

A Changemaker's Guide to

# DESIGNING FOR BEHAVIOUR CHANGE

To unleash social and  
environmental transformation

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*With step-by-step explanations  
and practical methods*

Created by Majka Baur from scaling4good

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*Design: Michael Berger  
Illustrator: Pauline De Langre  
Proofreader: Joe Dodgshun*

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## ACKNOWLEDGEMENTS

I dream of a world in which people fully express their unique potential and live in harmony with nature. Realising this dream will require deep societal transformations. Developing the ability to change how we make decisions and behave is key to letting go of the past and embracing new ways of living as individuals and as a global society.

I would like to express profound gratitude to all of the people who share this dream and who have contributed to making this guide a reality. Especially, I would like to thank Anaïs Sägesser, Regina Vogel, and Jan Sprenger for believing in me and encouraging me to go beyond what I thought possible; Peter Goop from the MAIORES STIFTUNG for his faith in the project; Christian Kaufmann, Samuel Müller, and Irene Schlatter for letting me fly; Marilyn Mehlmann, Alexander Mehlmann, Sonja Graham, Colin Beavan, Diego Hangartner, and BJ Fogg for their keen insights; Katrin Hauser, Daniel Zimmer, and Salmon Billeter for their expertise and courage; Louise Obermayer, Stephen Bentley, Fabienne Debrunner, Raphael Winter, Karen Wendt, and many more for their feedback; and finally, Joe Dodgshun, Michael Berger, and Pauline De Langre of K-Tiv for the beauty of the guide.

- Majka Baur

# DESIGNING FOR BEHAVIOUR CHANGE JOURNEY



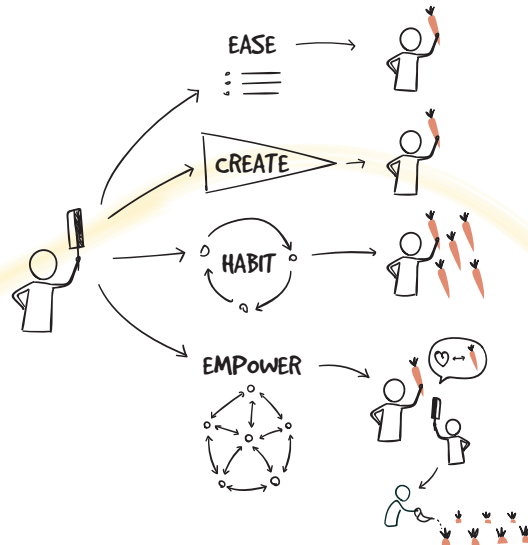
1. CLARIFYING PROJECT FRAME & IMPACT



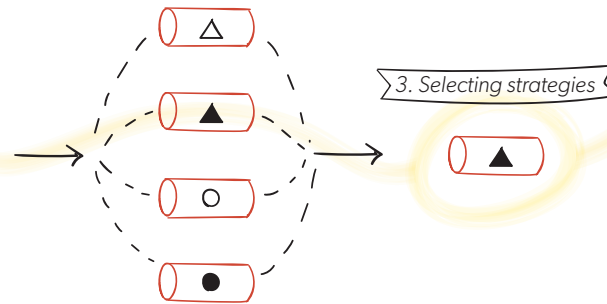
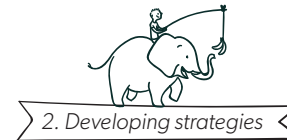
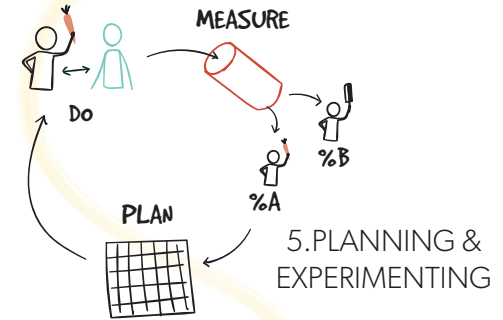
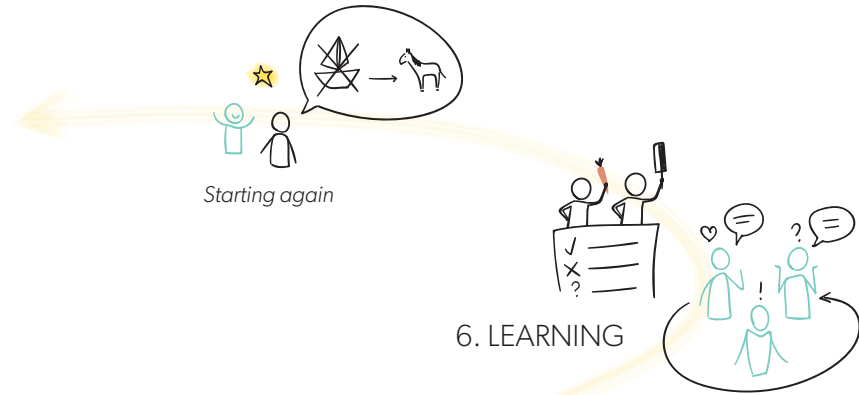
2. SELECTING TARGET AUDIENCE



3. DEFINING TARGET BEHAVIOUR



4. DESIGNING TO SUPPORT BEHAVIOUR CHANGE



- Team member
- Target audience
- Inner Northern Star
- Intervention
- Present Behaviour
- Target Behaviour

## INTRODUCTION

**The Designing for Behaviour Change guide contains essential knowledge from the field of behavioural science. It is intended to help your team support people with changing their behaviours, in order to achieve a desired impact for themselves and for the common good.**

With this guide, your team gains access to models and resources for structured thinking about behaviour change and design.

» HELP YOUR TEAM SUPPORT PEOPLE WITH  
CHANGING THEIR BEHAVIOURS FOR THE  
COMMON GOOD

This guide is written from the perspective of an individual target group member to guide project teams through designing interventions based on voluntary participation.

The focus is not on the macro level of policy or economic instruments, nor on the application of negative incentives.<sup>1</sup>

### WHAT IS DESIGNING FOR BEHAVIOUR CHANGE?

When an organisation interacts with its target audience (end-users, customers, members, stakeholders, etc.) it aims to influence them to do something, be it opening an email and clicking through to a website, talking with friends about social issues, buying a product or starting to bike regularly. When people want to change and the interactions they have with your services or products are successful, they do change their behaviour.

Designing for behaviour change is a way to develop services and products that take into account how people take decisions — consciously and unconsciously — and is based on behavioural science research. It matches target behaviour from the point where people decide they want

to change with the most effective strategies for enabling this.

» DESIGNING FOR BEHAVIOUR CHANGE IS A WAY TO DEVELOP SERVICES AND PRODUCTS THAT TAKE INTO ACCOUNT HOW PEOPLE TAKE DECISIONS

Learning to design for behaviour change is like learning to cook in a restaurant; you need to know the taste of your customers, develop an appealing menu, be able to cook delicious meals for many people, and serve them quickly. Becoming a chef takes years of practice, good taste, and great organisation. The same is true for designing for behaviour change.

This guide is like a “how to” introduction to cooking in a restaurant. It doesn't provide „recipes“ for specific types of behaviour change. Instead, it gives you an overview of the process and access to carefully selected „cookbooks“ on behaviour change.

It's important to note that you cannot force someone to eat: Even a great meal will not be eaten by a person who is not hungry. At best, you can instigate appetite and wait for the right timing. Likewise, you cannot force someone to change their behaviour if the person doesn't want to. You can only try to awaken their interest and will for change.

## WHO IS THE GUIDE FOR?

This guide is for Changemakers: people who take creative action and collaborate to solve a social or environmental problem for the common good. Everyone can be a Changemaker and take action by building or joining movements, startups, social enterprises, NGOs, companies or civil services.

» PEOPLE WHO TAKE CREATIVE ACTION AND COLLABORATE TO SOLVE A SOCIAL OR ENVIRONMENTAL PROBLEM FOR THE COMMON GOOD.

„Changemakers are not content just to give a fish or teach how to fish. They will not rest until they have revolutionised the fishing industry.“  
Bill Drayton<sup>2</sup>

This guide is particularly useful for Changemakers who are developing services, products or interventions aimed at supporting a target audience with modifying their behaviours in a way that is desirable for themselves and for the common good.

It can support Changemakers who are contributing to different Sustainable Development Goals<sup>3</sup>, working in diverse organisations, and using diverse types of solutions to support short or long-term behaviour change.

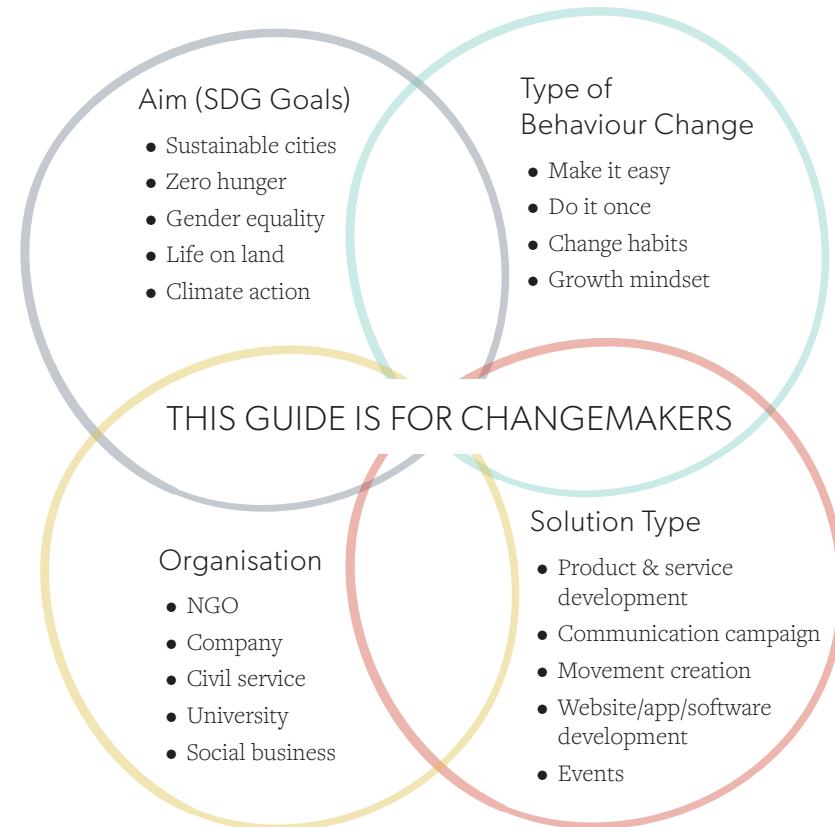


Table 1: Potential use cases of the guide

## WHO DEVELOPED THE GUIDE?

This guide was written by Majka Baur as part of the Designing for Behaviour Change Project of scaling4good.

**Organisation:** scaling4good



scaling4good is a Swiss charitable association sharing lessons and best practices on how to grow, connect, and replicate initiatives contributing to the common good. It develops methodological toolkits and offers educational opportunities.

The Behaviour Change Project was kindly supported by the MAIORES STIFTUNG, Liechtenstein.

**The author:** Majka Baur



Majka Baur is a Swiss social entrepreneur and environmental scientist with extensive experience in developing innovative methods to drive behaviour change for sustainability. She also built up and led the social business WeAct. She developed this handbook with the support of the scaling4good team.

## Behaviour Change experts

During the development of the project, numerous behavioural science experts and practitioners of behaviour change were interviewed. The outcomes of some of these interviews can be found on our blog at [scaling4good.com/blog](https://scaling4good.com/blog). These include insights from:

- Marilyn and Alexander Mehlmann with: “Empowerment is the key to sustainable behaviour change”.
- Dr Sonja Graham with: “How to develop lasting behaviour change interventions in organisations?” and “To change the mainstream tap into their values”.
- Diego Hangartner with: “How does the mind work?” and “Why does awareness cause behaviour change?”
- Colin Beavan with: “3 stages of waking people up to their power for change”

## WHAT DOES THIS GUIDE CONSIST OF?

- Step-by-step explanations on how to design for behaviour change. Follow the numbers you see on the line: \_\_\_\_\_ → #
- Snapshots and links to insightful theories and methodologies. Follow the T on the line to the colorful boxes: \_\_\_\_\_ → T
- Worksheets consisting of templates and canvases helping during the design process. They can be downloaded on <http://scaling4good.com/> Follow the colorful underline and the W on the line: \_\_\_\_\_ → W

# 1. CLARIFYING PROJECT FRAME & IMPACT

**We will start by looking at the context you work in to uncover your driving force and your intended impact. You will learn about methods for working effectively, while making sure that you address a problem-solution gap.**

Designing to support behaviour change is like embarking on a challenging sailing journey. Before starting such a trip, you must make sure you have enough resources and a good team. You sit down with your companions and ask questions like:

- What does the boat look like? Which waters can we navigate through with it? Are there holes in it we have to be aware of?
- What is our destination? Why are we going there? What is our objective?
- How can we navigate towards our destination, while using little energy?
- How can we find our way again when we get lost?

Similarly, it is helpful to check the following points with your team before you start designing an intervention that supports people with changing their behaviours.

1. Clarify the environment
2. Impact for the common good
3. Work effectively
4. Tap your inner star
5. Train your inner resilience

## CLARIFY THE ENVIRONMENT

The first step of designing for behaviour change is closely looking at the context you work in, as well as your resources, limitations, and expectations, in order to have everyone you collaborate with on the same page. You can do this by answering the questions of [Worksheet 1](#).

» HAVE EVERYONE YOU COLLABORATE WITH ON THE SAME PAGE

## IMPACT FOR THE COMMON GOOD

It is worth zooming out and checking if your project is really tackling the challenge that you want to address. To do so, formulate your Theory of Change explicitly. A Theory of Change is a comprehensive description of how and why change is expected to happen in the context of your activities<sup>4</sup>. Have a look at [Impact Logic \(See Theory T1.1\)](#) to learn more about it.

» CHECK IF YOUR PROJECT IS REALLY TACKLING THE CHALLENGE THAT YOU WANT TO ADDRESS

Depending on where you stand with your project, following methods that complement each other can help you with uncovering your theory of change and identifying key assumptions. In [Worksheet 1](#), you will find links to different resources that can help with this.

When starting from scratch: Use Impact-Solution Gaps.

Describe why the problem is a problem, find out why the problem you are tackling has not been solved yet, learn from existing solutions, and fill the problem-solution gap with a radically innovative solution.<sup>5</sup>

When there are many causes: Use Problem-Solution Tree

Find the root causes of the problem you are addressing, how they are connected with each other, which causes your solution is going to address, and how.<sup>6</sup>

When you have a plan: Use Impact Logic

Plan how your activities are going to solve the problem by “backcasting”: based on the impact ([See Theory T1.1](#)) you want to achieve, define how the life of your target audience needs to change and work backwards from this, deciding which interventions are necessary and which activities you will focus on with these interventions.

