

*Step by step
to a successful
policy to
stimulate cycling*



Introduction

Stimulating cycling through behavioural change

This brochure has been specially developed for a step-by-step plan to set up and carry out a successful policy to stimulate people to cycle. The following pages offer practical guidelines, tips, and examples for inspiration. The brochure is designed to change cycling behaviour (the 'soft' component of stimulating people to cycle) and not for the improvement of cycling infrastructure (the 'hard' component).

Stimulating cycling through sustainable mobility behaviour

Policies designed to encourage cycling over the long term are essential for a healthy mobility system. Structural behavioural change through encouraging people to cycle helps not only to continually change conscious behaviour (for example: "I'll cycle because that's better for my health and the environment"), but also unconscious behaviour driven by habits (for example: "Driving is the easiest, because my car is parked just outside the door").

What can you expect?

This brochure shows you which elements are important for preparing and carrying out a project to encourage cycling, step-by-step. An overview of these steps is shown opposite, while a further elaboration of each step, with practical support in the form of handy tools, is detailed in the following pages.

After reading this brochure, you will:



Understand the basics of behavioural change

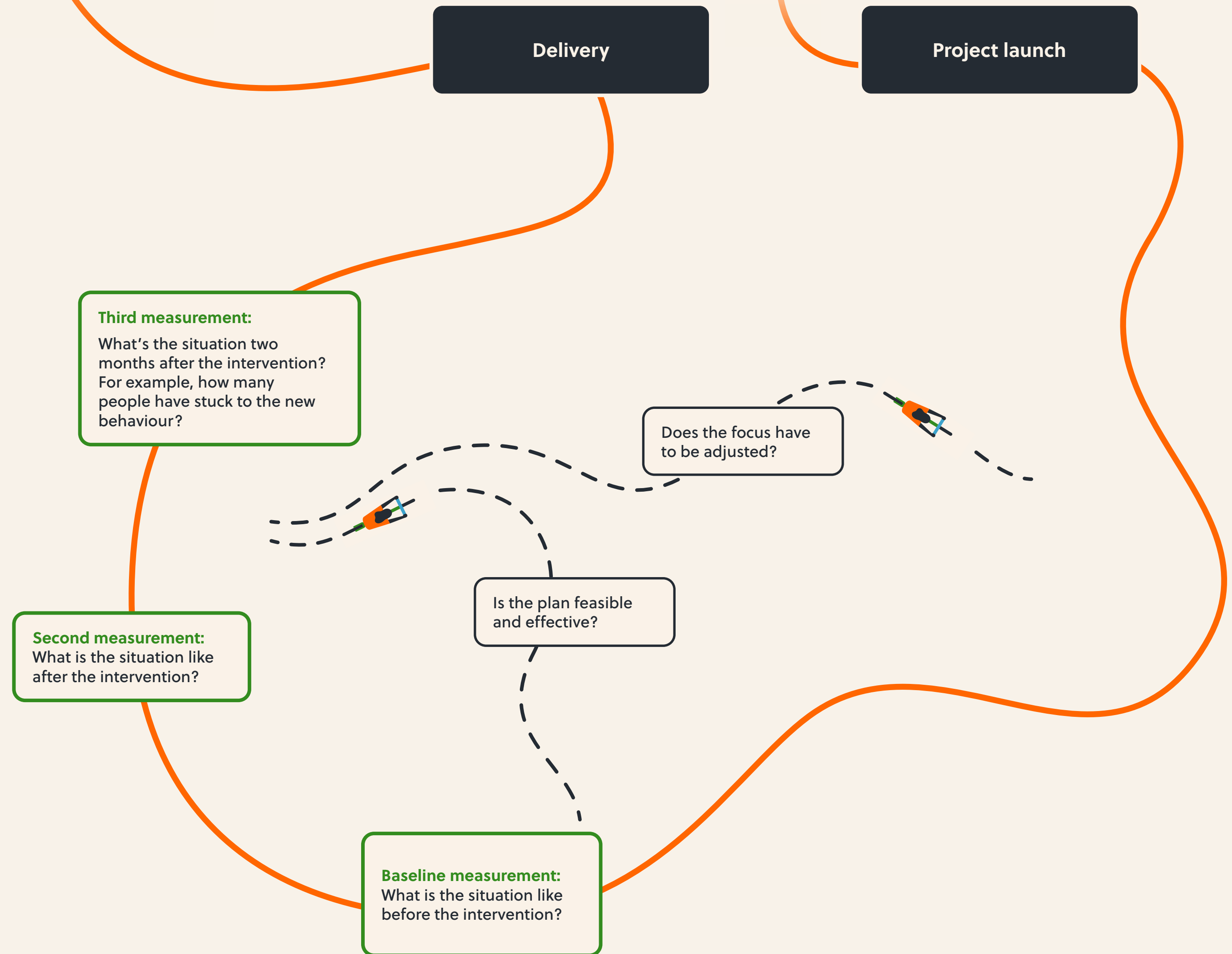


Better understand and be able to connect to the motives and behaviours of your target group



Know how to choose the most appropriate type of intervention to stimulate cycling

Step-by-step plan to stimulate cycling



Step 1: The basics of behavioural change

Before you begin with your plan to encourage cycling, it's important to understand the theory of behavioural change.

