
How Should Organizations Best Embed and Harness Behavioural Insights? A Playbook

Bing Feng, Jima Oyunsuren, Mykyta Tymko, Melanie Kim, and Dilip Soman

Originally published: 30 August 2018
Revised 17 January 2019



Behavioural Economics
in Action at Rotman



Correspondence

For questions and enquiries, please contact:

Dilip Soman / Melanie Kim
Rotman School of Management
University of Toronto
105 St. George Street
Toronto, ON M5S 3E6

Suggested citation: Feng, Bing, Jima Oyunsuren, Mykyta Tymko, Melanie Kim and Dilip Soman (2018), *How Should Organizations Best Embed and Harness Behavioural Insights? A Playbook*, Toronto, Canada: Behavioural Economics in Action at Rotman (BEAR) Report series, available at <http://www.rotman.utoronto.ca/bear>

Email: dilip.soman@rotman.utoronto.ca or melanie.kim@rotman.utoronto.ca
Phone Number: (416) 978-6980
Twitter: @UofT_BEAR @dilipsoman
Website: www.rotman.utoronto.ca/bear

Acknowledgements

The authors would like to thank the following individuals for their insights and feedback.

Abigail Goodnow Dalton and Julian C. Jamison (The World Bank's Mind, Behavior, and Development Unit (eMBeD))

Anthony Barrows and Jessica Leifer (ideas42)

Elizabeth Hardy (Privy Council Office, Impact and Innovation Unit)

Owain Service (The Behavioural Insights Team)

Melaina Vinski and Mohsin Bin Latheef (PricewaterhouseCoopers)

Julian House and Victoria Peace (Behavioural Insights Unit)

We also thank our colleagues at BEAR for their comments and

suggestions on earlier drafts. Vanessa Lu provided research assistance, and Hasan Morshed, Gina Kim and Liz Kang provided numerous suggestions on content and design issues. We also thank the BEAR chief scientists Nico Lacetera, Sonia Kang, Lu Han and Tanjim Hossain. We also thank participants in our interviews, round tables and design sessions; especially Pamela Wong, Lisa Brenneman, Jennifer Nachshen, Leslie Millan, Xavier Debane, Michael Sherman and Alex Jannetta for providing their input and comments.

Finally, we thank our mentors and advisors Richard Thaler (Chicago), Cass Sunstein (Harvard), David Halpern (Behavioural Insights team) and Varun Gauri (World Bank) for inspiring us and for encouraging us to put this playbook together.

Table of Contents

01	What is the field of Behavioural Insights (BI)?	5
02	What can BI do for my organization?	12
03	What strategic questions should I think about?	15
04	What is the process of implementing BI?	25
05	How do I reduce the cost of experimentation?	28
06	What lies ahead?	33
07	Appendix	35

01

What is the Field of Behavioural Insights (BI)?

What is Behavioural Insights (BI)?	6
What are different ways of changing behaviour?	7
How has BI evolved over the past ten years?	8
Where (in the world) have BI initiatives been implemented?	9
Where is the future of BI?	10
What can I get from this playbook?	11

What is Behavioural Insights?

Behavioural Insights 101

Humans & Econs*

Every organization is in the **business of behavioural change!** Whether it is a for-profit firm encouraging consumers to switch to their product, a government trying to get compliance from companies or to get its citizens to pay taxes on time, a welfare organization whose goal is to get people to engage in healthy behaviours or to save for retirement before it is too late, or a public health agency interested in improving the consumption of medication, behavior change challenges abound**.

Organizations struggle with behavior change because of a fundamental **empathy gap**. **'Econs'** are hypothetical individuals who have well-defined preferences, are able to accurately predict future consequences of their actions, have immense computational abilities, and are unemotional. **Humans**, on the other hand, are impulsive, cognitively lazy, emotional and computationally constrained**. Empathy gaps occur when organizations design products, processes and programs for econs, when in fact the end user is a human!

Research shows that behaviour of humans differs from that of 'econs' in significant ways. For instance, factors including: **context, cognitive laziness, procrastination, and social pressure** play key roles in human decision making. The field of behavioural insights works to connect the psychology of human behaviour with economic decision-making to explain these phenomena. In dealing with human agents, organizations should assume that they will procrastinate, get tripped up with information or choice complexity, might forget, or will act emotionally. Organizations therefore **need to embed behavioural insights (BI) into their DNA**.

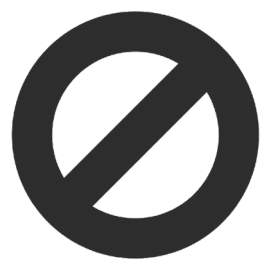
* Thaler, R and C. Sunstein (2008), Nudge: Improving Decisions about Health, Wealth and Happiness. London: Penguin

**Adapted from: Soman, D. (2015). The Last Mile: Creating Social and Economic Value from Behavioural Insights. Toronto: University of Toronto Press.



What Are Different Ways of Changing Behaviour?

Four Approaches to Get People to Switch from One Option to the Other*



Lawyer

"Restrict unwanted behaviour"

Make Option A unavailable to move people to choose Option B



Economist

"Incentivize behaviour"

Impose a tax on choosing Option A or provide a benefit for choosing Option B



Marketer

"Persuade people"

Make Option B appear more attractive through messaging and persuasive advertising



Behavioural Scientist

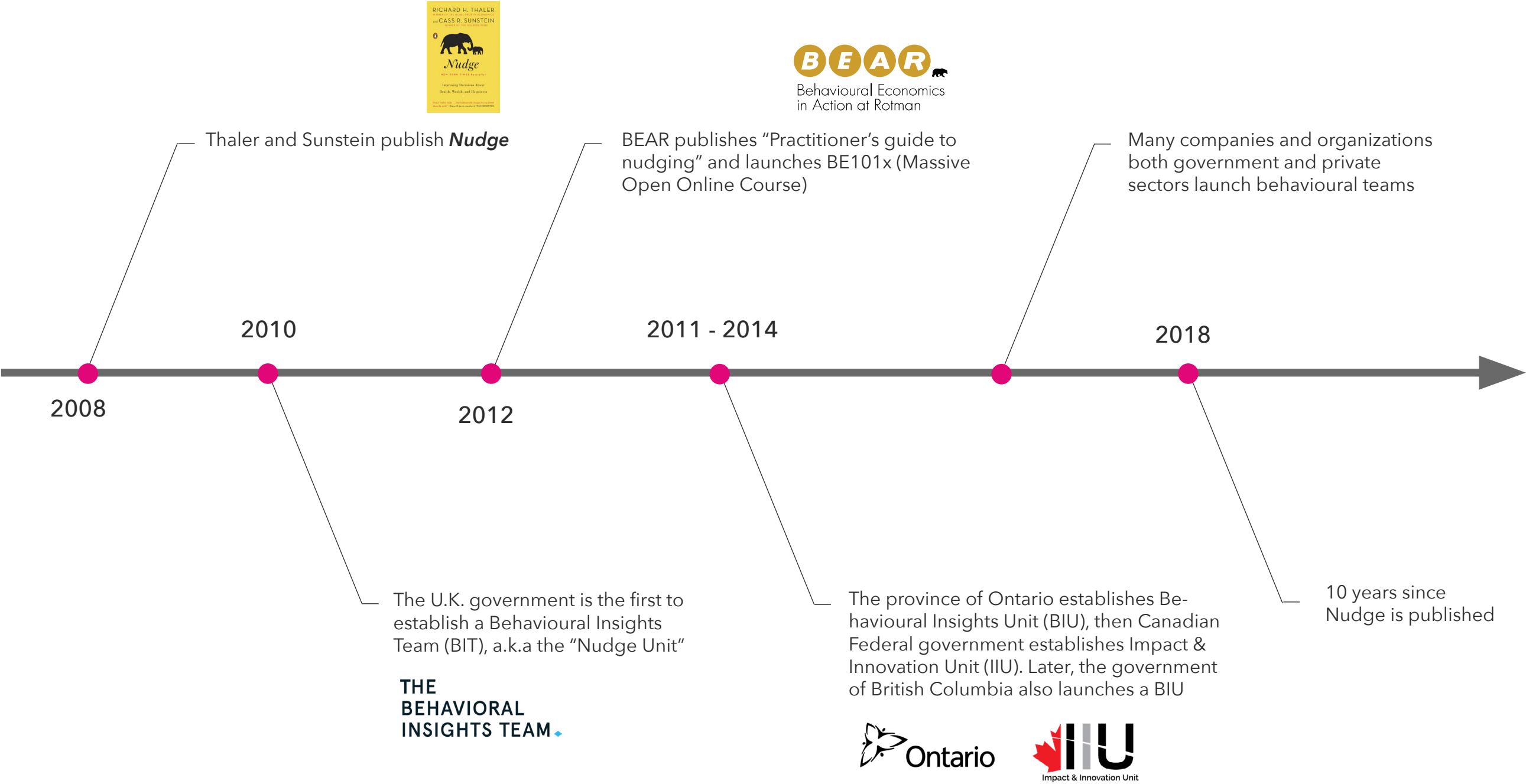
"Nudge people into better choices"

Create an environment where it is easy for people to choose Option B rather than Option A

*Adapted from: Soman, D. (2015). The Last Mile: Creating Social and Economic Value from Behavioural Insights. Toronto: University of Toronto Press.