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## T1.1 — IMPACT LOGIC

The impact logic<sup>7</sup> of a project is a model which depicts the **chain of events** you want to bring about in order to realise your vision. It helps you to:

- Find out if you are actually having an impact in addressing your chosen challenge
- Identify hypotheses that need to be tested
- Define indicators to measure and evaluate your impact
- Have a base for communicating your impact to internal and external stakeholders
- **Target audience:** the people you want to primarily reach through your activities
- **Activities:** the things you do to create your services and products
- **Output:** the services and products you provide to your target audience and the people you reach
- **Outcome:** results at the target group level
- **Impact:** results at a societal level

Depending on the context, the terms Theory of Change or Impact logic are used to describe very similar concepts. Generally, a Theory of Change is used

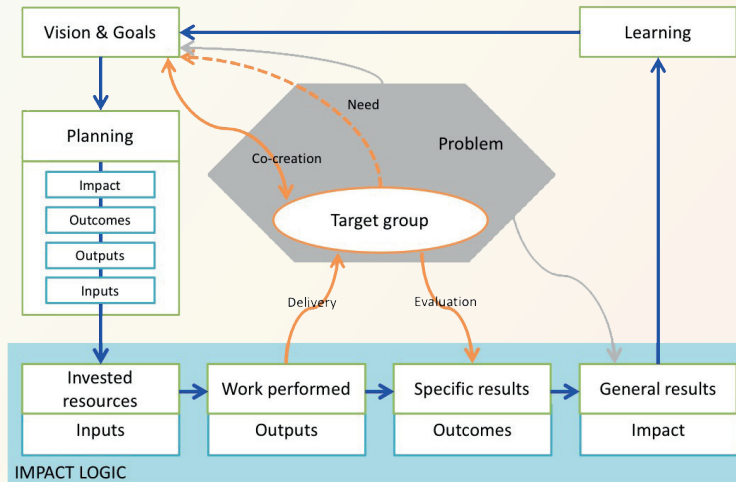


Fig. 1: Impact Logic

## 3 WORK EFFECTIVELY

To design and implement effective solutions you need, as Steve Blank said, to „get out of the building“.<sup>9</sup> Meet the people you want to support, challenge your own assumptions, and learn continuously. The Theory-U framework (See Theory T1.2), as well as the lean and agile development approaches (See Theory T1.3) from the startup scene are valuable methods to guide your work process.

## TAP INTO YOUR PERSONAL NORTH STAR

A sailor follows the northern star to navigate the ocean at night. It gives him orientation and confidence. Your own personal reason for doing a project is like a northern star. It provides the guidance and motivation needed to keep on developing the project in changing and often challenging circumstances.

When personal and team motivations are clear and explicit, they become a source of energy that help to motivate oneself and each other, realign competing interests, and communicate with external stakeholders.

Answer the following questions by yourself — and together with your team — by using the deep listening method described in [Worksheet 1](#). These include:

- Why am I involved with this project?
- Why are we, as a team, doing this project?
- Why is the organisation doing this project?

## T1.2 — THEORY U

Theory U is a **framework and learning method for creating profound change**. It proposes that the quality of the results we create are a function of the quality of the awareness and consciousness the participants of the system operate with.

The events and activities of the collective crisis we live in are only the “tip of the iceberg”. To address root causes, Theory U proposes a journey allowing

individuals, groups, and organisations to gain a deeper level of understanding, let go the past, and let the future emerge. Theory U proposes a manner of operating based on wholeness — a holistic approach. By collaboratively following the five steps depicted in Image 3, Changemakers learn leadership skills required for radical social innovation.<sup>10</sup>

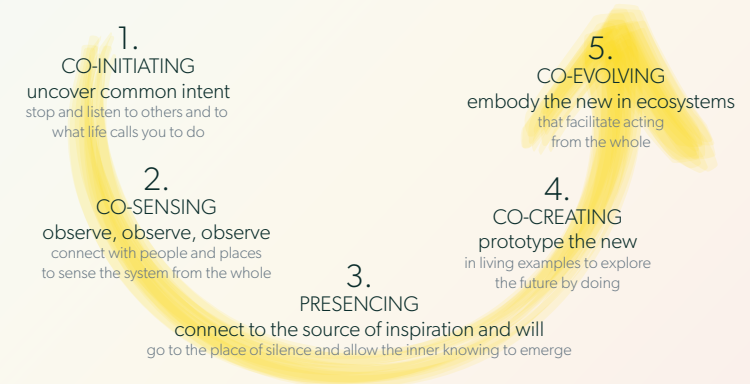


Fig. 2: Theory U's process of leading from the future



## 5 TRAIN YOUR INNER RESILIENCE

Designing to support people with changing their behaviour will bring many challenges: Most of the time people don't respond as we expect, unforeseen factors arise, and situations change. Finding strategies that work requires the ability to keep adapting over the course of a project and persevering. The chances are high that you will come close to your personal limits and sometimes overstep them.

Developing inner resilience is about learning how to deal with the unexpected and seemingly negative external influences you will encounter — in a constructive way. Resilience can also be described as the ability to “bounce back”, instead of “breaking” when facing a challenging situation.

### TI.3 — LEAN STARTUP DEVELOPMENT

In the Lean Startup system, all ideas related to a project are treated as assumptions or hypotheses that must be validated by rapid experimentation in the field. The feedback gained from end-users generate validated learning. The service/product development is based on an iterative process that starts with a Minimal Viable Product (MVP), a product that provides

only the essential features required to deliver value to the end-user. The “**Build, Measure, Learn**” loop is central to the lean approach. Eric Ries coined the term “Lean Startup” in 2008 and describes the approach in his book, “The Lean Startup”.<sup>11</sup>

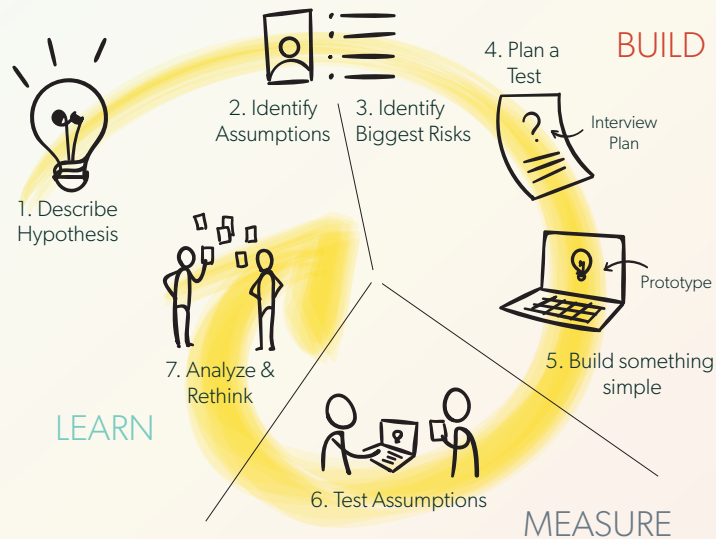


Fig. 3: Lean development phases in a nutshell

Inner resilience can be strengthened through practices, which help us to recover and energise on all levels of our being. Examples of this are in Table 1.

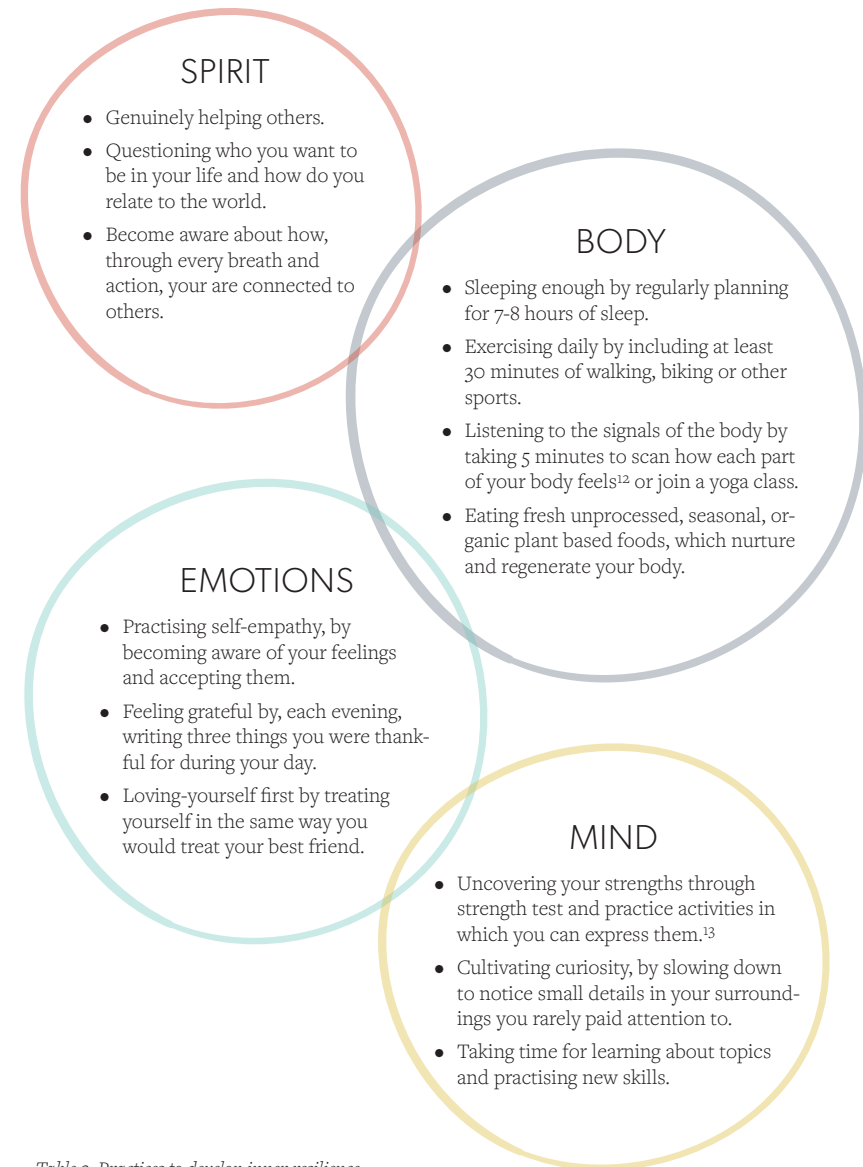


Table 2: Practices to develop inner resilience

## T1.4 — AGILE DEVELOPMENT & SCRUM

Agile development<sup>44</sup> is an approach mainly used in software development. **Self-organised cross-functional teams** collaboratively define project requirements and **develop solutions during an iterative process of continuous improvement**. Agile development is used for projects that are too complex to be planned from the beginning to the end. It acknowledges that in many circumstances there is more unknown information than known information, and thus, incremental deliveries help in reducing risk.

SCRUM<sup>45</sup> is a work framework that originated in agile development. It breaks down work into actions that can be executed within a set amount of time during a development iteration (sprint) by a team of 3-9 developers. During structured meetings, for example, a daily 15-minute update, teams collaborate and adapt the day's plan. SCRUM provides a **structured way to collaborate and work effectively** while including all phases of learning (*see Kolb's learning stages T6.1*).

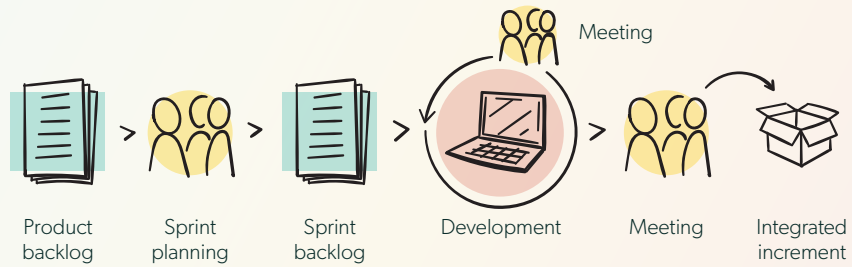


Fig. 4: Scrum process

## 2. SELECTING TARGET AUDIENCE

**Let's look at who you want to reach and consider how to put yourself in their shoes. You will learn about methods to discover and truly understand the environment, passions, and challenges of your target audience.**

Imagine dining at an excellent restaurant. You are eating delicious food served by a friendly waiter while enjoying a nice atmosphere with pleasant background music. You can be sure that the experience you just imagined was unique to you. Did you think of a Mexican, Indian, or Italian restaurant? What kind of background music did you hear in your imagination?

How can the restaurant's chef cook delicious meals for her customers? She needs to put aside her personal preferences for a while to understand what the people that come in are looking for, who they are, why they chose her restaurant, how much time they have, how much are they willing to spend, and what they care for. Finding answers to these questions helps the team managing the restaurant, the chef, and the service team with designing an excellent experience.

» LEARNING ABOUT THE PEOPLE YOU WANT TO REACH IS ESSENTIAL.

Similarly, as a designer for behaviour change, learning about the people you want to reach is essential. Select a primary group of people you want to target, meet these people in their environment, put yourself in their shoes, and define your service in order to create value for them.

### EXPLORE

Design Thinking's motto of "get out of the building" is about spending

time with the people that experience the problem you want to address and whom you potentially want to reach.

» GET OUT OF THE BUILDING

Observe them in their environment, engage in open conversations, and ask questions to find out their challenges and their wishes. Use Service Design Thinking (See Theory T2.1) methods like observation, interviews, "a day in the life of" exercises, customer experiences, focus groups, etc.

### SELECT YOUR TARGET GROUP

Based on what you learned from the exploration phase, start grouping people based on criteria which are relevant to you. Who has what prob-

#### T2.1 — SERVICE DESIGN THINKING

Design thinking is a methodology for problem-solving which applies solution-based creative methods. "It is a human-centred approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." Tim Brown, CEO of IDEO.<sup>16</sup>

While moving through the five phases of the design thinking process, you apply divergent thinking in order to generate many ideas, followed by convergent

thinking in order narrow down options and find a solution.<sup>17</sup>

Service Design Thinking applies methodologies similar to those in Design Thinking. It focuses on looking at the perspective of a person during a sequence of interactions with the provider of a service. A good overview of the service design methods can be found in "This is service design thinking" by Stickdom and Schneider.<sup>18</sup>

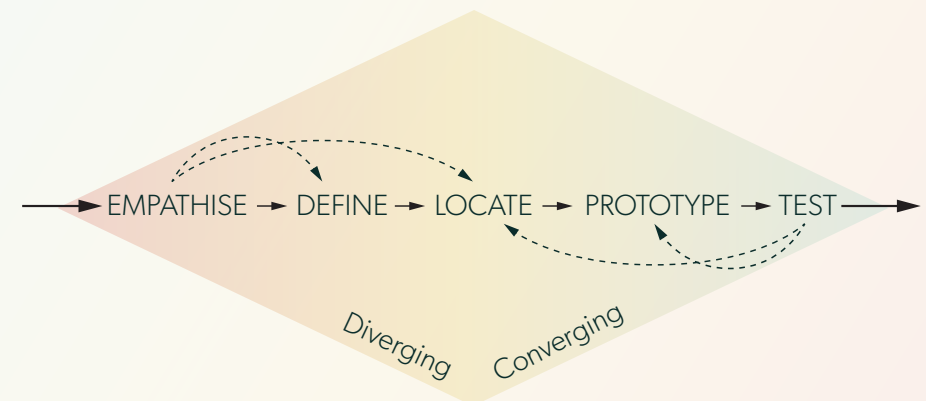


Fig. 5: Design thinking process

lem? Which people can you reach out to? Which people can you better relate to? Define criteria related to your target group and the feasibility of your project. As you test and iterate, this target group may change again. You can get some inspiration for your criteria from [Worksheet 2](#), to help define who is and who is not part of your target group.

