Rijksoverheid

A Wealth of Behavioural Insights: 2017 edition

Behavioural Insights Network Netherlands

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Credits

April 2018

This report is the English translation of 'Rijk aan gedragsinzichten: editie 2017' which was published in November 2017.

BIN NL is a collaboration between all the ministries for the application of behavioural insights to policy-making, implementation, supervision and communication. It is intended for the exchange of knowledge and experience.

The case studies presented in this report have been carried out under the responsibility of the individual ministries and/or their executive agencies and supervisory bodies. For more information about these case studies, please contact the point of contact for the relevant organisation. A list of contacts appears at the end of this report.

Foreword

Behavioural economist Richard Thaler was awarded the Nobel Prize for Economics in October 2017. The same honour had already been awarded to the psychologist Daniel Kahneman in 2002. Both prizes recognise decades of research into how people behave, which is significantly less rational than we often think. There has also been steadily growing interest within Dutch government circles in the insights provided by behavioural sciences and their possible applications in policy since around 2004.

Three years ago, this led to behavioural experts from all ministries coming together to form BIN NL: the Behavioural Insights Network Netherlands. Since then we have been sharing knowledge about the application of behavioural insights to policy-making, implementation, supervision and communication.

In the network's first year, we had discussions about what we understand by the application of insights from the behavioural sciences. Does it only involve nudging, seeking to change people's behaviour in a predictable way, without prohibiting options or steering with economic incentives? The answer to this was a resounding 'no'. The utilisation of insights form the behavioural sciences primarily enables a richer and more realistic policy analysis. It is thereby relevant for all types of policy instrument, such as laws and regulations, subsidies and communication. It also offers opportunities to apply nudging, a new type of policy instrument.

How this is implemented within the practice of central government is set out in this report. What is notable is the great variety of topics for which behavioural insights can be used in order to achieve policy goals more effectively and efficiently, from transparent purchase prices for cars to protection against roadside bombs and reducing student debt.

But is this wide variety really so surprising? After all, almost all government policy involves changing behaviour. There is therefore still plenty of scope to make a difference by applying behavioural insights. In a subsequent edition of this report we therefore hope to be able to present further examples of cost-effective behavioural interventions in policy areas with a substantial social impact. To be continued!

Thomas Dirkmaat
Chairman of the Behavioural Insights Network Netherlands (BIN NL)

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Increasing interest in the application of behavioural insights

Behaviour as a promising discipline

Almost all government policy seeks to change behaviour. The behavioural sciences teaches us that the picture of humans as conscious, rational decision-makers is incomplete. This has an impact on the effect of the instruments that the government often deploys. For example, when the government provides information, it is important to consider whether people are actually capable of processing all that information. And about what social norm are you communicating with a particular message? Knowledge of behaviour is also crucial when formulating laws, financial incentives or agreements. That knowledge helps to give a realistic picture of the possible effects of these tools. Behavioural insights also provide a basis for new policy tools. For example, signing forms beforehand rather than afterwards can increase honesty in completing those forms. This might be useful with tax returns, for instance.

The insights from the behavioural sciences are varied, but it is important that deviations from the rational model are partly predictable. By applying behavioural insights to policy-making, implementation, supervision and communication, the government can formulate policy more effectively and serve its citizens better. The behavioural sciences are thereby a developing discipline within government alongside more established disciplines such as law, economics, public administration and communication sciences.[1] Foreign governments are also increasingly viewing the behavioural sciences as an essential source of knowledge.[2]

Cabinet decision to utilise the insights

There has been interest in applying behavioural insights in the Netherlands for some time. For example, the Ministry of Defence trained and deployed the first psychological operations unit in Afghanistan in 2004. In 2009 the Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid - WRR) published the report 'De menselijke beslisser' (The human decision maker). The behaviour change team at the Tax and Customs Administration was also started at that time. In 2011, the Ministry of General Affairs started using CASI: a tool for developing a communication strategy for behavioural change. In 2011, the Ministry of Social Affairs and Employment published the brochure 'Rare jongen, die homo sapiens' (Peculiar fellows, those Homo Sapiens), which sets out relevant behavioural insights for policy-making. The WRR report prompted what was then the Ministry of Infrastructure and Environment to set up the Infrastructure and Environment Behavioural Insights Team at the end of 2012. In 2014, what was then the Ministry of

1 For a more detailed description of the rise of behavioural science in Dutch government, see Feitsma (2016).

2 Lourenço et al, 2016.

Economic Affairs placed the subject on the interdepartmental agenda by organising a gathering for top civil servants from all the ministries. In that year, three advisory councils[3] also published reports in which they advised the government to utilise behavioural insights throughout the policy-making process. In response to these reports, the cabinet expressed its belief in December 2014 that the stronger application of behavioural insights would make the government more effective and efficient.[4]

All ministries experiment

It was agreed in the cabinet response that all ministries would experiment with the use of behavioural insights in various policy areas. This prompted some ministries, executive agencies and supervisory bodies to set up small expertise teams or knowledge networks. The Authority for Consumers & Markets has, for example, had a behaviour network since January 2014, the Authority for Financial Markets has a Consumer Behaviour Team (which has been part of the AFM's expertise centre since 2016), the then Ministry of Economic Affairs set up the Economic Affairs Behaviour Insights Team at the end of that year, and the Behavioural Change think tank was established within the UWV (Employee Insurance Agency) in mid-2015. Collaboration is also sought across departmental boundaries. In this context, the Information Council (Voorlichtingsraad) started a trial in 2017 with a government-wide Behaviour Lab. In 2017, the WRR published the report 'Weten is nog geen doen: een realistisch perspectief op redzaamheid' ('Knowing isn't doing: a realistic perspective on life skills'). For the future role of the application of behavioural insights within government, we refer to the cabinet response to this report.[5]

[3] *Doen en laten: Effectiever milieubeleid door mensenkennis* (Influencing behaviour: More effective environmental policy through insight into human behaviour), The Hague: Raad voor de leefomgeving en infrastructuur (Council for the Environment and Infrastructure), 2014.
De verleiding weerstaan: grenzen aan beïnvloeding van gedrag door de overheid (Resisting temptation: limits on influencing behaviour by the government), The Hague: Raad voor de Maatschappelijke Ontwikkeling (Social Development Council), 2014.
Met kennis van gedrag beleid maken (Making policy with behavioural knowledge), Wetenschappelijke Raad voor het Regeringsbeleid (Scientific Council for Government Policy), Amsterdam: Amsterdam University Press, 2014.

[4] Kamerstuk (Parliamentary Papers) 34000XIII no. 140.

[5] Kamerstuk (Parliamentary Papers) 34775VI no. 88.

Behaviour network

The Behavioural Insights Network Netherlands (BIN NL) was established in 2014 in order to share knowledge and experiences, with all ministries participating. This network meets on a monthly basis and organises various activities aimed at sharing and developing knowledge, including a monthly series of lectures, a training module for civil service trainees and the Dag van het gedrag (Behaviour Day) conference.

Results up to 2017

With this report, BIN NL is seeking to provide an overview of how behavioural insights are being applied within central government, and what results this is producing. The choice has thereby been made to focus on 14 showcase studies (in Chapter 3). Over forty further case studies are described in the appendix for the (professionally) interested reader. We then discuss success factors, lessons and tips based on the experiences so far (Chapter 4). These can be applied both within central government and outside it. The report ends with further reading for anyone who wants to find out more about behavioural insights and their application by governments (Chapter 5). Firstly, we explain in Chapter 2 what we mean by behavioural insights.

2

What are behavioural insights?

The label 'behavioural sciences' covers a range of scientific disciplines that examine human behaviour from various perspectives, such as social psychology and behavioural economics. The behavioural sciences examine from an empirical perspective how people behave, process information and make choices in everyday situations. Below we have set out three broad insights that are relevant for policy-making.

People are only rational to a limited extent

In policy-making we often assume - sometimes implicitly - that people balance the pros and cons and assess risks on the basis of all the available information, and thereby make well-considered and consistent choices. The behavioural sciences teach us that the choices that people make are only rational to a limited extent. One example of this is that people are more sensitive to loss than to gain. As a result, they put in more effort and take greater risks to avoid loss than to win the same amount (Kahnemann & Tversky, 1979; 1984). People also follow certain rules of thumb or shortcuts in processing information. One example of this is the availability heuristic: for events that we can recall more easily - for example because they were distinctive or emotional or recently in the news - we overestimate the likelihood that they will occur again (Lichtenstein et al. 1978; Tversky & Kahneman, 1974). These deviations from rationality are partly predictable, as a result of which we can take account of them in policy-making.

People have limited self-control

It takes effort to resist temptation and suppress impulses. People have a limited available resources for this. They want to eat more healthily, exercise more often or save for their pension, but in practice it turns out to be harder than they thought. One consequence of this is that there is a major difference between planning to do something and actually doing it, between intention and behaviour. Everyone has experienced this conflict at some point: planning to do some chores but ending up slumped on the sofa, starting a diet but ending up in a burger bar after just a week, wanting to save but still going out for dinner. A psychological phenomenon relating to this is that people perceive a reward in the near future as more valuable than a reward further in the future. As an illustration, the average person feels that 68 euro now has the same value as 100 euro in a year's time (Konig & Kleinmann, 2006). This plays a role in trade-offs between present and future rewards, such as pensions and savings, but also in health, for instance.

People are influenced by their environment

In order to determine what the 'right' behaviour is, people often look at the behaviour of others, particularly in new or uncertain situations. In a classic example of this, Asch (1951) conducted a study in which a group of confederates unanimously gave the wrong answer to a very simple question. The participant, who was unaware of this conformed by also giving the wrong answer. The news, SIRE commercials and government communication often show undesirable behaviour in order to stress its objectionable nature. However, often this actually gives the subconscious signal that this is 'normal' behaviour.

It is not just the social environment but also the physical environment that can have a major influence on behaviour. If fruit is within closer reach than chocolate, it makes it easier for canteen visitors to make a healthy choice (Drèze, Hoch and Purk, 1994). And optically narrowing stripes on the road prompt people to drive more slowly of their own accord (Thaler & Sunstein, 2008). The physical environment can also communicate a particular social norm. An environment with a lot of litter on the street provides a lot of information about other people's behaviour, and can therefore lead to more litter. Litter attracts litter.

For more behavioural insights, see the reading tips in Chapter 5.

3

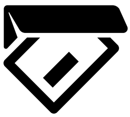
Showcase studies from all ministries: 14 behavioural projects

Highlights of the showcase studies

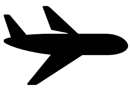
This chapter contains 14 showcase studies from behavioural projects that have been conducted in recent years within central government. The appendix contains the results of more than 40 additional behavioural projects. The results of the 14 showcase studies are summarised briefly below.

ACM: An increase in compliance with the rules concerning clear car pricing from 3 to 89 percent as a result of targeted letters to car importers which included examples of advertisements and announcement of the 'naming and faming' of importers who complied with the rules by the stipulated deadline.

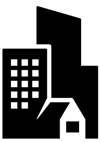
General Affairs & Health, Welfare and Sport: A rise of around 50 percent in the spontaneous presentation of ID at the supermarket till by young people when purchasing alcohol as a result of the introduction of new communication material with the aid of behavioural insights (incl. self-persuasion and sympathy).



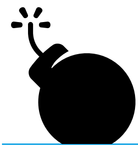
Tax and Customs Administration: A significantly faster response to requests for information from the Tax and Customs Administration to individuals by varying - among other things - the message (inclusion of deadline) and communication channel (reminder by SMS instead of letter).



Foreign Affairs: Behavioural analyses have been and are being carried out in order to find out why civil servants do not yet book their own business trip on time, and how to encourage everyone to book on time. Timely booking could save some 3 to 6 million euro a year.



Interior and Kingdom Relations: Various insights for interventions aimed at counteracting 'scheefwonen' (misoccupancy) on the basis of four studies with the aid of behavioural insights. Aspects highlighted in this included inertia and procrastination as explanatory factors for misoccupancy.



Defence: The reporting of roadside bomb locations by the local population in Mali by using posters with clear drawings and the local radio station, and thereby responding to the high level of illiteracy and the local tradition of communicating messages verbally.

DUO & Education, Culture and Science: A 72 percent lower loan amount among students by setting a lower default loan amount after completing the performance-linked grant phase. Removing a maximum loan selection option led to a decrease in the proportion of maximum borrowers from 53 to 23%.

Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy & RVO: More than tripling the proportion of companies with a relatively high energy consumption that downloaded a feedback report on their energy consumption by means of an e-mail modified with the aid of behavioural insights (incl. clearer, easier and more personal).

Finance & AFM: No effect on the proportion of visitors to a consumer credit provider who applied for consumer credit after seeing the credit warning "Beware! Borrowing money costs money".

Infrastructure and Water Management: With the insights of a broad behavioural analysis in mind, a package of 350 measures was developed within the Optimising Use programme. Since 2011, the measures have led 48,000 people to avoid rush hour on a daily basis, which contributes to a 19 percent reduction in delays during rush hour.

Justice and Security: Behavioural psychology was used to explore how COA (Central Agency for the Reception of Asylum Seekers) staff can deal constructively with violent incidents in asylum reception centres. Although training options are available, it would seem important to standardise the training programme.

Social Affairs and Employment: A 30 percent increase in the likelihood that a survivor notifies a change in his or her living and housing situation that can lead to termination of survivor's benefit by means of a reminder letter using behavioural principles such as loss aversion, facilitation and a social norm.

UWV: An increase of almost 60 percent in the likelihood that jobseekers complete an online questionnaire thanks to a message in the online environment in conjunction with a reminder. An SMS with the behavioural principles of reciprocity and personalised works best for the group that had not yet responded.

Health, Welfare and Sport: A significant increase in the likelihood the participants in company gyms achieve their weekly target of exercising twice a week by using a lottery which capitalises on anticipated regret; the winners were only allowed to keep their prize if they had achieved their weekly target.

Clear car pricing (ACM)

How do you prompt importers to provide transparent price information?