How Has BI Evolved Over the Past Ten Years?

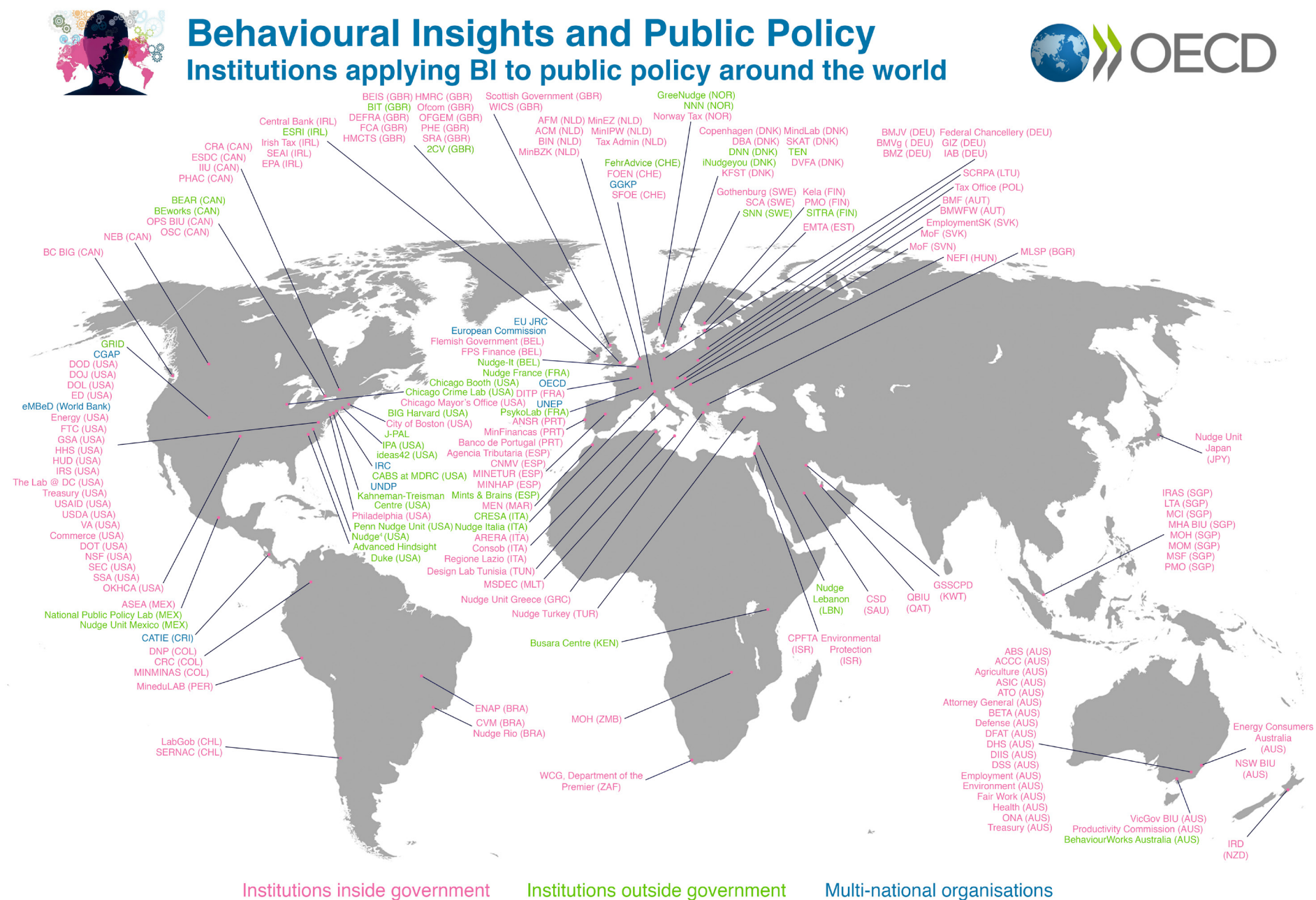
The Business of Behavioural Change



Where (in the World) Has BI Been Implemented?

The Geography of BI

Since 2013, **OECD** has been at the forefront of supporting **public institutions** to apply BI. Currently, there are over **200** institutions around the world applying BI to **improving public policy**.



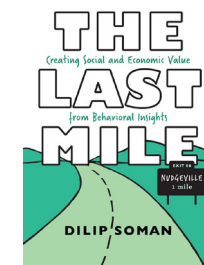
Where is the Future of BI?

Taking Stock



Over the past ten years, we have seen a great deal of progress in the field of applied Behavioural Insights. With **thousands of trials** being run by over **two hundred government or other units** around the world, human behavior has become the focus of a lot of activity in the policy, welfare and business world in a number of different decision domains. That said, a large portion of this work tends to center around the **last mile** - where an end user (i.e., a citizen, welfare recipient or customer) directly interacts with an organization or its product or service*.

Teams working in this area are often **problem solvers**, tasked with applying recent learnings in behavioural insights to a context beneficial to their organization. While these efforts bring many positive benefits to the respective organizations, the problem solver's role focuses more on **knowledge consumption** and application rather than **knowledge creation**.



Inspired by the growing interest in behavioural insights from all sectors, as well as an absence of any formal guidelines on establishing internal BI teams or embedding BI more generally in organizations, **BEAR** set out to create a playbook that will help interested organizations ask **strategic questions** and begin thinking beyond the last mile.

* Soman, D. (2015). The Last Mile: Creating Social and Economic Value from Behavioural Insights. Toronto: University of Toronto Press.

What Can I Get from this Playbook? Answers to...

Are you interested in using BI in your organization?



Highlights the Canvas of BI - Identifies opportunities of using BI

Are you wondering how to build BI capability in your organization?



Raises three strategic questions and provides frameworks to answer them

Do you want to learn more about tips & tricks?



Provides a list of what works

Are you currently running any trials or experiments?



Suggests ways to reduce the cost of experimentation

— 02

What Can BI Do for My Organization?

What are the applications of BI?	13
What are examples of using BI in different applications?	14

What Are the Applications of BI?

The Canvas of Behavioural Insights is Broad



* Hampton, D, M. Leung and D. Soman (2016), "The Empathic Mindset: Blending Behavioural Insights with Design Thinking," Rotman Magazine, Spring, 94-97.

**Soman, D and K. Ly (2018), "The Growing Market for Self Control," Rotman Magazine, Fall.

What Are Examples of BI?

The Canvas of Behavioural Insights

Decision Making Tools

With a mandate to improve Canadian financial literacy and facilitate positive behaviour change, the Financial Consumer Agency of Canada (FCAC) offers **financial tools and calculators** to educate Canadian consumers and help them make better financial decisions. For example, FCAC's **Mortgage Calculator** helps determine a mortgage payment schedule based on user inputs and allows the user to input different prepayment options to show them how they can save money. FCAC's **Budget Calculator** helps consumers get a portrait of where their money comes from and where it is going. The Agency's **Financial Goal Calculator** helps Canadians figure out how to pay off their debts or reach their savings goals.

Choice Architecture

Organ donor registration process in Ontario was designed based on the principles of choice architecture: providing different versions of the organ donor registration form, changing the timing of when the form was handed out, offering additional donor information to help people make their decision.