### 3 EMPATHISE

Now that you have selected a target group, put yourself in their shoes. Are there different groups within your target audience? Look more closely at their environment: what does a normal day look like; what do they see, hear, do, feel, and think? Define different personas and create an “Empathy Map” (like the one from the [Worksheet 2](#)) with your team.<sup>19</sup> What are the underlying values, drivers, and motivations of your target group? Learn about different levels of consciousness ([See Theory T2.2](#)) and adapt your communication to your target group.

### 4 IDENTIFY YOUR VALUE PROPOSITION

When you can imagine the life, wishes, and challenges of your target group, you have already identified many key factors that will help you find how to provide value to your target audience. The Value Proposition Canvas ([See Theory T2.3](#)) is a tool that will help you structure your ideas and find how the services and products you develop can create value for your target audience. Additionally, the Lean Startup Development ([See Theory T1.3](#)) will help you to match the problem you want to solve (see Project Frame G1) with your solution.

## T2.2 — LEVELS OF CONSCIOUSNESS

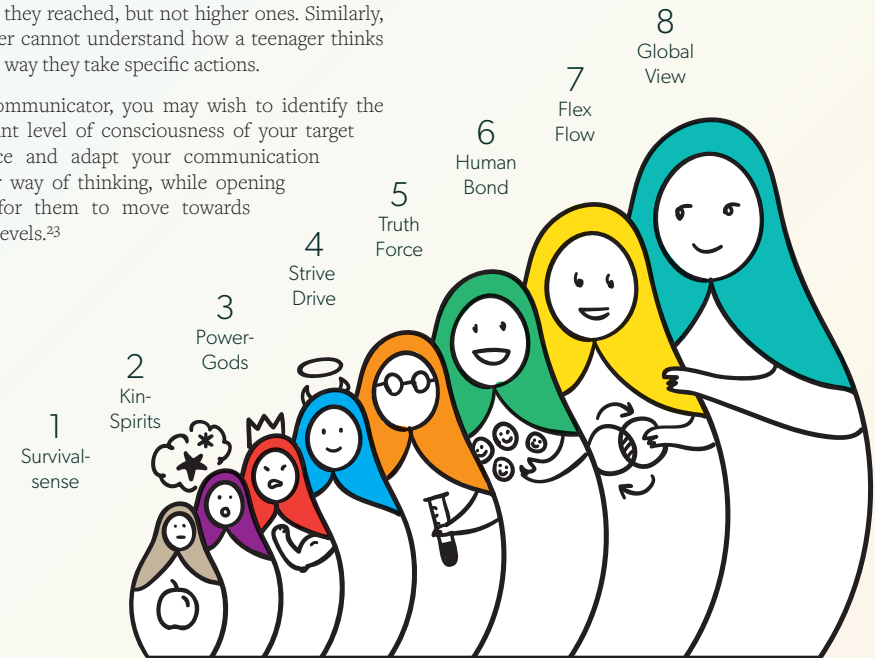
In his book “[Reinventing Organisations](#)”, [Frédéric Laloux](#) summarises many societal development theories<sup>20</sup> and shows how human and organisational consciousness evolved in stages during history. **Consciousness is defined as the way a person — or indeed, a group of people or an organisation — is aware of and responsive to their surroundings.** Laloux, building on the Spiral Dynamics theory of consciousness developed by Beck and Cowan<sup>21</sup>, illustrated seven ways of thinking, each nested in the previous one.

Most of the time, people operate from a dominant level determined by their maturity “There is no ‘better’ level, just as an adolescent is not better than a toddler. However, the fact remains that an adolescent can do more than a toddler, because of the comparatively higher levels of maturity in an adolescent’s thought process. The question is whether the level of development is a good fit for the task at hand.” (Nick Petric, Center for Creative Leadership)<sup>22</sup>

Depending on the environment one is in, people can operate at lower levels than their upper stage. People

can understand consciousness stages up to the highest one they reached, but not higher ones. Similarly, a toddler cannot understand how a teenager thinks and the way they take specific actions.

As a communicator, you may wish to identify the dominant level of consciousness of your target audience and adapt your communication to their way of thinking, while opening doors for them to move towards higher levels.<sup>23</sup>



Nr.	Name	Structure	Motives	Characteristics	% of pop.	% of power
8	GlobalView	global	compassion, harmony	holistic, global	0.1	1
7	FlexFlow	interactive	adaptability, integration	systemic, conceptual, ecological, flexible	1	5
6	HumanBond	egalitarian	approval, equality, community	relativistic, personalistic, sensitive, pluralistic	10	15
5	TruthForce	delegative	autonomy, achievement	materialistic, strategic, ambitious, individualistic	30	50
4	StriveDrive	pyramidal	order, right & wrong	absolutistic, obedient, purposeful, authoritarian	40	30
3	PowerGods	empires	power, dominance	egocentric, explorative, impulsive, rebellious	20	5
2	KinSpirits	tribes	magic, safety	animistic, tribalistic, magical, mystical	10	1
1	SurvivalSense	loose bands	survival	archaic, instinctive, basic, automatic	0.1	0

Fig. 6. and Table 3: Spiral Dynamics <sup>24</sup>

## T2.3 — LEAN CANVAS, BUSINESS MODEL & VALUE PROPOSITION CANVAS

The Lean Canvas is an “actionable-business plan”, providing an overview of the problem, solution, competitive advantage, and the key metrics of an organisation or a project. The Lean Canvas<sup>25</sup> was developed by Ash Maurya who modified the structure of the Business Model Canvas created by Alexander Osterwalder and Yves Pigneur.<sup>26</sup>

The Lean Canvas is especially helpful when starting a project as it includes the problem one wants to address. The Business Model Canvas can especially provide value when used for communicating how a business works to external parties (coaches, funders, etc.). You find a tutorial on how to use the canvas on Leanstack.<sup>27</sup>

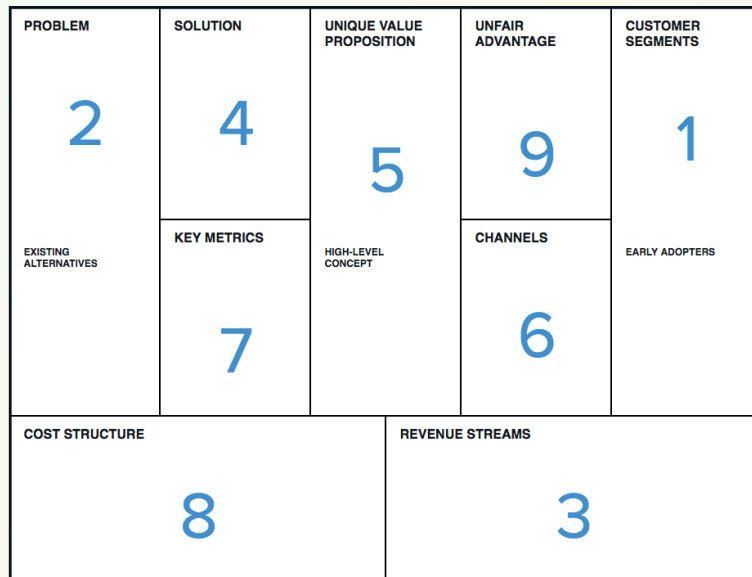


Fig. 7: Lean Canvas

Before developing a Lean Canvas, it is recommended to uncover the environment, desires, and needs of the target group (see G2.3 Empathise). The Empathy Map (see Worksheet 2) is a helpful tool for this process.

Even if the objective of your project — or your personal motivation — are related to creating an impact for the common good, providing value to the target

audience is the core of a working business model. The value proposition canvas focuses on the customer and value segments of the business model canvas by providing more details on **how to create products and services that customers want**. The canvas and its utilisation are described in detail in the book Value Proposition Design by Osterwalder & co.<sup>28</sup>

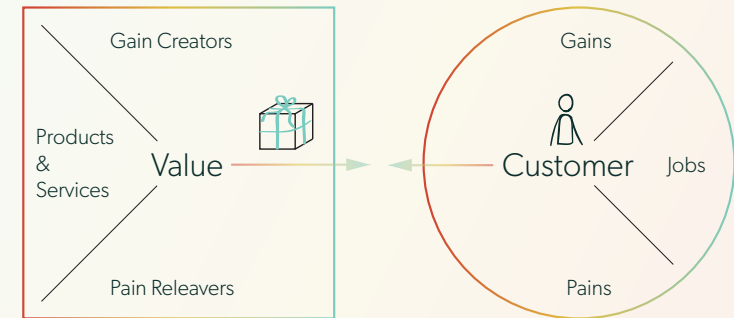


Fig. 8: Value Proposition Canvas

# 3. DEFINING TARGET BEHAVIOUR

Now, we will zoom in to identify and select the user action and behaviour change you want to enable. You will learn how to visualise the interaction process with your end-users and to crystallise your thoughts in terms of users' actions.

To design for behaviour change, the behaviours you want to support need to be clearly formulated. In order to get there, we first need to gain an overview of all the interactions between you and your target audience, select the interaction which is currently the most relevant for you, specify every step of it, and formulate the first behaviour change you want to design for. Identifying who already executes this behaviour — and why — will allow you to gain key information for the next steps.

1. Engagement Lifecycle
2. Interaction Touch Points
3. Formulate Target Behaviour
4. Explore Bright Spots

## ENGAGEMENT LIFECYCLE

During interactions with your target audience you develop a relationship. The degree of closeness and involvement increases step by step, but at any moment your target audience can also stop the interaction. At each stage, you aim at supporting your target audience to undertake different actions that require different levels of commitment. You can map this out by using the Customer Lifecycle (See Theory T3.1) marketing approach as well as the Customer Funnel used in Inbound Marketing (See Theory T3.2).

Map the ideal interaction you aim to have with your target audience

over time. If possible, already involve your target audience at this stage through a participatory process, for instance during a world café or a co-creation workshop.

» MAP THE IDEAL INTERACTION YOU AIM TO HAVE WITH YOUR TARGET AUDIENCE OVER TIME

Differentiate between actions that are taken only one time by end-users, and others that are repeated regularly. You may need to create different ideal interactions various groups. Based on this overview, select the interaction that is most relevant for your project at the moment and on which you want to focus.

## INTERACTION TOUCH POINTS

Describe the focus interaction you selected in more detail by creating a flowchart showing the user journey, the actions you wish the user to take, the interactions and touch points with your service/product, and how you expect the user to feel during these moments.

» DESCRIBE THE FOCUS INTERACTION

Also ask: Is the interaction only happening one time or is this type of in-

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### T3.1 — CUSTOMER LIFECYCLE

In marketing, the Customer Lifecycle Approach is used in order to engage with potential customers with the right message, at the right time, and with the right medium. The objective is to increase the level of engagement of customers and to keep it high.

One can also think of the history a person from your target group has with you or your project. The level of engagement naturally decreases over time when

there have been no recent interactions with you. Some people keep coming back to you and repeatedly use your services/products, and others are so amazed by them that they advocate for you and bring you new customers. However, at any time you can also lose customers because of negative experiences. You may need a lifetime to build trust, but can lose it in a blast.

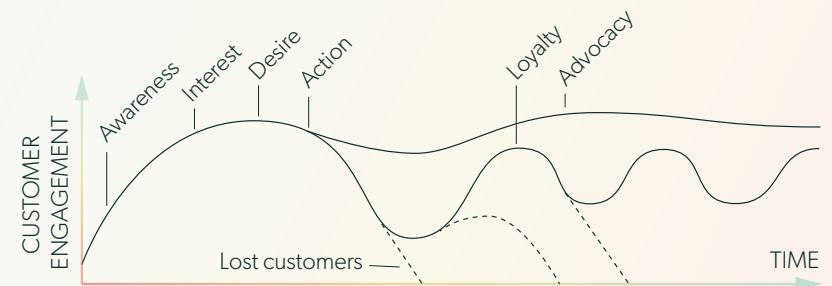


Fig. 9: Customer and User lifecycle stages

teraction something you would like the user to repeat? If yes, how often?

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You can use *Worksheet 3* as a template. This template is an adapted version of the Customer Journey and the Service Blueprint methods often used in Service Design Thinking (See Theory T2.1).

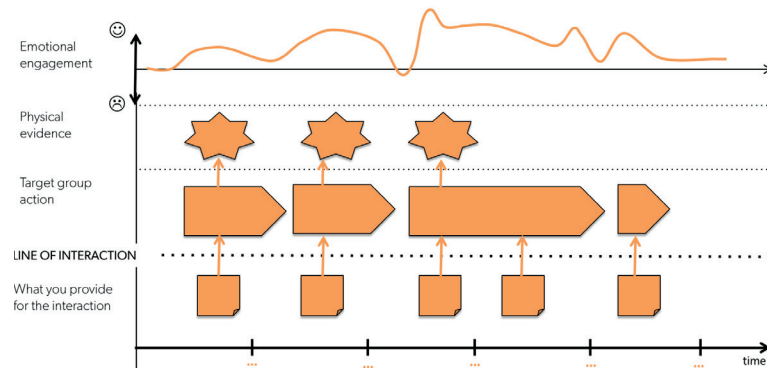


Fig. 10: Example of interaction process with target audience

Which specific actions does the target group take? If your target action is the user downloading a factsheet from your website, what needs to happen? The user needs to learn about your organisation, to navigate to your website, find the page with the sheet, be interested in the content, feel that the site is reliable, find where to click in order to download the factsheet, and perhaps be willing to leave behind their email address.

### 3 FORMULATE TARGET BEHAVIOUR

Now that you have clarified which actions you would like the target audience to take, specify them. Write down the concrete actions that you can observe and measure, and combine these with assumptions about how you think the people will feel and think when taking these actions.

» COMBINE THE ACTIONS WITH ASSUMPTIONS ABOUT HOW YOU THINK THE PEOPLE WILL FEEL AND THINK WHEN TAKING THESE ACTIONS

Use the structure below, which was inspired by Prof. BJ Fogg's Tiny Steps method.<sup>29</sup> You will find a template for the formulation of target action in *Worksheet 3*.

#### Example:

When people on our mailing list receive our next newsletter, they will see that we are organising a new event, they will feel curious about it,

think about whether they have time to attend, and will click on the link taking them to our website instead of reading the next email. After having clicked on the link, they will see the website and be fascinated by the picture of the event.

When (at which moment? what time? after which action?) \_\_\_\_\_,  
 (who, target audience) \_\_\_\_\_  
 will see/hear (cue, attracting their attention) \_\_\_\_\_  
 feel (positive emotion) \_\_\_\_\_  
 think (benefits/barriers/ability to taking the action) \_\_\_\_\_  
 and do (specific new behaviour) \_\_\_\_\_  
 instead of doing (present behaviour) \_\_\_\_\_.  
 After having taken action, the target audience will feel \_\_\_\_\_.