The Authority for Consumers & Markets (ACM) was informed in 2016 by the Consumentenbond (Consumers' Association) and ANWB (motorists' association) that advertisements selling cars did not comply with the law. When a consumer bought a car, they were confronted with unexpected costs. Investigation by the ACM showed that virtually all car brands advertised with prices which did not include the compulsory costs for getting the car on the road. The additional amount could exceed 1500 euro for new cars.

The ACM examined (the cause of) the problem and conducted conversations with the sector about the reasons why the on-the-road costs were still shown separately. In order to bring about a change of behaviour throughout the sector as quickly as possible, the ACM decided to target the importers of cars. They are responsible for national advertising material and the car brands' websites.

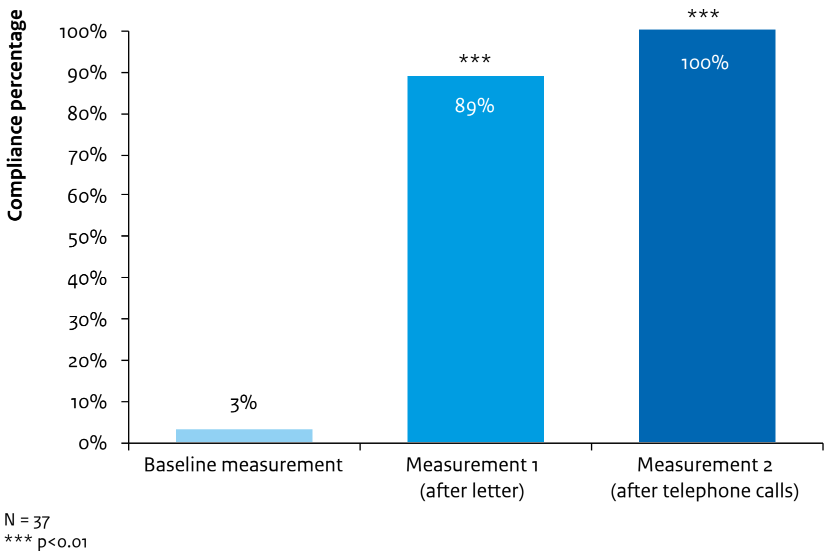
All importers were instructed to comply with the rules concerning price transparency. To that end, the ACM sent targeted letters in goal-oriented language with examples of advertisements. This instruction was also explained over the telephone. The ACM also explained why the arguments put forward by the sector had not persuaded the authority to change its mind. The ACM also provided information via its website, media and by speaking at conferences. Announcement: with effect from 1 November 2016, the ACM will be carrying out enforcement actions: steps will be taken against any importer who

Behavioural insights

Naming & faming (Vliek, 2017) was probably an effective tool for encouraging compliance in this case. The threat of punishment was required for a few individuals, but enforcement was not. Most importers strived to achieve the stipulated deadline, and informed ACM themselves that they had succeeded in doing so.

fails to comply with the rules by that date. This is designed to create a level playing field. Finally the ACM promised to give a positive mention (naming & faming) to importers in a press release if they complied with the rules before the stipulated deadline. The ACM started checking after 1 November. In order to measure compliance, the pricing information on the websites of in total 37 car brands which are managed by the importers was examined.

It was found that following communication from the ACM with the market, compliance rose from 3% to 89%. Telephone calls were made in order to ensure compliance by the remaining 11%. With most importers, this call led to a correction. For a few individuals, the ACM had to threaten an order with a penalty for non-compliance before the party carried out the correction. Ultimately the ACM did not need to impose any fines or orders with a penalty for non-compliance. Following the telephone calls, compliance rose from 89% to 100%.



Increase in compliance after letter (measurement 1) and after telephone call (measurement 2): all car importers modified their prices.

Spontaneous presentation of ID when young people buy alcohol (General Affairs & Health, Welfare and Sport)

What communication helps with showing ID?

Smoking and drinking are harmful to health. The NIX18 campaign is aimed at ensuring that ‘not smoking and not drinking under the age of 18’ becomes the social norm in Dutch society. The government is collaborating with many social partners on this campaign. The campaign, developed by the Ministries of Health, Welfare & Sport and General Affairs also supports alcohol and tobacco retailers, such as supermarkets, with the age check.

Checkout staff often find it difficult to carry out this check properly, and the customer often finds it annoying to be thought to be too young. It helps the checkout staff if young people spontaneously show ID when they buy alcohol or tobacco. To bring this about, new material was developed for the sales outlets: posters, shelf cards and checkout dividers.

The request to show ID is based on behavioural insights: it shows the model behaviour, shows how difficult age checks often are, engenders sympathy for the checkout operator and gives young people a sense of freedom to choose.

Behavioural insights

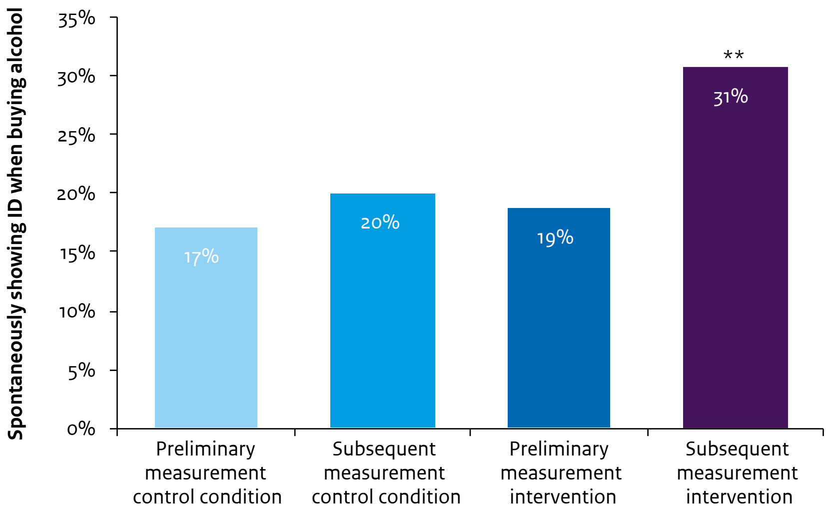
The new communication material for NIX18 (posters, shelf cards and checkout dividers) urges young people to show their IDs spontaneously.

This request:

- gives young people a sense of freedom to choose;
- generates sympathy for the checkout operator;
- shows model behaviour;
- allows young people to experience how difficult age checks are (self-persuasion).

In a large-scale field experiment, we observed and questioned young people after purchasing alcohol and tobacco in four comparable supermarkets (two with and two without the new material). The observations show that the communication material makes a substantial contribution to the spontaneous presentation of ID. This effect occurs among young people buying alcohol individually. The new material influences young people subconsciously, since when questioned it was found that their intention to show their ID is actually decreasing. The effect is particularly evident in purchases of alcohol. This is probably linked to - among other things - the different sales situation for tobacco: young people are less exposed to the communication material.

The insights from the experiment are being used for the further development of the communication material for sales outlets throughout the Netherlands.



N = 518 young people who bought alcohol individually
** p<0.05

The communication material has an effect.

Faster response to a request for information (Tax and Customs Administration)

How do you avoid people having to repay benefits?

People who receive benefits sometimes forget to report changes in a personal situation on time. Students, for example: they applied for the health care benefit at the start of their studies, and years later when they have graduated and find a job, they forget to report it. Their income has increased, as a result of which they are no longer entitled to that health care benefit. In the meantime, they still continue to receive the money. As a result, they are not confronted with the situation until later and have to repay a lot of money.

Luckily the Tax and Customs Administration is increasingly able to use data analysis to determine which people have experienced changes that affect the level of their benefit. This could be a higher income, but also a change in childcare for instance. In the event of such changes, the Tax and Customs Administration contacts these people using the principles of a 'natural dialogue': the basic principles that every human being applies in a good conversation. The thinking is that if we follow those principles, we are more attuned with the citizen's experience and we can guide their behaviour better. The principles are applied in three areas:

- to the message: non-legalistic and specific
- to the process: interaction prior to the transaction, at the right time and in the right way for the citizen
- to the relationship: respectful and personal.

Behavioural insights

Time pressure condition:
People respond more readily to a request for action if they have a deadline imposed than if this is not the case.

Sharing the information position:
More people respond to a request to rectify their details if we show what we already know about them than if we do not show it.

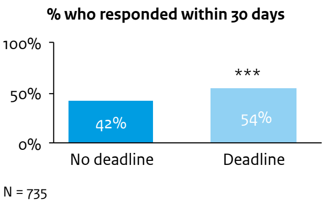
Urgency nature of the channel:
People associate different triggers with different response times: a response to a letter can wait a while, whilst an SMS needs to be answered today.

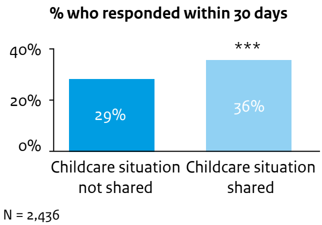
> Dear Mr Maas, Please don't forget our letter of 1 March 2017 about adjusting your income for your benefits. Sender: Tax and Customs Administration/Benefits department. Questions? E-mail sms@belastingdienst

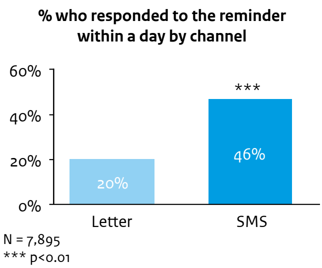
The aim of this dialogue with the citizen is to ensure that the benefits are 'right first time' in future. In this way, the Tax and Customs Administration wants to provide citizens with certainty more rapidly and avoid questions, objections and the need to recover money paid out incorrectly.

The Tax and Customs Administration has conducted multiple experiments with natural dialogue since 2016. That has given us insight into the correct tone, the correct timing and the correct message in the interaction with citizens.

Three examples[6]:







People respond more readily to a request for action if they have a deadline imposed than if this is not the case.
Among state pension recipients who were asked to modify their details, the response was higher if we gave them a deadline than if we gave no deadline. The other side of the coin is that the deadline caused uncertainty for more state pension recipients, as a result of which they made more contact by telephone.

More people respond to a request to rectify their details if we show what we already know about them than if we do not show it.
We asked recipients of childcare benefits to check and amend their details. The response was higher if we showed in the letter what we already knew about their childcare situation in the past than if we did not do so.

People associate different triggers with different response times.
Benefit recipients who did not do anything within 2-3 weeks after the letter were sent a reminder. Citizens who received the reminder by SMS then responded far more rapidly than citizens who were sent a reminder letter.

[6] This case study focuses on a few behavioural insights from a larger experiment. The complete intervention package for different target groups has resulted in higher customer satisfaction, citizens who know where they stand, and a reduced likelihood of having to recover benefits.

Booking your own business trip on time (Foreign Affairs)

How do you get employees to book their tickets?

When we're young, we want to do everything ourselves, discover the world. The idea of a compact government makes us think that anyone who has to travel for work can best arrange that themselves.

All ministries ask their employees to book their business trips themselves and on time, at least 21 days before the start of the trip. The Worldwide Working Directorate of the Ministry of Foreign Affairs has made a booking system available for all international business trips: Travel Expense Management (TEM). The Ministry of Foreign Affairs started this at the end of 2015. Pilots are taking place at the Ministries of Economic Affairs and Infrastructure & Water Management, and other departments will follow.

Behavioural insights

The interim results show big differences in dealing with digital systems and that timely booking provides peace of mind and certainty. These two insights are being tested and worked out further in the follow-up study: what is really going on with this purported procrastination? Are people unwilling or unable? Does TEM meet the user's expectations? How does having to book 'themselves' influence the booking 'on time'? And what do people need in order to be able to book early?

It is now clear that many people use the system well and to their satisfaction, but there are also many people for whom that is not the case. That gave rise to the question: how do we ensure that everyone books on time? The assumption was that people do not read the instructions and often book at the last moment, whilst a calculation shows that timely booking could save some 3 to 6 million euro a year.

The three Behavioural Insights Teams from Economic Affairs, Infrastructure & Water Management and Foreign Affairs each conducted interviews with a handful of employees in order to be able to get an initial picture of the behaviour patterns and considerations. These interviews revealed - among other things - that the experiences with TEM are extremely varied. More use leads to better use, the invisible 'back-end' of the system means that some people work outside the system, early booking is not always possible but does give peace of mind and certainty, and people do not always know about the 21 day standard.

We have now started a study into the real behavioural issues underlying the booking behaviour: what conscious and unconscious mechanisms do people apply, and what are effective interventions? Arnhem-based agency Duwtje is carrying out the study. We expect the results at the end of November 2017 and will publish them on rijksoverheid.nl/binnl.

For the ministries, it is important not only to think about the system and the assumptions about behaviour, but to really look at and listen to how the system's users use it, including all the differences between people, departments, cultures and management styles. We also note that TEM is still a young system, and that the system and users still need to adapt to one another.

The particularly enlightening aspect of this project is that for once we are not looking at other people, but looking at ourselves within the government.

Less skewed living (Interior & Kingdom Relations)[7]

How do you persuade people to move house?

The housing market is 'blocked'. This is a claim that we have been hearing for years, particularly when it comes to social rented housing. This is partly due to skewed living ('scheefwonen'), where a tenant's housing situation does not match their income.

Skewed living is a policy problem for various reasons. Households that are paying too little for their accommodation are occupying social housing to which they are not actually entitled. This leads to long waiting lists for the genuine target group. Households that are paying too much for their accommodation spend a relatively large proportion of their income on housing costs. They are also more likely to claim housing benefit.

Behavioural insights

Tenants whose housing situation does not match their income (skewed livers) do not feel themselves that they are skewed living. They are generally satisfied with their home, and most feel that the rent matches their income.

Skewed livers also suffer from inertia. They are inclined to remain where they are rather than change.

Even if they want to move house, they are prone to procrastination. This is reinforced by the lack of transparency in the housing market, since people are inclined to avoid complexity.