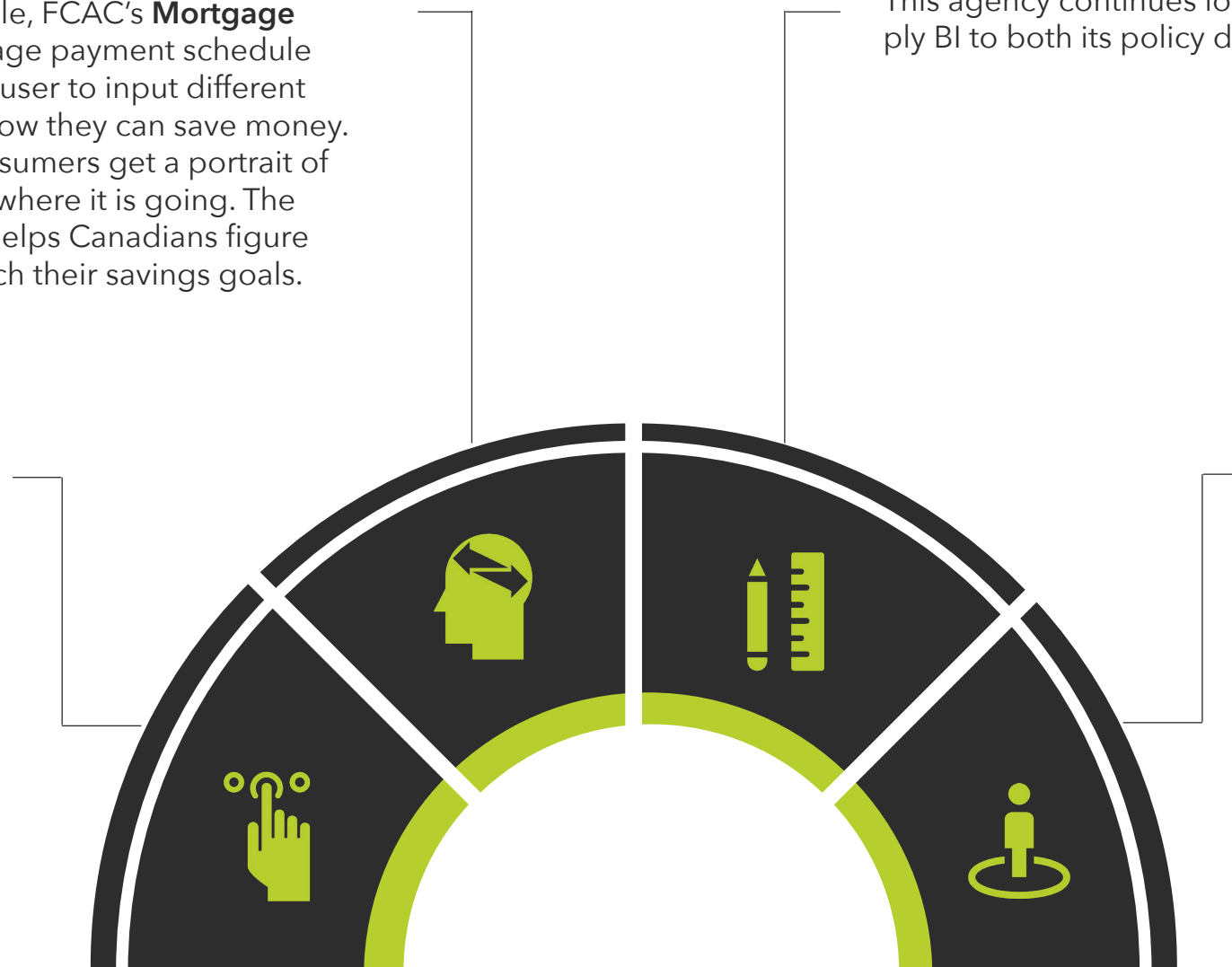
Behaviourally Informed Design

A regulator of financial markets employs BI to improve investor protection. At this agency, BI is used to better understand the **behaviour of investors and advisors**. This agency continues looking for opportunities to apply BI to both its policy design and daily operations.

Self-Control Products

The growing intention-action gap creates a market for self-control products. Examples include **Clocky**: The Runaway Alarm Clock (a clock that runs away when the snooze button is activated), **Stickk**: a website that uses incentives and peer-effects to encourage people to stick to goals.

At Rotman, **BEAR** hosts the New Product Challenge each year to encourage new solutions to self-control problems.



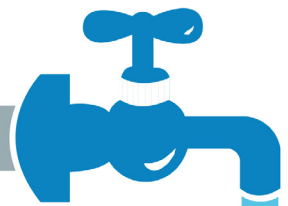
03

What Strategic Questions Should I Think About?

What roles could Behavioural Insights (BI) play in my organization ?	16
What is the locus of my BI efforts ?	19
What resources do I need to develop ?	22

What Roles Could BI Play in my Organization?

A Cascade of BI Roles in Organizations



BI as Problem Solver

The behavioural scientist is tasked with looking at problems arising with the adoption or use of **existing products or services** of the organization (e.g., low take-up rates, poor sales, low conversion rates, failure to act on plans). In this role, BI solves the **'Last Mile' problem** which involves making small changes to help better align the product/service with human behaviour.

BI as Auditor

At the end of every design process for products or processes, a behavioural scientist is tasked with **auditing the outcome** and **evaluating for human centricity**. In this role, BI continually evaluates and provides suggestions for "humanizing" organizational outputs.

BI as Designer

A behavioural scientist is involved in all design processes, ensuring that the **design of a product or service** is **behaviourally informed** to begin with. Placing the behavioural scientist at the **designer stage** lowers the pressure on their roles as auditors or problem solvers.

BI as Chief Strategist

All processes in an organization (involving internal and external stakeholders) are run with a **behavioural perspective**; using **empiricism** as the basis for all decision making. Organization is **human centric** in everything that it does. In this role, BI is the operating principle of the organization!

INSIGHTS

Just as the optimal amount of water in an irrigation cascade depends on the needs of the crops, the optimal role of BI (and hence resources needed) will vary by organizations.

Case Studies

BI as a Problem Solver

Behavioural Insights Unit (BIU): Increasing Organ Donors in Ontario

"People, in general, like to be organ donors, yet due to unfamiliarity and complexity of the documentation requirement and process, people do not act as they intended. It is a classic "intention and action gap" case that behavioural science can tackle".

-Julian House, Research Scientist, BIU

Goal: To increase the number of people who register as organ donors

Partner: Service Ontario & Trillium Gift of Life Network

Target Explore

Barriers were identified, such as the length and complexity of the registration form, failure to ask every customer if they wish to register, asking customers to complete one more transaction after they waited in line and completed other paperwork.

Solution Trial

Developed six types of interventions and started experimenting through an RCT in a span of 47 days during Trial stage.

Scale

2.0 project running between 2017-2018, focusing on encouraging customer service representatives to ask about registration consistently.

Result:

- Positive impact- Registration rates in interventions increased by as much as 143%.

Key success factors:

- Buy-in to empiricism. Service Ontario allowed for experimentation period and understood the importance of the evidence-based scientific approach. After this initial success buy-in only increased, allowing for a more ambitious 2.0 project.

Challenges:

- "Explore stage" is most effective when access to end-users is provided. "Explore stage" is both time consuming and requires immense amount of capacity.
- Being able to identify and prioritize projects that are amenable to a BI approach.

BI as an Auditor

Impact and Innovation Unit (IIU): Increasing the Diversity in Canadian Armed Forces

Goal: To assist the CAF in its goal of increasing the percentage of women in the CAF from 15% to 25% by the year of 2026

Method: Use BI lens at the stages of a) recruitment process, b) recruitment marketing and c) policy areas and guidelines within the CAF by examining both qualitative and quantitative data from numerous primary and secondary sources

- Recruitment process - BI-informed changes were made to the CAF application to ensure the applicants understand the document easily. Furthermore, the Department of National Defense made improvements to the appointment process and recruitment followups.
- Marketing - The IIU conducted a social media marketing trial aimed at understanding what works in engaging Canadian women with a career in the CAF.
- Policies - A number of policies areas, such as deployments and relocation, leave without pay, childcare support, and long-term commitments were identified for consideration.