### T3.2 – INBOUND MARKETING

In marketing, the Customer Lifecycle Approach is used in order to engage with potential customers with the right message, at the right time, and with the right medium. The objective is to increase the level of engagement of customers and to keep it high.

One can also think of the history a person from your target group has with you or your project. The level of engagement naturally decreases over time when

there have been no recent interactions with you. Some people keep coming back to you and repeatedly use your services/products, and others are so amazed by them that they advocate for you and bring you new customers. However, at any time you can also lose customers because of negative experiences. You may need a lifetime to build trust, but can lose it in a blast.

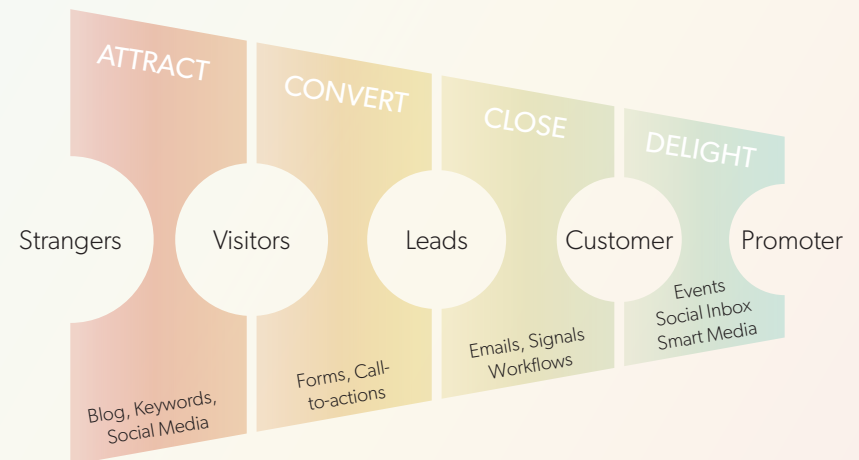


Fig. 11: Inbound marketing customer funnel<sup>30</sup>

W

## 4 IDENTIFY THE BRIGHT SPOTS

Is someone in your target audience already displaying the behaviour change you want to enable? Is there someone from another audience already doing it? Find out where the target behaviour you want to promote already happens. Go out and meet those people. Find out why do they take this action already.

» FIND OUT WHY DO THEY TAKE THIS ACTION ALREADY

What makes it possible? What motivated them? Next, reflect on what could be applied in a similar way for your target audience.

# 4. DESIGNING TO SUPPORT BEHAVIOUR CHANGE

**We will introduce how the mind functions and how behaviour change works. You will learn how to identify prerequisites needed for action, behaviour change types, and the most promising design strategies.**

Based on the target behaviour you selected previously, you will first identify the type of behaviour change you want to promote and then use the behaviour change *Worksheets 4.1-4.3* to come up with strategies to support this change. Based on your project framing, you will then select the strategy you want to apply during your first lean development iteration.

Before you start to develop strategies to support behaviour change, it is important to remind yourself about the personal motivation you formulated in the *Project Frame* (Guide 1.4). As proposed by Marilyn Mehlmann in the book “ESD Dialogues”<sup>31</sup>, to support behaviour change you can only “invite people”, not force them to act based on your personal motivation.

» TO SUPPORT BEHAVIOUR CHANGE YOU CAN ONLY “INVITE PEOPLE”

For instance, imagine you invite all your neighbours to join a new community garden project you started, but only one person showed up. If you feel angry or hurt because only one person came, you have not yet formulated a true invitation. This principle is related to Theory’s-U approach which says that the “the inner state of the observer determines the result of the observation” (**See Theory T1.2**).

It will be helpful to read the theory of chapter 4 on how the mind and behaviour change work, before exploring four strategies to design for behaviour change.



# THEORY

## CHAPTER 4

In this theory chapter, we will explore three fundamental questions:

- How does our mind work?
- How do we decide what to do?
- When do we change?

### T4.1 — HOW DO OUR MINDS WORK

One intriguing way of viewing how our mind works is described by Nobel Prize winner Daniel Kahneman in his life's work "Thinking fast, thinking slow"<sup>32</sup>. He suggests that our mind continuously tries to minimise its use of energy, and, in order to cope with the world, it developed slow and a fast "systems of thinking":

The **fast thinking** system is continuously active, judges effortlessly in the blink of an eye, and operates on an unconscious level in thousands of daily situations.

The **slow thinking** system becomes active when the fast thinking system faces an unexpected, complex, surprising or dangerous situation. In these moments, our deliberative, conscious way of thinking turns on to "think it through". However, the slow thinking process uses a lot of energy and has a very limited capacity to pay attention. When the slow thinking system is overwhelmed or overloaded, it relies on fast thinking.

In general, the two systems work together well and allow us to make good decisions in an energy-efficient way. However, because of their shortcomings and the generally complicated nature of behavioural systems, this relationship also features several quirky mechanisms (see T 4.1 - Box - The Mind's Obstacles to Good Decisions) that may lead us to take decisions that are not in our own best interests.

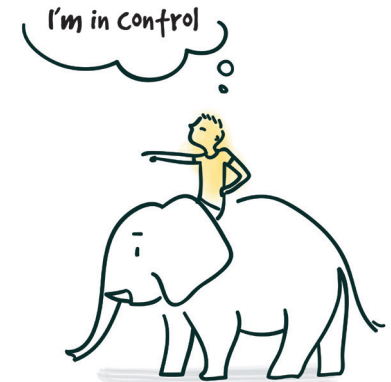
#### The Elephant & Rider Metaphor

The Elephant-Rider metaphor is attributed to the historic figure of Buddha, and, was used in the book "Switch: How to Change Things When Change Is Hard"<sup>33</sup>, by Chip and Dan Heath, to explain the intricate relationships between our two ways of thinking and how to design an attractive path that supports behaviour change.

Here, the **fast thinking system is similar to an elephant** and the slow thinking system is similar to a rider.



*The fast thinking system is like an elephant driven by emotions.*



*The slow thinking system is like a rider on an elephant believing to be in control.*

The elephant is strong and, once in motion, tireless. It has a strong hedonistic and fear-driven character: its actions are driven by emotions. It seeks pleasure in the present, rather than in the future, is terrified of losing something when facing unknown situations, and is scared of getting lost when leaving its herd. It is constantly alert and aware of things happening in the surrounding environment, which makes it focus on general form rather than on details and content. It is guided by intuition and finds it hard to deal with uncertainty, risks or statistics.

The slow thinking system is similar to a rider. Compared to the elephant, it is tiny and quickly tired. It has a resourceful, inventive spirit, likes to deal with complex and abstract questions, and reflects on past and future situations to come up with a plan. The rider believes themselves to be in control, but is actually resting on the back of the elephant without noticing what is happening most of the time.

### THE MIND'S OBSTACLES TO GOOD DECISIONS

Behavioural scientists have discovered — and keep on discovering — many situations in which we make less-than-optimal decisions. Here are some examples which are highly relevant when designing to support behaviour change.<sup>34</sup>

- **Ambiguity effect:** We have an aversion to losing things and are uncomfortable with judging probability, which makes us avoid otherwise preferred options when uncertainty is added.
- **Anchoring:** We automatically use an initial reference point as the basis for estimates, even if the reference number has nothing to do with the estimate.
- **Attention bias:** We pay attention to different cues based on our internal state — we notice things around us when we are thinking of them.
- **Availability cascade:** Ideas can become increasingly widespread and accepted because of their repetition.
- **Availability heuristic:** We estimate the likelihood of events based on how easy they are to remember.
- **Substitution:** When facing a complex question,



The actions we take are like the path walked by the elephant and rider.

## T4.2 — HOW DO WE DECIDE WHAT TO DO?

### Mostly We Are On Autopilot

If we use Buddha's metaphor of the Elephant and Rider to represent our fast and slow thinking systems, the **path** they take is built by the successive **decisions we make**.

Generally speaking, we apply the decision-making strategy that consumes the least energy. Most of the time, the energy-efficient fast-thinking system decides what we do.

The tireless elephant, representing the **fast thinking system**, likes to take the **safest path**. It will tend to:

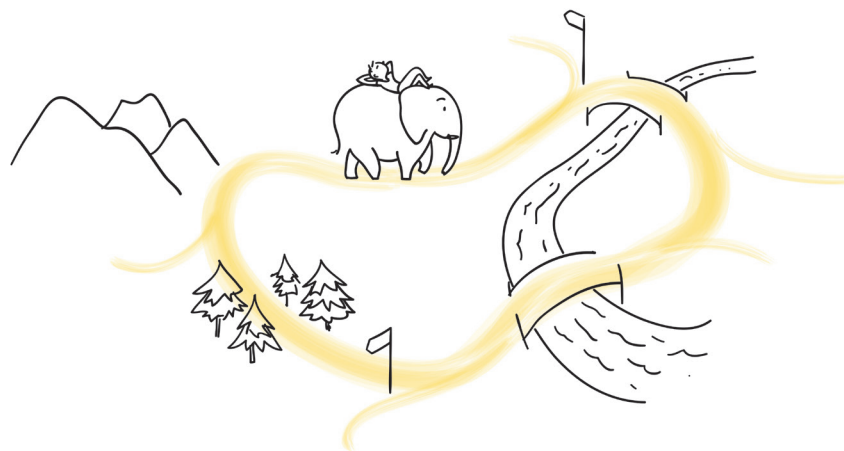
- Take paths taken in the past, as it thinks that what worked in the past is known,

safe, and will also work in the future

- Avoid unknown paths, as it's afraid of risks and of losing something
- Take the easiest path, as it is also lazy
- Take the path taken by its herd of elephants, as they make it feel safe and trusted

### Habits Help Us Save Energy

When we ride a bicycle, we have to coordinate our legs and hands at the same time as processing all the information from the surrounding environment to safely move in the desired direction. We make a sequence of complex actions almost without noticing: it is automatic, a routine, a habit. But do you remember how



Habits are like main roads easily walked by the elephant while the rider naps.

much effort it took to learn how to cycle?

Habits are actions we have repeated so many times that we can execute them automatically, without having to activate the slow thinking system. **Habits** are like pathways walked so many times by the elephant, that they became **main roads**. The elephant loves them as they are familiar and make it feel safe.

Habits are characterised by four elements forming a reinforcing loop. These are well described in Duhigg's book "The Power of Habit".<sup>35</sup>

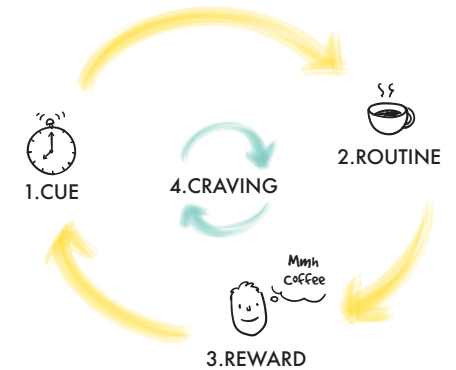


Fig. 12: Habit Cycle

- A **routine**, which is a sequence of actions. For example, the routine of taking a coffee break includes standing up, going to the coffee machine, and drinking a coffee while chatting with colleagues.
- A **cue**, which is an automatic trigger of the behaviour. It can be a time of the day, a location, some people or also a feeling or thought. For example, when we see that it's 10 o'clock we may take a coffee break.
- A **reward**, which is a positive physical, cognitive or emotional experience we expect to happen after the execution of the routine. For example, the energy kick received after having had a coffee break.
- A **craving**, which is the desire for the pleasurable experience we connect with the reward. Cravings reinforce habits. During a dip in concentration at work, desiring an energy kick may, for instance, make us drink a coffee.

- Focus on the available information, even if it is incomplete or is not related to the decision
- Interpret information based on its form rather than its content
- **Build a coherent, believable story** to justify the decision, picking and, if necessary, distorting the facts to fit the rationale.
- Tell the coherent story to the rider, the slow thinker, who will mostly believe it

### Sometimes We Think It Through

If we see a pink dog crossing the street, or if we have to calculate  $43 \times 23$ , the elephant is overwhelmed. **In surprising, complex or dangerous situations**, the rider "wakes up" to help figure out the best decision to make.

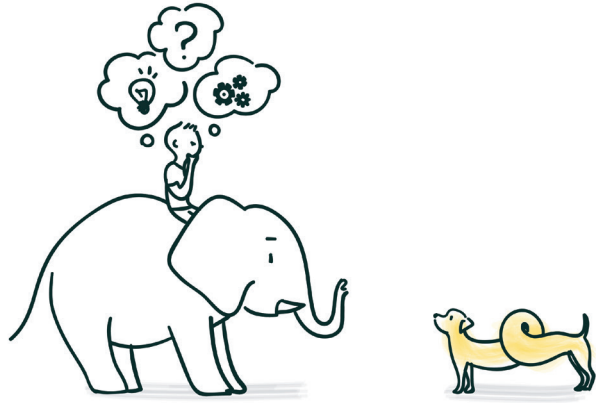
The **rider will think it through and come up with a rational, logical solution**. They will focus on the problem, analyse it, look at logical connections, search through their past for similar experiences, gather more information, and develop potential outcome scenarios.

The rider can only focus on one decision at a time, is slower than the elephant and is quickly exhausted. If there are several challenging situations at the same time or they are exhausted,

### Misleading Tendencies Of Our Gut Feelings

When the **elephant** faces new, unfamiliar situations, it is quickly scared. To ensure its survival, **it will decide in a heartbeat**. However, it will only take into account information available at the present moment and tend to:

- **Substitute a difficult question** with a simpler one, without noticing it



When the elephant encounters an unfamiliar situation, the rider helps to figure out the best decision to make.

the elephant will take over with its approximate gut-feeling-driven decision-making.

### 5 Mental Events Required For Conscious Decisions

Both the fast and slow thinking systems, just like the elephant and the rider, have their own opinions on what is going on in the world and which is the best decision to make. They can agree, disagree, or trick each other.

One way of looking at the mental events occurring when we decide whether or not to execute an action is described by Stephen Wendel in his book “Designing for Behaviour Change”<sup>36</sup>. He proposes the “CREATE” action funnel, which is an acronym standing for the five conditions that need to be fulfilled to execute an action. These events do not happen sequentially, but are related to each other in a more complex way, with some phases partially overlapping.