Breaking old habits

Behaviour is about more than motivation: it's also about people's capacities and their surroundings. The target group have to both want to change their behaviour and have the capacity to do so. You therefore have to look at whether the target group's environment (such as the municipality they are in) offers enough opportunities to do that. One example of breaking habitual behaviour is stimulating people to switch to sustainable transport, such as the combination of the train and rental bikes such as the OV fiets in the Netherlands, instead of driving.

Interventions that stimulate people to cycle can initiate other choices and thereby bring about new cycling habits. New behaviours can be influenced both consciously and unconsciously.

Sometimes it's useful to connect initiatives that stimulate cycling to dramatic structural changes, such as roadworks, people moving house, or the shift towards working at home during the COVID-19 pandemic. In policy terms these kinds of changes are called 'discontinuities'. They are moments where many people are already changing their behaviours, and are therefore more open to try out new routines.

The Behavioural Change Wheel

The Behavioural Change Wheel from Atkins and West [1] shown on the opposite page offers a scientific basis for behavioural change processes. It brings together 19 existing models, and gives insight into both the strategic level and practical factors of carrying out an intervention. The wheel consists of three layers (sources of behaviour, intervention techniques, and policy categories). The step-by-step approach on the following pages relate to these elements of the Behavioural Change Wheel.

Sources of behaviour

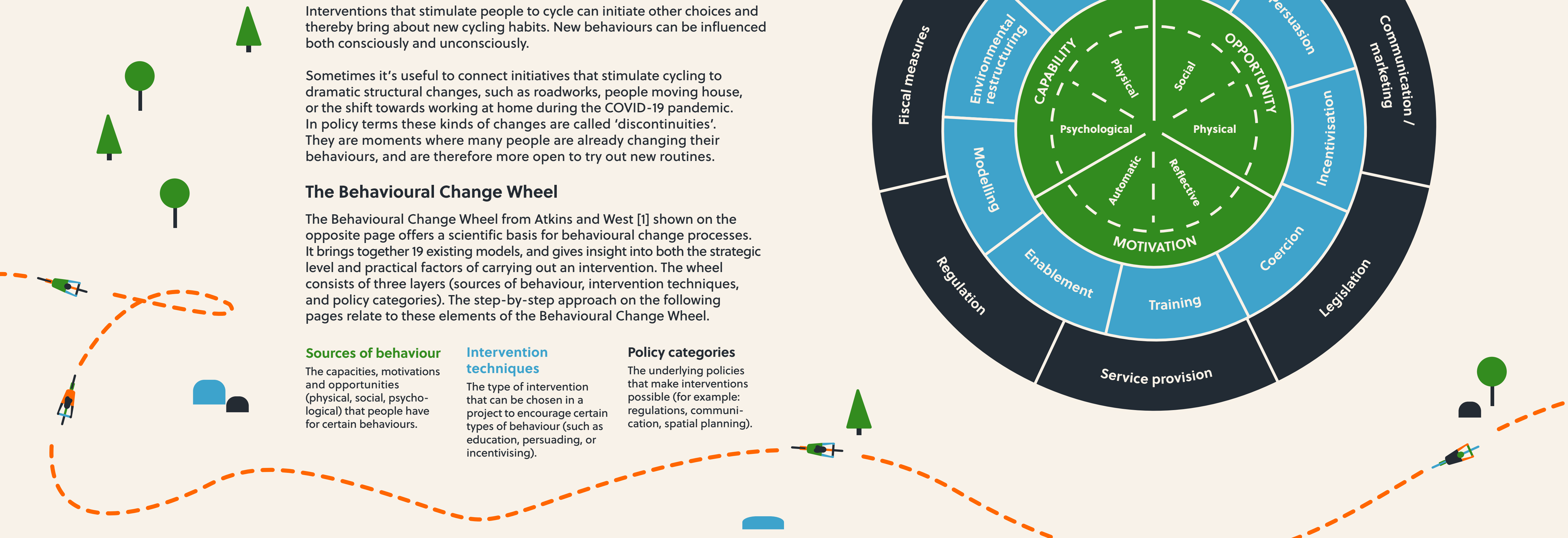
The capacities, motivations and opportunities (physical, social, psychological) that people have for certain behaviours.