Result:

- The collaboration has been successful and has resulted in changes to the CAFs marketing and recruitment efforts and an increased appetite for experimentation in these areas

Key success factors:

- Buy in from executives at the CAF and Department of National Defense (DND) was essential in allowing the IIU access to the relevant information and in implementing recommendations.
- The IIU was equipped with strong, well-rounded staff which included quantitative and qualitative researchers.
- The relationship between the IIU, CAF and DND has resulted in continued engagement and testing. DND has also recently established its own BI team - Personnel Research in Action (PRiA).

Challenges:

- Getting some partners comfortable with an experimental mindset was initially challenging.
- Budgets for testing were initially small, but have grown with the comfort level of the partner organizations.

Case Studies

BI as a Designer

Government Agency: Raising Awareness of Consumer Protection Issues

Program: A communications campaign to raise awareness to potential marketplace frictions that may harm consumers

Target: Adult consumers of all ages, highly educated, but with limited attention

Behavioural science and experiments were used at the design stage of the project, in particular for:

1. Designing an information brochure
 - Ensuring that the colour and visual appearance are appealing to the public
 - Balancing picture and text ratio to optimize the comprehension and readability
 - Managing the aesthetics of the cover to maximize the likelihood of brochure being read
2. Website design
 - Using appropriate language to maximize engagement. For instance, making sure that negative connotations of words such as "hazards", "risk", or "unhealthy" do not reduce attention by creating negative emotions
 - Testing the balance between visual and text information to minimize the risk of information overload

Results:

Increased traffic to the website and more engagement. Increase in public debate and discussions on the website and greater public reporting of marketplace frictions.

Key success factors:

- Full support from the Client - Both BI team and the Client had a "fail often, but learn from it" attitude.
- Organizational support: The agency gave significance to the importance of incremental improvements and ongoing testing

Challenges:

- Understanding the importance of data-driven work; as the project success needs to be measurable, the agency was careful in ensuring that call data collected were usable
- Having the right balance of skills. It is important to hire people who can understand the data and present it well using appropriate visualization tools. In addition, empathy with end users is key.

BI as a Chief Strategist

Evree:

Creating a Behaviourally Informed Organization

"Evree looks at behavioural science as a foundation, not just a tool for a designer or problem solver. All staff members are trained to look at business problems and opportunities from a behavioural lens."
- Stephanie Bank, Behavioural Economist, Evree Corp.

The Evree Method is a systematic and scalable approach to product design that merges a traditional product development workflow with the rigor of applied behavioural science. The Evree Method focuses on leveraging behavioural tactics grounded in scientific research and ensures all elements are validated through testing and experimentation.

Product development

Evree approaches the design of the product by identifying a specific problem definition, which is followed by a process of discovery workflow mapping and research journey mapping in order to define the main behavioural barriers and pain points that occur at decision points for the user. These decision points are addressed by drawing on academically validated scientific principles through a nudge ideation. All interventions are prototyped and tested prior to deployment, scaled, and tested again in-field to evaluate performance.

Marketing and communications

A primary insight from behavioral science illustrates that the way in which information is communicated and the messenger of that information is as important as the contents of the message itself. At Evree, carefully crafted, scientifically informed copy and design materialize as nudges. These nudges inform the design of marketing, branding, communications materials and are applied to editorial financial literacy content and messaging within the platform.

Human resources

High-performing employees are sustainable when they are incentivized at a personal level. Evree incentivizes employees with positive reinforcement in the form of company-wide peer-to-peer recognition. These praises are shared on a weekly basis and publicly displayed on a wall of "high-fives" to foster reciprocity within the community. Employees thrive and feel belonging when there is a match between the personal values and beliefs and those that are held by their organization.

Key success factors:

- Data driven (constant experimentation, iteration and optimization)
- Digital (persistent engagement, data capture and systematic results tracking enabled through technology)
- Diversified expertise (multi-disciplinary team anchored on behavioural science)

Challenges:

- Senior management sets the organization's vision, cultural tone and allows access to funds to support these interventions. Support from management is crucial to maintaining these processes.
- The ability to select certain openminded partners with shared objectives and an appreciation for a science-based approach is critical for success. The partner/client needs to understand the Evree Method and should be willing to test/experiment often, recognize that failure is often an antecedent to success, and emphasize innovation throughout the organization.

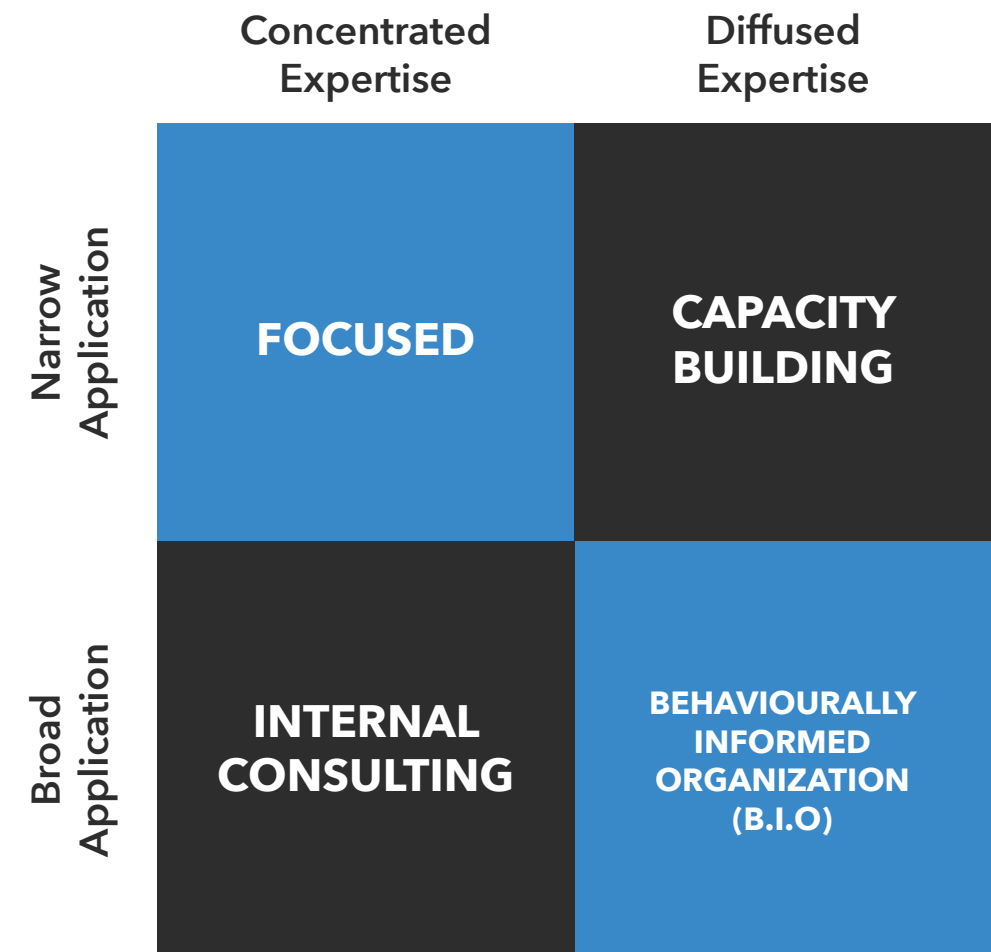
"Absence of such sponsor (top management) support will not be sustainable in the long run"
- Louis Ng, President & COO, Evree Corp.



What is the Locus of my BI Efforts?

In deciding how BI initiatives grow and spread through an organization, there are two decisions one needs to think about:

- 01** The locus of expertise - whether to set up a concentrated team, unit or personnel OR diffuse expertise across the organization.
- 02** The locus of applications - using BI in a narrow application where BI is applied to a specific geographic location, a particular department OR using BI in broad applications where BI is applied across several domains, geographies, and departments.



What is the Locus of my BI Efforts?

Concentrated or Diffused:
What our Experts Said

"When government or any large org. introduces BI, it's good to have 2 things: 1) organic growth in different units - develop own expertise to align business focus, and 2) have some scale and centralized expertise to support all of these emerging practices."

Matthew Mendelsohn, Deputy Minister, Head of Prime Minister's Results and Delivery Unit

Hasti Rahbar, Human-Centred Design Lead, Innovation, Science and Economic Development

"In larger organizations, where people may not have exercised this muscle, centralized teams allow people to have the same interpretations of BI. Through capacity building, that function might become decentralized later on."

