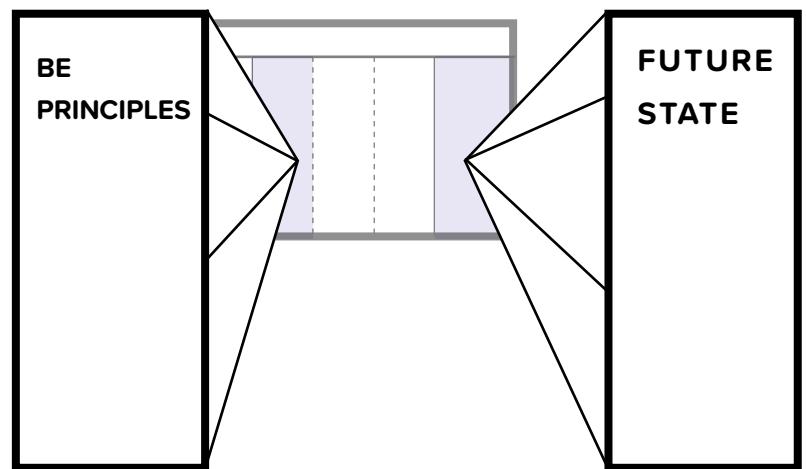
**Use your down-selected BE Principles as a lens to develop Design Implications that will be criteria for your ideation.**

This process is much like developing design principles based on your research synthesis. It's ultimately about taking raw insights and translating them into actionable design implications.



## HOW-TO-GUIDE

## Developing Design Implications



### Develop Design Implications That Leverage the BE Principles

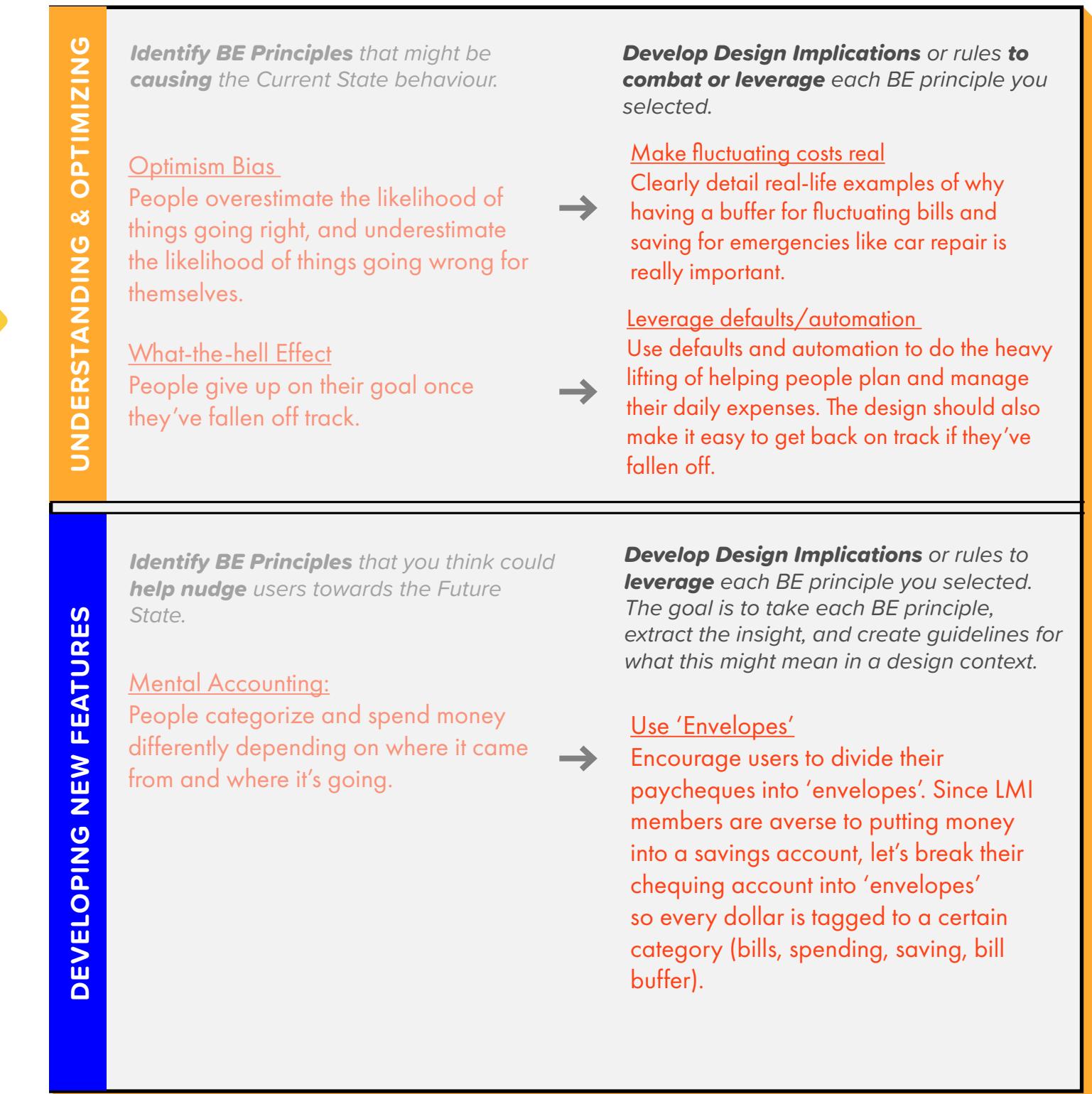
- Develop one Design Implication per down-selected BE Principle.
- Each Design Implication should translate the core insight from the BE Principle into actionable design criteria that can be translated into a product or service feature.

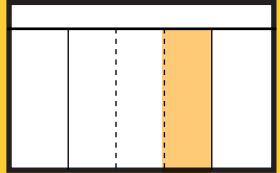
### Ensure Design Implications Maintain Sight of Strategic Objectives

- A good Design Implication will translate the BE insight into an actionable strategy that nudges users towards the Ideal Future State.
- Ensure your Design Implications align with the overall project brief and criteria.

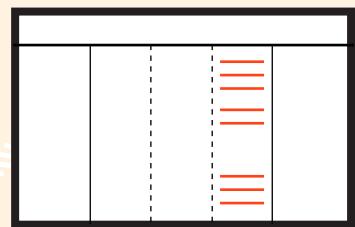
BE PRINCIPLES →

DESIGN IMPLICATIONS





# Ideation



*Last section  
almost there!*

INTRODUCTION TO

## Ideation

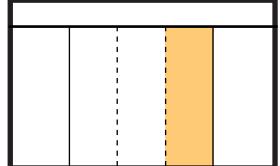
Develop ideas that leverage the Design Implications to fulfill your Ideal Future State.

### The Craft of Design: Making Sense of Many Inputs

Every design draws insights and criteria from a multitude of sources, be it BE Principles, research insights, technical constraints, corporate targets, etc.

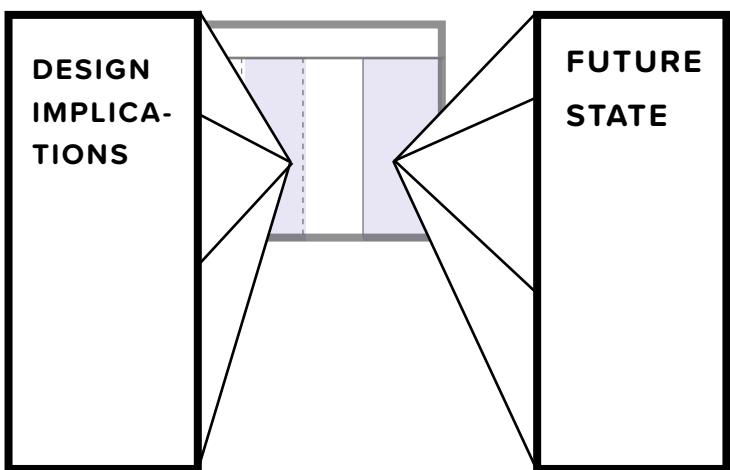
The craft of design requires triangulating requirements from multiple sources, and translating them into impactful designs that meet the multitude of criteria.