Intervention techniques

The type of intervention that can be chosen in a project to encourage certain types of behaviour (such as education, persuading, or incentivising).

Policy categories

The underlying policies that make interventions possible (for example: regulations, communication, spatial planning).



Step 2: Identifying and understanding your target group

Thinking and working from the traveller's perspective is important for a successful policy to stimulate cycling. Choose a target group for whom cycling more would be a positive development'. A good understanding of this target group has an influence on the approach and the style of invention that you choose, design, and set up.

Analysis of your target group

The more you know about how people travel, the better you can respond to what motivates them. Here you can connect to the basis of behaviour in the Behavioural Change Wheel (capabilities, motivations, and opportunities). What is a target group capable of, and what do they want to do?

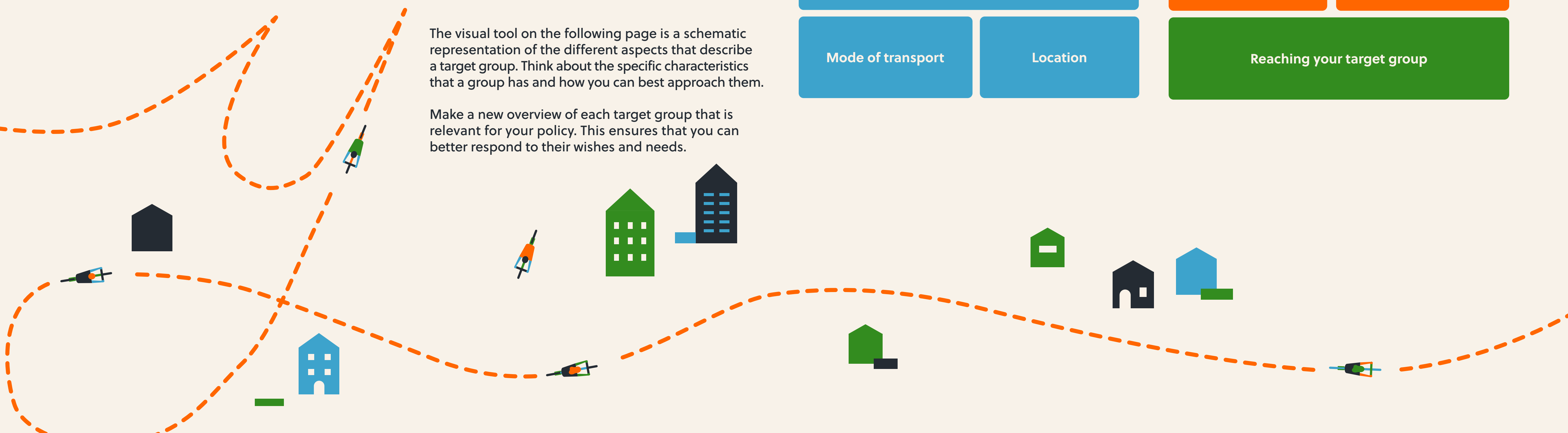
When you want to effectively understand and reach your target group, it's useful to think about personal characteristics and mobility 'styles' [2]. A target group often consists of diverse sub-groups.