"Having diffused expertise does not mean working in silos. At the Canadian Federal level, there are different forums (communities of practice) where we can get together, collaborate, and share the knowledge & lessons learned."

Monica Soliman, Research Advisor, Employment and Social Development Canada & **Hasti Rahbar**, Human-Centred Design Lead, Innovation, Science and Economic Development

Case Studies

FOCUSED

Employment and Social Development Canada - Innovation Lab

Comprised of behavioural scientists, data analysts, designers and policy analysts, the LAB works on projects with internal partners in the department to tackle problems using a combination of human-centred design and BI methods. The LAB's 2017 full-scale design project was the Canada Learning Bond which found ways to increase uptake and better understand perceptions of education and financial decision making among low income families.

CAPACITY BUILDING

PCO - Impact Innovation Unit (IIU)

The IIU houses expertise in four areas: innovative finance, partnerships and capacity building, impact measurement, and behavioural insights. It offers services through a core unit at the Privy Council Office and through the fellowship model, in which scientists are deployed to other Government of Canada departments and agencies to provide behavioural science expertise and run behavioural insights trials. Through its fellowship program, they have, as of August 2018, deployed five behavioural scientists across the Government of Canada.

INTERNAL CONSULTING

World Bank - eMBeD Unit

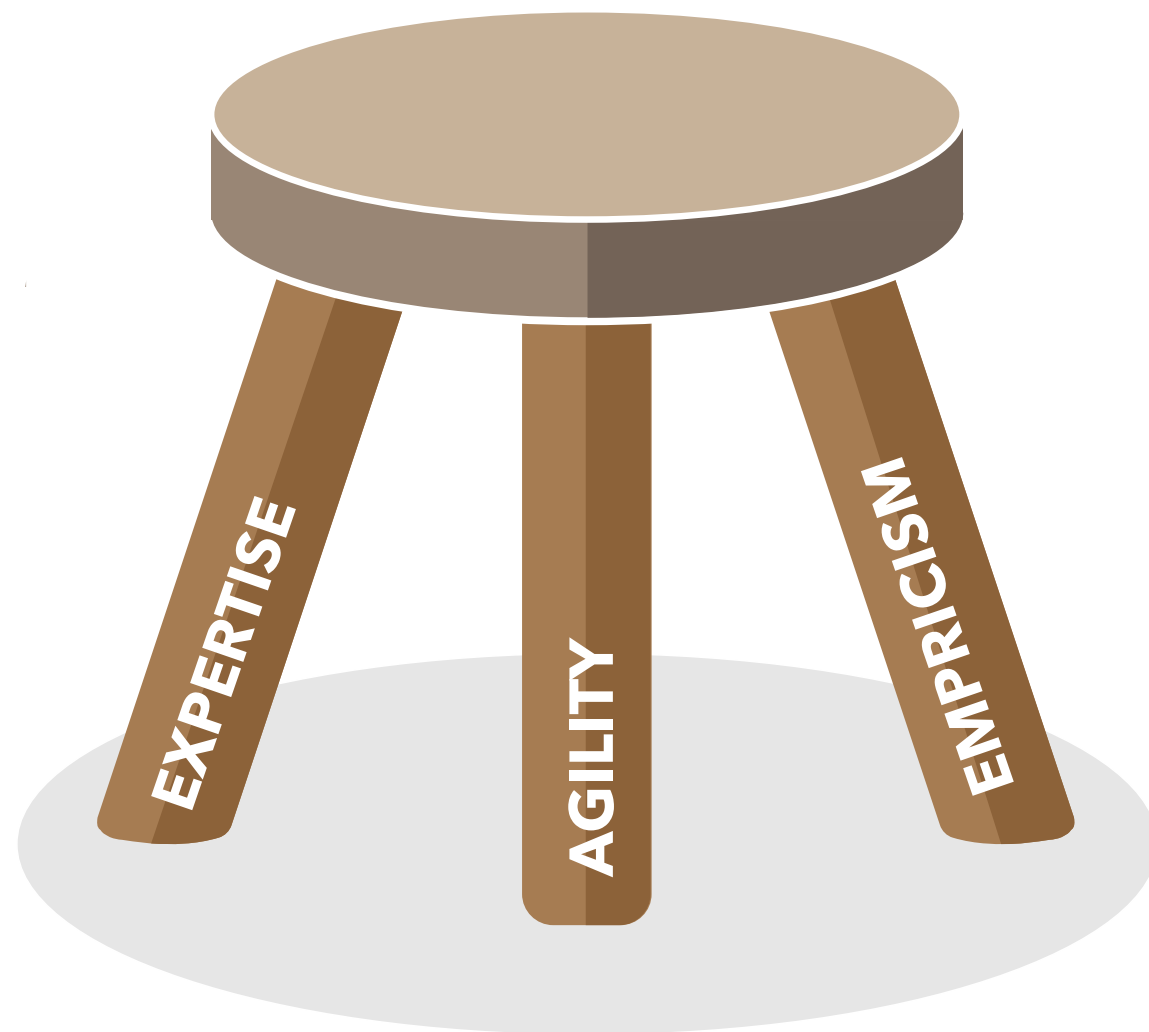
The Mind, Behavior, and Development Unit (eMBeD), the World Bank's behavioral science team in the Poverty and Equity Global Practice, works closely with World Bank project teams, governments, and other partners to diagnose, design, and evaluate behaviourally informed interventions. The eMBeD unit currently has 16 employees working on 49 projects across nine thematic areas in 65 countries.

BEHAVIOURALLY INFORMED ORGANIZATION (B.I.O)

Evree

All members of the Evree team, including management, content designers, and engineers, are trained to understand the basic principles and applications of behavioural science. The objective is for the entire team to resolve problems using a scientific method and to approach daily operating roles with a BE lens. This ensures behavioral science is foundational to the entire organization and all streams of work.

What Resources Do I Need to Develop?



INSIGHTS

An organization's BI effort is represented by a "three legged stool". All three legs need to be functional for the stool to stand.

EXPERTISE

The **skills** required inside the organization to apply BI. These include **behavioural science** (and understanding of human psychology), **behavioural engineering** (choice architecture and the approaches of behaviour change) and data & **empirical science** (analytics, experimental design, and ability to analyze and interpret experiments).

AGILITY

An organizational structure and processes that allow for **quick feedback loops** to be incorporated, and for the organization to be able to change course so that a **test-learn-adapt*** strategy can be put in place. Agile organizations also have an appreciation for the complete canvas of BI applications.

EMPIRICISM

A **mindset** that data (rather than theory or a pre-committed course of action) drive decision making in the organization. This mindset calls for an empathic mindset at the intersection of BI and design thinking**, and a relentless desire to test using experiments through RCT's or other methodologies.

*Laura Haynes, O.S. (2013). Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials. London: Behavioural Insights Team.