The options for tackling skewed living are limited. Tenants cannot simply be forced to move house. The decision to move house involves both financial stimuli and subconscious behavioural mechanisms. The Ministry of the Interior and Kingdom Relations therefore commissioned four studies into tackling misoccupancy using behavioural science:

- study by RIGO: this shows that there are various categories of 'skewed livers' who may be sensitive to different stimuli. For example, younger groups are more likely to move of their own accord than other groups. Those with a higher level of education also move house more often.

[7] See also: NSOB (2016) Scheefwonen en gedragswetenschappen: Rode lijn in de onderzoeken naar de inzet van gedragswetenschappen bij de aanpak van scheefwonen (Skewed living and behavioural science: Red line in the research into the use of behavioural science to tackle skewed living).

- study by SEO: this shows that the price stimulus appears to be a very dominant factor for skewed living. Experimenting with other behavioural stimuli is certainly interesting, but can only have major effects if the price stimulus is also addressed. For example, the impact of a rent increase can be strengthened by raising the rent in a single step, rather than in stages.
- study by Motivaction: helps to develop bespoke interventions for specific groups. For example, the younger target groups with a higher income are relatively easy to prompt into action by positive stimuli such as a moving allowance, priority with rentals in the mid segment, the use of a personal estate agent/rental agent and increasing the opportunities to obtain a mortgage.
- study by NSOB: elaborates practical interventions based on the concept of gamification. This applies game principles such as seduction, comparison, entertainment or simplification within policy-making. For instance, one idea is to make searching through the housing on offer simpler and more fun. For house swaps, think of an app like Tinder in which people can 'like' or 'swipe away' houses.

No interventions have yet been carried out in 2017 on the basis of this, but the studies do offer starting points. For example, the Ministry could:
- modify the rules so that the income-related rent increase takes effect earlier;
- engage the stakeholders: for example a competition between housing corporations to counter skewed living. Or make open data available so that platforms can be developed to reduce skewed living;
- respond to the motives of the groups of skewed livers. Bespoke interventions can tempt, inspire or challenge those groups to explore the housing market.

Better protection against roadside bombs (Defence)

How do you encourage more reports?

If violence threatens or occurs within society or between societies, military deployment may be necessary. Military activities can be used to correct and prevent unwanted behaviour. This can be done through physical intervention (such as neutralisation or capture), but can also be done in a psychological way (influencing fear, uncertainty, motivation or indifference). This makes soldiers special behaviour influencers: those who have a licence to use force.

The protection of the population is stipulated in the UN mandate of the MINUSMA mission in Mali. Roadside bombs cause a lot of harm among the population. It was found that explosives that are still lying around everywhere are sometimes used as roadside bombs. This poses a major problem for safety.

The Ministry of Defence wants to help the population to protect themselves against roadside bombs. That is why we developed a programme based on a target group analysis, among other things. The analysis revealed - for example - that the inhabitants share a lot of information verbally.

The result of this programme was not only that we received a lot of expressions of support and appreciation from the population, NGOs and the MINUSMA organisation, but particularly also that we were informed about practical locations of explosives. While before the programme the population did not report roadside bomb locations, this did take place after the programme had been implemented.

These forms of behavioural influencing contribute to combating and preventing violent or unwanted behaviour.

Behavioural insights

Family is the most important component in Malian society, which is built on 'communal relationships'. That is why it was explained to the Malian population that roadside bombs also pose a risk to families and to children. This was a good incentive for reporting roadside bombs.

It was also found that most Malians cannot read, and that there is a tradition of verbal messaging. Use was therefore made of posters with clear drawings and the local radio station in order to disseminate the message about the danger of roadside bombs. In social psychology this is referred to as 'social salience': the reasons why people pay attention to particular issues. For example: which words hit a nerve?

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Greater awareness in student loan behaviour (DUO & Education, Culture and Science)

What is the effect of default options?

The Education Executive Agency (Dienst Uitvoering Onderwijs - DUO) and the Ministry of Education, Culture and Science have been using behavioural insights for some time in order to encourage students to borrow with greater awareness. Two examples[8] of effective modifications to the default options are explained here.

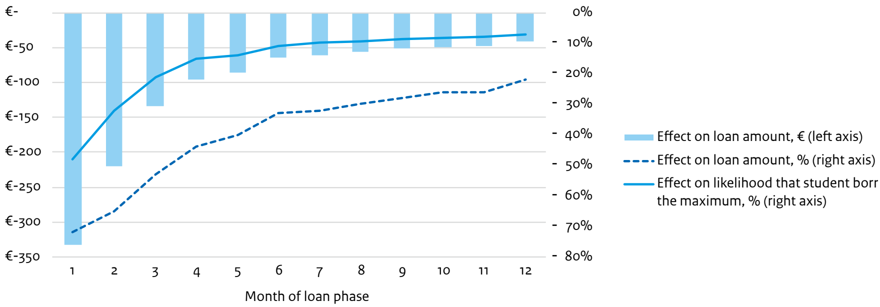
Behavioural insights

A default option is the option that a person ends up with if they do not make an active choice: silence implies consent. Insights from behavioural economics provide multiple mechanisms through which defaults can strongly influence people's behaviour. For example, the individual can perceive the default as an implicit recommendation by the default setter (e.g. McKenzie, Liersch & Finkelstein, 2006; Tannenbaum & Ditto, 2011; Altmann, Falk & Grunewald, 2017). In addition, individuals are less inclined to deviate from the default option due to the human tendency to procrastinate on decisions. This particularly applies to complicated decisions (e.g. Tversky & Shafir, 1992; Van Rooij & Teppa, 2008).

The first modification was a change to the default loan amount when a student enters the loan phase. This applies to students who are no longer entitled to the performance-related grant (basic grant and possibly supplementary grant). Prior to September 2009, students who had not requested a loan in the last month of the grant phase automatically received the maximum monthly loan amount when entering the loan phase (€ 819). Students were notified of this in advance and had the option of adjusting the loan amount (monthly). After September 2009, this group was automatically awarded a loan equal to the amount that they received as the basic grant: € 93 for those living at with their parents or € 260 for those living elsewhere.

The average loan amount in the first month of the loan phase fell by a remarkable 72% as a result of the change to the default option (see figure). This is a reduction, from € 458 to € 128. This effect diminishes in subsequent months (as a result of active adjustments to loan amounts by students), but viewed over the full first year of the loan phase there was still an average reduction of 43%. This corresponds to approximately € 1235 of reduced borrowing. The probability that a student who did not borrow anything during the grant phase would borrow the maximum amount in the first month of the loan phase was substantially reduced: from 51% to 3%.

[8] See Van der Steeg & Waterreus, 2015, and Visser (forthcoming).



Students borrow substantially less in the event of a lower default loan amount when entering the loan phase, although this effect levels out after a number of months[9].

The second modification was the removal of the 'maximum loan tick box' from the loan application screen in March 2014 (see image). This modification reduced the likelihood that a student who requests a loan for the first time, would borrow the maximum amount from 53% to 23%. The estimated effect on the loan amount is -9%.

Student loan application screen prior to March 2014

Student loan application screen after March 2014

Loan amount, €	Loan amount, percentage	Probability of borrowing the maximum amount, percentage point
€ -30.50***	-8.70%***	-30.0pp***

Students borrow the maximum amount less often and on average also borrow less if the 'maximum loan tick box' is removed[10].

[9] This is the effect on the loan behaviour of students in the first 12 months of the loan phase. All effects are statistically significant at a 1% significance level (p-value<0.01). N = 202,200 Source: own calculations based on anonymous student loan data obtained from DUO.

[10] This is the effect on the loan behaviour in the first month for students in the grant phase who are applying for a loan for the first time. Source: own calculations based on anonymous student loan data obtained from DUO. N = 11,308 *** = p-value<0.01.

Energy-saving in the private sector (Economic Affairs and Climate Policy/ Agriculture, Nature and Food Policy & RVO)

Which e-mail prompts the most downloads of the feedback report?

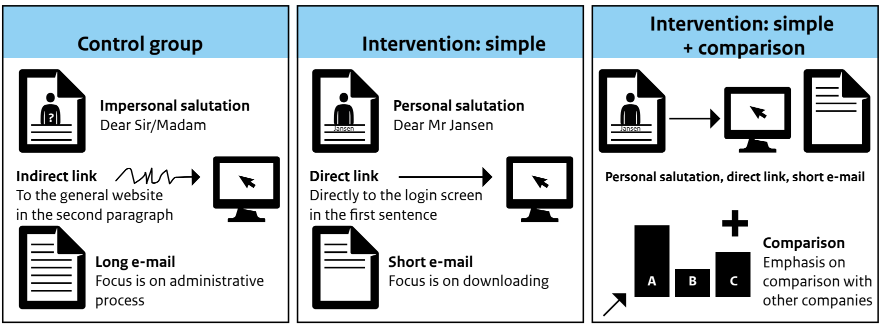
Around 1,100 companies with relatively high energy consumption agreed with the government to achieve an energy saving of 30% in the period 2005-2020. The participating companies are obliged to report annually to the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland - RVO) on the progress made. RVO prepares an individual report on the basis of these monitoring data containing feedback about the energy efficiency achieved and an anonymous comparison with other companies in the same sector. The assumption is that feedback helps the companies to work more energy-efficiently. However, only limited numbers of the feedback reports are downloaded. A field experiment in 2015 tested interventions to change this[11].

Behavioural insights

Make the desired behaviour easy: small obstacles and frictions - such as clicking through on a page or having to navigate in a menu - can present barriers which cause people to abandon the activity.

Address people more personally: you are more likely to attract their attention and it increases the likelihood that they will read on.

RVO sends the companies an e-mail containing a link to a secure website where they can download the report. This is secure (the reports contain commercially sensitive information) and limits the administrative burden. However, this distribution method also limits the response.



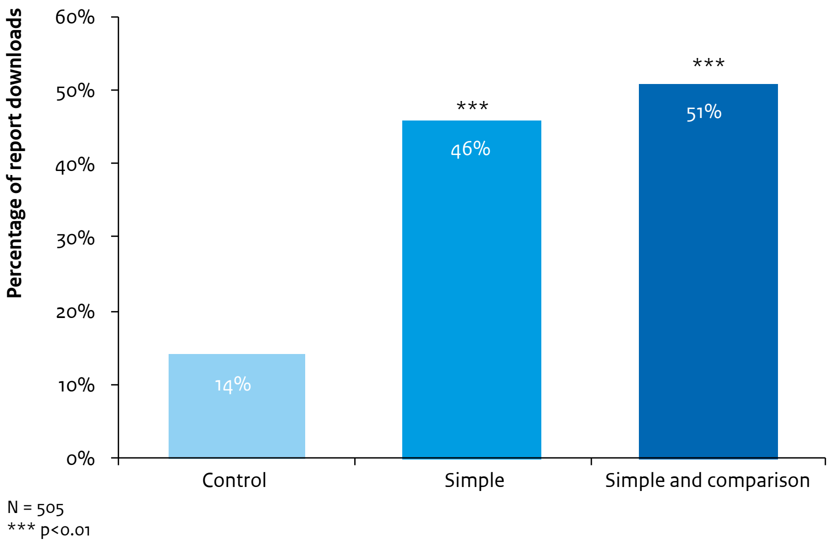
[11] For a detailed description of the research and the results please see Rosenkranz et al. (2017).

The original e-mail that companies received was also found to be relatively long, and the link in the e-mail led to a general website where users then had to find the login screen themselves via a menu. The three interventions that we tested were (see figure):

- making the e-mail and the downloading clearer and easier
- making the communication more personal
- emphasising the sector comparison.

The most important result of the experiment was that the new e-mail to companies increased the number of downloads of progress reports by a factor of 3.5. Of the companies that received the modified e-mail with the sector comparison, 51% downloaded the report, compared to 14% of the companies that received the control e-mail.

The interventions not only led to extra downloads of the reports, but also to the report being read and discussed with colleagues and management more frequently. This was shown by a supplementary survey. In addition, the energy coordinators who had downloaded the report more often indicated that they considered new savings measures and that they discussed these with management.



Making the desired behaviour easier and adding a personal salutation greatly increased the number of downloads.

Credit warning: beware! (Finance & AFM)

How do you encourage prudent loan applications?

In 2009 the government introduced the credit warning "Beware! Borrowing money costs money". Credit providers are required to display this warning in their advertising. The government hoped that after seeing the warning, consumers would think more consciously about their choices. It also wanted to counter the idea that borrowing for consumer expenditure was an everyday activity.

However, the behavioural insights that we have recently incorporated into our policy-making raise questions about the government's efforts at raising awareness. Research shows how strongly peoples' choices depend on subconscious thinking. For example, people are inclined to attach more value to immediate returns than their long-term financial situation. We are also unconsciously inclined to do what others do. Commercial parties make use of this. If the government does not take account of the subconscious, it is unlikely that its policy interventions will have an impact on behaviour.

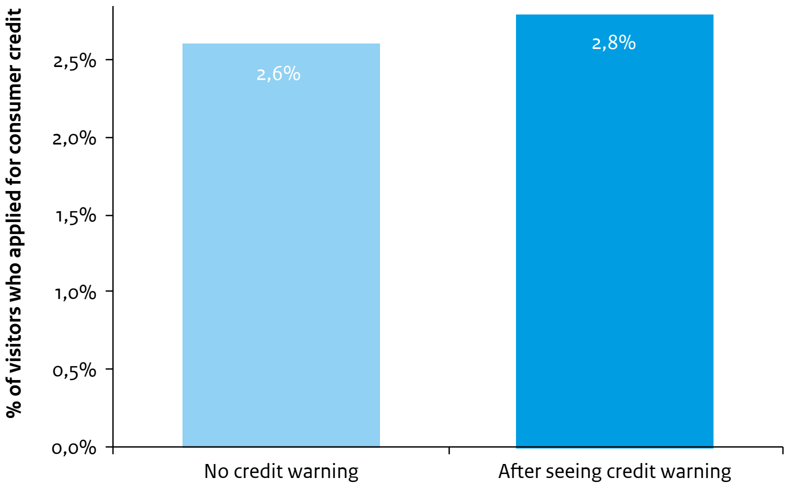
Behavioural insights

A lot of communication focuses on raising awareness of risks. This is an appealing idea, and you would expect it to work. However, behavioural insights show that effects from this type of intervention are sometimes non-existent or very limited. Our experiments show that the warning has no immediate effect on loan behaviour, even though 80% of consumers did approve of the fact that the government requires credit providers to include "Beware! Borrowing money costs money".