BE Principles are simply one of many inputs. Use the Design Implications and Ideal Future State as your guide, while rolling in the wider project objectives.



HOW-TO-GUIDE

## Ideating Around Design Implications



### Ideate Features Based on Your Design Implications and Future State

- Use the Design Implications as criteria to guide your ideation.
- Keep the Ideal Future State in view as the goal post - your designs need to nudge users towards adopting the new behaviours outlined in the future state.

### Incorporate Wider Project Objectives

- As with any design project, incorporate criteria from all sources when ideating according to your design brief.

## DESIGN IMPLICATIONS → IDEATION

### UNDERSTANDING & OPTIMIZING

**Develop Design Implications** or rules to combat or leverage each BE principle you selected.

Make fluctuating costs real  
Clearly detail real-life examples of why having a buffer for fluctuating bills and saving for emergencies like car repair is really important.

**Ideate ways to optimize your product or service's features** based on your Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

Feature - Bill Buffer: Introduce a 'Bill Buffer' - an envelope for setting aside money from every paycheque to cover fluctuating bills. Combat 'Optimism Bias' and make the need for a Bill Buffer real by giving members real examples from their bank history of a variable expense (e.g. electricity bill).

### DEVELOPING NEW FEATURES

**Develop Design Implications** or rules to leverage each BE principle you selected. The goal is to take each BE principle, extract the insight, and create guidelines for what this might mean in a design context.

Use 'Envelopes'  
Encourage users to divide their paycheques into 'envelopes'. Since LMI members are averse to putting money into a savings account, let's break their chequing account into 'envelopes' so every dollar is tagged to a certain category (bills, spending, saving, bill buffer).

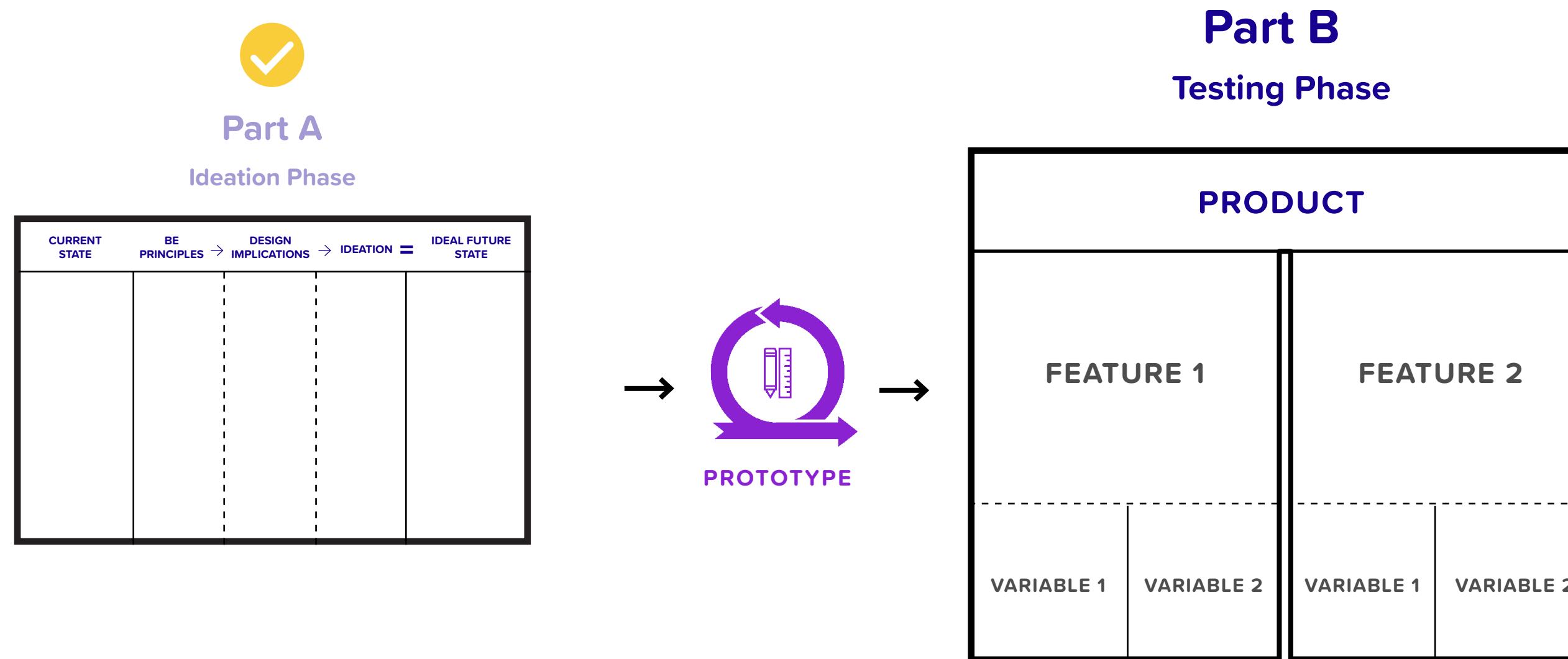
**Ideate new features** for your product or service based on the Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

Feature - Sweat-Free Amount: Introduce a real-time 'Sweat-Free Amount' that users see every time they log in to replace their mental accounting at the point of purchase with an accurate number available to spend. The user will still keep all their money in one chequing account, but rather than see the total balance, they'll see their 'Sweat-Free Amount' (spending envelope). This number is calculated after bills, expenses, savings, and the 'Bill Buffer' are accounted for to ensure the right amount of money is set aside for bills and expenses first.

## Moving from Ideation, to Prototyping, to Testing

As mentioned earlier, the Behaviour Change Framework is an extension of your wider design process.

Now that we've looked in detail at how to use **Part A: Ideation Framework**, we'll move onto **Part B: Testing Framework**, which uses a BE lens to increase the effectiveness of your testing.

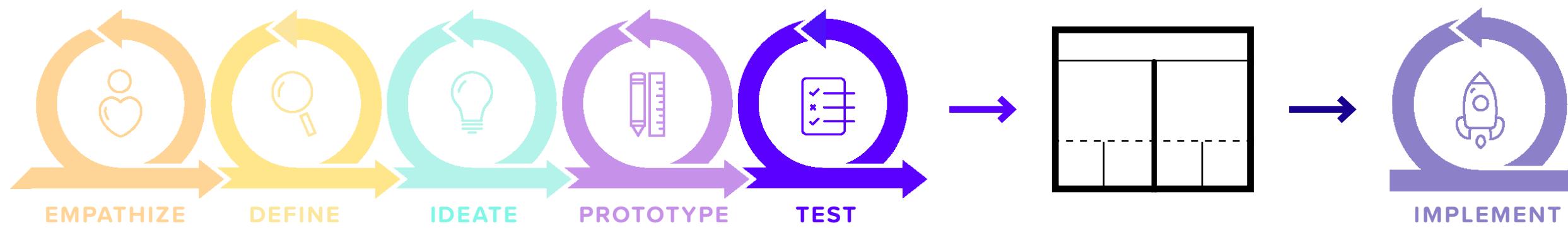


## The Importance of Testing Behavioural Interventions

Testing is a fundamental component to both design and BE, but they often employ different approaches and methodologies. BE Principles enable you to make an educated hypothesis about your user's behaviour, but your designs **must be tested** to qualify their effectiveness. Using BE Principles to inform your designs does not guarantee success.