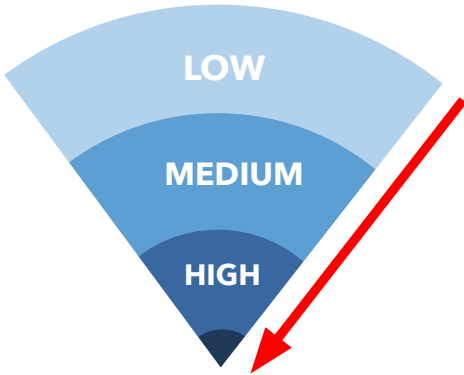
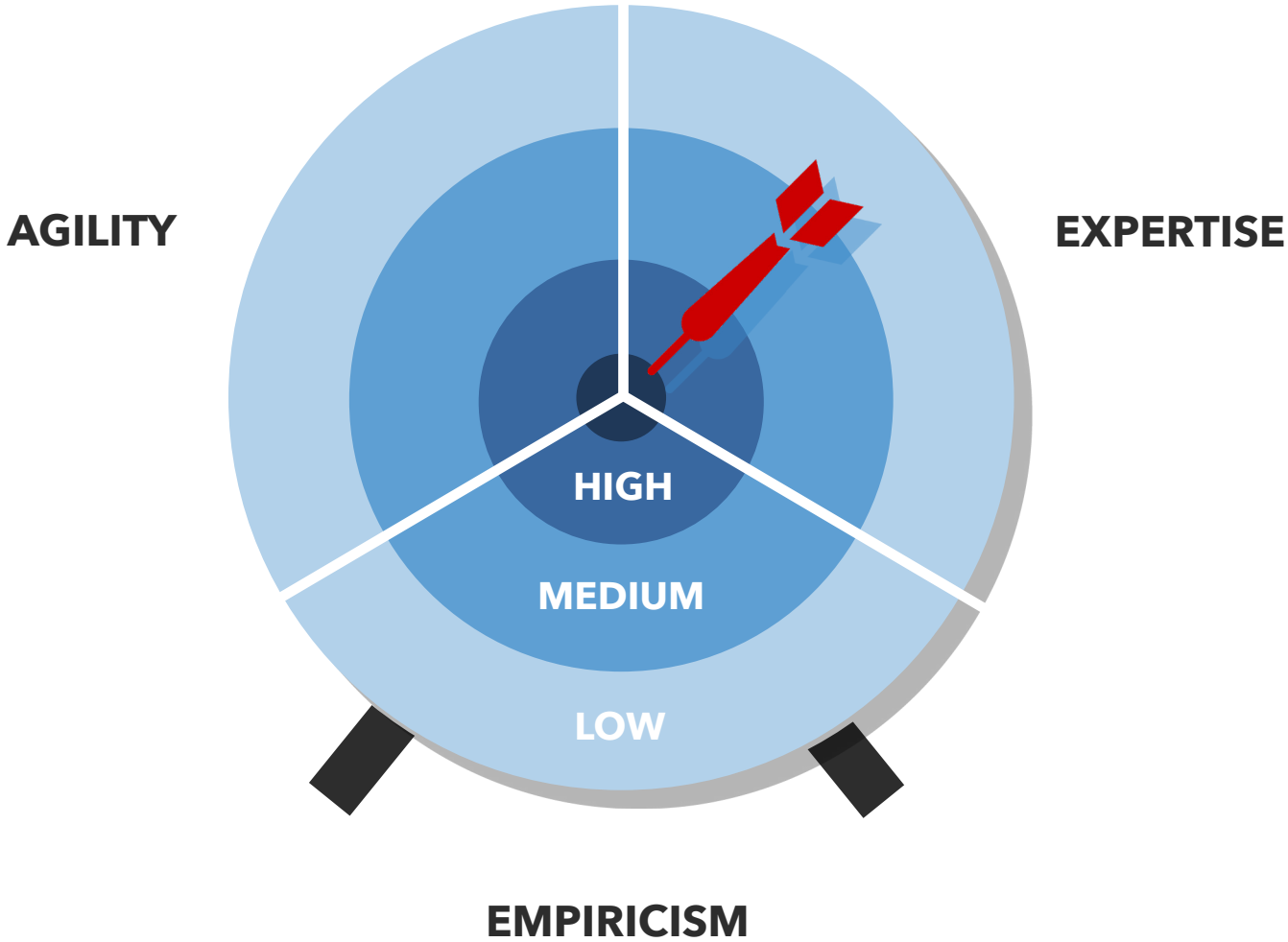
**Hampton, D, M. Leung and D. Soman (2016), "The Empathic Mindset: Blending Behavioural Insights with Design Thinking," Rotman Magazine, Spring, 94-97.

Putting It All Together - A Dartboard Dashboard

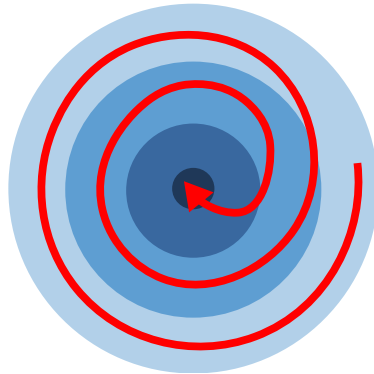
The center of the dartboard represents a **Behaviourally Informed Organization (B.I.O)**, which follows a **BI mindset** in all processes. In order to do so, the organization requires **high levels** of **Expertise, Empiricism** and **Agility**. These resources could be developed *organically* or through a *sectorial focus*.

INSIGHTS

Just as a dart player aims to hit the center of the dartboard, the goal of any organization should eventually be at the center of this dashboard.



Sectorial Focus: Company focuses on a particular resource at a time and develops it from low to medium to high stage.



Organic Development that "spins in" to approach the B.I.O. Company focuses on developing all the necessary resources simultaneously

The chart on the next page illustrates a rubric for assessing an organization's level in each resource.

What Level of Resources Do I Have?

	EXPERTISE	AGILITY	EMPIRICISM
LOW	<ul style="list-style-type: none"> • Employees have a basic understanding of BI • Have access to data for BI team 	<ul style="list-style-type: none"> • Allows BI team to get expertise and needed resources 	<ul style="list-style-type: none"> • Have a baseline for experiments • Commitment to try on a few projects without expecting immediate success
MEDIUM	<ul style="list-style-type: none"> • Have access to segmented data 	<ul style="list-style-type: none"> • Allows BI team to collaborate with the rest of the organization 	<ul style="list-style-type: none"> • Train more employees to think in a BI mindset
HIGH	<ul style="list-style-type: none"> • Ability to use randomized data • Previous experience in large scale randomized controlled trial (RCT) design 	<ul style="list-style-type: none"> • Flexible organizational structure that allows to get quick feedback 	<ul style="list-style-type: none"> • Encourage experimentation at all levels • Invest in labs or dedicated BI space

04

What is the Process of Implementing BI?

What are the steps in implementing BI?

26

What are the lessons learnt?

27

What Are the Steps in Implementing BI?

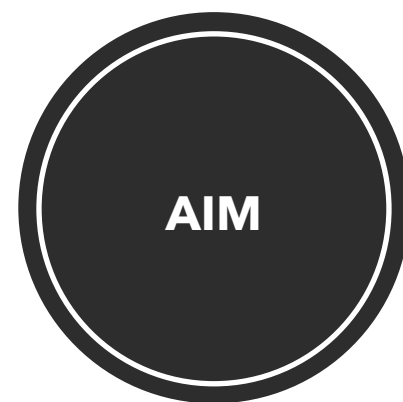
A Sequence of Things to Think About



Does my organization have areas in which behavioural insights are currently used?

Does my organization have a set of goals to achieve or problems to solve through the use of behavioural insights?

What do I expect my timeline for implementation to look like?



Which role should BI play in my organization? (See Page 16)

What is the locus of my BI efforts? (See Page 19)

What resources will my organization need to develop? (See Page 22)



How can I promote an experimental mindset within my organization & Who can I hire or reassign to create my unit?

How can the organization evaluate which problems are best solved using behavioural insights?

How will my behavioural unit be structured? Who will they report to and interact with?



Is my behavioural insights team performing up to expectations?

Are there new roles for my behavioural insights team to play?

How should my behavioural insights team work differently?

Establish an Empirical Mindset

"People ask empirical questions all the time, they just don't respond with a trial."

- Victoria Peace, Ontario Behavioural Insights Unit

"Organizations should not see behavioural Insights as a 'wizard' or 'fairy dust' solution. It must be supported by experiments."

- Doug Steiner & Louis Ng, Evree

Promote Collaboration

"It's important to define how the BI team will be structured, including who the team connects to within the organization and how."

- Jessica Leifer, Ideas42

"Instead of having the BI team go out to convince other teams to work together, consider running workshops on BI and having a call for projects where teams from across the organization can submit proposals for ways to apply BI."

- Elizabeth Hardy, Privy Council Office IIU

Remember the Big Picture

"Have a commitment to resources, with at least two years for a proof of concept, as it takes time to see results across projects."

- Elizabeth Hardy, Privy Council Office IIU

"Prioritize projects that will be implemented. Use insights from behavioural science to develop solutions that have the potential for meaningful impact but are also realistic and actionable."

- Stephanie Bank, Evree

What are the Lessons Learnt?

Taking Action - Tips and Tricks

05

How Do I Reduce the Cost of Experimentation?