This prompted the Authority for Financial Markets (AFM) and the Ministry of Finance to investigate the effect of the current warning[12]. In an experiment, almost 6000 visitors to the loans section of a consumer credit provider's website was shown a page which included the warning. Another group of the same size was shown everything apart from the warning. This experiment showed that seeing this warning had no effect on the proportion of visitors who applied for consumer credit.

[12] For a detailed description of the research and the results please see AFM (2016) *Let op! Geld lenen kost geld. Een onderzoek naar de effectiviteit van een waarschuwing in kredietreclames* (Beware! Borrowing money costs money. A study into the effectiveness of a warning in credit advertising.)

In order to be able to determine what should be done with the credit warning, the Ministry of Finance is currently working with the AFM to identify the risks in the market consumer credit. This also involves the Ministry of Social Affairs and Employment in order to understand the link between consumer credit and debt problems. The study is focusing specifically on subconscious drivers in loan behaviour. For example, it is relevant to investigate what is known about the effect of financial hardship on cognitive capabilities.



N = 11,887

Whether or not a credit warning is shown makes no significant difference to the loan applications.

Optimising Use (Ministry of Infrastructure and Water Management)

How do you get people to avoid rush hour traffic more often?

The Ministry of Infrastructure and Water Management is working on accessibility in the Netherlands. We are doing this by not only investing in the expansion of our infrastructure, but also by encouraging a better use of existing roads. The Beter Benutten (Optimising Use) programme also focuses on the traveller: who is travelling, where are they going and why? By studying the traveller, we are better able to offer appropriate alternatives.

Congestion on the road concentrates in certain places and at certain times. Travellers all tend to get in their car or on the train at the same time in order to go to work or school. How can we tempt them to travel by bicycle, to work from home or to travel outside rush hour. Is it possible to cooperate more with employers or even school boards?

Behavioural insights

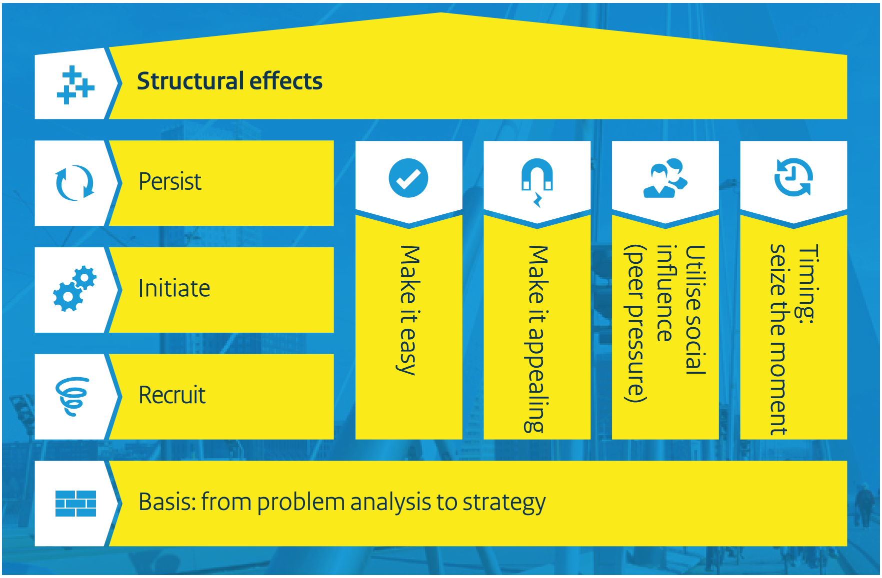
A toolkit developed within the Optimising Use program, gives a good indication of how we can offer appropriate alternatives to travellers. We use four strategies:

- We make it easier to travel outside the rush hour.
- We offer a variety of rewards 'in return' for good travel behaviour
- We use peer pressure: colleagues showing good travel behaviour become ambassadors, .
- We opt to influence at precisely those moments when people are already modifying their behaviour, e.g. after moving house.

We know that travelling behaviour is often an ingrained, habitual pattern. In order to tempt the traveller to try out new behaviour, we have to get to know them better. To do this, we have carried out a broad behavioural analysis. With these insights in mind, a package of 350 measures, focusing on various types of measures, was developed within the Optiming Use programme.

In the process of coming up with concrete measures, we want to make the desired behaviour as easy and attractive as possible. Take the B-riders project in Brabant for example: 2,300 people participated, taking the bike to work instead of the car. Alongside a financial reward, they were given an app which acted as a coach: "Well done, you've already cycled for a week! You're part of a community of more than two thousand fellow cyclists." Habituation soon developed, and participants started enjoying the cycling: "I feel a lot fitter".

Since 2011, the measures have led to 48,000 people avoiding rush hour on a daily basis. This contributes to a 19% reduction in delays during rush hour on the identified routes.



Fewer incidents in asylum centres (Justice and Security)

What helps COA staff to deal with aggression?

In 2015, the Netherlands faced a large inflow of asylum seekers. The number of incidents in asylum centres also rose in that year. The then Ministry of Security and Justice used behavioural psychology to examine how COA (Central Agency for the Reception of Asylum Seekers) staff could constructively deal with incidents in asylum centres. The study used a classification of violent behaviour in three dimensions.

Behavioural insights

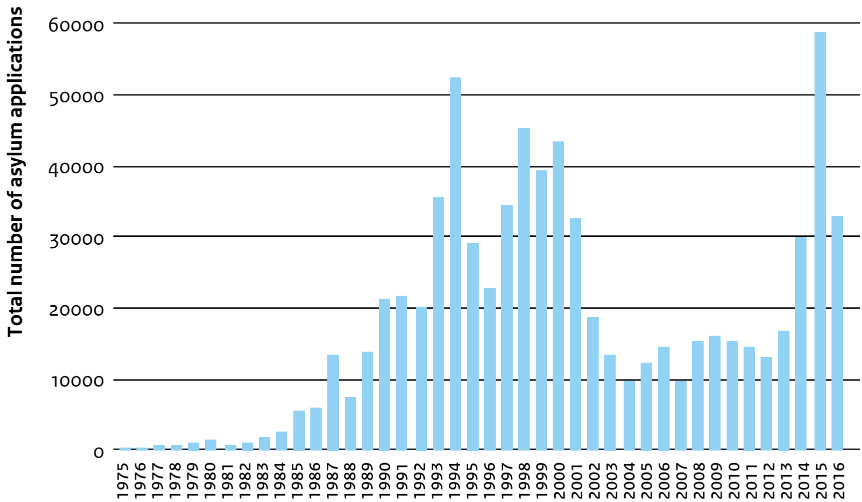
The literature indicates that violent behaviour can be classified in a model with three dimensions: physical versus verbal, active versus passive and direct versus indirect behaviour (see table).

Aggression and violence within asylum centres is recorded. The recording system showed that the majority of incidents involve direct active physical aggression. In interviews, staff indicated that they did see passive and indirect forms of aggression, but that these are so common that it would be practically impossible to record them all. Yet is important to pay attention to these forms of aggression as well. Firstly, because they can escalate to active direct aggression. Secondly, because passive indirect aggression causes a lot of work-related stress among staff. And thirdly in order to prevent the norm from shifting.

	Direct	**Indirect**
	Physical	
Active	Manslaughter, physical expression of anger, obscene gestures, unfriendly behaviour	Theft, sabotage, vandalism
Passive	Strikes, refusal to cooperate with work processes	Making unnecessary use of resources that the other person needs, not protecting the other person from danger
	Verbal	
Active	Threats, shouting, insulting, criticising, accusing	Spreading damaging information, defamation, gossip, discriminatory comments
Passive	Patronising and dismissive responses, not replying, not ringing back	Not providing requested information, not warning about possible danger/damage, not standing up for the other person

Do COA staff feel adequately equipped to prevent or manage incidents of aggression in asylum centres successfully? In the surveys they scored relatively positively for self-efficacy: the degree to which they have confidence in their own ability to deal with incidents of aggression. A few staff members indicated in interviews that they would like more practical response and dialogue skills in order to be able to deal with incidents involving physical aggression (or threats). Another option could be more training with their own team.

In addition, there is uncertainty about what aggression training is obligatory and/or available for staff. Although training options are widely available, it appears important to standardise the training programme more. There is also a need - particularly in the centres for lone foreign minors - for more clarity and training about possible actions when the ordinary 'soft' interventions no longer work.



The increase in the inflow of asylum seekers in 2015 also resulted in an increase in the number of incidents.

Timely notification of changes in the living and housing situation for the National Survivor Benefit Act (Social Affairs and Employment)

How do you avoid survivors having to repay benefit?

Most changes in the living and housing situation for those entitled to the National Survivor Benefit Act (Anw) are automatically processed via municipal population registers. But that is not the case if survivors start cohabiting again. They need to report that themselves. If it is found that they have failed to do so or have done it too late, they need to repay the incorrectly received benefit together with a fine.

Sometimes it is not clear for those entitled to the National Survivor Benefit Act whether and when they have to report their changed living and housing situation. Among other reasons, this is due to a lack of information and/or to the complexity of the statutory rules. The SVB (the administrative agency that is responsible for the implementation of the Act) therefore conducted an experiment in collaboration with the Ministry of Social Affairs and Employment and CentERdata (an independent research organisation): what is the effect of a personalised and friendly reminder letter? Around 15,000 persons who are receiving the benefit for one year or more received such a reminder letter with the request to check how their living situation compares with the statutory rules. A control group of comparable size did not receive a letter. We surveyed both groups afterwards by means of a questionnaire.

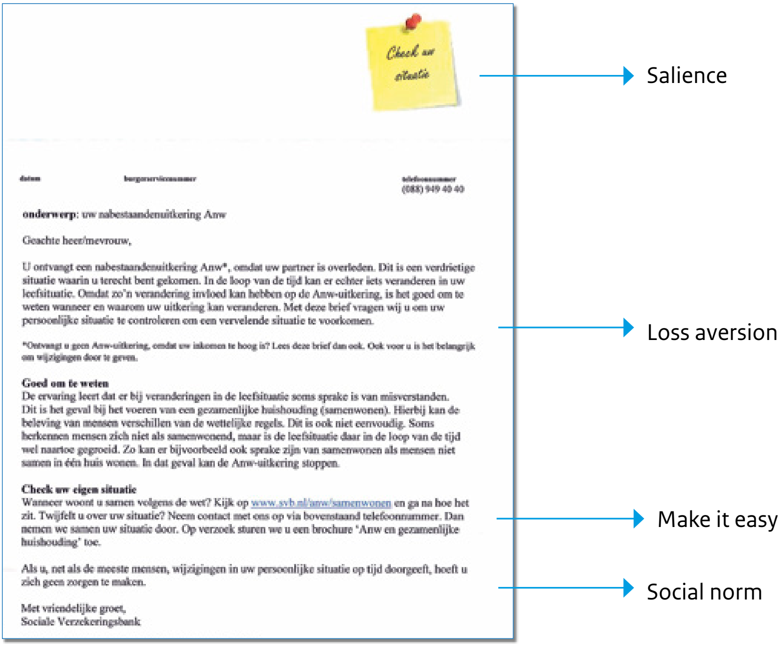
Behavioural insights

It is not always calculating behaviour that causes people to fail to comply with the notification obligation. It depends heavily on the context (Mazar et al., 2008), such as a person's self-image.

We also took account of the concept of reciprocity in the experiment: by providing a friendly information service, people can be expected to generally want to behave responsibly and reciprocally (Fehr et al., 2002; Cialdini, 1984).

Positive framing combined with information about the likelihood of sanctions was also found to be effective (Brummelkamp et al., 2010).

The experiment shows that the likelihood that a survivor sends notification of a change in his or her living and housing situation that can lead to termination of the benefit is 30% higher when a reminder letter is sent than without a letter.



datum　　burgerservicenummer　　telefoonnummer (088) 949 40 40

onderwerp: uw nabestaandenuitkering Anw

Geachte heer/mevrouw,

U ontvangt een nabestaandenuitkering Anw*, omdat uw partner is overleden. Dit is een verdrietige situatie waarin u terecht bent gekomen. In de loop van de tijd kan er echter iets veranderen in uw leefsituatie. Omdat zo'n verandering invloed kan hebben op de Anw-uitkering, is het goed om te weten wanneer en waarom uw uitkering kan veranderen. Met deze brief vragen wij u om uw persoonlijke situatie te controleren om een vervelende situatie te voorkomen.

*Ontvangt u geen Anw-uitkering, omdat uw inkomen te hoog is? Lees deze brief dan ook. Ook voor u is het belangrijk om wijzigingen door te geven.