“We **execute** an action when we notice a **cue**, which starts an automatic intuitive **reaction**, potentially bubbling up into conscious **evaluation** of costs and benefits, the **ability** to act and the right **timing** for action.” by Stephen Wendel<sup>37</sup>

With habits, a **cue** always triggers the same **reaction**. The elephant sees the “**cue** road sign” and takes the main road, without waking up the rider. With conscious decisions, all five steps need to occur. When making conscious decisions people can drop out of the **create** action

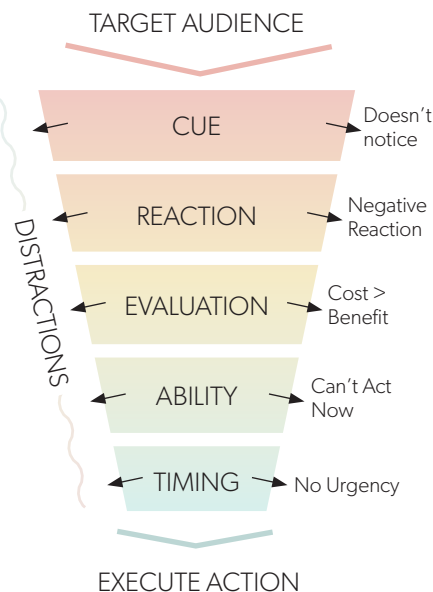
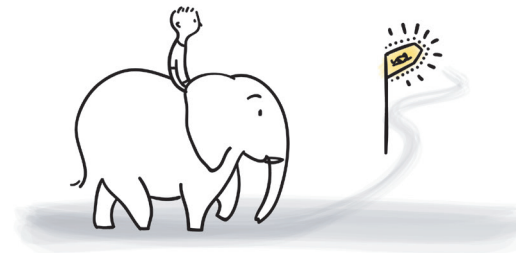
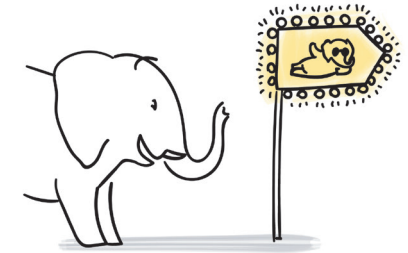


Fig. 13: CREATE Action Funnel



The CUE is like a road sign catching the attention of the elephant and the rider.



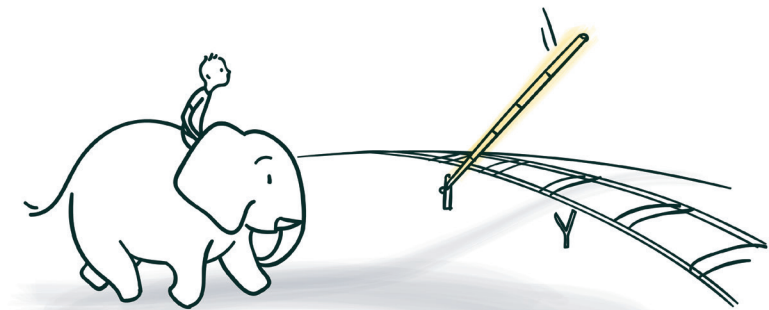
The REACTION is like the intuitive emotional response of the elephant to the cue.



The EVALUATION is like when the rider thinks of the costs and benefits and compares different options.



The ABILITY is like when the rider thinks of the risks of failing to execute the action options.



The TIMING is like a train barrier that will soon block the possibility to take a path.

funnel at any stage, either because they are distracted by other events or thoughts, or because there is an undesired outcome.

### Elephant-Rider Decision Making

When the elephant and the rider agree on which path to take, making decisions is like having a smooth ride. In familiar situations or while executing habits, we are seemingly on autopilot and we do not even notice that we are taking decisions. It is as if the rider, our slow thinking, would be napping on the back of the elephant.

However, there are situations where the elephant and the rider disagree. For example, if we want to lose weight, but cannot resist eating a piece of chocolate cake for dessert. In this case, the short-term desire for pleasure of the elephant wins out over the long-term objective of the rider.

At the moment dessert was served, we mentally went through the five stages of a “create action funnel”:

- **Cue** - The waiter asks “Who wants dessert?” = we notice the possibility to take the action
- **Reaction** - We imagine the delicious taste of the chocolate cake we saw at a neighbouring table = the elephant responds positively to taking the action
- **Evaluation** - The rider wakes up, reminds us of the long-term disadvantage of eating the cake as it doesn't fit with our weight

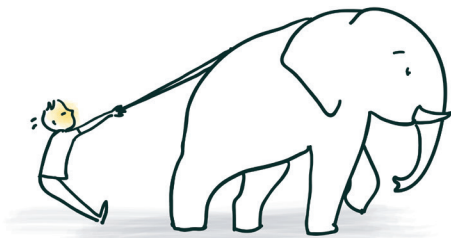
loss plan. However, the elephant sees a huge benefit in the pleasure of having cake now = the benefit of eating the cake now is estimated higher than the benefit of sticking to the weight loss plan

- **Ability** - We can afford the cake and there is still cake available = we are able to take the action
- **Timing** - We need to decide now as later the waiter will leave and be busy with other customers = there is an urgency to decide

As there was a positive response at all stages, we take the action.

In the above case, the rider tried to motivate the elephant to resist the cake by reminding it of the long-term objective of losing weight. But it was not very convincing and was as if they would have tried to pull the elephant by sheer force. However, as the elephant is much bigger and the rider is quickly tired it was not successful. The willpower of the rider was limited and the short-term desire of the elephant overrode this.

But what if the rider, instead of pulling or pushing the elephant in a particular direction, had chosen a different strategy? If the rider sits on top of the elephant and learns how to communicate with it and guide it, they may be able to convince it to cooperate and take a new path.



When the slow thinking and fast thinking system disagree, the fast thinking represented by the elephant has the last word on which action to execute.

### T4.3 — WHEN DO WE CHANGE?

#### Motivation, Ability & a Trigger: Key Preconditions

BJ Fogg, a researcher at Stanford University, developed the B = MAT model<sup>38</sup>, which shows how behaviour change only happens when motivation and ability are sufficiently high and a trigger to initiate the action is present. When a person's motivation is not sufficient, only increasing this may not lead to action: Increasing their ability to act and integrating a trigger are also necessary for action to take place.

Fogg also visualised how our motivation to perform a specific action varies over time. Our few moments of high motivation are temporary opportunities to do difficult things, but most of the time our willpower is low. In these moments, only behaviour changes that are easy and require minimal effort will succeed.

If we return to the metaphor of the Elephant and Rider, we can imagine that we change behaviour when both the elephant and rider are willing to divert from a familiar path to take a new way. This can happen either when a change occurs in the environment or when the rider learns how to steer the elephant. With this in mind, what are practical ways to support people with changing their behaviours?

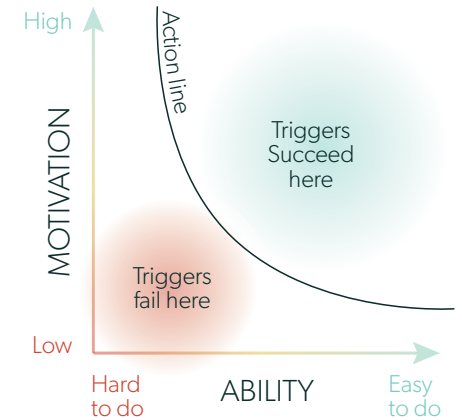


Fig. 14. Fogg behaviour model

#### Change the Environment

##### 1. A tree is in the way or there is a shortcut.

The elephant always looks for the easiest path. When an obstacle stands in its way, it will circumvent it. When it sees a shortcut, it will take it. During this kind of change, the rider may not even notice that the elephant took a new path.

##### 2. We see a new path that excites the elephant and makes sense to the rider.

In this case, the person successfully goes through the complete Create funnel.

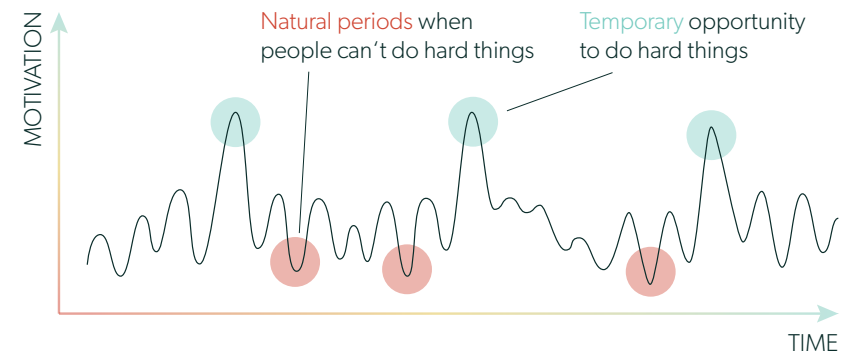
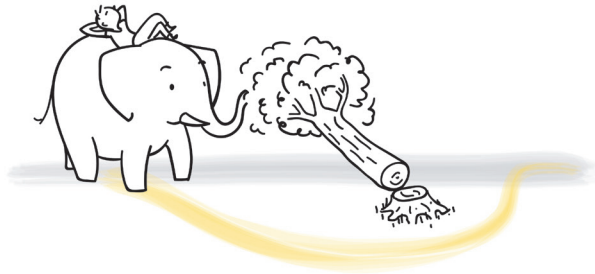


Fig 15. Fogg's opportunities for change



*We can modify the environment to motivate the elephant to take a different path.*

Imagine that by the main road the elephant would notice a big sign, a CUE, displaying an attractive image of some fellow elephants taking a new path. It has a positive REACTION, it likes the cue, but is also afraid that the new path may be dangerous. So it activates the rider who compares the costs and benefits of taking the new path; for instance, asking where the new path is leading, thinking of different scenarios to evaluate the risk of the choice, or questioning what may be gained by taking the new path. The rider will also consider if they are ABLE to take the path by checking how difficult it is and if the elephant has sufficient energy at this moment in time. Finally, does it need to take the path now? Maybe it can take it later?

The only externally-driven possibility to guide both the elephant and the rider through the complete CREATE funnel is to change the environment, which requires reliable knowledge of the elephant, the rider, and their environment.

#### **Train The Rider To Guide The Elephant**

**3. The rider has a long-term goal and knows how to guide the elephant.** When the rider has an exciting long-term goal and has learned to recognize the needs and strengths of the elephant, they can guide it in order to jointly take a new path and build new main roads (new habits).

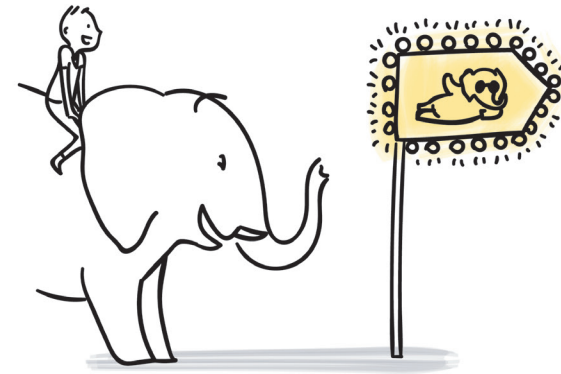
In this case, a rider can provide a cue to encourage the elephant to overcome its fears of

taking a new path, motivating it to progress towards long-term objectives by showing it the next quickly-reachable reward. When the rider learns how habits work, they can start paying attention and recognise specific cues and rewards, as well as the shortcomings of the elephant. They can then intervene when needed to motivate the elephant.

Because the rider is not always vigilant, the best way forward is to first change the environment to support the new behaviour and then coach the rider on how to motivate the elephant.

**4. The rider has a long-term goal and trained the elephant to enjoy exploring new paths.** At some point, after having taken several new roads successfully and having experienced how habits can be changed, the rider and the elephant may become friends. The elephant may become less scared of taking new paths, and the rider may become very attentive to the signals of the elephant in order to take care of its needs and talk to its emotion-driven nature. At this point, they may start to enjoy taking new journeys.

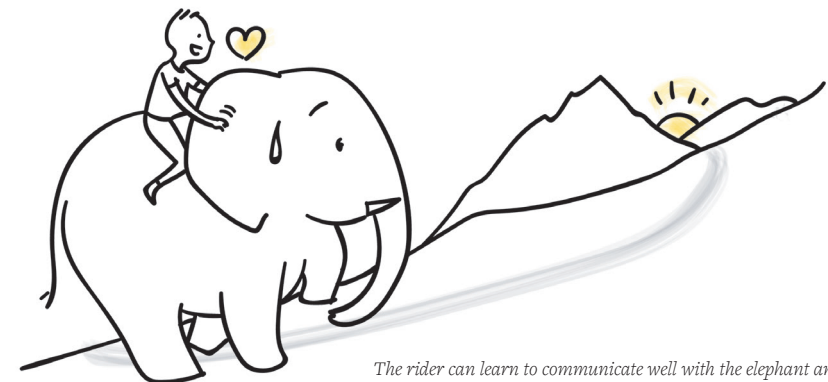
This means that a person may start enjoying the observation of their own behaviour and the development of new behaviours.



*We can shape a path that motivates the elephant and the rider.*



*The rider can motivate the elephant to progress on a path.*



*The rider can learn to communicate well with the elephant and motivate him to reach longterm objectives.*

## BEHAVIOUR CHANGE TYPES

Our mind uses the combination of a slow and a fast system to think and make decisions, as introduced in How Do Our Minds Work? (See [Theory T4.1](#)). When designing interventions to support behaviour change, you will need to consider both systems of your target audience simultaneously.

» OUR MIND USES THE COMBINATION OF A SLOW AND A FAST SYSTEM TO THINK AND MAKE DECISIONS.

When you support people with changing a specific behaviour, you can focus on providing new options that are more attractive than the existing behaviour or decide to coach people to embrace change and personal growth. Think of these two approaches as if you were a chef. You can focus on cooking delicious meals for your customers in a restaurant or on teaching them how to cook.

In this chapter, we will introduce four behaviour change types, all of which require different intervention strategies. These different behaviour change types build on each other and increase in terms of complexity. At the same time, the level of control over the change process decreases.

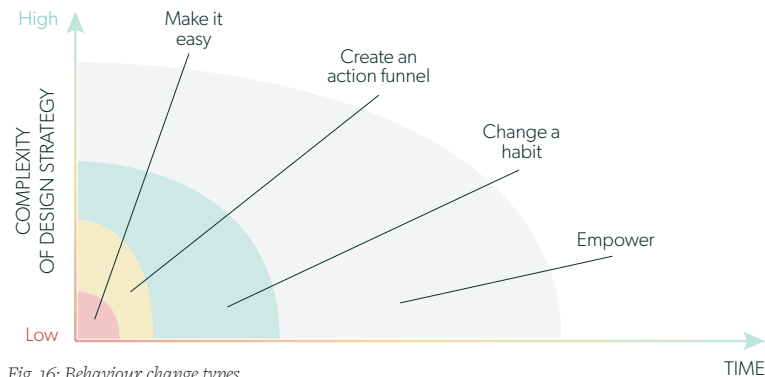


Fig. 16: Behaviour change types

Take the example of healthy eating:

1. **Make It Easy**—This is like preparing a filling tasty mixed salad. It gets the job of increasing the number of healthy meals consumed done efficiently.