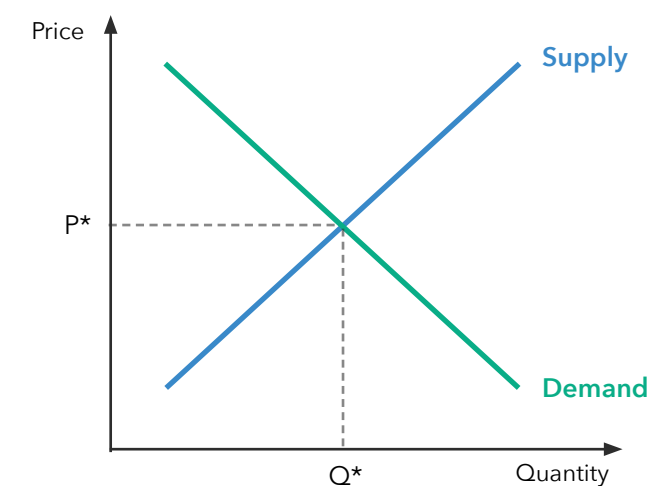
Why reduce the cost of experimentation?	29
What do I need to consider in experimentation?	30
How do I reduce the cost of experimentation?	31
Why is data not the same as evidence?	32

Why Reduce the Cost of Experimentation?

A key factor in applying BI in an organization is the experimental, evidence-based and iterative test-learn-adapt process. One of the central tools used in developing behaviourally informed interventions are randomized controlled trials (RCTs) and experiments. However, running experiments can be costly.

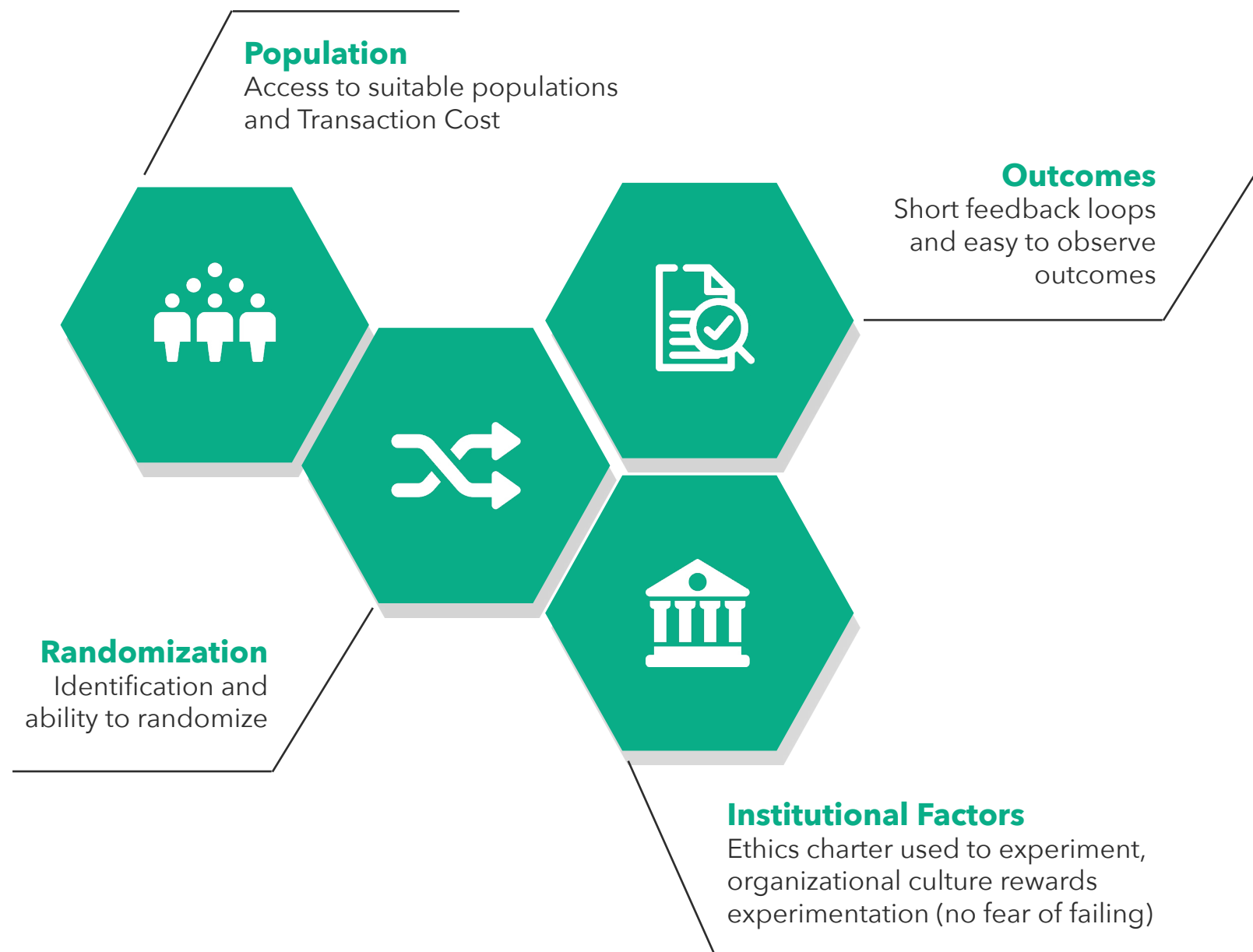
Imagine a manager trying to decide how to improve the take-up rate of a program, either by offering an incentive or simplifying the form. Behavioural science might offer multiple recommendations. For instance, some may argue that economic incentives will help, while others might suggest that simplifying forms and materials will reduce frictions and improve take-up rates.

Theoretical arguments can be made for both sides, resulting in much debate, discussion and perhaps the choice of an approach that may neither be of satisfaction to all, nor perhaps the optimal choice. However, **if the cost of experimentation was zero**, the manager could simply run a number of trials and determine which of the two approaches might work under what conditions! This approach is the essence of a true test-learn-adapt approach to decision making.



The law of demand and supply shows that as the cost of something goes down, its demand goes up. As the **cost of experimentation goes down**, the **demand for experimentation** will go up. The demand for complements - behavioural science more generally, experimental scientists, data and what works databases - will also go up. Simultaneously, the demand for substitutes - theory or intuition based decision making, inflexible programming - will decline. The key to a true behaviourally informed organization (BIO) is to reduce the cost of experimentation.

What Do I Need to Consider in Experimentation?



In order to run **perfect experiments**, organizations need to test interventions in relevant contexts, with the appropriate populations, and with **minimal costs**.

In the perfect experiment, participants need to be **randomly assigned** to different versions of interventions (treatments).

Frictions arise because a) it is often **difficult to access the right populations**, b) difficult and sometimes impossible to **randomly assign participants** to treatments, c) the organization looks for **outcomes that are too broad and aggregated** (e.g., to improve satisfaction, to change attitudes), and d) key individuals within organizations might **fear experimentation** because of the risk of failure, or for being perceived as unethical.



How Do I Reduce the Cost of Experimentation?

Investing in hard and soft infrastructure

- Online experimental platforms that reduce time to collect data
- Participant pools that recruit from the appropriate populations
- Laboratory space and facilities to collect behavioural data
- Researchers with expertise in experimental methods

Appropriate problem selection

- Decomposing large challenges into precise behaviours
- Building horizontally scalable behaviour change problems
- Studying outcomes with short outcome cycles / feedback loops

Building whatworks databases

- A database allows organizations to narrow down possible interventions to test

Ethics in experimentation

- Ensuring that interventions a) are consistent with users values and interest, b) are for legitimate ends, c) do not violate rights, d) are transparent and e) do not take things away without consent*