## Adding a BE Lens to your Design Testing

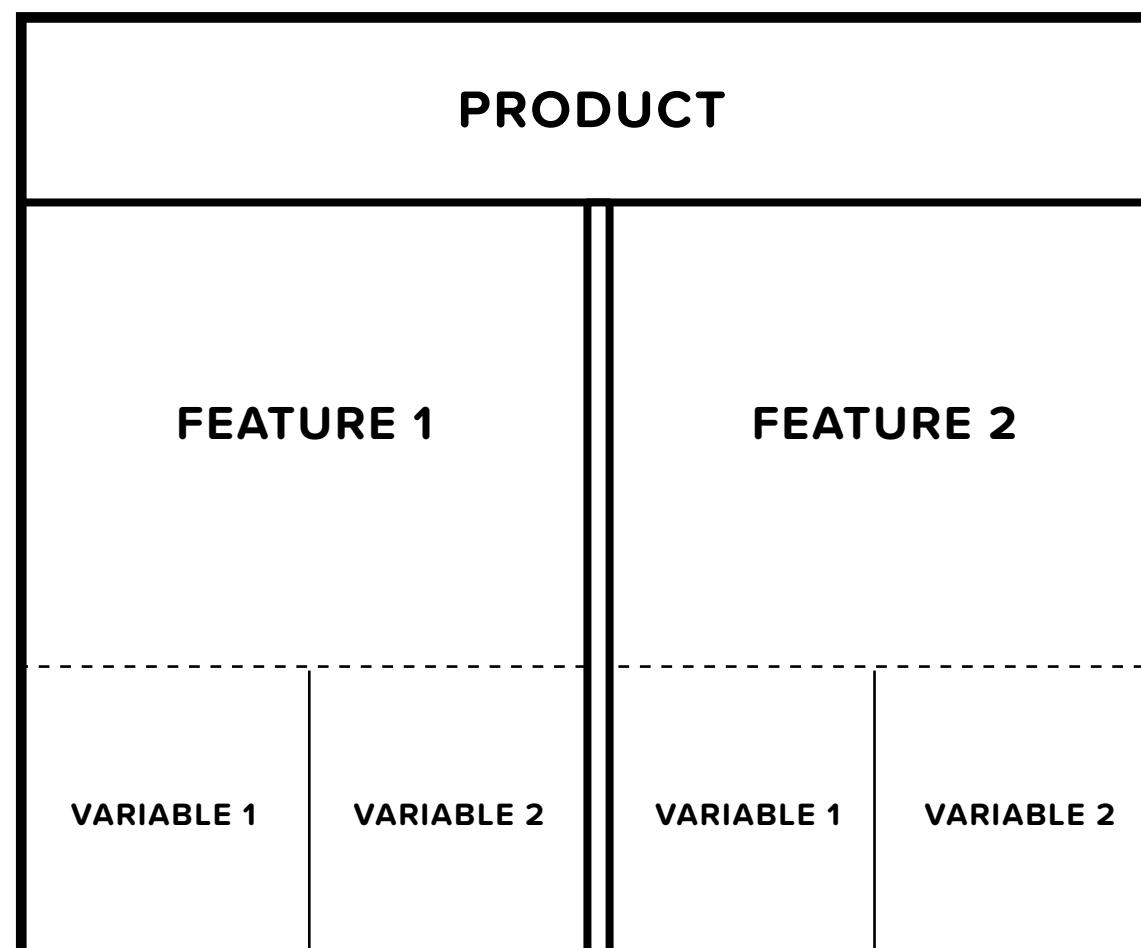
Behavioural economists use the scientific method to test, usually in the form of randomized control trials (RCTs). The following framework will demonstrate how designers can borrow the BE concept of '**testing variables**' to increase the effectiveness of your behavioural design interventions. This is not an exhaustive framework, it's simply a new concept to add to your testing methodologies.



\*Design Process diagram based on framework by Nielson Norman Group

## Part B: Testing at the Variable Level Overview

There's multiple levels to testing:



### Product & Feature-level Testing

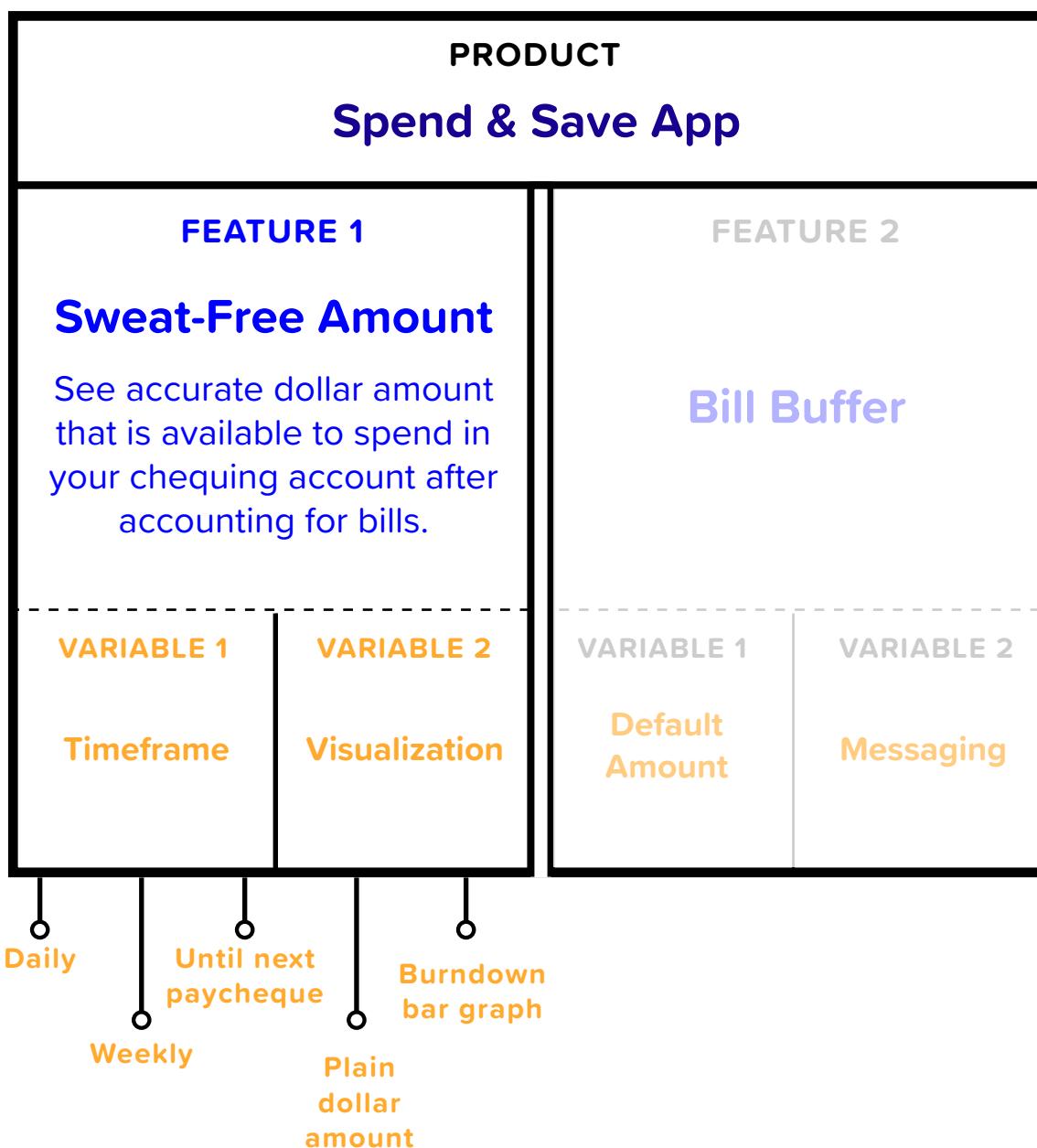
- Designers are quite good at testing and validating at the **product** and **feature** level of a design.
- Testing products and features answers the questions: “*Are we building the right thing? Does this serve a real need?*”
- If you’ve used a BE Principle to inform your product or a feature, you can validate it using traditional design testing methods.