2. **Create An Action Funnel**—Creating an action funnel is like cooking a delicious, healthy five-course dinner. It is not an easy task, but it may be necessary to motivate people to try new, unfamiliar healthy food.
3. **Change Habits**—This is like teaching someone to cook a healthy meal. Besides being a good cook and knowing which details of the recipe make the difference, you also need to be a great communicator and able to explain each step clearly.
4. **Empower**—Empowering is like igniting someone’s personal desire to become a chef. You need to be a great chef yourself and aim at supporting and motivating people to enjoy cooking healthy recipes while inventing new delicious ones.

## MAKE IT EASY

Can you support your target audience in helping them execute your target action faster and with less effort? Great, go for it!

» MAKING THE ACTION YOU WANT TO PROMOTE EASIER TO PERFORM WILL FACILITATE ALL OF THE OTHER TYPES OF BEHAVIOUR CHANGE.

Changing the environment to make an action easier involves mainly the intuitive fast-thinking system. By using Buddha’s metaphor of the elephant-rider-path, explained in The Elephant & Rider Metaphor (See [Theory T4.1](#)), it is as if you built a “shortcut” that is more attractive than the existing path for the elephant. As the person doesn’t notice anything alarming when starting to perform the action, the conscious mind is not particularly active. It is as if the rider, representing the slow-thinking system, would nap on the back of the elephant, while the person performs the action.

If you want people to eat more healthy food, you can serve healthy meals in a restaurant. The clients don’t need to know which food is healthy or to care about becoming healthier: they just need to come to the restaurant. This strategy can be very powerful to support people with executing an action. The flipside is that the change happens on a “superficial level”: once you stop providing the service, people will switch back to the available default option.

Purposefully shaping the context in which an action is performed is often referred to as “nudging” people to perform an action. Richard Thaler and Cass Sunstein’s book, “Nudge: Improving Decisions about Health, Wealth and Happiness”<sup>39</sup> defines nudges as:

“Strategies that influence people’s behaviour in a predictable way, without forbidding or changing financial incentives of the choice options. Nudges are easy and cheap to avoid. Putting apples on eye level is a nudge while banning junk food is not.”

» NUDGES UNCONSCIOUSLY INFLUENCE PEOPLE TO AT LEAST TEMPORARILY CHANGE CERTAIN BEHAVIOURS

For this reason, their moral acceptance is broadly debated. We are surrounded by nudges, which often are expressed as default choices. However, defaults are not necessarily good choices: In a canteen taking Menu 1 is the default choice for most people. However, the menu does not necessarily have to taste good or to be healthy.

When designing service or products making specific behaviours easier to execute, it is essential to first ask end-users for consent. You ask for consent by explicitly informing the user about what you are going to do, to make their action easier, and by asking for approval. You can ask for consent online or by using paper forms.

After asking for consent, Stephen Wendel in “Designing for Behaviour Change”<sup>40</sup>, suggests three main strategies to make taking action easier for the user:

- **Default it:** Take the action on the user’s behalf by changing the default option. For example, an electricity supplier can provide 100% renewable electricity as the default electricity option. The customer will have to take action in order to switch to a non-renewable electricity mix.
- **Make it incidental:** Make the action happen automatically when the user does something else. For example, while you walk, your phone’s step counter tracks your steps to later provide you feedback on your activity.
- **Automate the act of repetition:** By selecting actions that are repeated, you can turn a one-time action into an automated process. For example, when creating an event in an online calendar, you can automate the repetition of the event on a weekly basis.

W Use the worksheet 4.1 to develop strategies for your target action.

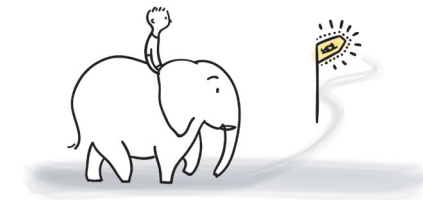
## CREATE AN ACTION FUNNEL

To support conscious behaviour change, you need to engage both the intuitive and the conscious ways of thinking at the same time. Developing this kind of intervention is more complex, and the success rate is much lower than those of the Making It Easy strategies. It is as if you have to convince the rider and the elephant to take a new uphill path: They will have some natural resistance. Making the path easier in advance will be helpful.

» TO SUPPORT CONSCIOUS BEHAVIOUR CHANGE, YOU NEED TO ENGAGE BOTH THE INTUITIVE AND THE CONSCIOUS WAYS OF THINKING

Five conditions need to occur at the same time for a person to perform an unfamiliar action, and these are summarised by Stephen Wendel in the CREATE action funnel<sup>41</sup> (See Theory T4.2).

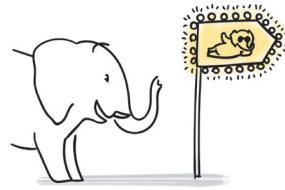
Use the Worksheet 4.2 as a checklist to develop ideas on how to make your target audience follow your action funnel and not drop off.



### Stage 1: Cue

The user needs to:	Design your service to:	Example:
Think of the action	Catch the attention of the user with: <ul style="list-style-type: none"> <li>• a surprise</li> <li>• a reminder</li> </ul>	The smell of freshly-baked bread makes passers-by notice the restaurant.

### Stage 2: Reaction



The user needs to:	Design your service to:	Example:
Have a positive intuitive response	The action needs to feel relevant, enjoyable, and not dangerous. Make the action: <ul style="list-style-type: none"> <li>• feel familiar</li> <li>• fit with social norms and expectations</li> <li>• connect to positive associations and past experiences</li> <li>• provide a sense of trust in your organisation</li> </ul>	The smell of the bread evokes pleasant memories of home-made bread baked by their grandmother

### Stage 3: Evaluation



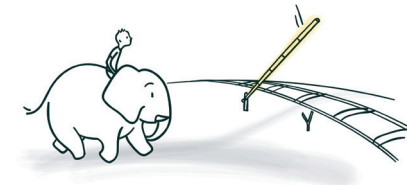
The user needs to:	Design your service to:	Example:
Consciously wants to do the action. They need to consider the benefits of performing the action to be higher than those of performing alternative actions and higher than the disadvantages of not performing it	Increase the motivation of the user: <ul style="list-style-type: none"> <li>• Decrease costs of performing the action by making it easy</li> <li>• Highlight the benefits</li> <li>• Downplay alternative options</li> <li>• Remind alignment of performing action with long-term objectives</li> </ul>	By the door a sign shows the great deal of the daily menu. Show a label on the door displaying that other visitors recommend the place. Add on the sign that you are "The cosiest place in the area".

### Stage 4: Ability



The user needs to:	Design your service to:	Example:
The user is able to perform the action and believe that he will not fail	Be explicit: <ul style="list-style-type: none"> <li>• Display the steps required to perform the action</li> <li>• Show the resources required (time, money)</li> <li>• Inform about the skills required</li> <li>• Provide reassurance that performing the action will end in success</li> </ul>	Make sure the door opens easily, that it is clear where to push or pull, and that the entrance is wheelchair friendly.

### Stage 5: Timing



The user needs to:	Design your service to:	Example:
Believes that <i>now</i> is the best moment to perform the action	<ul style="list-style-type: none"> <li>• Find when the best timing for the user to perform the action is (see T4.3.1.)</li> <li>• When planning, help to make the timing of the action specific</li> <li>• Create a sense of urgency (last/special offer)</li> </ul>	Put a lunch offer outside until 1pm and placard advertising coffee and cake in the afternoon.  On the placard, add a message saying "Special today: coffee/tea included".



### 3 CHANGE HABITS

When an action is repeated, you can help to build new habits. Once habits are developed, they are powerful: They are executed unconsciously and use little energy.

However, once developed, habits are difficult to change, can block change in new directions, and can also hinder new, emerging habits. Charles Duhigg, author of the book “The Power of Habit”<sup>42</sup>, says that it is not possible to “break” a habit. What we can do, though, is to replace the action of a habit with a new action or to build new habits related to existing ones.

Building new habits requires the active involvement of the slow thinking system, in addition to the fast thinking system (**Habits Help Us Save Energy —See Theory T4.2**). Once habits are built, our mind bypasses the Reaction, Ability and Timing stages of the CREATE action funnel (**See Theory T4.2**), as our conscious mind is not involved in the decision-making process anymore.

The process of building new habits follows these stages:

1. Find the motivation
2. Shrink the action
3. Prepare an action plan
4. Set up external reinforcements
5. Change a tiny habit
5. Fail & refine the plan
6. Succeed & start again

Use *Worksheet 4.3* as a checklist to develop ideas on how to support users to change habits.

#### 1. Find The Motivation

As mentioned in the B = MAT Model: Key Preconditions (**See Theory T4.3**), behaviours happen when motivation, ability, and a cue are present at the same time.

To change habits, people need to be intrinsically motivated. You cannot help someone build a habit if the person doesn’t want to change their behaviour. Giving consent is not sufficient — the person needs to have a real desire to change their behaviour.

The Zurich Resource Model (ZRM) developed by Maja Storch und Frank Krause<sup>43</sup> describes the three phases of development for any moti-

vation to act: Initially, people develop a vague desire or idea about what they would like to change; then they look at options, think of barriers, and feel indecisive about what to do; and only when they fully commit to the idea, an intention, objective of change and behaviour change can take place.

Finding a person’s motivation is, using the Elephant-Rider metaphor, like finding what the elephant is craving and making sure the rider has a clear goal in view, allowing them to together jump over a stream leading to a new path. Once the elephant and the rider have jumped over the stream, it will become easier to embrace the new path.

» THE MOTIVATION OF A PERSON CAN BE RELATED TO THEIR WISHES, HOPES OR TO PLEASURES THEY ARE LOOKING FOR.

It can also come from the desire to avoid pain, rejection, inner fears or old, deep-set beliefs. It is mostly negative ways of thinking about oneself that hold us back from “jumping over the river”, taking the decision, and fully committing to the new action.

For example, wanting to eat more fruits because everyone says that it is good for your health will not work. A superficial motivation is not sufficient. But, if a person has a deep desire to feel more energetic or avoid an illness a relative got because of an unbalanced diet, it has a stronger emotional motivation that is also linked to the individual’s past. To make change happen, the energy latent in this motivation needs to emerge in the moment the decision to change is made.

As a designer of behaviour change, you can help a person to reflect, find and formulate his or her own motivation. In the long-term, positively-formulated motivations are more effective, as they build on the strengths of the users.

#### 2. Shrink The Action

Imagine you want to promote healthier food and want to support people in starting to eat five pieces of fruits a day. If a person eats a piece of fruit every day, starting to eat four additional pieces can seem like a big change, and perhaps one too difficult to achieve. Instead, starting to eat one additional piece of fruit for seven days could be a tiny step to start with, one that does not discourage the end-user.

» YOU FIRST IDENTIFY THE HABIT AND THEN BREAK IT DOWN INTO SMALLER STEPS

When you design for developing new habits, you first identify the habit you want your target audience to execute and then break it down into

smaller steps that the target audience can take easily — and even in moments when their motivation is low (see Theory 4.3 - Motivation, Ability & A Trigger: Key Preconditions).

By making the action specific in terms of time and quantity, you make it measurable. You can then track progress and communicate this clearly to your target audience.

### 3. Prepare An Action Plan

As presented in How Do Our Minds Work? (See Theory T4.2), habits have four key elements: cue, reward, action, and craving.

When helping to replace an existing habit with a new habit, you can use the flow-chart of Charles Duhigg<sup>44</sup>, to identify the cue which reminds the target audience to start the action and the reward. You then replace the old action with the new action. As mentioned in T1.2 Theory U (See Theory T1.1), the target audience may have to let go of old behaviour patterns, on a mental and emotional level, in order to allow new ways of being to emerge.

When supporting your target audience with building new habits, the best cues are linked to existing habits. For example, a person could develop the habit to put an apple in his jacket every time he comes back from work.

The reward should trigger positive emotions in the user after having executed the action. When a person develops a new habit, BJ Fogg, who developed the “Tiny Steps Method”<sup>45</sup>, recommends finding a personal way to celebrate victories, which can be as simple as exclaiming “Oh yes, I did it!” while smiling. Rewards can also come from external sources, for example, when we give an app the feedback that we ate a piece of fruit and then feel good when the gamified app awards us “health points”.

The most effective cues and rewards, are those that are customised for the target audience, according to their environment and preferences. All elements should be formulated in a sentence, making the commitment explicit and concrete.

#### Replace existing habits:

When (cue) \_\_\_\_\_, I will (new action) \_\_\_\_\_ because it provides me with (craving) \_\_\_\_\_.

#### New habits:

After I do (existing habit) \_\_\_\_\_, I will do (new habit) \_\_\_\_\_.

Afterwards I will celebrate by doing (reward) \_\_\_\_\_.

Help the target audience track which actions were taken.

### 4. Set Up External Reinforcement

Now that the person has a clear goal and plan, help create reinforcements that will motivate their unconscious, emotional elephant, and make their rider stick to its commitment even when their motivation level is low (see Theory 4.3.1 - Motivation, Ability & A Trigger: Key Preconditions)

External reinforcements are most effective when a guide, coach, or a platform supports the user with setting them up. External reinforce-

Reinforcement	Works best when	Example
Reminder to execute the action	When it is close in time and location to where the action takes place.	Stick a post-it by the light switch
Make the old habit difficult	The old habit provides a short-term reward in conflict with the new habit	Park the car further away to gain additional motivation to ride the bicycle to work in the morning
Make the commitment specific and explicit	The formulation takes into account everyday life and existing habits	Write the commitment on a piece of paper and put it on the fridge door
Make the commitment public	It is visible to people: we care about it emotionally, we don't want to lose face	Share it on social media, tell your friends, put it on a poster in the cafeteria
Make someone responsible for asking about your progress	The person is trusted and supports the cause of the person changing the habit	Send an email to a good friend with your commitment and a request to ask how it went.
Define midterm celebrations	You do something exceptional you would otherwise not do	Go to the concert of your favourite band with a friend.
Visualise success	If you need help to move forward when unmotivated	When planning the change, the person imagines what he would see, hear, and feel when achieving his goal.
Plan for failure	When we tried to change a habit and we failed several times	During the plan, also imagine the option of not sticking to the commitment one day, the resulting feelings, and how to get back on track.

Table 4: Examples of external reinforcements

ments should be planned at a moment when motivation is very high, the person is not tired, and when they feel connected to his/her own motivation.

#### **4. Change A Small Habit**

Shortly after this planning, the target audience should start changing the planned habit. Help to track the change.

#### **5. Fail, Tap Into The Motivation & Refine The Plan**

Provide support when people fail with their commitment to “get them back on track”. Often the formulation of the change plan is not perfect. Every time a user doesn’t take an action, it is an opportunity to refine the action plan.

#### **6. Succeed & Start Again**

When a person succeeds with a midterm goal, they can be supported in expanding the scope of the change by building on the newly-developed habit. Celebrating success is a motivation high point that can be used to develop new plans for further changes. Provide guidance to increase the scope of the action. It is important to take time to plan slowly, and finding a strong motivation and commitment is essential, even when a person already masters parts of the process of changing habits.

## **4 EMPOWER**

As an impact-driven Changemaker, your objective goes beyond engaging your target audience to support individual behaviour change. You may want to promote gender equality, sustainable consumption, or support the development of a local economy. Achieving your objective requires your target audience to understand and embrace your goal. Ultimately, you don’t aim at supporting them to only take action, but want them to become ambassadors transforming the system. You may want to scale impact and create a social movement.