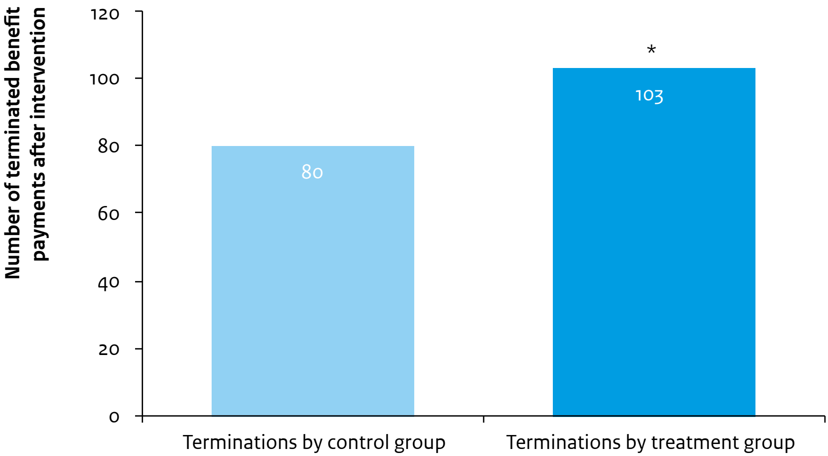
Goed om te weten
De ervaring leert dat er bij veranderingen in de leefsituatie soms sprake is van misverstanden. Dit is het geval bij het voeren van een gezamenlijke huishouding (samenwonen). Hierbij kan de beleving van mensen verschillen van de wettelijke regels. Dit is ook niet eenvoudig. Soms herkennen mensen zich niet als samenwonend, maar is de leefsituatie daar in de loop van de tijd wel naartoe gegroeid. Zo kan er bijvoorbeeld ook sprake zijn van samenwonen als mensen niet samen in één huis wonen. In dat geval kan de Anw-uitkering stoppen.

Check uw eigen situatie
Wanneer woont u samen volgens de wet? Kijk op www.svb.nl/anw/samenwonen en ga na hoe het zit. Twijfelt u over uw situatie? Neem contact met ons op via bovenstaand telefoonnummer. Dan nemen we samen uw situatie door. Op verzoek sturen we u een brochure 'Anw en gezamenlijke huishouding' toe.

Als u, net als de meeste mensen, wijzigingen in uw persoonlijke situatie op tijd doorgeeft, hoeft u zich geen zorgen te maken.

Met vriendelijke groet,
Sociale Verzekeringsbank

A reminder letter leads to significantly more notifications of changes in living and housing situations.



N = 30,737
* p<0.10

More response to the Work Profiler jobseeker questionnaire (UWV)

How do you encourage jobseekers to complete a questionnaire?

It is a major event for many people: loss of their job. The UWV (Employee Insurance Agency) helps people back to work quickly in various ways. One of the tools for this is the Work Profiler, an online questionnaire for jobseekers receiving unemployment benefit. This questionnaire provides UWV and the jobseeker with insight into their likelihood of resuming work within a year. Jobseekers receive tailored services on the basis of the answers from the Work Profiler. It is therefore very important for both them and for UWV that as many people as possible complete the Work Profiler. Because the response to the questionnaire was not particularly high at the start of 2016 (around 50%), we carried out a behavioural science study: how can we best encourage people to complete this questionnaire?

Behavioural insights

The psychology behind the personal SMS is that using someone's first name directly captures the recipient's attention (Haynes et. al, 2013; Sanders & Kirkman, 2014). This is based on the 'cocktail party effect', whereby people instantly focus on a conversation as soon as their name is mentioned.

The reciprocity principle is also a known phenomenon in psychology (Falk and Fischbacher, 2006). Do something for someone else and the recipient will be more inclined to do something in return. This involves the principle of give-and-take.

Research among jobseekers rapidly revealed that many people had simply not seen the online questionnaire or had forgotten to complete it. To draw their attention to the questionnaire, UWV sent them a message in their online environment on the website werk.nl. Part of the study group also received a reminder if they had not yet completed the questionnaire after a week. The combination of a message with a reminder resulted in a 77% response rate. This was a substantial increase compared to the 49% response rate among the jobseekers who received no messages at all.

In order to find out why the remaining group of jobseekers did not complete the questionnaire, we called them. Their answers showed that they did not visit the werk.nl website, or that they already had the prospect of work. In order to still to reach the group who did not visit the website, we experimented with SMS messages. A number of variations were tested (see the images). Of the jobseekers who received a personal SMS in which reciprocity (see SMS #4) was also emphasised, 60% were found to then complete the Work Profiler, compared to 47% of the jobseekers who did not receive an SMS message.

'There's a questionnaire in your Work folder (among your tasks). Please could you complete it? Your answers will enable us to help you find work. UWV

Sms #1: neutral

We would like to help you find work.We have therefore placed a questionnaire in your Work folder. Please could you complete it? UWV

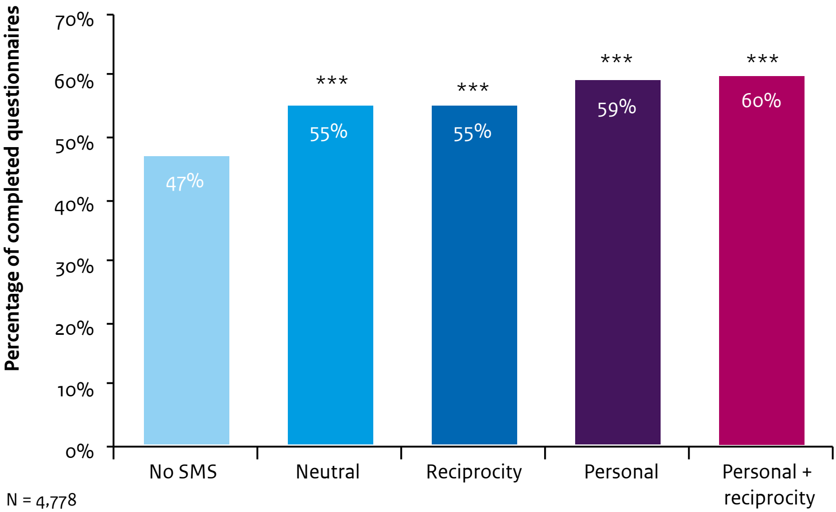
Sms #2: reciprocity

Dear Jan, there's a questionnaire in your Work folder (with your tasks). Please could you complete it? Your answers will enable us to help you find work. Good luck! Yvonne, UWV

Sms #3: personal

Dear Jan, we would like to help you find work. We have therefore placed a questionnaire in your Work folder. Please could you complete it? Good luck! Yvonne, UWV

Sms #4: personal + reciprocity



N = 4,778
*** p<0.01

Sending an SMS as a reminder is effective, particularly when it is personalised.

More exercise by overweight people (Health, Welfare and Sport)

Does a deadline help people stick to their resolutions?

Most people in the Netherlands know that it is healthy to exercise regularly. At the same time, 48% exercise less than once a week, and approximately half are overweight.

Many people resolve to exercise regularly, but most ultimately do it less often than they intend to. People who are aware of their tendency to procrastinate could benefit from - voluntarily accepted - deadlines with consequences.

Based on insights from behavioural economics, researchers from the RIVM (National Institute for Public Health and the Environment - Ministry of Health, Welfare and Sport) and Tilburg University designed various lotteries that acted as deadlines in order to help overweight people to keep their goal of 'exercising twice a week'. Every week, a notary from the Staatsloterij state lottery selected a winner from all the participants, who was always announced via an e-mail and SMS. The winners were only allowed to keep their prize if they had achieved their target. The winners who did not achieve their target therefore unavoidably found out what they would have received if they had exercised enough. We thereby capitalised on anticipated regret: a helping hand to exercise.

Behavioural insights

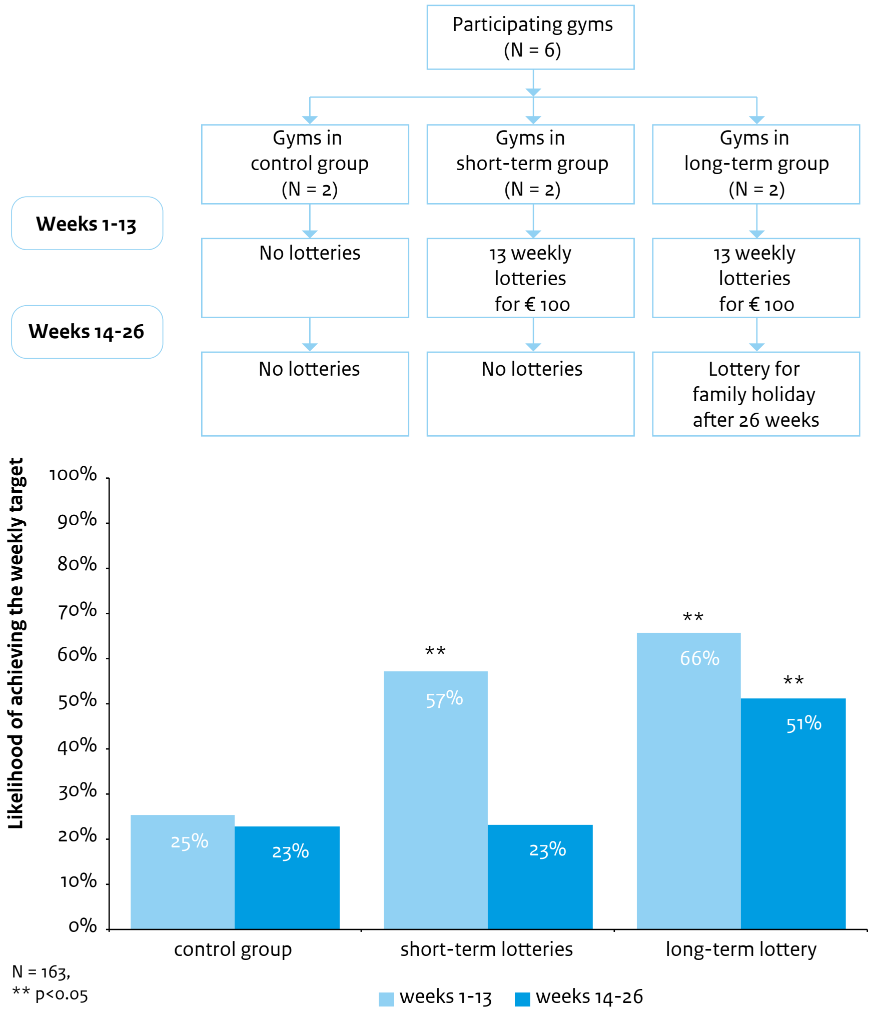
Temptations in the here and now are given disproportionate weight in decisions compared to later health benefits. People are predictably shortsighted (see inter alia Loewenstein & Thaler, 1989; Laibson, 1997; O'Donoghue & Rabin, 1999; Soman et al., 2005).

A deadline brings forward the long-term consequences of procrastination and can therefore serve as an incentive to exercise.

Regret cannot be felt without a decision. That makes regret suitable for use as a tool around healthy choices.

The threat of concrete feedback on the outcome of choices makes the healthy and desired choice more attractive (Zeelenberg & Pieters, 2007; Brewer, DeFrank & Gilkey, 2016).

In this study, we followed 163 overweight people spread across six High Five company gyms. There were three groups: one control group and two lottery groups who could genuinely win € 100 every week for 13 weeks. The likelihood that exercisers achieved the weekly target in the first 13 weeks was 57% and 66% in the lottery groups as against 25% in the control group.



In one of the lottery groups, an extra lottery took place after 26 weeks. All the participants in this long-term group could win a luxury family holiday. Once again, the winner was always announced. The winner was only allowed to receive the prize if they had achieved the weekly target in at least nine out of the second group of 13 weeks. The likelihood that exercisers achieved the weekly target in the second group of 13 weeks was 51% in the lottery group as against 23% in the groups without a lottery.

4

Success factors: 5 lessons from central government

Whether it involves the construction of new infrastructure, a subsidy scheme or new laws and regulations, government policies almost always influence the behaviour of citizens and businesses. If we thereby make use of behavioural insights, we can make government policy more effective. This applies to all ministries, as we saw in the showcases in the previous chapter. What lessons have the ministries learnt when applying behavioural insights in the practice of policy-making?

Lesson 1: Understanding behaviour pays off

A behavioural analysis can help to better understand a policy issue. It gives you better insight into what behavioural factors play a role and where you can best target your measure. Many of the showcases in the previous chapter are examples of this. One additional benefit is that a good understanding of the behaviour helps legitimise the policy since it creates a firm underpinning.

In practice it is not always easy to take time for a thorough behavioural analysis. Various ministries have therefore developed accessible tools for this purpose (see the seven tools summarized on pages 48 and 49). These tools help examine the behavioural issue and gain rapid insight into the challenge. Policymakers get answers to the questions of what precisely the challenge is from a behavioural perspective, what behavioural change is required? Who is the target group? And what are promising measures (interventions)?

Using the tools also provides insight into where there are knowledge gaps where further research is required. This might include literature research (what is known in science about this phenomenon?) and field research (how exactly does it work in this situation?).

Lesson 2: Avoid “jumping to solutions”

Because the behavioural analysis tools help to systematically unravel an issue, your natural reflex to ‘jump’ straight to a solution is deferred. The behavioural analysis provides new, sometimes unexpected leads for the design of measures. One good example is the showcase from the Ministry of Infrastructure and Water Management about the Optimising Use programme. This programme focuses on the traveller. Who is travelling? Where are they going, and why? The answers to these questions are used to encourage travellers to travel by bicycle or public transportation, to work from home or to travel outside rush hour.

Lesson 3: The context is essential

In order to design effective measures, it is important to take the context into account. Small changes in the context can have major effects. A good example is the effect that default settings have on students' loan behaviour when they apply for a loan (see the showcase from DUO & the Ministry of Education, Culture and Science). By modifying the default setting, students borrowed much less. Another good example comes from the showcase study from the Ministry of Social Affairs and Welfare: a personal and friendly reminder letter proved to have a major effect on the degree to which survivors started to send notification of a change in their living and housing situation.

Lesson 4: Learning by doing

Testing measures in practice is crucial. Something can look good on paper, but the question is always whether it actually works in the relevant situation. This was shown by the experiment by the AFM and the Ministry of Finance: the current credit warning 'Beware! Borrowing money costs money' had no effect, however well-intentioned (see the Ministry of Finance showcase).
The devil is in the detail. For example, since 2016 the Tax and Customs Administration has carried out multiple experiments searching for the right tone, the right moment and the right message in the interaction with citizens (see the Tax and Customs Administration showcase).
Use field experiments: test the interventions on a small scale in order to see what works and what doesn't. It is thereby important to measure what exactly the behavioural effects of the measure are, and what factors influence those behavioural effects. The rapid developments in data analysis and big data facilitate this.
Multiple measures are often required in order to achieve the desired effect. It is important that they reinforce and supplement one another, and not counteract one another. This can be underpinned with the behavioural analysis, but testing in practice remains necessary. As the UWV did when it wanted to increase the response to the 'Work Profiler' questionnaire: different combinations were investigated (see the UWV showcase).