### Variable-level Testing

- Behavioural Economists will often operate at the **variable level**. A variable is a minor variation within a single feature.
- Testing variables is much like A/B testing: take the same design but tweak a small component to optimize for the most effective version.
- Remember the example of the organ donation cards? The single variable of ‘opt-in’ versus ‘opt-out’ made the difference between almost universal organ donation, or starkly low rates.
- Testing variables answers the questions: “*Which variables are most crucial to influencing user decisions? How can we optimize these variable to attain our ideal user behaviour?*”

## Example: Developing Research Questions at the Variable Level

Here's an example from the Spend & Save case study to illustrate how you can dive into testing and optimizing details at the variable level.



A good format for developing your research question is: “**How well does (my design intervention) help (your end user) achieve (the Ideal Future State behaviour objective)?**”

### RESEARCH QUESTION

How well does the ability to access an accurate Sweat-Free Amount (SFA) help Credit Human members stay within their budget?

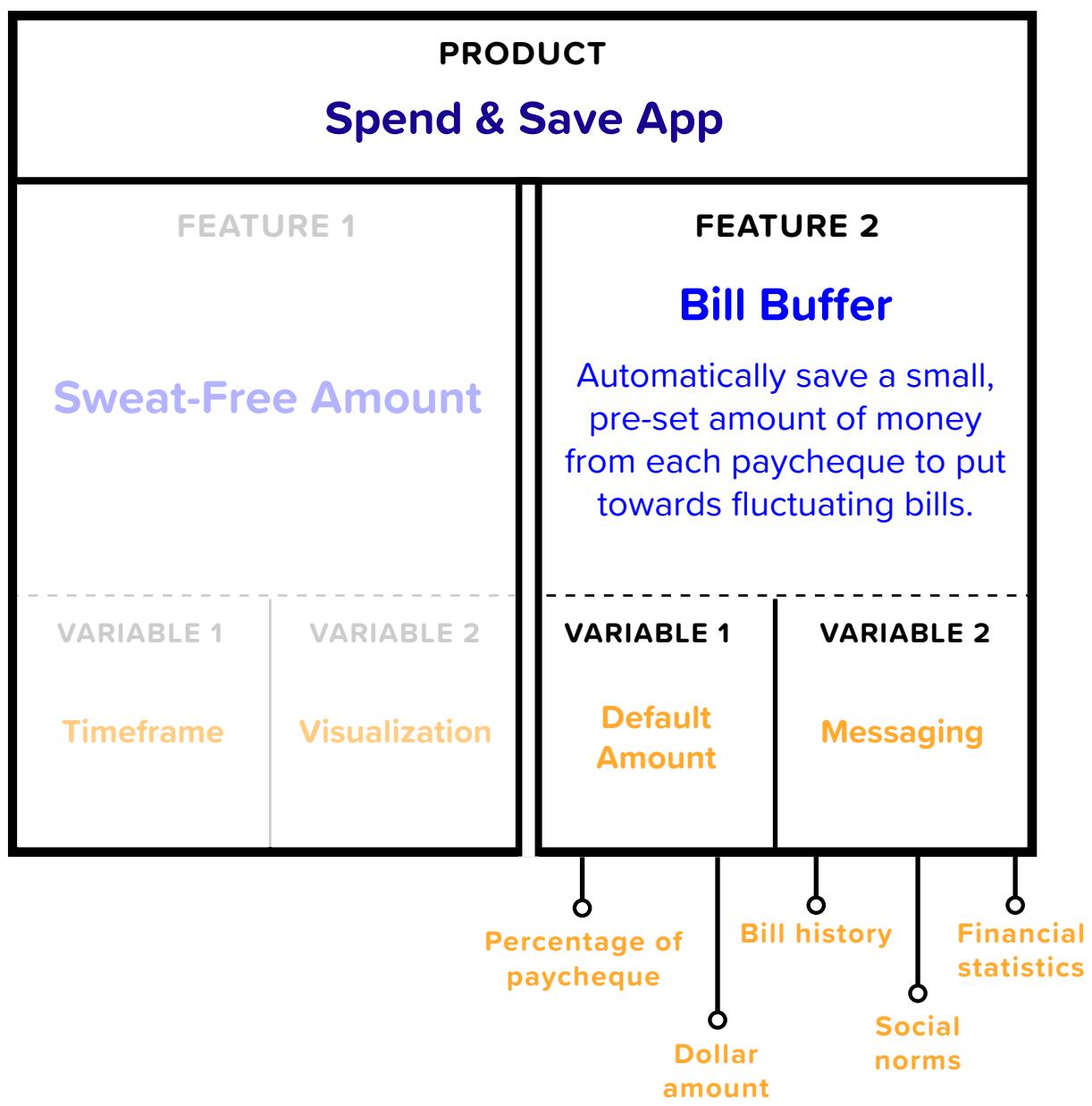
### Feature-level Testing:

- Test if checking the Sweat-Free Amount replaces current ‘balance checking and mental accounting’ behaviour.

### Variable-level Testing:

- Test presenting the SFA in different **timeframes (daily, weekly, until next paycheque)** to see if that impacts members' ability to stay within budget.
- Test presenting the SFA with different **visualizations (plain dollar amount remaining or burndown bar-graph)** to see if that impacts members' ability to stay within budget.

## Example: Developing Research Questions at the Variable Level



Using the same research question format:

**“How well does (my design intervention) help (your end user) achieve (the Ideal Future State behaviour objective)?”**

### RESEARCH QUESTION

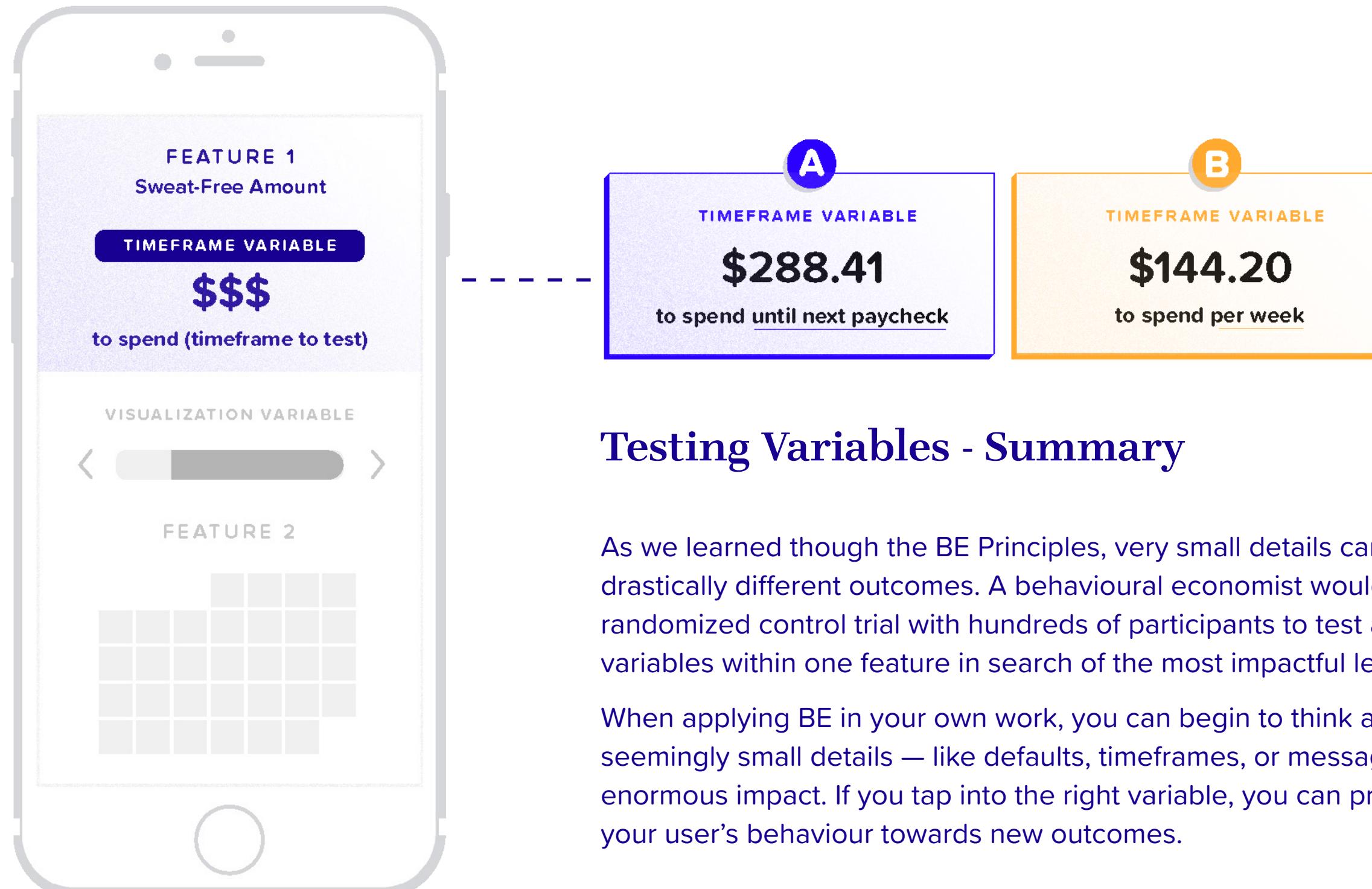
Does the ‘Bill Buffer’ feature convert people who currently live paycheque-to-paycheque to begin saving money from each paycheque for fluctuating bills?

### Feature-level Testing:

- Test whether members who currently live paycheque-to-paycheque are setting up an automated Bill Buffer, or skipping it.
- Test timelines to see how long members keep the Bill Buffer set up.

### Variable-level Testing:

- Test different **default amounts** of money to set aside from each paycheque (**percentages or dollar amount**) to see if that impacts adoption.
- Test different **messaging** around the need for setting up a Bill Buffer to see if that impacts adoption (**reference your bill history, reference social norms, reference financial statistics**).



## Testing Variables - Summary

As we learned through the BE Principles, very small details can lead to drastically different outcomes. A behavioural economist would run an entire randomized control trial with hundreds of participants to test a handful of variables within one feature in search of the most impactful levers.

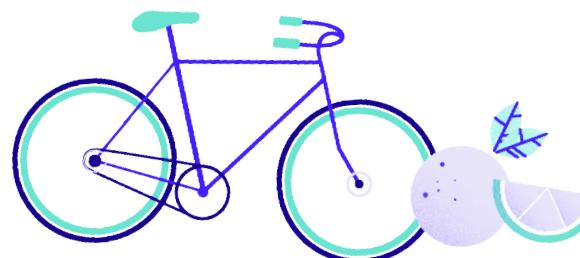
When applying BE in your own work, you can begin to think about how seemingly small details — like defaults, timeframes, or messaging — can have enormous impact. If you tap into the right variable, you can profoundly steer your user's behaviour towards new outcomes.

# Designing for Behaviour Change Summary

You made it through the toolkit! Here's a recap of what you've learned:

## SECTION I

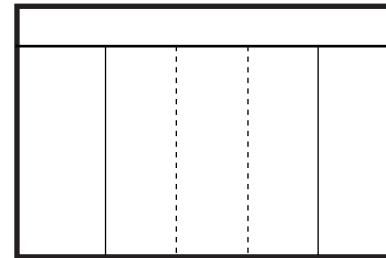
### Foundations



- What is BE?
- Predicting decisions through BE Principles
- Bridgeable's Top 5 BE Principles for designers
- Combining BE and service design - tips and differences

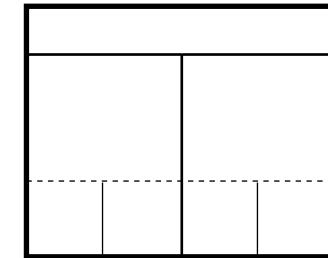
## SECTION II

### Designing for Behaviour Change Framework



#### Part A: Ideation

- How to identify Current State behaviour, and define new behaviours and outcomes in an Ideal Future State
- How to select BE Principles and use them to generate Design Implications that will inform your Ideation



#### Part B: Testing

- The difference between testing at the product & feature level, versus the variable level
- How to optimize features by tweaking key variables

As you gain more exposure to BE Principles, and practice applying the framework, you'll internalize how to use BE more fluidly. Good luck!

# Appendix

43 . . . 40 BE Principles from Dan Ariely's Center for Advanced Hindsight

46 . . . Printable Cheat Sheets of the Behaviour Change Framework

48 . . . Example Framework filled in with case study

49 . . . Spend & Save Case Study

# Behavioural Economics Principles

## USEFUL TIP

The Common Cents Lab has created a great printable flashcard deck containing these principles for easy reference.

Find it here:

[toolkit.bridgeable.com/behavioural-economics-principles](http://toolkit.bridgeable.com/behavioural-economics-principles)

This list of Behavioural Economics Principles was put together and kindly distributed by the Common Cents Lab.

## APPENDIX: BE PRINCIPLES LIST

### Anchoring

The first fact, number, or figure a person hears will bias their judgements and decisions down the line.

### Availability Bias

People give undue weight to what easily comes to mind: often vivid memories or recent events.

### Confirmation Bias

People analyze and search for information in ways that support their current ideas.

### Decision Paralysis

When given many options, people make the easiest choice, which is often no choice at all.

### Default Bias

People pick the easiest option to avoid complex decisions. Defaults provide a cognitive shortcut and signal what people are supposed to do.

### Disposition Effect

People have a habit of holding on to poor investments too long and selling good investments too soon.

### Ego Depletion

The ability to make good decisions is a limited resource that can be drained by both decision overload and external fatigue.

### Endowment Effect

People overvalue what they own.

### Friction Costs

People can be deterred from taking action by seemingly small barriers.

### Gamification

People like to play games! They will go to great lengths playing a game even if all they get are points.

### Goal Gradient

People will work harder to achieve a goal as the goal gets closer.

**Herding**

People tend to do what others are doing.