Empowerment is about letting your target audience take control over the change process in order for them to keep changing in the long-term. Because of the nature of the empowerment approach, the degree of control over the change process gradually decreases compared to the behaviour change types we presented previously. For this reason, we don’t suggest a step-by-step process for designing initiatives, but present elements that we consider essential to include.

Empowering your target audience is coaching them to help themselves. You assume that every person has sufficient resources and power needed to change. Your role is to support them as they seek to gain access to

their own deeper knowledge and find their own pathways to reach their self-set objectives.

Empowerment is about driving long-term behaviour change: You help people to enter and move forward in a spiral of self-driven change. As they start moving, you lose control over the exact process and direction. However, you ignite irreversible, independently-growing change.

Knowing how to change a habit is a great skill, as this allows people to transform themselves and adopt new behaviours they wish to have in their lives. However, if the wishes are purely self-centred and not linked to the wider context we live in, this skill may not help us to become happier and may not contribute to addressing the social and environmental challenges society is facing. Empowerment helps to link these skills with the context we live in.

In order to empower people, several elements, which are linked to and reinforce each other, are required. Some of them are:

1. Asking the big questions of life
2. Cultivating the mind
3. Embracing a growth mindset
4. Building communities
5. Relating to the world meaningfully
6. Looking at social practices

#### **1. Ask The Big Questions Of Life**

When the rider has a clear objective, they can motivate and guide the elephant along a new path. The rider may even be able to motivate the elephant to move obstacles out of the way, if the elephant trusts them.

Researchers of positive psychology like Richard Layard<sup>46</sup> and Martin Seligman<sup>47</sup> found that the common basic human driver of action is the search for happiness and meaning.

#### **» THE COMMON BASIC HUMAN DRIVER OF ACTION IS THE SEARCH FOR HAPPINESS AND MEANING**

Sonja Lubowski, author of “The How of Happiness”<sup>48</sup>, defines happiness as: “the experience of joy, contentment, or positive well-being, combined with a sense that one’s life is good, meaningful, and worthwhile.”

Happiness doesn’t have to be confused with pleasure, which is a short-term positive emotion driven by external factors. Pleasure vanishes over

time, as a situation or our mind-set changes. Happiness is a more durable state of mind that allows us to deal with the external events of the world and internal thoughts with acceptance and compassion.

Every individual seeks happiness, but we are often confused. More clarity can be gained when a person starts questioning: Why am I dissatisfied? Where does it come from? When am I satisfied? What is happiness? How can I become happier? What is the meaning of my life? One question hides inside the next like in a Russian Matryoshka doll.

*These questions lead to a process of deep reflection.* The curiosity of finding answers may lead to reading, discussions, debates, and seeking guidance. The personal understanding of happiness will evolve over time. Nevertheless, the process of questioning provides to the rider *with clarity on the long-term direction* they want to take. It is as if the rider were to see a northern star. Even without knowing exactly what a star is, the star provides orientation.

TIP: Through your project, you can help your target audience with finding their orientation by supporting their self-reflection on what is really important and by sharing stories of the journey and objectives of different people.

## 2. Cultivate the Mind

Finding answers to the big questions of life is not an easy process. Questioning who we are, what we care about, and if we are living based on what matters to us can feel like jumping of a cliff into the void. It can be scary. Training our minds to become aware of our emotions and our decision patterns helps us to reconnect with ourselves. This transforms the journey of questioning what matters into an exploration tour filled with surprises, during which we learn about ourselves and how we relate to the world.

The rider of empowered people is extremely attentive and notices when its elephant reverts to an old, bad habit. When this happens, the rider encourages the elephant to stay on the long-term path by motivating it with short-term goals or by providing comfort.

An empowered rider will learn how to observe their environment, and notice how certain situations will scare the elephant or provide a short-term temptation. The rider learns to anticipate the reactions of the elephant, and, for instance, avoid certain paths.

Finally, the rider will also learn to observe themselves, become aware

of some of their shortcomings and tendencies to take decisions that are not in their best interests ([see Theory 4.1 - The Mind's Obstacles to Good Decisions](#)), and train to become stronger.

The ability of our mind to become aware of what is happening around us and its ability to gain awareness of the flow of thoughts and emotions we experience helps us to reconnect with ourselves.

### » WE CAN IMPROVE HOW OUR CONSCIOUS AND UNCONSCIOUS MIND WORK TOGETHER

We can improve how our conscious and unconscious mind work together by learning to pay attention to what happens to us and how we intuitively react. We can pay attention to our thoughts and to how we take decisions. By observing ourselves, we develop the ability to intervene once we want to change the automatic course of how a decision is made.

TIP: We can train our mind to pay attention through different techniques like, for example, *mindfulness, meditation* or yoga postures. Regularly practising these methods helps to strengthen the mind. When we exercise regularly, every run becomes easier. By training our mind to pay attention, we become able to notice our thoughts and reactions more easily.

## 3. Embrace Growth Mindset

We all have two opposing tendencies in us: the predominant tendency to avoid change and, at the same time, an inner thirst for change. There is the tendency to develop familiar routines in our everyday life, to which we will mostly stick.

At the same time, when we are doing the same things every day, at some point, there is the tendency to develop a sense of restlessness. We feel dissatisfied without knowing why and *start changing things in our lives to find novelty*.

To stop this circle of seeking stability and, once we reach it, seeking change, one can start differentiating between how external factors influence how we feel and how our own mind feels. We commit to a process of inner growth when we learn to differentiate between these factors and start to change our own way of looking at life.

When this happens, external experiences can nurture the process of inner growth, instead of distracting us from it. Growth happens when a

person *is focused and persists* in practising new skills. This process leads to an internally-driven transformation, which provides a sense of direction and purpose.

The behaviour change strategies seen above (Make it easy, Create an action funnel, Change habits) are extremely valuable for guiding and supporting a person in practising and developing new skills for personal change.

TIP: You can help your target audience to become aware of their wish for learning and self-improvement by practising actions in line with their values.

#### 4. Build Communities

We are social beings and are highly interconnected with other people. We all have an individual social network built by our family, our partner, our friends, colleagues, the neighbours, and even the waiter from our favourite coffee shop. With every individual relationship, we influence someone through our behaviour, but we also get influenced by them.

As *Colin Beavan mentioned in his book “How To Be Alive: A Guide For A Happy Life Helping The World”*,<sup>49</sup> when a person embraces a growth mindset and keeps developing themselves to live more in accordance with their long-term objectives, it can happen that the person changes in a different way than others in their own social environment.

When this happens, the *social environment* of the person *may hold them back*. For this reason, it is important while changing to reach out and meet new people that are going through similar processes or are even a stage further ahead. They will help us to gain confidence throughout the change process, to motivate us to go further, inspire us in conversations, and to give us practical tips. And sharing the experiences together is fun.

“Who you hang out with determines what you dream about and what you collide with. And the collisions and the dreams lead to your changes. And the changes are what you become. Change the outcome by changing your circle.” by Seth Godin<sup>50</sup>

To *find new people* who are more in line with one’s own desired values and who share a similar mindset, Colin Beavan<sup>51</sup> suggests to listening to your own passions and doing something related to these. For example, if you want to start gardening, join a community garden.

TIP: As a designer for behaviour change, you can either help people to connect with existing communities that can reinforce their behaviour change or help them to create their own community through your service.

#### 5. Relate to the World Meaningfully

We are connected to the world through everything we are and do. Think of the air you are breathing. Someone sitting in the same room may have inhaled and exhaled it before you, the plant in the corner of the room may have absorbed some of the CO<sub>2</sub> you exhaled and released some oxygen.

When we look at our exchange with a plant, we see that it is a win-win — we give it CO<sub>2</sub>, it gives us O<sub>2</sub>. But the relationship is not mutually exclusive nor strictly causal. A dog could have emitted the CO<sub>2</sub> that the plant transformed into O<sub>2</sub> before we inhaled it. Someone else in the room could also have inhaled the same oxygen as we did. This exchange is part of a mutually interconnected system.

Despite being aware that we are part of a global society, sometimes we have the feeling we do not influence this large, interconnected system, and that we have no impact on other beings and the environment. Relating to the world in a meaningful way means becoming aware and taking action based on the fact that we are part of a deeply interconnected system.

To start building meaningful relationships with the world, we first need to get in closer contact with ourselves (see cultivate the mind) and then to develop relationships with the world that express what we deeply care about, while being aware that we are part of an interconnected system.

*Stephen Covey, in his book “The 7 Habits of Highly Effective People”*<sup>52</sup> states that the way we relate to other people and the world goes through three stages of a “maturity continuum”. First, we see ourselves as dependent on the world, for instance, as children, we *depend* on our parents to survive. Next, we can become *independent*, both physically and emotionally. At this point, we develop the ability to choose and become responsible for how we relate to the world. However, as we live in a highly interdependent world, this approach has limitations. For instance, being completely independent and at the same time having a romantic relationship is not possible at the same time.

Finally, we may realise that we are *interdependent*: that there are things

that do not only depend on ourselves, but which can only be achieved through collaboration and cooperation. If I am, for instance, emotionally interdependent, I have a sense of worth within myself, but I also recognize my need for giving and receiving love from others.

As mentioned in the book “How To Be Alive”<sup>53</sup>, often we have “half-relationships” in life. For example, a person can take a job to gain money, but it doesn’t provide her with a sense of meaning. To find a sense of meaning she volunteers in a local NGO, but because she already works a lot, she ends up being exhausted and not having enough time to spend with her family. To show her love for her children, she wants to buy them many toys, and, to do so, she will have to work more.

When we have many “half relationships” we don’t have time for all the things we care about and end up feeling stressed. If the person were to have a meaningful job, she may not volunteer in an NGO, may have more time to rest and be with her family, and would not have to buy toys to show her affection. The person may end up feeling overall more satisfied and happy.

TIP: To start building more meaningful relationships with the world, provide people with ways that allow them to start getting in closer contact with themselves. Next, you can help them to select one small relationship with the world, one which they feel is not in line with what they deeply care about, and help them think of how to change it.

#### 4. Look at Social Practices

The behaviours of individuals are not insulated, but take place within the contexts people live in. Our physical environments, cultures and social-norms greatly influence what we do and why we do it.

When looking at *social practices*, the focus moves from supporting individuals with changing one behaviour, to looking at groups of individuals who are executing specific behaviours in their physical and social context.

» LOOKING AT GROUPS OF INDIVIDUALS WHO ARE EXECUTING SPECIFIC BEHAVIOURS IN THEIR PHYSICAL AND SOCIAL CONTEXT.

(For instance, if you want to make people eat more fruit, you don’t only consider the act of eating, but also look at shopping, cooking, having lunch at work, enjoying a family dinner, etc. These are social practices that both influence and are influenced by the behaviour you aim at pro-

moting.)

Behaviours are the tip of the iceberg. In the book “*From Intervention to Social Change*”<sup>54</sup>, Triin Vihalemm and Margit Keller show how considering social practices leads you to broaden your perspective and ask why people do what they do. You look at behaviours as part of an interwoven system of factors influencing each other.

From a more philosophical perspective, this approach sits between the view of human actions being determined entirely by their societal system and the opposite view seeing human action as entirely determined by free will. By considering the environment in which actions take place to be just as important as the will and the influence of the social system, the social practice view allows us to come up with novel approaches to drive change in society.

If, for instance, a city wants to address its traffic problem, it may look at options for improving its public transport system. By taking the social practice perspective, we would ask “Why are the traffic jams happening?” And then: Why is everyone commuting to the city centre at 8am? Do people need to work in the city centre? Do they need to be at work at 8am? An intervention arising from this way of thinking could, for instance, be the promotion of a home office day for those working at large companies located in the city centre.

Looking at behaviours as expressions of social practices happening within a network can help to identify truly innovative solutions for tackling a problem.

# 5. PLANNING AND EXPERIMENTING

**With the awareness that one person’s knowledge is like a grain of sand in a desert, you learn to uncover critical information, set priorities, and test your assumptions in an iterative process.**

You have, by now, identified strategies for supporting your target audience with the first steps of behavioural change. To implement them, you need to set development priorities, identify the critical parts which add value for your target audience, and define the implementation details.

Often we think we know what the target audience wants, what will work, and what will not work. However, pretty soon — for instance, when we work in a team — we realise that personal opinions diverge. It is difficult to determine in advance how the audience will react. But what you can do is speed up your learning pace by gaining feedback through experiments. This will help you develop something that is actually needed by your target group and avoid you wasting too much time and energy by working in the wrong direction.

## EXPERIMENTS

The Lean Startup Development (See Theory T1.3) approach proposes gaining information from the target audience through experiments. The basic assumption is that we, as designer or developer, don’t know what works best — but the target audience does. This means that in order to find out what works and what does not, we need to gain feedback from them.

There are two types of experiments that can be used to gain information about the target audience:

- **Exploration** is based on observation, desk-top research, and exper-

iments, all of which are lean, “fast & dirty” ways to begin *answering questions we know little about*. They help to gain broad insights about an audience, mainly in the form of qualitative data. Exploration is mostly done before developing a product or service, to learn about the environment of the target audience and their needs.

- **Validation** experiments are based on a hypothesis. By testing whether an assumption is correct or wrong, is possible to *exclude options*. The data gathered is more accurate than that of exploration experiments, but validation requires more time for planning and execution. Validation experiments help in situations in which there is a *high level of knowledge*, but as yet no feedback from the target audience.

There are many methods for running exploration and validation experiments. You can use any idea you come up with to efficiently gain insights about your strategy from your target audience. There are also companies specialised in user experience research, who are able to set up and run experiments for you, if you have the resources for this.

Experiments are also a way to manage risks. For instance, by finding out your target audience’s first impressions of and reactions to your service you can reduce the risk of developing a product that doesn’t at all meet their needs. Some common methods are<sup>35</sup>:

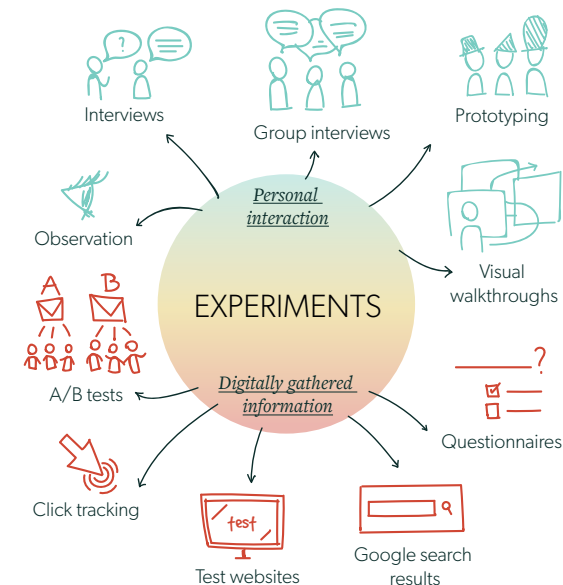


Fig. 17: Examples of experimentation methods

## 2 FIND YOUR TESTING CROWD

» THE QUALITY OF THE DATA YOU GAIN BY RUNNING EXPERIMENTS IS STRONGLY INFLUENCED BY THE PEOPLE YOU INVOLVE.