Lesson 5: Cooperation helps

How to apply these lessons in practice? The key is cooperation between behaviour experts and policymakers.

Close cooperation with behavioural experts is a success factor because the application of behavioural insights involves more than just common sense. The ministries have therefore invested substantially in knowledge networks with behavioural scientists and specialist consultancy bureaus. These networks make it possible to gather the required knowledge rapidly and flexibly. The ministries have also developed in-house behavioural expertise. These behavioural experts can help to apply the behavioural insights in policymaking. For this, it is important to have inside knowledge of the world of policy-making.
Cooperation with policymakers (and management) is required in order to fit in accurately with the policy needs and the policy-making process. Enabling policymakers to experience the behavioural perspective (e.g. in a workshop) is helpful in this regard. Policymakers who have experienced the benefits are generally enthusiastic about the behavioural perspective, as is shown by these quotes: "Working with the behavioural approach is really fun"; "Very inspiring and generates good ideas"; " Working with behaviour is not only better for policy-making, but also makes the work more enjoyable. I feel more freedom to not just study 'the dry bones' but also take other aspects into account."

Seven tools for applying behavioural knowledge

Policy development and implementation		Used for
1 DOE-MEE tool	Understanding, Designing, Experimenting, Monitoring And Evaluating	• Behavioural analysis • Developing interventions • Evaluating interventions
2 GedragsToets	Serious game for behavioural analysis in policy development	• Behavioural analysis • Developing interventions
3 Behaviour Change Wheel	British tool with which RVO designs interventions	• Behavioural analysis • Developing interventions
Communication		
4 CASI	Communication Activation Strategy Instrument	• Behavioural analysis • Developing interventions
Supervision		
5 Wegwijzer gedrag	Roadmap from the Authority for Consumers & Markets	• Behavioural analysis • Developing interventions
6 InterventieKompas	Behavioural analysis for supervision and enforcement	• Behavioural analysis • Developing interventions
7 Interventietoolbox	Support tool for supervision programmes from The Ministry of Social Affairs & Welfare	• Behavioural analysis • Developing interventions

Source: BIN NL (2017)

Benefits	Working format	Further information
• Underpinned and effective policy	• Workshops • Worksheet • Brochure	Ministry of Infrastructure and Water Management *Odette van de Riet:* odette.vande.riet@minienm.nl
• Behavioural analysis and policy inter-ventions	• Game • Structured discussion • Cards • App	Behavioural Insights Network Netherlands (BIN NL) *Thomas Dirkmaat:* t.dirkmaat@minez.nl
• Advice about interventions	• Worksheets • Workshops	Netherlands Enterprise Agency (RVO) *Cees Egmond:* cees.egmond@rvo.nl
• Strategic advice • Building blocks for communication plan and briefing	• Dialogue model • Workbook • Worksheets • Intervention cards • Presentation	Ministry of General Affairs/Public and Communication Service (DPC) *Nick van Gaalen:* n.vangaalen@minaz.nl
• Intervention plan	• Road map • Background information guide • Discussion	Authority for Consumers & Markets (ACM) *Ruth Gonschorrek:* gedrag@acm.nl
• Effective interventions	• Digital tool • Dialogue model	Centre for Crime Prevention and Security (Centrum voor Criminaliteitspreventie en Veiligheid -CCV) *Miriam Adriaanse:* miriam.adriaanse@hetccv.nl
• Advice about inter-ventions	• Website • Choice guides • Group sessions	Social Affairs & Welfare Inspectorate *Muriel Smink:* interventietoolbox@inspectieszw.nl

5

Further reading

Utilising behavioural insights for policy-making is a rapidly developing area internationally. It is therefore no surprise that there are increasing numbers of interesting publications around this subject. A selection of these is given below: from experiences and tips about how to utilise behavioural insights for policy-making through to reviews of practical results.

Experiences and tips

- Halpern, D., 2015, Inside the nudge unit
- Lourenço et al., 2016, Behavioural insights applied to policy: European Report 2016
- Halpern, D., & M. Sanders, 2017, Nudging by government: progress, impact, & lessons learned
- OECD, 2017, Behavioural insights and public policy

Results of behavioural projects by foreign behavioural insights teams

Behavioural Insights Team UK (BIT UK)

- 2015, EAST, four simple ways to apply behavioural insights
- 2015, Update Report 20132015
- 2016, Update Report 20152016
- 2017, Update Report 20162017

Social and Behavioural Science Team US (SBST US)

- 2015, Annual Report
- 2016, Annual Report

Policy advice in the Netherlands

Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid - WRR).

- 2014, Met kennis van gedrag beleid maken (Making policy with knowledge of behaviour)
- 2017, Weten is nog geen doen (Knowing is not necessarily doing)

Council for the Environment and Infrastructure (Raad voor de leefomgeving en infrastructuur - Rli)

- 2014, Doen en laten: Effectiever milieubeleid door mensenkennis (Acts and omissions: More effective environmental policy by understanding people)

Social Development Council (Raad voor de Maatschappelijke Ontwikkeling - RMO)

- 2014, De verleiding weerstaan: grenzen aan beïnvloeding van gedrag door de overheid (Resisting temptation: limits on influencing behaviour by the government)

Appendix

More case studies: behavioural analyses, experiments and interventions

This appendix contains a list of case studies in which behavioural insights have been applied. This list is not exhaustive.

The case studies are divided into three areas:
- case studies in which behavioural analyses have been applied, but which have not or not yet (or only to a limited extent) led to experiments or broad implementation;
- case studies where both behavioural analysis and application in a small-scale experiment or pilot have taken place; and
- case studies which after behavioural analysis, possibly via an experiment, have led to widespread implementation in policy or execution.

A case study may at a later stage also end up in a different phase from its current classification.

Behavioural analyses

Competition Act (Mededingingswet) compliance study (ACM)
VU University Amsterdam carried out a compliance study for the ACM in 2016. The aim of the study was to examine compliance with the Competition Act among port companies and also to identify the explanatory factors. To this end, we conducted telephone questionnaires. Although the majority of companies were found generally to be inclined to comply with the Competition Act, an unacceptably large group is inclined to breach these rules. Factors which influence compliance include social norms, opportunities for breaches and the perceived gains. The perceived costs of breaches were not linked to the inclination to comply. Finally there was found to be a lack of knowledge about the Competition Act among port companies.

CASI processes (General Affairs)
The Communication Activation Strategy Instrument (CASI) helps communication professionals in central government to advise on behavioural change through communication. CASI was developed in 2011 and is used around 10 times a year for behavioural questions from many ministries and executive agencies. This is done in sessions with communication advisers, policy advisers and stakeholders; CASI thereby serves as a dialogue model. A CASI process results in a recommendation and building blocks for communication plans, briefings or advice to policy directorates. CASI has been used recently for the following issues among others: encouraging young people to apply for a certificate of good behaviour; encouraging residents to take steps to prevent burglaries; encouraging travellers to prepare for possible risks at their destination.

Measuring subconscious behaviour (General Affairs)
Research allows you to measure the potential as well as the effects of communicative interventions aimed at behavioural change. Because a lot of behaviour is subconscious, this requires a different investigative approach: from asking explicitly to measuring implicitly. There are three forms of implicit measurement:
- psychophysiological measurements: these give insight into the processing of communication during exposure to the message. For example, facial coding obtained via the registration of facial expressions shows what emotions are evoked by a TV commercial;
- associative measurements: reaction time tasks are thereby measured after exposure to communication. These measurements give insight into the activation of associations in the memory and are validated as a measure of subconscious processes. An implicit association test can show that campaigns that have no effect on the conscious attitude can

still prompt people to have a more positive attitude towards the desired behaviour at the subconscious level;
- behavioural measurements: these provide direct insight into the target behaviour after exposure to communication. For example, the behavioural effect of apps can be demonstrated with a randomised controlled trial.

Experience of implicit measurement was gained in 2016 and 2017 through pilots for various commissioning bodies.

Stimulating payment behaviour (Tax and Customs Administration)
The Tax and Customs Administration's primary task is to collect taxes. In order to ensure that this is done as optimally as possible, we conducted a behavioural analysis of tax payers' payment behaviour. What leads someone to pay or not pay (causes), what is the effect of the design of our own processes, and how can we match our processes better to human behaviour? With the aid of this behaviour analysis we can design future interventions in order to improve payment behaviour.

Countering procrastination (Tax and Customs Administration)
Procrastination is a common problem for the Tax and Customs Administration. Most people struggle with the tax return and put it off until the last minute. This increases the likelihood both of technical problems (server overload) and of a failure to submit because people start too late and hence miss the deadline or don't file a return at all. In this behavioural analysis we explored the behavioural literature around procrastination and applied the insights to behaviour within the Tax and Customs Administration. The next phase will feature suggestions for interventions about how we can reduce procrastination within the Tax and Customs Administration's processes.

More frequent Customs declarations (Tax and Customs Administration)
When you arrive at the border, you are prohibited from taking certain items with you or you need to declare them to Customs officers. However, many people do not know what they may and may not bring and also happily walk through 'nothing to declare' when they are not always right to do so. We have carried out an initial broad behavioural analysis in order to investigate what contributes to people not reporting to Customs officers. We have also provided suggestions for interventions to encourage reporting behaviour, e.g. through adjustments to the surroundings or by providing information at Schiphol or via the Customs travellers app.

Economic diplomacy (Foreign Affairs)

How do we bring together the supply and demand of services for businesses? Central government is encouraging businesses to expand abroad, since the Netherlands is to a large extent economically dependent on trade and investments abroad. The Ministry of Foreign Affairs is developing policy for businesses with international ambitions, and has assigned policy implementation to the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland) and the international network of embassies.

But how do we know which businesses need help, and what sort of help they need or want? How do we ensure that businesses know more about what assistance the government can provide? And how do we strengthen our networks with Dutch enterprise?
We talked to the five regional business developers from the Ministry to find out what we could learn from their experiences.

Policy-making with artificial intelligence (Foreign Affairs)

Policy-making can be improved through direct research with the target group. But can it also be done with the aid of artificial intelligence? It is undeniable that we can make smarter use of existing information. Finding and assessing information can be outsourced to smart learning software (machine learning, natural language processing). The trick lies in asking the right questions.
Together with the Information Provision department and the private sector we are investigating what areas of policy and which directorates are suitable for this new approach. If policymakers can outsource this work, this will give them considerably more time for interpretation, analysis and advice - and surely that lies at the heart of good policy work.

Encouraging waste separation in high-rise buildings (Infrastructure and Water Management)

By 2020, the Ministry of Infrastructure and Water Management and the VNG (Association of Dutch Municipalities) aim to realise that 75% of domestic waste is separated and that the residual waste is reduced from 200 kilograms to 100 kilograms per person per year. That is the ambition in the context of VANG: Van Afval naar Grondstof (From Waste to Raw Material). However, this is difficult to achieve in urban high-rise buildings. There is much less waste separation there than in low-rise housing. Municipal councils have tried many things, but it has proven to be a challenge in practice. The 'Waste separation in high-rise buildings' project was therefore launched in collaboration with the Ministry's Behavioural Insight Team and scientists. The project focuses on the most difficult waste stream (organic waste) in the most difficult areas (high-rise buildings). The project started with diagnosing the behaviour: why is so little organic waste separated in high-rise buildings? What behavioural factors are of influence? We then examined which interventions are promising. This led to a list of 12 promising measures that we then detailed. The measures are currently being tested in pilots in 8 municipalities, including Amsterdam, Utrecht, Rotterdam and The Hague. This will hopefully show us which (combinations of) measures are the most effective in which situation. The pilots are being conducted in collaboration with scientists. More information about this project can be found at: htp://www.vanghha.nl/nieuwsachtergronden/2016/hoogbouw/verbetering/

Improving city distribution (Infrastructure and Water Management)

A city cannot function without city distribution: shops must be supplied, parcels delivered and waste collected. However, city distribution also has negative consequences such as air pollution and reduced traffic safety. How to reduce the number of trips? That is not an easy challenge. The BIT of the Ministry of Infrastructure and Water Management was asked to investigate whether behavioural insights could help. For example, in the area of internet shopping online purchases lead to more vans in residential areas.

Behavioural analysis showed that the factors of choice processes and breaking through social dilemmas offer leads, namely the default and the endowment effect. People often go along with the option proposed by the web shop: the default option. If the default is set to 'collect from a pickup location nearby' consumers are more likely to opt for a pickup location. Furthermore, you are less likely to return something when you have had a new possession for a long time. You become attached to it. This is called the endowment effect. Extending the return period (e.g. from 10 to 100 days) means that people make fewer returns.
These and other measures that have been identified in the behavioural study can enhance the livability in cities. Experimental research can show how much of an effect they have. More information about this research can be found at: https://www.deltares.nl/nl/nieuws/klimaatbestendigtuinierenengroenedaken/

Climate-proof gardens (Infrastructure and Water Management)

The Netherlands will probably have to increasingly cope with extreme weather in the future: heavy downpours, but also more droughts and tropical summer days. Public spaces and gardens in cities and towns are not yet all designed in such a way that they can cope with this climate change. One of the solutions is to encourage that urban gardens become greener, so that rainwater can soak into the soil and it is less hot in the city. The current trend is towards paved gardens. How do we get people to make their gardens greener?
With the assistance of the BIT of the Ministry of the Infrastructure and Water Management, the Delta Programme investigated what was known about why people pave their gardens rather than planting them. We discovered that people would like to make their gardens greener, but do not know how. Moreover, they think that a green garden involves a lot of work.

Together with municipalities and the garden sector, the Delta Programme has designed interventions that should make it easier for people to make their gardens greener. The market is capitalising on this by - for example - introducing easily maintained green gardens that require less time than a paved garden.