For example: the group of people who travel to school consists of children as well as parents or adults, each of whom have their own profile. These sub-groups could each be described with specific characteristics (such as demographics, travel patterns, route, and mode of transport).

How does it work?

The visual tool on the following page is a schematic representation of the different aspects that describe a target group. Think about the specific characteristics that a group has and how you can best approach them.

Make a new overview of each target group that is relevant for your policy. This ensures that you can better respond to their wishes and needs.



What are the characteristics of the target group?

Demography

Gender
Age
Income
Education

Travelling motivation

Home – work
(for example:
commuters, children)

Shopping
(for example:
suppliers, tourists)

Social/Recreational
(for example: visiting family, seniors)

Route

Does the target group have routines that include cycling?

Departure point

Destination

Mode of transport

Car
E-bike
Bicycle
Walk
Public transport
Other...

Location

In what city or area (postcode) is there a need to encourage cycling?
Where does the target group tend to move around?

What is the behaviour of the target group?

Attitude and behaviour

Does the target group have enough motivation to cycle?
Are people open to changing their behaviours around mobility?
Does the target group have a physical and social environment that encourages cycling?

Ability and desire

Does the target group have the physical skills necessary for cycling?
Does the target group have sufficient knowledge of traffic rules and the benefits of cycling?

Mobility styles

What preferences and routines characterise the target group's mobility style?
For example: have they consciously chosen not to own a car, or are they actually big car users?

Dramatic changes

Are there specific changes in the environment/social surroundings (discontinuities) which you can connect interventions to?
For example: children, changing jobs, moving house, break-ups, or illnesses?

How will you reach the target group?

Via communication channels from the municipality? (for example: website, residents' letter, information evening, signs on the street)
Via a local organisation? (for example: schools, community centres, local media, hanging up signs in the shops)
Via intermediaries? (for example: people who are in close contact with the target group such as neighbours, family members, colleagues, social workers)

Step 3: Choose an intervention technique

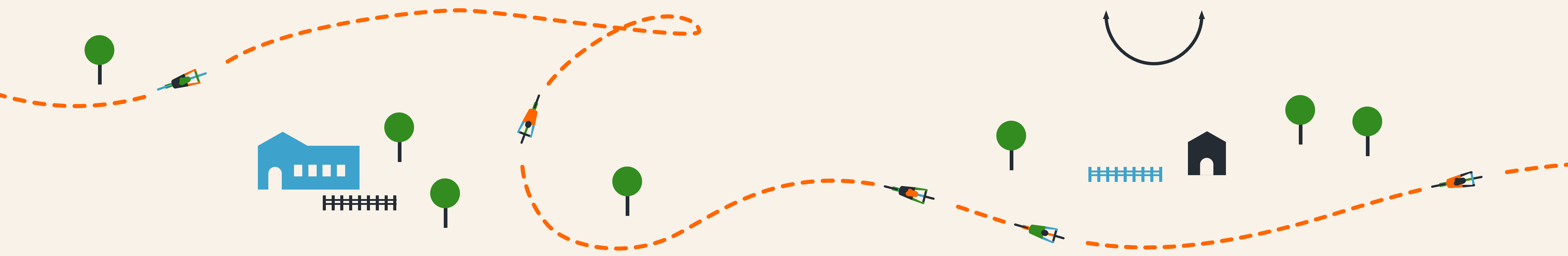
The focus on a specific target group (or a number of related sub-groups) for your project goes hand-in-hand with choosing an intervention technique from the Behavioural Change Wheel that can be the most effective in transforming one situation into another.

Behavioural change amongst the target group

At the core of every project is a specific desired behavioural change. With the analysis of the target group from the previous step, you've determined what the most important factors are in stimulating or hindering your target group to change their behaviour in the desired way. You can use the insights from this analysis to choose the most suitable intervention techniques. Does the target group need a push in terms of their capacity, or do they lack motivation, or is it a question of having more opportunities to try out the desired change in behaviour?