**Hyperbolic Discounting**

People put an unrealistically high value on the here and now and an unrealistically low value on the future.

**Identifiable Victim Effect**

One identifiable individual, who is described in great detail, evokes deeper emotions and sympathy than does a large group of anonymous individuals.

**Implementation Intentions**

People are more likely to do something when they specify how, when, and where they will do it.

**Lack of Self-Control**

People have a hard time delaying gratification.

**Loss Aversion**

People react to losses more strongly than gains and they try to prevent losses more than they try to make gains.

**Mental Accounting**

People categorize and spend money differently depending on where it came from and where it is going.

**Money Illusion**

People confuse actual dollar amounts with the buying power of dollars.

**Omission Bias**

People consider harmful actions worse than equally harmful inactions.

**Opportunity Cost Neglect**

People tend to ignore what they give up when they make decisions.

**Optimism Bias**

We overestimate the probability of “things going right for us” and underestimate the probability of “things going wrong for us”.

**Ostrich Effect**

People who are worried they have fallen off track don’t want to know how they’re doing.

**Overconfidence**

Everyone believes they are right and everyone believes they are above average.

**Pain of Paying**

Some purchases—such as incremental payments or paying with cash—are more painful than others so people will avoid them.

**Payment for Effort**

People place a greater value on services and products if they can see the amount of effort put into them.

**Planning Fallacy**

When planning, people underestimate the resources needed to meet their goals (such as time or level of commitment).

**Power of Free**

A price of zero is psychologically much more attractive than any other price, no matter how low.

**Pre-Commitment**

When people actively commit to a goal, they are more likely to achieve it.

**Reciprocity**

People have an inherent desire to help those who have helped them in some way.

**Regret & Counterfactuals**

Satisfaction depends both on actual outcomes and ideas about what could have happened.

**Relativity**

People evaluate options by comparing them to what else is around.

**Reward Substitution**

Immediate rewards, which appeal to people's impulsive nature, can be used to motivate behaviours that are beneficial in the long run.

**Scarcity Mindset**

People who lack a resource, such as money, time, or calories, tend to tunnel in on the scarce resource and carry a larger cognitive load.

**Self-Herding**

People make decisions by asking themselves what they did last time and assume what they already did must have been a good idea.

**Self-Signaling**

People behave in ways that reinforce the type of person they believe themselves to be, even if no one else is around to witness it.

**Social Proof**

People want to be like everyone else and are heavily influenced by what they perceive everyone else is doing.

**Status Quo Bias**

People are very committed to keeping things the way that they are.

**Substitution**

It is easier for people to substitute a similar behaviour than to eliminate an entrenched one.

**Tunneling**

When faced with an emergency, people can only focus on the emergency.

**What-the-hell Effect**

People give up on their goal once they've fallen off track.

**You Are What You Measure**

People repeat behaviours that are rewarded, regardless of whether those behaviours lead to success.

**CURRENT STATE**      **BE PRINCIPLES** → **DESIGN IMPLICATIONS** → **IDEATION**      = **IDEAL FUTURE STATE**

Define **whose** behaviour you want to change:

What **key decisions** do you want to influence:

What are the **current outcomes** of the user's decisions:

**Identify BE Principles** that might be causing the Current State behaviour.

**Develop Design Implications** or rules to combat or leverage each BE principle you selected.

**Ideate ways to optimize your product or service's features** based on your Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

Anchor your project's strategic intention with a '**How might we**' statement that sums up the primary goal:

UNDERSTANDING & OPTIMIZING

Define what an Ideal Future State would look like if users **adopted the behaviour changes** you hope to see. What **new outcomes** would result from these behaviour changes.

A good format is from the end-user's perspective: "**Now I (new behaviour), so that (new outcome)**".

## CURRENT STATE

## BE PRINCIPLES



## DESIGN IMPLICATIONS



## IDEATION



## IDEAL FUTURE STATE

Define **whose** behaviour you want to change:

What **key decisions** do you want to influence:

What are the **current outcomes** of the user's decisions:

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**Develop Design Implications** or rules to **leverage** each BE principle you selected. The goal is to take each BE principle, extract the insight, and create guidelines for what this might mean in a design context.

**Ideate new features** for your product or service based on the Design Implications. The goal is to use your Design Implications to help you come up with new ideas that nudge users towards the Future State.

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A good format is from the end-user's perspective: "**Now I (new behaviour), so that (new outcome)**".

# CASE STUDY EXAMPLE

# Spend & Save App for Credit Human

## CURRENT STATE

Define **whose** behaviour you want to change:

Credit Human low-to-moderate income (LMI) members that currently live paycheque-to-paycheque.

What **key decisions** do you want to influence:

Balance checking and doing mental accounting at the point of purchase to see if they have enough money to spend right now.

What are the **current outcomes** of the user's decisions:

LMI members have one chequing account where they keep all their money including daily spending, bills, and savings. They prefer one account because they're not comfortable locking money away where they can't access it immediately.

One account for everything means LMI members are constantly checking their balance at the point of purchase, then doing mental accounting to determine if they can spend money right now, but still have enough left over to cover all bills.

Living paycheque-to-paycheque means when the water bill arrives every 3 months, they sometimes scramble to find money to pay it. This can lead to a spiral of payday loans and debt.

Note that some Credit Human members like to set aside small amounts of money from every paycheque, but this still lives in the single chequing account.