Reframing failure and Incentivizing Experimentation

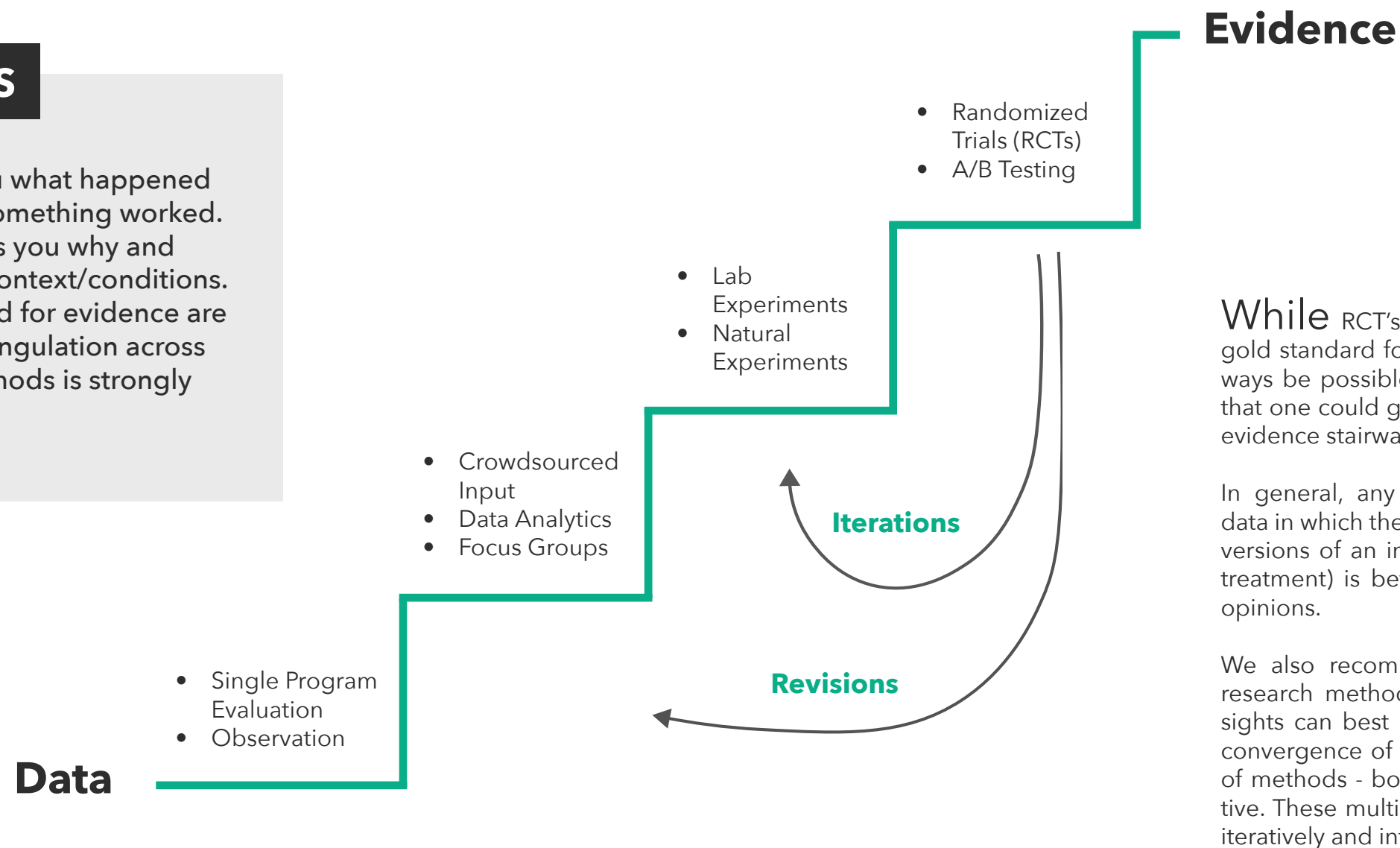
- Realizing and clearly communicating that a null-result is a learning opportunity will minimize the fear of failure. Explicitly rewarding experimentation will further build the test-learn-adapt culture

Why is Data Not the Same as Evidence?

Data ≠ Evidence

INSIGHTS

Data tells you what happened or whether something worked. Evidence tells you why and under what context/conditions. Gold standard for evidence are RCTs, but triangulation across multiple methods is strongly encouraged.



While RCT's are considered to be the gold standard for evidence, it might not always be possible to do an RCT. The closer that one could get to an RCT on the data to evidence stairway, the better.

In general, any mechanism for collecting data in which the end user can compare two versions of an intervention (e.g., control or treatment) is better than simply asking for opinions.

We also recommend triangulation across research methods. In particular, robust insights can best be gained when there is a convergence of results from different types of methods - both qualitative and quantitative. These multiple methods are best used iteratively and interactively.

—
06 **What Lies Ahead?**

Looking Forward

While the field of applied behavioural insights has achieved much over the past 10 years, what will the next few years have in store for us? In particular, how do we see the BI space unfolding? What sort of problems and challenges do we see BI addressing?

Going Beyond Nudging: Using the language of Sections 2 and 3 of this playbook, it is fair to say that the biggest successes for BI have come in the domain of choice architecture in the role of BI as a problem solver. Going forward, we expect that BI will be a handy toolkit for problem-solving, but we also expect to see organizations will look more broadly at the whole canvas of BI applications, and at broader and bigger roles for BI. In particular, we expect to see organizations moving BI up the value chain and embedding it deeply into the design and delivery processes.

Complex Domains and Policy Areas: The infancy years of BI as a field were marked by the need to score quick wins and to find proof-of-concept for BI as a way of engineering behavior change. With the field now gaining broad acceptability and the need to score quick wins declining, we expect the field to tackle bigger and more complex behavioural and policy challenges going forward. In particular, we expect BI to play a bigger role in domains such as financial wellbeing, environment, sustainability, preventive health, and diversity and inclusion.

Blending BI, Design and Machine Learning:

Earlier in the playbook, the case was made for the blending of BI with design thinking. Both these fields are in the business of developing empathy, both use a test-learn-adapt approach, and both have tools to contribute to each other. Going forward, we see machine learning (ML) being added to the mix. With its promise of detecting patterns from large datasets, ML could help detect behavioural patterns before they become systemic and hence prevent problems before they even occur. For example, ML might help a tax administration detect (early) patterns of tax filing errors and develop and deploy targeted interventions to overcome the errors before they scale up!

Debiasing and Rebiasing:

Early BI interventions have attempted to rebias (i.e. correct a behavioural bias by using a different behavioural bias to cancel it out). Going forward, we expect to see a blend of rebiasing with debiasing (e.g., using education or training techniques to solve for the friction that caused the bias in the first place). In the domain of financial wellbeing or sustainability, for example, a combination of techniques ranging from nudging, incentives, developing an identity as a prudent consumer and financial education will likely be more beneficial in the long run than any of those approaches in isolation!



—
07 **Appendix**

Appendix A. References & Additional Resources

References:

1. Easton, S. (2018). Cass Sunstein's Bill of Rights for Nudging, downloaded from <https://www.themandarin.com.au/96009-cass-sunsteins-bill-of-rights-for-nudging/>
2. Hampton, D, M. Leung and D. Soman (2016), "The Empathic Mindset: Blending Behavioural Insights with Design Thinking," Rotman Magazine, Spring, 94-97.
3. Laura Haynes, O.S. (2013). Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials. London: Behavioural Insights Team.
4. OECD. (2018). Behavioural Insights and Public Policy. OECD. Reproduced with permission from Faisal Naru.
5. Sanders, M and J. Heal (2016), "Embracing insights from many sources", The Behavioural Insights Team, retrieved from <https://www.behaviouralinsights.co.uk/uncategorized/embracing-insights-many-sources/>
6. Soman, D and K. Ly (2018), "The Growing Market for Self Control," Rotman Magazine, Fall.
7. Soman, D. (2015). The Last Mile: Creating Social and Economic Value from Behavioral Insights. Toronto: University of Toronto Press.
8. Thaler, R and C. Sunstein (2008), Nudge Improving Decisions about Health, Wealth and Happiness. London: Penguin

Additional Resources:

1. Ontario Securities Commission - [Behavioural Insights: Key Concepts, Applications, and Regulatory Considerations](#)
2. ideas 42 - [Behavioural Design Teams: A Model for Integrating Behavioral Design in City Government](#)
3. The Behavioural Insights Team - [EAST: four simple ways to apply behavioural insights](#)
4. Bridgeable - [Designing for Behaviour Change](#)

Appendix B. Methodology

Background research of this playbook was conducted over the summer of 2018, and comprises of a mixture of secondary research including:

1. Interviews - the BEAR team interviewed partner organizations and experts for the framework development, discussion, feedback, and case studies.
2. Roundtable discussions - for-profit and non-profit organizations attended a roundtable discussion in May, 2018 to develop the framework and research questions.
3. Literature reviews & case studies - the BEAR team identified the best BI practices that have been adopted by the leading organizations. All the cases studies in this playbook are a result from the interviews.
4. Design sessions - brainstorming sessions with experts in top management positions in various organizations helped us identify some essential resources and challenges they might be facing when adopting BI.