How does it work?

Use the visual tool on the opposite page to make a decision, on the basis of the most important aspects that stimulate or hinder your target group's behaviour (left part) about which intervention technique is the most appropriate for your project (right part).



Behavioural change for the target group

Are people open to changing their transport habits and behaviours?
Do they have the right capacities, motivation, and opportunities?
If not, then you know what you have to work on.



Intervention techniques

What techniques could you use that would most help to stimulate the desired new behaviour?

Capacity

Does the target group have the *physical skills* necessary for cycling?

Does the target group have enough *knowledge* of traffic rules and of the benefits of cycling?

Motivation

Does the target group have enough *motivation* to cycle?

Does the target group have a *routine* in which cycling is already a part?

Opportunity

Does the target group have a *physical environment* that encourages cycling?

Does the target group have a *social environment* that stimulates cycling?

Factors that may also come into play:
health, cost, convenience, comfort, sustainability, travel time, ability to carry things, social aspects/
privacy, status, pleasure, assertiveness/power, an outlet for excess energy, control.

Education

Expand knowledge and understanding
(capacity)

Training

Learn new skills
(capacity)

Modelling

An example that people can learn from
(motivation)

Persuasion

Provoke action or emotions through communication
(motivation)

Incentivisation

Creating an expectation of reward
(motivation)

Coercion

Make people aware of a fine or extra costs they could incur
(motivation)

Enablement

Providing resources and removing obstacles to increase capacity or opportunity
(capacity, motivation, and opportunity)

Environmental restructuring

Changing the physical and social environment
(motivation and opportunity)

Restrictions

Use of rules to stimulate the desired behaviour among people
(opportunity)

Step 4: Designing and planning your intervention

You now have a clear image of your target group and the best way to reach them (step 2), and also the desired cycling behaviour and the type of interventions that best fit the group (step 3). In the following step it's important to concretely define how the intervention will be carried out. When? Where? How? How long? These are the most practical things you should consider to help make the intervention a success.

Mix of intervention techniques

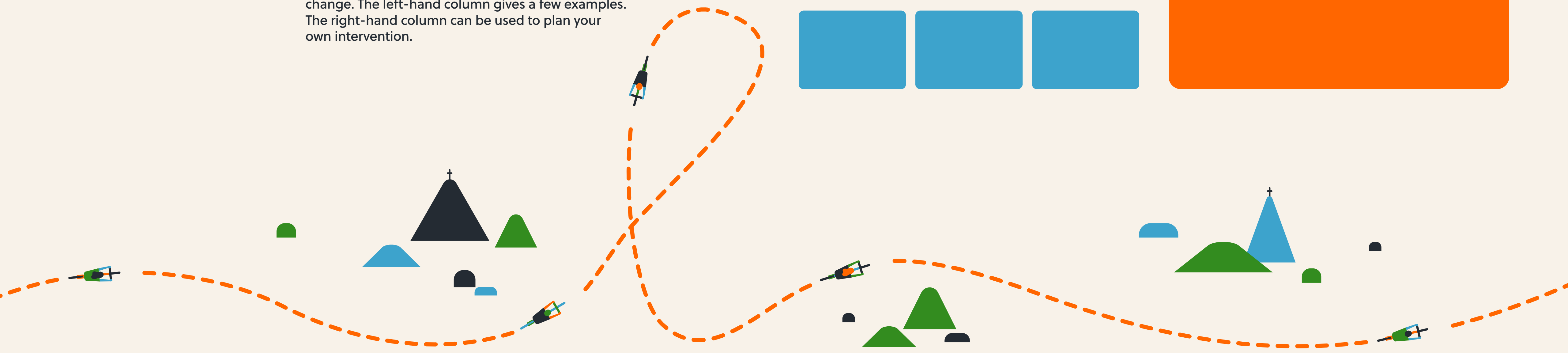
In many cases a mix of intervention techniques are needed to stimulate the desired behaviour amongst the target group. For example, campaigns and marketing can play a role in introducing concrete regulations that stimulate the desired cycling behaviour. However, to get results with behavioural change, you need more than just consciousness, so persuasion through marketing and campaigns have to go hand-in-hand with other concrete interventions.