The Water Coalition of the Ministry is helping by producing a handbook for garden centres in collaboration with 'Tuinbranche Nederland' (Netherlands Garden Industry Association). This helps retailers to provide their customers with good and practical advice about creating climate-friendly gardens.
More information about this research can be found at: https://www.deltares.nl/nl/nieuws/klimaatbestendigtuinierenengroenedaken/

Different way of working due to the Environment Act (Omgevingswet) (Infrastructure and Water Management)

With the Environment Act, the government has bundled the rules for spatial projects. This should make it easier to start building projects, for example. The act has a major impact on the work of Rijkswaterstaat (the executive agency of the Ministry of Infrastructure and Water Management) and its way of working, both internally and in collaboration with partners. Precisely what behaviour does the introduction of the Environment Act require? Rijkswaterstaat's 'Veranderopgave Omgevingswet' (Environment Act Change Challenge) programme worked with the Ministry's BIT to address this issue.
We elaborated on the behaviour required under the Environment Act in three sessions with licensing, supervision and enforcement staff. The outcome was clarity about the required behaviour and how to achieve it. The sessions produced lots of concrete actions that the staff can often implement themselves and, in a number of cases, in collaboration with others.

Cleaning in the fast food sector and the intervention toolbox (Social Affairs & Employment Inspectorate)

In order to support the programme teams from the Social Affairs & Employment Inspectorate in selecting the most appropriate intervention, the Inspectorate has been developing the intervention toolbox since 2015. The toolbox is designed to support the programme teams in achieving the most effective intervention mix (such as inspection, investigation, communication, putting pressure on the sector, going public) for a particular problem and a particular target group in order to achieve the desired behavioural effect. This can increase the quality of the interventions when implementing programmes. The Cleaning programme was one of the programmes in which these analysis steps were carried out. This revealed that fast food chains are often not aware of underpayment and illegal employment regarding the cleaning activities in their businesses. The programme's intervention mix consisted of a combination of compliance communication, inspection of cleaning companies and drawing the fast food chains' attention to their duty to use bona fide cleaning companies. The aim of this was to tackle the root cause and not just impose fines on the cleaning companies. The result was that a number of fast food chains have hired their own cleaners, and that fast food chains make more use of the 'honest work checklist' which enables them to better assess in advance whether a cleaning company is bona fide. This has resulted in greater compliance in the fast food sector.

Explaining socially undesirable behaviour (Justice and Security)

Sexting, football hooliganism, shoplifting by employees, online dispute resolution and nuisance neighbours: topics which involve inappropriate or unlawful behaviour. In a literature study we examined what psychological insights exist in this regard. In seeking behavioural knowledge we placed the emphasis on factors that can explain the behaviour of 'ad hoc disturbers'. The recommendations therefore apply particularly to these first offenders, i.e. people for whom inappropriate or criminal behaviour is not habitual.
The project has three goals:

- to gather together the scientific literature about how (un)desirable behaviour comes about and how appropriate behaviour could be encouraged;
- to collect and evaluate examples with regard to positive behaviour influencing, where necessary with adjacent problem areas;
- to formulate suggestions for measures which could work in the Netherlands on the basis of the discussed scientific literature.

Encouraging applications for the STEP subsidy scheme (RVO)

A subsidy scheme is in force in the house building sector: the STEP scheme (stimulating energy performance). At the moment, too few housing corporations make use of the scheme. RVO therefore wants to encourage subsidy applications by using behavioural science insights. What are the determinants for the subsidy application behaviour? In order to find out, we conducted 7 interviews with housing corporations that had made an application and 7 interviews with housing corporations that had not made any applications. When the behavioural analysis has been completed, we will develop and implement concrete interventions. Since RVO monitors the number of STEP applications, it will rapidly become clear whether the intervention is having an effect.

Sharing workplaces (RVO)

There is only 0.7 workplace per FTE at RVO. In order to ensure that everyone can find a workplace, it is therefore important that colleagues log out when they leave their workplace for more than half an hour. However, this is not taking place to a sufficient degree at the moment. The analysis with the aid of the Behaviour Change Wheel shows that colleagues are not properly aware of the rules. They also find logging out involves a lot of 'messing around with office equipment', they are worried that they will no longer have a workplace and they do not feel committed to log out. In terms of interventions, we want to run an awareness campaign, create a 'parking space' for office equipment, and make agreements within the team meeting about logging out. The interventions still need to be implemented, so the results are not yet known.

Encouraging bio-based plastics in supermarkets (RVO)

Only 1% of plastics are bio-based. Bio-based plastic is not a hot issue. There are preconceptions and uncertainties about the subject. WUR and CE Delft have investigated and partly clarified the facts and fictions, but it remains an issue with many nuances, depending on the type of plastic and raw material. Because supermarkets influence suppliers and consumers, we asked 9 chains what they know about bioplastics, what they're already doing in this area and what their attitude is. We are also going through the other steps of the Behaviour Change Wheel for this problem. We are currently in the phase of formulating interventions.

Identifying impeding factors in long-term unemployment (UWV)

Jobseekers who have been unemployed for longer than 12 months are less likely to find a job than jobseekers who have been on unemployment benefit for a short time. This target group wants extra support from UWV. At the moment, they only receive basic services, primarily online. We organised 4 focus groups in order to identify what impediments the long-term unemployed experience in their search for work and what services they require from UWV. This showed that this group experiences two important impediments, namely age discrimination and a sense of despondency which is reflected in their jobseeking behaviour. Participants in the focus groups would like more (personal) contact with UWV, active facilitation, and would like to be put in contact with other jobseekers. We are currently investigating the possibilities for developing some interventions that respond to these needs.

Behavioural experiments

Increasing turnover data response from companies (ACM)

Postal and electronic communication companies have to send their turnover data to the ACM every year. Companies that do not submit the data on time receive a reminder letter. In order to increase the response, the ACM carried out a letter experiment using a randomised controlled trial. The modified reminder letter used two techniques that had previously been found to be effective (Kettle et al., 2016):

- the social proof technique: 'the majority of companies have already responded';
- the active choice technique: emphasising that we have treated the failure to provide data as an oversight up until now, but will view it as conscious choice after this.

The hypothesis was that companies that received the modified letter would respond on time significantly more often. This hypothesis was not confirmed. Postal companies did respond more often to the modified letter, but electronic communication companies did not.

Saving electricity at work (ACM)

A lot of research has been done into energy saving for households. Less attention has been paid to saving energy at the office, even though we spend a considerable part of the day there. The ACM took up the challenge: we designed an intervention to encourage staff to use less electricity, such as turning your computer off at the end of the day, and only turning on half the lights in the room. It took the form of an interdepartmental competition: the floor that can save most in a month wins a cake. Posters, energy-saving tips and an ambassador for each floor enabled us to save more than 30% compared to the previous month.

Behaviour Lab experiments (General Affairs)

In 2017, the communication discipline is experimenting with a Behaviour Lab as assigned by the Information Council (Voorlichtingsraad). A government-wide communication team will be working on communication issues with a behavioural component. Two teams of communication advisers, research advisers and spokespeople are carrying out a policy and target group analysis on the basis of CASI and developing interventions, and will also be testing them. The experiment will be evaluated afterwards.

The Behaviour Lab is thereby stimulating the application of behavioural insights, both in communication within policy and communication about policy. The teams' experiences will help bring about a more structured approach to communication issues in which behaviour plays a role: they can show what works and what doesn't within an agreed and defined context. The teams are being given room to experiment with solutions of which the effectiveness has not been established in advance. A team from the Behaviour Lab is working on a case for the Ministry of Defence about food. Preliminary research was conducted for this in autumn 2017. The other team is working on a case for Justice and Security around violence during New Year's Eve.

Encouraging tax return behaviour 2016 (Tax and Customs Administration)

The Tax and Customs Administration believes that it is important that as many people as possible file a tax return on time. We therefore investigated how the tax return reminder could be made more effective. The sense of urgency was reinforced by adding three techniques to the reminder letters:

- one contained the social norm that most people had already filed their return and the taxpayer in question was in the minority;
- loss aversion was triggered by emphasising the risk of a fine (losing money);
- the time pressure was increased through a different formulation of the deadline.

The techniques had a varying effect: there was a small positive effect with loss aversion and social norm. More people filed on time with these techniques, but the letters did not result in more tax returns being filed. The time pressure condition had a negative effect on the number of people filing a tax return, but did ensure that the group who did file a return did it much earlier (an average 2 days faster than the control group).

Encouraging tax return behaviour 2017 (Tax and Customs Administration)

We conducted a second study in order to optimise the tax return reminder. Preliminary research indicated that people perceive the tax return as being complex and suffer from inertia, procrastination and low self-efficacy. 3 techniques were therefore tested in 8,889 letters:

- the first letter targeted procrastination and encouraged seeking help by acknowledging resistance and by mentioning the social norm that most people have help with their tax return;
- in order to improve self-efficacy, the second letter broke the task down in a step-by-step plan;
- the formulation and presentation of the deadline was modified in the third letter in order to increase urgency and therefore reduce procrastination.

The results showed that the time framing and step-by-step plan letter had no additional effect on tax return behaviour. The service-oriented letter was actually found to be less effective and resulted in fewer submitted tax returns than the other letters (58.6% versus 64.5% with the control letter).

Time framing against procrastination (Tax and Customs Administration)

Procrastination has been found to be a common problem with tax returns, as a result of which people often file their tax return late. The literature shows that people categorise a task as being close by or further away depending on how a deadline is formulated. The closer we feel the task to be, the more urgent the task is and the greater the likelihood that we do it immediately (less procrastination). We conducted three studies into the formulation of the deadline (time framing) in order to counteract procrastination:

- The first study involved 340 taxpayers who had to submit information. We varied the deadline between 'by 30 September' and 'before 1 October'. According to the literature, the latter deadline sounds further away and leads to more procrastination. The perceived difference between these two - factually identical - deadlines was reinforced with a calendar that visually showed that 30 September fell in the same month and 1 October clearly in another month. Unfortunately we found no effect: both groups submitted information equally often and equally quickly (average 27 days regardless of framing).
- A second study was conducted with the same deadline formulation whereby people had to return a questionnaire on time. Here too we saw no time framing effect: 71% returned it on time regardless of framing.
- Nor did time framing have any significant effect on the intention to submit a tax return. The calendar was again used, whereby people were required to indicate when they were going to submit their VAT return. Both groups indicated that they would submit on the same date: the 20th of the month.

Increasing response on payment arrears (DUO & Education, Culture and Science)[13]

Payment arrears regularly occur on student debts. In 2016, DUO conducted a randomised experiment in conjunction with the Ministry of Education, Culture & Science among 4,988 debtors who live on Curaçao. This tested whether a) an alternative envelope works better than the standard DUO envelope, and b) whether an e-mail in addition to a letter has more effect. Both were found to be the case. An envelope stamped 'please contact us urgently!' increased the response in the group who only received a letter from 7% to 14%. In the group who also received an e-mail, this stamped envelope increased the response from 21% to 31%. An e-mail in addition to a letter increased the response by an average of 12.5%. All of these effects are statistically significant. Both options involve hardly any additional cost. On average, debtors with a low debt responded more often than those with a high debt. The latter group more often needed a payment plan and were less likely to settle the overdue debt immediately. The entire campaign raised some 80,000 euro in payment arrears, thus settled immediately. One third of the group who responded also took up the request to agree a payment plan with which they committed to pay the overdue amounts.

[13] Plan to Behaviour (2017)

Providing address details for untraceable debtors (DUO & Education, Culture and Science)[14]

DUO does not have up-to-date address details for some debtors. These are the 'untraceable debtors'. DUO does still have e-mail addresses for some of this group. A randomised controlled trial in 2016 among 2,550 untraceable debtors in the preliminary phase - the phase between the end of their studies and the start of the repayment phase - tested the effectiveness of two types of e-mails. A more formal e-mail (used previously) with a sterner tone was found to lead to more notifications of address changes than an e-mail with a more friendly tone, in which a few behavioural techniques were applied (40% versus 30%). Behavioural techniques applied included personalisation ('Dear Dick' instead of 'Dear Mr/Ms'), social norms ('the vast majority of former students in your region have already provided up-to-date address details'), emphasising the ease of handling ('sorted out in 2 minutes'), and triggering loss aversion ('you run the risk of missing out on important information from us'). This experiment shows that widely used behavioural techniques do not work well in all situations, and that it is important not to apply them indiscriminately without measuring their effectiveness. The effectiveness of a reminder e-mail was also tested experimentally. This resulted in a 28% response, and is therefore a cost-effective intervention.

Consciously continuing to study (DUO & Education, Culture and Science)

Course switching and dropouts are a persistent problem in the first year of higher education. There are indications that the likelihood of this is linked to the extent to which students have thought about their choice of degree course. In the 2016/2017 academic year, a large-scale test was conducted in which an experiment was held with letters to those in the final year of havo (higher general secondary education), vwo (pre-university education) and mbo-4 (intermediate vocational education) yet to select their next programme of study. There were 4 versions of the letter, distributed across a total of around 170,000 students:

- the traditional annual letter to those choosing their degree course
- a shorter letter modified with the aid of behavioural insights
- a letter with an optin email service
- a letter with an optout email service

This pilot tested to what extent timing and frequency (multiple messages during the year at relevant times versus 1 message at 1 time) and means of communication (e-mail versus letter) can make a difference. The initial findings are expected in 2018. It has already been found that an opt-in e-mail service (whereby the person choosing their course has to subscribe) led to a much smaller reach for the e-mail service than an opt-out e-mail service (whereby they receive

[14] Plan to Behaviour (2017)

the emails by default and have to unsubscribe if they no longer wish to receive them). This fits with the frequently observed principle that default settings make a significant difference.