## BE PRINCIPLES



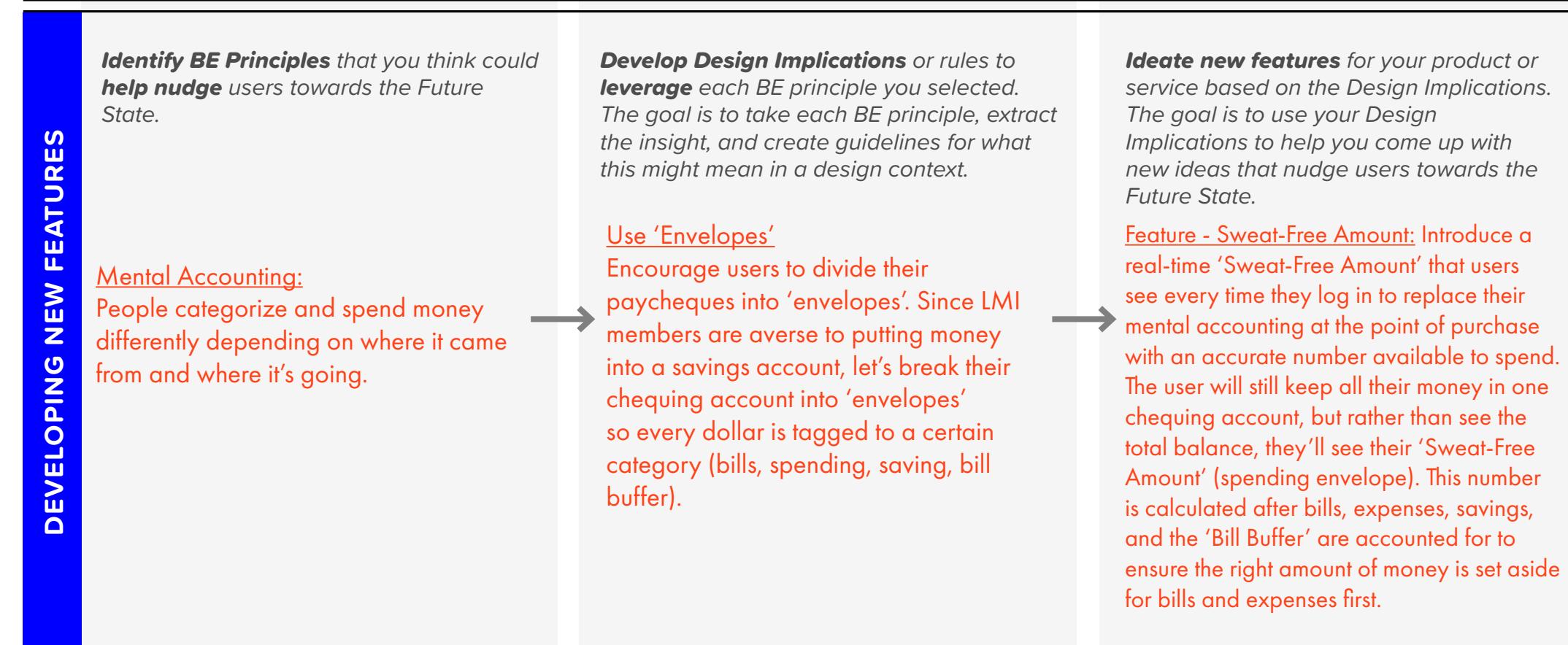
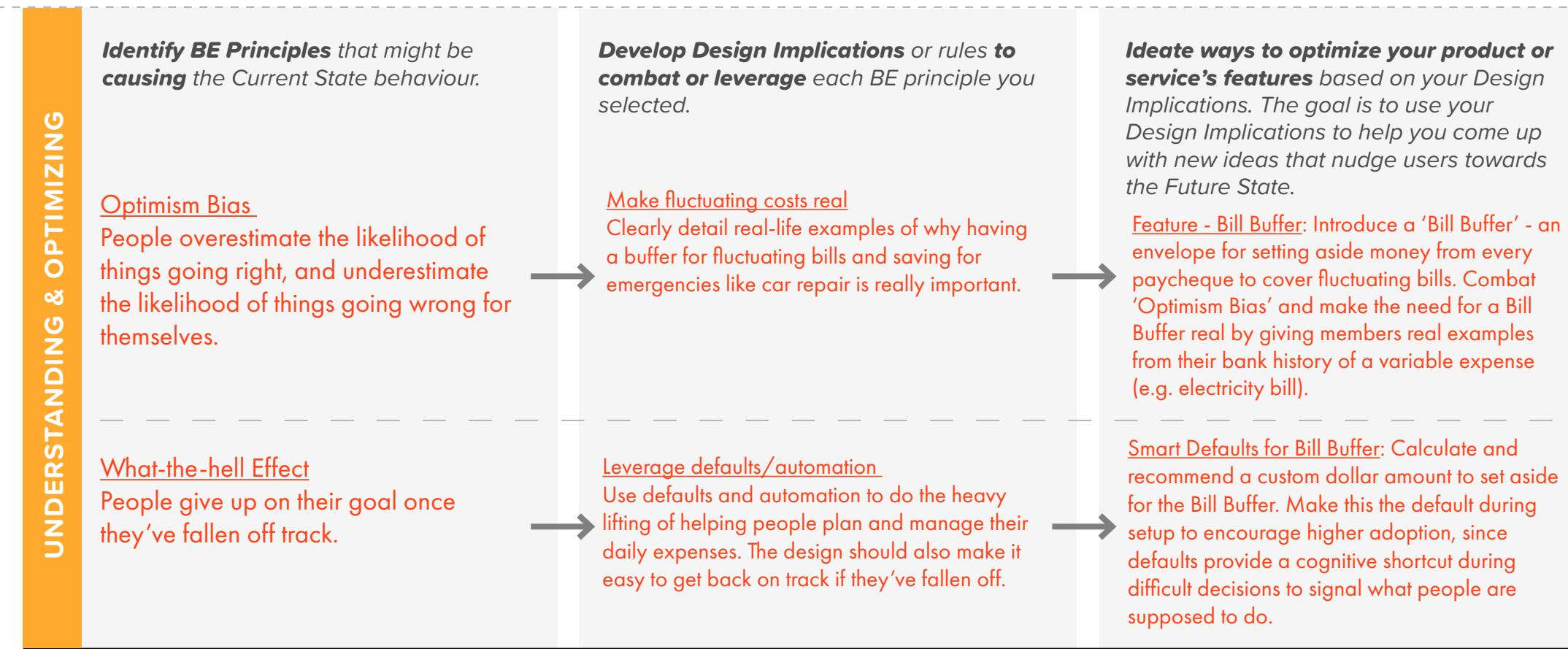
## DESIGN IMPLICATIONS



## IDEATION



## IDEAL FUTURE STATE



Anchor your project's strategic intention with a '**How might we**' statement that sums up the primary goal:

**How might we:** provide a new, free financial product that helps Credit Human members break the cycle of living paycheque-to-paycheque?

Define what an **Ideal Future State** would look like if users **adopted the behaviour changes** you hope to see. What **new outcomes** would result from these behaviour changes.

A good format is from the end-user's perspective: "**Now I (new behaviour), so that (new outcome)**".

Now I: Use the Credit Human app to set aside money for bills and expenses as soon as I get paid

So That: I always have enough to cover my bills, and can check the app to accurately see what's available to spend instead of doing mental accounting.

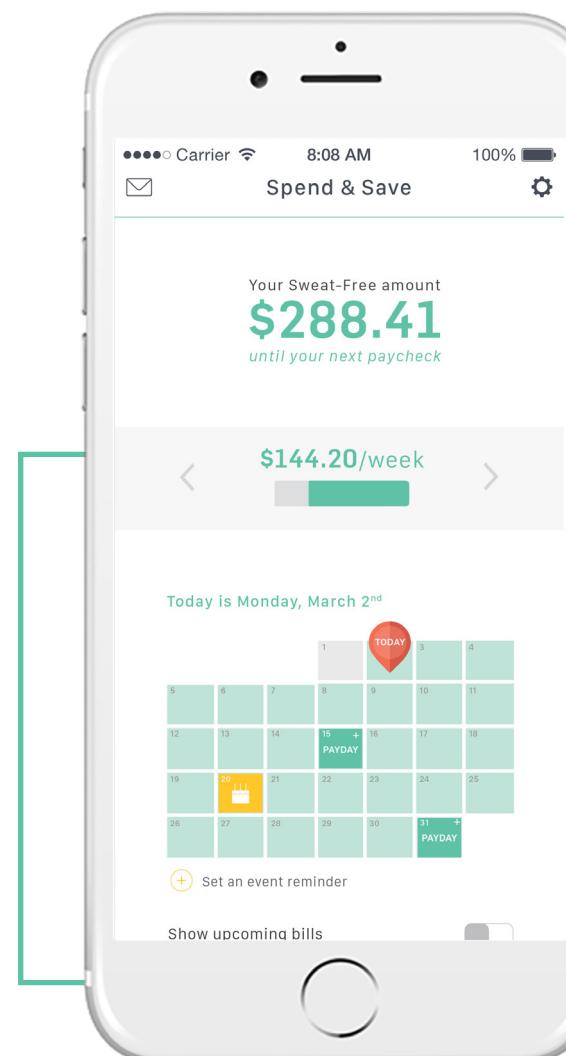
## How might we help low-to-moderate income individuals spend less and save more?