How does it work?

Use the tool on the following page to flesh out the intervention techniques that would work the best for your specific target group. Sometimes multiple interventions need to be applied to appeal to multiple target groups, or to effect a more intense behavioural change. The left-hand column gives a few examples. The right-hand column can be used to plan your own intervention.

Intervention techniques

Intervention planning



Intervention techniques

What concrete interventions can you think of for applying your chosen techniques?

Education

for example, giving lessons about traffic safety theory



Persuasion

for example, designing a communication campaign

Incentivisation

for example, giving cyclists a discount in local shops for the kilometres they've cycled (tracked via an app)



Coercion

(not often applicable for encouraging cycling)



Training

for example, organising cycling lessons

Enablement

for example, designing a buddy system so that people can cycle together

Modelling

for example, asking a local resident or local celebrity to be a role model for cycling

Environmental restructuring

for example, improving cycling safety around schools

Restrictions

for example, increasing car parking fees

Intervention planning

How could you apply the chosen intervention techniques in a concrete way to encourage the target group to change their cycling behaviour in the desired way?

What is the best day/time to carry out this intervention?

What is the location? And what are the activities that are carried out there?

Who will be involved? What kind of role do each of these people have?

What kind of communication and information will be needed?

In what way do you expect this technique to lead to the desired travelling behaviour?

How will you measure the effectiveness of the intervention and with whom?

How much time and money is there for this intervention(s)?



Step 5: Carrying out the intervention (examples for inspiration)

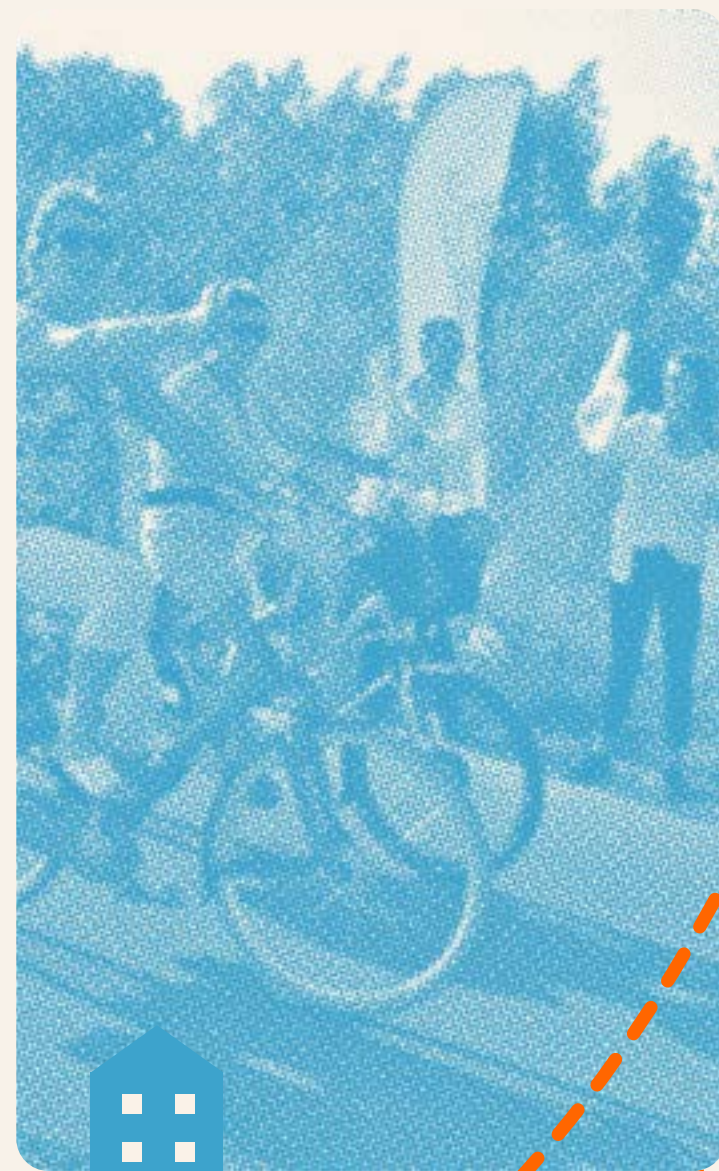
Type of intervention: Education

Traffic lessons offered in primary schools. Lessons are given from Year 1 to Year 8, ending with an exam for Year 8. The curriculum and exams are offered through [Veilig Verkeer Nederland](#) (VVN), (Safe Traffic Netherlands). Schools are not obliged to offer these lessons.