Ideally, you run experiments with your target audience (users, customers, members). However, it is often difficult to gain access to enough people from your target group or you may not want to test extreme variants of your product/service to avoid losing them. In many cases, you will have to reach an alternative audience whom you have easier access to. You can run experiments with people you meet on the street, people from your personal network, people you reach online through lists or through targeted advertisements.

Talking with strangers makes most of us feel uncomfortable. Starting to talk about your idea, service or product with people you know and are comfortable with is a good first step for finding the right words — and your confidence. And after you've talked with the first few unknown people, you will notice that the process of approaching people becomes easier.

Your target audience may have different sub-groups, each with specific preferences with regard to your service. These groups can be described with personas — see *Chapter 2* and *Worksheet 2*. Note that there will also be differences in how someone that has never heard of you will react, compared to someone who has already had an experience with you. Furthermore, an early adopter who already supports your idea will react differently than a person that never heard about it and who generally resists change.

## 3 EXPERIMENTATION PROCESS

1. Select the strategy you want to try out first
2. Identify the critical parts of the strategy
3. Map the known and unknown information
4. Focus on the most important questions which aim at areas you know the least about
5. Plan your experiments
6. Run your experiments
7. Learn from the information gained from the target audience

Once you come up with change strategy ideas, you need to decide where your focus will be and what to implement. You can follow an iterative process that includes experiments to learn about your target audience.

The *Worksheet G5* guides you through the execution of the first steps, and you find good references for experimental methods by the Service Design Thinking ([See Theory T2.1](#)) section. You can read more about the learning process in *Chapter 6*.

## SELECT QUESTIONS & EXPERIMENTS

### 1. Select the strategies you want to try out first

Map strategies by putting the value you expect them to create for the user on the horizontal axis and the amount of effort they require to be developed on the vertical axis. For instance, you may hypothesise that decreasing the registration time for your healthy eating web application would create a lot of value for the target audience and you know that this would require little effort to implement. So you decide that this is a good action to focus on. Generally speaking, the effort you can put into a project is limited by your time and resources, which also influence the scope of the project.

### 2. Find the critical parts of the strategy

For each high-priority strategy that you want to implement, ask “What needs to happen to make this strategy work?”. For example, to decrease your website’s registration time, the sign-up form needs to work, and the target audience also needs to both understand where to click and to trust to you with their data.

### 3. Map the known and unknown information

For every critical part of your strategy, ask yourself this: “How do we know if this is going to work?” You can use the *Worksheet 5* to map your answers in the three categories suggested by the innovation manager Bernhard Doll<sup>56</sup>:

- **Known information** - Answers you know thanks to the feedback of your target audience or because your strategy works in a similar product or service with a similar audience.
- **Analogs** - Aspects that are new to you, but which similar projects have tried out and found that they work.
- **Antilogs** - Things you don’t know and the success of which you cannot judge by looking at what someone else has done with another project.



For instance, your team's software developer may know how to create a state-of-the-art, simplified registration (Known information), but you may not know whether your target audience really cares about a fast registration time on the website. You could look for experimental studies carried out by other websites and learn that a shorter registration time is critical for decreasing the user drop-off rate (Analog). You may also ask if your target audience uses Facebook or Google sign-up, and which automatic forms should you add. This information is specific to your target audience: the preference of a 50+ senior market may be different than those of 18-25 year-olds (Antilog).

To find out which unknown questions to tackle first, you should rank antilogs based on the level of uncertainty and their importance for your project or the target group.

As you learn through experiments, the answers to the question "How do we know if this will work?" will move into new categories. For instance, during the development of your project, you may realise that some things that work in other projects (Analog), may not work in yours. You would then move them into the Antilog category and plan an experiment.

#### 4. Plan experiments

Go through the uncertain and important information and make a list of experiments which you will execute. First, formulate what you will research and next identify the method to apply in your experiment.

Questions: "We don't know ..." → we explore this by...

Hypothesis: "We believe ..." → we will test... and are convinced if ...

Instances of experiments based on the above example are:

Questions: "*We don't know* if our target group uses Facebook and if they want a Facebook sign-up form. *We will explore this* by calling 20 people from our target group to ask questions about their preferences."

Hypothesis: "*We believe that* offering Facebook sign-ups will increase the sign-up rate of our website. *We will test this* with an A/B test, in which we will offer half of our new website visitors the Facebook sign-up and the other half not. *We are convinced* that if we offer Facebook sign-ups we will have an increased sign-up rate increased on our website.

Next, you will enter the experiments in a ten-week plan that will help you to stay focused. You will be able to run some experiments before the launch of your service or product, and these will mainly be explorational experiments. Other, mainly Validation, experiments, will require

the implementation of a minimal viable product, a version of your product or service reduced to the minimum characteristics needed to make it work for your target audience. After running experiments, you will go through a learning session with your team.

# 6. LEARNING

**The ability to learn as a team and organisation is required for successful long-term projects. We will share some conditions and methods that enable learning.**

Learning is a key part of the Lean Development approach (see Theory 1.3), and one to which little attention is paid.

» OFTEN TEAMS DON'T LEARN FROM THEIR ACTIONS AND EXPERIMENTS WITHOUT EXPLICITLY ENGAGING IN A PROCESS OF LEARNING.

Teams develop and implement experiments and collect data, but because of a tight schedule have the urge to quickly make the next decisions without taking the necessary reflection time.

It's easy to become overwhelmed by the amount and complexity of the information gained and, despite everything, end up taking gut-feeling decisions. This happens as our intuitive thinking system tends to substitute difficult questions with easy ones, as we saw in Theory 4.1 - How Do Our Minds Work? (See Theory 4.2). Developing a learning culture allows us to avoid this trap.

## WHAT IS LEARNING?

» "I HEAR AND I FORGET. I SEE AND I REMEMBER. I DO AND I UNDERSTAND." – CONFUCIUS<sup>57</sup>

This saying conveys the essence of Peter Kolb's experiential theory about learning, which is illustrated in Theory Chapter 6: Learning (See Theory 6.1). Learning is a holistic process determined by the individual cognitive experience. During the process, one continuously develops and implements ideas for improvement.

Learning takes place through four stages: performing an activity and observing what happened, reflecting on what happened, developing ideas to explain the observation based on general principles, and applying these new ideas, or theories, to new experiences. Effective learning takes place when the learner progresses through each stage of Kolb's cycle. One can enter the learning cycle from each stage and different people have preferred stages for doing so.

Learning takes place at different levels. The Theme-Centred Interaction method lets us look at the learning process with the Four Factor Model<sup>58</sup>.

- **I** - I can learn as an individual, by relating my past experiences, and knowledge with new experiences.
- **We** - In the same situation, different individuals learn different things. When they share their experiences, new connections and ideas emerge in the group. This leads to collective learning.
- **It** - When a group reflects on experiential knowledge related to an entity, such as a service or product, and how its qualities and interactions with it will change in the future.
- **Globe** - The environment — the physical, organisational or social surroundings in which the experience occurs — influences and conditions the learning process.

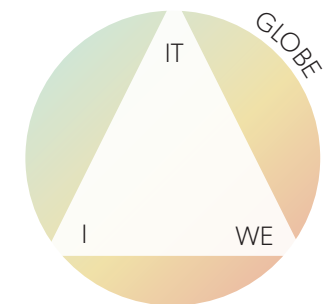


Fig. 18: Four Factor Model of Theme Centred Interaction

## ENABLE LEARNING

Two conditions enable learning related to projects: adequate processes and supportive human interactions.

The *process* of learning includes:

- Planning, and allocating time and resources for all four of Kolb's stages of learning
- Developing and *establish a "learning routine"*, composed of a sequence of actions which make use of learning methods (see Worksheet 6) that are repeated during each learning cycle
- Ensuring that the learning cycles of teams and individuals are linked to decision making on an organisational level

Creating an environment with supportive human interactions is about creating a “*psychologically safe*” space, in which each member feels comfortable to speak up and share their own observations, opinions, and feelings.

» EACH MEMBER FEELS COMFORTABLE TO SPEAK UP AND SHARE THEIR OWN OBSERVATIONS, OPINIONS, AND FEELINGS.

It is essential that, during a learning process, every team member is

### T6.1 — KOLB’S LEARNING CYCLE

Kolb’s Experiential Learning Theory<sup>59</sup> asserts that all four stages of learning must occur in order for learning to take place, and that every individual has a favourite learning style. Although the steps are in a logical order, the cycle can be entered from any point, thus accommodating for individual learning styles.

Stages of learning:

1. Concrete Experience is about actually carrying out an activity
2. Reflective Observation is the process of reflecting on the activity performed, and identifying

inconsistencies between observation and understanding (Why did this happen?) in order to find meaning behind concrete observations

3. Abstract Conceptualization is about relating observations based on experience to theories and developing new theories to help future learning
4. Active Experimentation is planning the application of the concepts developed to new situations and carrying these out



seen as equal, that mutual trust and respect is built, and that non-judgmental communication is developed.

Depending on their roles, group members can contribute to developing a psychologically safe space in different ways. It helps to keep in mind that every interaction goes two ways. To create a psychologically safe space, it helps to establish specific times and space for learning.

If a project reaches an unplanned and undesirable state, leaders and team members often start looking for who was responsible, in order to blame the person. The underlying assumption is that when a person is blamed the error causing the undesirable state will not be repeated. However, there is usually not just one person involved and many only partially-known causes led to the unwished situation. Blaming is a roadblock to learning.

Moving the discussion away from “who?” to “what and why?” helps to stop the blame-game, and other methods can also be applied. Acknowledging very clearly that every failure is also a learning opportunity and embracing the “failing forward” approach from the lean context are helpful approaches.

### DEVELOP A LEARNING ROUTINE

Once time and resources have been allocated to learning phases, the project teams need to develop their own learning routine. Here, routine is the key word. Dedicated regular spaces for learning need to be made available.

The Lean and Agile Development approach (see Theory 1.3: Lean Startup Development) provide good frameworks for practising learning and development as an iterative process. A learning process can include following steps:

1. **Going** back to the question or *hypothesis* you want to answer through your experiments (see Step by step Guide Chapter 5: Planning and Experimenting).
2. **Stating facts** about what you knew and did not know before the experiment, as well as what you know and do not know now. Which new things do you know? Which new questions do you have? Which questions from the past did you clarify?
3. **Reflecting** on what you learned through the experience about: 1. the service/product, 2. the process of running the experiment, 3. about yourself, 4. about the team and your interaction.

4. *Projecting your learnings* into the future by asking how the things you learned are going to influence the future development of: 1. the project, 2. the experimentation process, 3. how you want to take action and 4. how your team wishes to act in the future.
5. *Summarizing* the key learnings you gained individually, as a team, for the product, as well as for the actions you will take. With this information start the process of developing a new experiment again (see Step by step Guide Chapter 5: Planning and Experimenting).

W You can use the [Worksheet 6](#) to help with the learning process.

## CLOSING WORDS

Designing solutions that support people in changing behaviours they wish to modify is a journey that cannot be planned ahead. Though having a compass, training, the capacity to observe and the flexibility to adapt the course along the path, can make this journey an extremely rewarding adventure.

» THE WAY IS THE GOAL.

We hope that this guide provided you with processes, methods and tools, which help you realise your projects and that by doing so you can drive forwards the development of a society in which humans flourish on a living planet.

We are committed to develop resources that provide value for you through an iterative learning process. By sharing with us your thoughts about this guide, and wishes for future resources, you provide us with the inspiration and guidance on the development of our next version.

Download the Guide and the Worksheets:  
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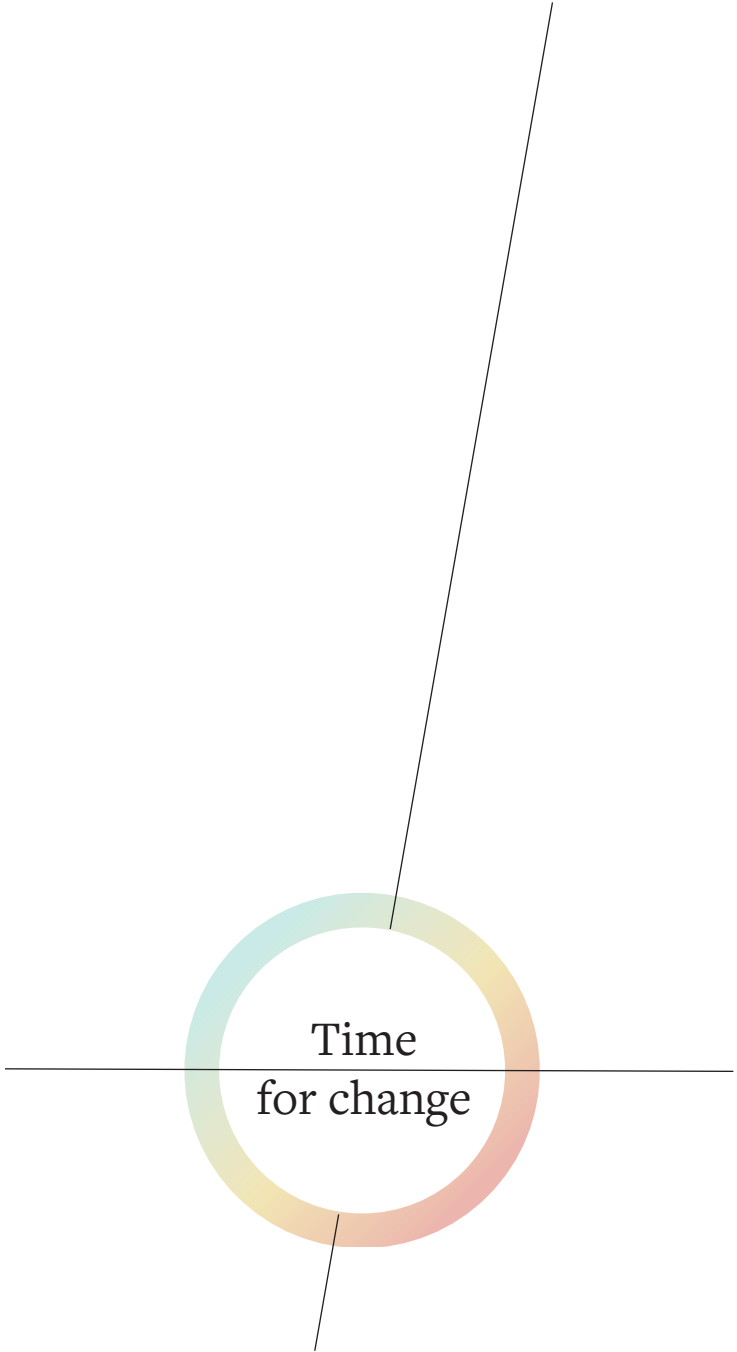
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