Bridgeable partnered with Dan Ariely's Common Cents Lab to design an app for San Antonio-based Credit Human. Credit Human is a credit union\* dedicated to improving financial well-being for their members. They wanted to build app to help low to moderate income (**LMI**) members who live paycheque-to-paycheque better manage their finances by targeting the behaviour of 'balance checking'. This is where members keep all their money in one chequing account for spending, saving, and upcoming bills. When making purchases, they constantly check their balance and do mental accounting at the point of purchase to decide if they have enough money to spend. This is a risky way to manage finances that leaves members susceptible to borrowing payday loans to make ends meet in a pinch.

Credit Human hoped to introduce a new app called **Spend & Save** to do the heavy lifting by helping members plan and manage their finances in order to begin saving and move away from living paycheque-to-paycheque.

# Spend & Save

LMI members can make easier day-to-day spending decisions by knowing how much they can spend, sweat-free.



### LMI members struggle with...

- ▶ Living paycheque-to-paycheque
- ▶ Lack of savings in case of fluctuating bills
- ▶ Not knowing when and how to save

### Spend & Save allows members to...

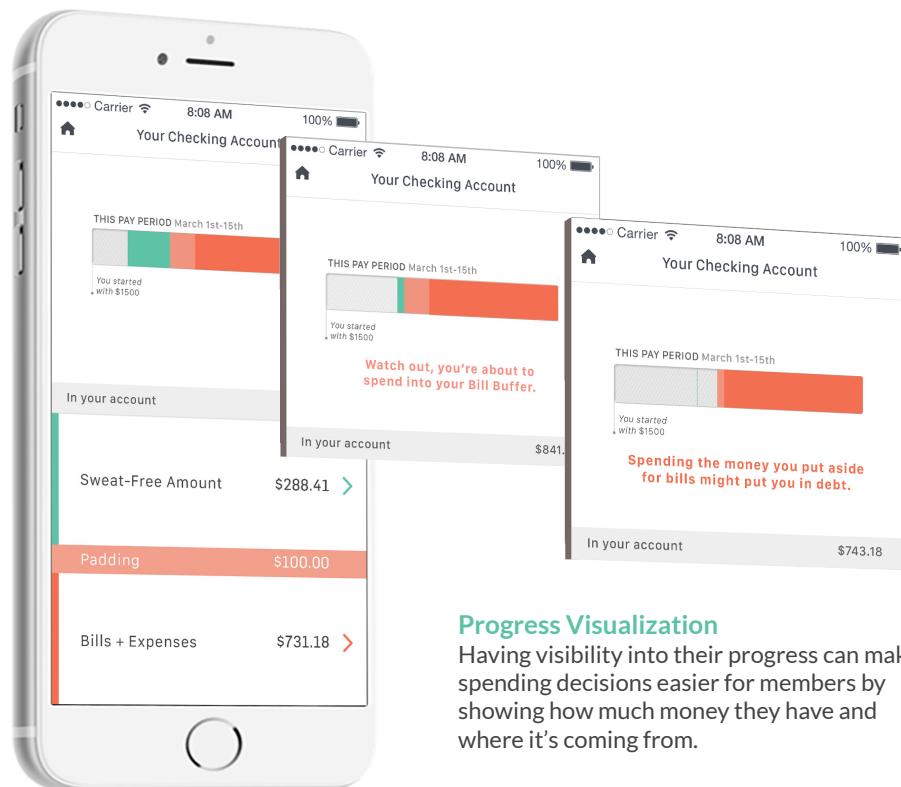
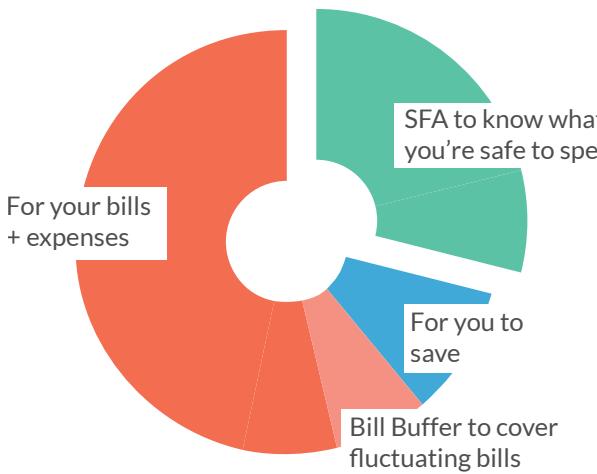
- ▶ Know how much money is really available to spend immediately.
- ▶ Be prepared in case of unexpected expenses in the short-term.
- ▶ Set a laddered approach to building emergency savings for the long-term.

## BEHAVIOURAL ECONOMICS IN ACTION - SPEND & SAVE APP FOR CREDIT HUMAN

### CORE VALUE: IMMEDIATE BENEFITS

**Members know how much of their income is safe to spend with their Sweat-Free Amount.**

**Sweat-Free Amount (SFA)**  
The app calculates members' Sweat-Free amount by factoring in their bills and expenses, a buffer to cover fluctuating bills, and an amount set aside for savings.

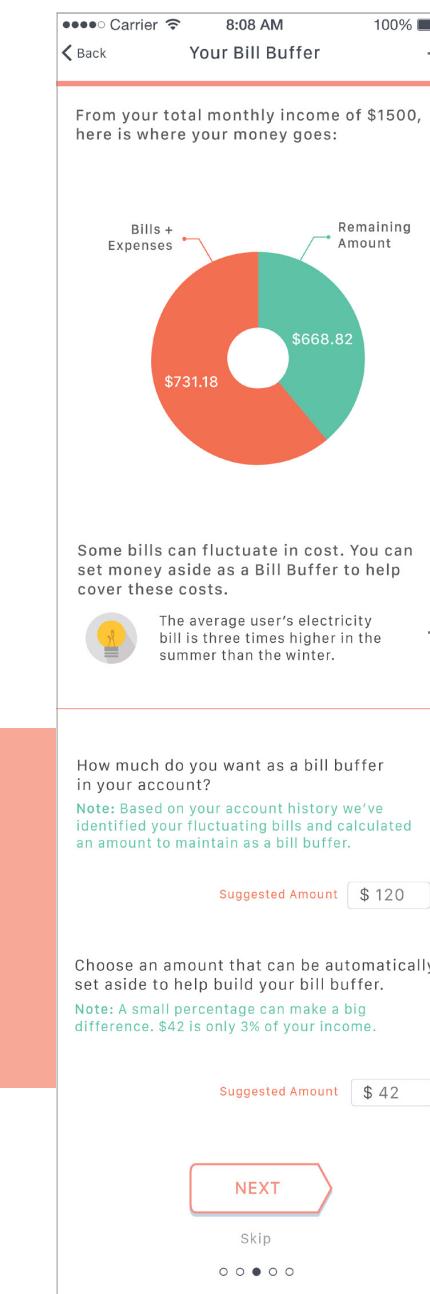


**Progress Visualization**  
Having visibility into their progress can make spending decisions easier for members by showing how much money they have and where it's coming from.

### CORE VALUE: SHORT-TERM BENEFITS

**Members can be prepared for unexpected expenses**

We developed features that would make it easy for them to plan and prepare for their upcoming expenses, as well as the unexpected ones.



**Bill Buffer**  
The Bill Buffer builds on members' existing habit of setting aside small amounts of money to cover the variability of monthly bills. Members told us that in order to trust the SFA, they would need the calculation to account for a Bill Buffer.

**Contextualized Example**  
Make the need for a Bill Buffer real for members by giving them a specific, real world example of a variable expense (e.g. fluctuating electricity bills).



**Contextualized Messaging**  
Members are notified ahead of time when they are headed for financial trouble, and are given visibility and control to plan ahead.

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**bridgeable**