Type of intervention: Incentivisation

[Cheering](#) or applauding cyclists on the road or at the bicycle parking can be used as a non-financial incentive. An example of a financial reward could be the higher mileage allowance that the [ANWB](#) (The Royal Dutch Touring Club) gives to employees who cycle to work.



Type of intervention: Enablement

The [children's cycling plan](#) from the ANWB (The Royal Dutch Touring Club) is a programme that collects bikes, restores them and makes them available to children who can't afford a bicycle.



Type of intervention: Training

The Fietsersbond (the Dutch Cyclists' Union) began a [cycling school](#) for beginner cyclists, mostly people who have recently moved to the Netherlands. Learning to cycle well is important for integration and for increasing independence.



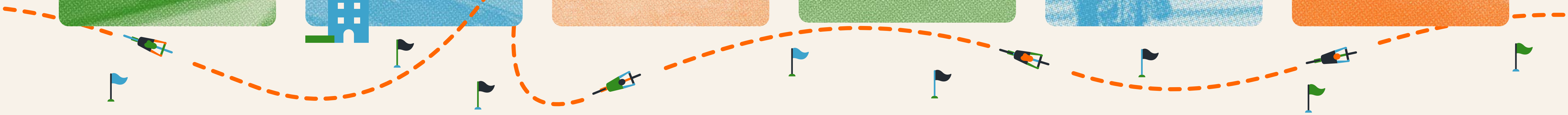
Type of intervention: Persuasion

'[I cycle](#)' is a campaign to stimulate people to cycle. It aims to get at least 10,000 residents in the province of Utrecht to cycle more often and to continue cycling.



Type of intervention: Environmental restructuring

Closing off a [school street](#) temporarily for motorised traffic so that cyclists and pedestrians can get to school safely. Improving the potential parking spaces for bikes near the school can also be a part of this initiative.



Step 6: Monitor progress

It takes people on average 40 days to figure out whether they want to continue with a new habit or change in their behaviour. That's why it's important to take multiple measurements throughout, from before as well as after the intervention has been carried out. The results can give insight into which steps have had influence during the intervention and where more attention could be directed.

Estimate of effectiveness

(mass x potential = effect)

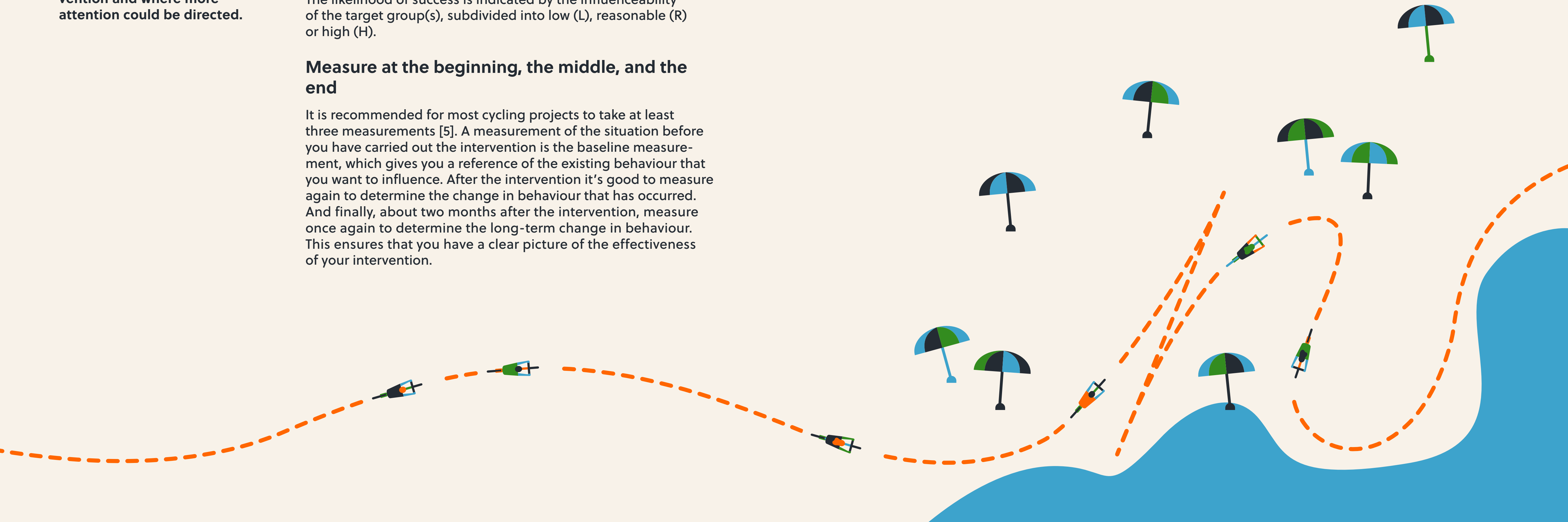
Determining your effectiveness goals and expectations of the planned intervention is advisable, so that the strategy or policy can be adjusted before a more final plan or changes are carried out (4). An oft-used rule of thumb is: mass x potential = effect.

Mass is the degree of desired behavioural change, subdivided into small (S), medium (M) or large (L).

The likelihood of success is indicated by the influenceability of the target group(s), subdivided into low (L), reasonable (R) or high (H).

Measure at the beginning, the middle, and the end

It is recommended for most cycling projects to take at least three measurements [5]. A measurement of the situation before you have carried out the intervention is the baseline measurement, which gives you a reference of the existing behaviour that you want to influence. After the intervention it's good to measure again to determine the change in behaviour that has occurred. And finally, about two months after the intervention, measure once again to determine the long-term change in behaviour. This ensures that you have a clear picture of the effectiveness of your intervention.



Step 7: Evaluation and follow-up

Reporting

A good evaluation is important to make the insights from an intervention available for others.

The steps in this brochure can help you structure the summary of a report:

- | Aim of the project
- | Description of the target group and their mobility behaviour
- | Desired behaviour and the chosen intervention
- | Planning and carrying out the intervention
- | Measuring progress and effectiveness
- | Lessons learned and next steps

Next steps

Next steps, in addition to the direct results from the project to stimulate cycling, could also be sharing the report with your colleagues and using the lessons learned as input for the next project to stimulate cycling within the municipality, or other authorities.

There are often a series of smaller steps, and multiple interventions needed for a lasting change in travel behaviour and lasting new travel habits.

Tour de Force would like to facilitate the sharing of experiences and examples.

Would you like to share a project to encourage cycling?
Contact info@tourdeforce.nl

References

[1] Michie S, Atkins L, West R. (2014) The Behaviour Change Wheel: A Guide to Designing Interventions. London: Silverback Publishing.

[2] CROWKpVV (2014) Sumo: Step voor step naar ander reisgedag.

[3] DVJ insights (2021) Campagne effectonderzoeken MONO, in opdracht van Ministerie van Infrastructuur en Waterstaat (commissioned by the Ministry of Infrastructure and Water Management)

[4] Gemeente Amsterdam (2020) Gemeente Amsterdam: Gedrag strategie Mobiliteit Openbare Ruimte [Municipality of Amsterdam: Behaviour strategy Mobility in Public Space].

[5] Gemeente Amsterdam (2022) Steppenplan Fietsstimuleringsproject Gemeente Amsterdam

[Gemeente Amsterdam - Step-by-step plan to stimulate cycling].

Colophon

This brochure was developed by Tour de Force in collaboration with STBY and the Designpolitie.

Tour de Force is a collaboration between organisations who are working towards a stronger cycling policy in the Netherlands.
<https://www.fietsberaad.nl/Tour-de-Force/Home>