Encouraging recycling behaviour at work (Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy)

In order to gain insight into how recycling behaviour at work can be encouraged and how the Ministry of Economic Affairs can make its own operations more sustainable, we have tested interventions within the Ministry of Economic Affairs. Exploratory research indicated that there are important behavioural factors: uncertainty about how to separate waste, doubts about the usefulness of separation, and a lack of interest and time. Making the separation of waste more eye-catching and intuitive with the aid of colours and simple instructions led to a significant increase of over 8% in correctly separated residual waste (from 58% to 63%). An additional intervention with an emphasis on the positive consequences of recycling and a photo of a cleaner thanking the employees had no extra effect on the recycling behaviour.

Reducing food waste (Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy)

We conducted exploratory studies in a number of restaurants and a hotel into behavioural factors involved in food waste. We also carried out small-scale experiments at the restaurants. This shows that it is useful to reduce the default number of side dishes in a restaurant: it led to a 31% reduction in the amount of food wastage. At a holiday park, we tested interventions that helped people to plan their shopping before their visit (using a shopping list/planner), and made it easier for them to bring the food home (by strategic placement of a free cool bag). The cool bag was promising in reducing food wastage, but the difference was not found to be significant due to large variations in the amount of food waste and the low number of observations. Our partner Koninklijke Horeca Nederland (Royal Dutch Association for the Hospitality Industry) is considering larger scale experiments in restaurants.

Tackling non-response (Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy & RVO)

Agricultural businesses are required to provide data annually during a defined period for the agriculture census and subsidy applications (known as the combined submission). In order to reduce the non-response, a reminder letter was sent in 2016 with a firm deadline and social norm to a group of businesses that had not submitted a return. This led to almost 18% extra submitted returns compared to the control group. In 2017, we examined whether we could also stimulate the entire non-response group from 2016 in advance with the request to submit a combined submission. To that end, part of the group received an envelope with a post-it note printed on it with a personal message and the name of the sender. Compared to the control group, which received the normal envelope, this led to 4.7% of extra submitted returns. However, this effect is only marginally significant.

Encouraging resilience in detention (Justice and Security)

The Participating Detention and Community Work (Participerende Detentie en Maatschappelijke Arbeid - PDMA) pilot at Nieuwesluis Penitentiary Institution (PI) involves female detainees qualifying for greater freedoms and responsibilities in order to enhance their resilience. Resilience was also encouraged by enabling detainees who participated in the pilot to work outside the PI. We evaluated this pilot with the aid of questionnaires, 'realistic evaluation', dossier research and interviews. Both detainees and personnel indicated that detainees in the pilot acted more resiliently. Detainees felt confident that they were able and allowed to manage things themselves. Detainees and personnel indicated that they did not feel less safe after the start of the pilot. According to them, less supervision did not lead to more escalations or incidents.

Counteracting neighbour nuisance by tenants (Justice and Security)

Landlords can use various tools to counteract neighbour nuisance by tenants. These range from mild 'non-judicial measures', including community mediation and a warning letter, through to severe 'judicial measures' including dissolution of the lease and eviction.
A pilot was conducted whereby the housing association imposed behavioural requirements on nuisance-causing tenants, on a voluntary basis or enforced by the courts. We carried out a plan evaluation (document and literature study and four interviews) and a process evaluation (37 case studies with information from housing corporations). For 12 of these case studies supplementary information was obtained from support agencies, neighbourhood police officers, those causing a nuisance, neighbours and judges. The goal of the study was to gain insight into the logic underlying the policy of the neighbour nuisance behaviour directive. The results showed that this policy logic is supported by scientific literature and by practical knowledge and experience.

Preventing nightlife nuisance (Justice and Security)

A literature survey was used to investigate what is known about nightlife nuisiance. We also designed interventions that were considered most promising in order to reduce, and where possible prevent, nightlife disorder on the basis of psychological insights. We initiated a total of 13 policy experiments aimed at the role of the behavioural indicator standards, alcohol consumption and the social and physical environment.

Highlighting the premium discount for older people (Social Affairs and Employment)

Labour market participation by older people is lower than the average for the working population aged 25 to 55. The likelihood of unemployed older people returning to work is also relatively low. In order to increase labour market participation by older people, there are financial benefits available for employers who employ older people (such as the older employee premium discount, also called the mobility bonus). The experiment focused on raising awareness among employers about the financial gains that can be enjoyed if they employ benefit claimants aged 56 or older. We thereby applied behavioural insights and communication strategies focused on - among other things - rationality (financial stimulus), salience (making the message stand out) and social norm (showing what the peer group is doing). The experiment was conducted by drawing the attention of a large number of employers (over 30,000) to the premium discount in various ways by letter. The results are expected to be available in spring 2018.

Increasing willingness to train (Social Affairs and Employment)

The willingness to train among workers with only primary, secondary or vocational education is relatively low, even though their position in the labour market is often more vulnerable and training opportunities and resources are available. The experiment, conducted in late 2017, is aimed at gaining better insight into the most effective ways of increasing the willingness to train among this group of workers. We are doing this with the aid of behavioural insights, including positive framing. The experiment is examining various interventions. The results are expected to be available in spring 2018.

Information about income-related combined reduction (Social Affairs and Employment & Tax and Customs Administration)

In order to encourage participation in the labour market, parents can receive the income-related combined reduction (IACK) subject to certain conditions. This is a reduction in the income tax to be paid. However, not all (new) parents are aware of this tax reduction. With the aid of behavioural insights, we want to increase awareness of the tax benefit that can be enjoyed if parents (continue to) work. The experiment seeks to make parents who have just had their first child aware of the IACK by informing them by letter. The results are expected to be available at the end of 2018.

Switch to collective insurance (Social Affairs and Employment & Almere municipal council)

Almere municipal council supports affordable collective health insurance for people on a low income. However, the take up is relatively limited. The experiment was aimed at informing the target group (low income group) in various ways about the possibility of switching to the cheaper insurance.

We thereby made use of behavioural insights focused on personalised and appealing presentation (coloured and handwritten envelopes) and on emphasising the desired action in an action box in the letters. Following the experiment, the number of people switching had increased, but there was no significant difference from the control group. However, the suspicion is that the letters did contribute to the willingness to switch. Because good service provision was felt to be crucial the basic letter (control group) was also clarified and simplified in a number of aspects.

Reducing no-shows at UWV Inspiration Days (UWV)

Every year, the UWV (Employee Insurance Agency) organises inspiration days which bring together employers and jobseekers aged 50+. As with many other events, there are invitees who do not turn up at the last minute, the 'no-shows'. In order to reduce no-shows, the standard confirmation e-mail that we send prior to the event was modified in a number of areas on the basis of insights from behavioural science. For example, triggers were included with regard to commitment ('you have registered') and scarcity ('a lot of jobseekers are interested in the UWV Inspiration Day'). A test with 451 old and new invitations suggests that the new invitation is effective in reducing the no-shows and increasing attendance. The proportion of no-shows was 25% lower among clients who received the new e-mail than with clients who received the standard e-mail. However, the results are not significant due to the small sample size.

Stimulating jobseeking behaviour (UWV)

UWV wants to encourage jobseekers into work as effectively as possible. The motivation of jobseekers plays an important role in this. Behavioural science literature about motivation shows that setting goals, the experience of autonomy and procrastination can make a difference in displaying and maintaining behaviour. On the basis of these insights, we have developed a service whereby jobseekers are invited at the start of their unemployment benefit period to draw up a personal workplan and set concrete goals for their jobseeking behaviour. In a trial, 10,075 jobseekers were randomly offered or not offered this workplan in their online Work folder. The results show that the jobseekers in the experimental group reported 5% more jobseeking activities and reported being invited to a job interview 10% more often 3 months after being offered the workplan. A supplementary questionnaire showed that jobseekers who completed the workplan also experienced more autonomy in looking for work and that they had clearer goals than jobseekers from the control group with identical characteristics.

Behavioural analysis/behavioural experiment + implementation

Military influencing of behaviour during integrated operations (Defence)

Military deployment is intended to tackle and prevent violent or unwanted behaviour in a society. This can be done through the use of force, but can also be achieved by using psychological influencing. On behalf of the Ministry of Defence, TNO is investigating three aspects of this concept:

- the social interactions between individuals and within a combat group in normal conditions and under stress. As part of this research the question of how the competencies related to influencing behaviour coincide with military skills and how these competencies can be trained is also being examined;
- integration of the psychological domain into military operations. Military personnel must master the various domains within an integrated operation. The focus is on effective planning and development methods, the relationship between military activities and the psychological and behavioural effects, effective influencing strategies and the use of information domains for influencing behaviour;
- underlying factors in decision-making such as (subconscious) emotions, preconceptions, associations and intuition. These factors play a large role in determining people's behaviour. This makes people prone to influencing, with both positive and negative consequences.

TNO will be investigating how these factors manifest themselves and how they can be applied in order to support decision-making and influence others.

Reducing telephone and e-mail contact about the supplementary student grant (DUO)

Information about the income of students' parents is required in order to be able to calculate the supplementary student grant. This income information is exchanged with the Tax and Customs Administration. If the Tax and Customs Administration does not know the income (e.g. the parents have not yet filed a tax return), we are unable to calculate that grant and the student will at first not receive the supplementary grant. Although this is stated in the annual notifications, on the websites and in mailshots, students only really become aware of it with the first monthly payment of the new year. That results in a great deal of customer contact at DUO by e-mail and telephone in the last week of January. The aim of two pilots in January and February 2015 was to reduce the need for this customer contact. The first pilot involved A/B testing with a modified webpage versus the previous webpage. The modified page provided - among other things - clear advice (in capital letters) to wait as well as an explanation of what to do (online) if you need money immediately. This modification led 20% fewer emails and 28% fewer telephone calls. A second pilot in February of that year whereby half of the students received an e-mail with an explanation and advice and half did not led to another 3% fewer telephone calls, i.e. 700 fewer calls. It had no effect on e-mail behaviour. The campaign was repeated and further fine-tuned in 2016 and 2017.

Encouraging secure information behaviour (Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy)

How do you get staff to lock their screen when they leave the workplace? And how do they become more resistant to phishing attacks? We tested interventions among staff at the then Ministry of Economic Affairs in these two areas of information security. With screen-locking, a combination of a flyer and stickers on the keyboard and screen resulted in the largest rise in the number of screen locks (+30.5% compared to the measurement beforehand). Interventions with the flyer and the stickers separately were also significant; the number of screen locks remained unchanged in the control group The stickers have now been applied within the central department of the Ministry of Economic Affairs & Climate Policy and the Ministry of Agriculture, Nature & Food Policy.

For phishing we conducted an experiment with three informative e-mails: one about the threat of phishing, one about how to recognise a phishing e-mail, and one about how to act if you receive a phishing e-mail. We compared these informative e-mails with the actual experience of a (simulated) phishing attack. All groups then received a phishing e-mail. Experiencing a phishing e-mail was found to work 1.5 times better than information provision when it came to reducing the number of staff who subsequently revealed their password. The combination of experiencing an e-mail and information provision works slightly better than just ‘experiencing’: 41% fewer staff revealed their password.

Counteracting procrastination (Economic Affairs and Climate Policy/Agriculture, Nature and Food Policy & RVO)

Agricultural businesses are required to provide data annually for the agriculture census and subsidy applications (the combined submission). The majority wait until the last two weeks before the 15 May deadline, as a result of which the servers and the telephone helpdesk are overloaded. The behavioural literature contains multiple explanations for procrastination, including the present bias, the planning fallacy, the intention-behaviour gap and the fact that it is a difficult, dull task for most farmers without feedback or rapid reward. Slightly fewer than half the farms use an adviser or accountant for this activity: the rest complete the return themselves. Partly as a result of the findings of the field study, 4 different versions of letters were sent out in 2016 to encourage farmers to submit earlier:

- the standard letter (control group)
- a letter with the target date of 22 April alongside the deadline of 15 May
- a letter with the target date of 29 April alongside the deadline of 15 May
- a letter with a calendar of peak and trough days.

All of the interventions reduced procrastination, but only for the group of farmers who submitted the return themselves. The letter with a target date of 22 April had the biggest impact. This resulted in 7% fewer farmers submitting the combined return during the last two weeks. The target date was again tested in a new experiment in 2017, and the 2016 result was replicated. RVO it is therefore including a target date in all letters in 2018.

Develop a campaign about texting while driving (Infrastructure and Water Management)

Distraction as a result of reading and writing messages on a smart phone while driving leads yearly to dozens of road deaths and much traffic congestion . The assumption was that many people text while driving. It was time to set up a national campaign, because every victim is one too many.
There was no in-depth insight into the problem behaviour: how often do car drivers text while driving, why do they do so and how can it be prevented? In-depth behavioural analysis resulted in important eye openers.
The group that often texts while driving was found to be relatively small: approximately 1 in 5 car drivers. This involves habitual and impulsive behaviour without rational consideration beforehand. They know that this behaviour is risky, but the urge to respond to incoming messages is more dominant. This process is automatic and primarily reactive. The most important trigger appears to be the notification sound for a message.
The campaign had two pillars: the new social norm 'ON the road I'm OFFline' and the behavioural advice 'Switch your mobile to silent before you set off'. These pillars emphasised the desired behaviour and its benefits (driving in a relaxed, focused and safe way). We consciously refrained from being patronizing, ridiculing and the use of fear appeals in order to avoid resistance. The effect evaluation within the group that texts frequently shows that more than 90% have embraced the new social norm and that over two-thirds were positive about the behavioural advice. Approximately 50% said they are certainly willing to switch their mobile to silent before they start driving.

Evaluating mindfulness in detention (Justice and Security)

The Mindfulness Based Stress Reduction (MBSR) training has been offered to detainees in a number of penitentiary institutions in the Netherlands for a number of years. In this study, we are examining (in preparation for an effect evaluation) how the intervention could work (plan evaluation) and whether the intervention is being executed as intended (process evaluation). Literature research shows that mindfulness has a positive effect on executive functioning, the regulation of emotions, stress control and psychosocial functioning. The literature (although of a limited quantity and quality) also suggests that mindfulness appears to be usable within the criminal justice domain and gives comparable positive results there. Mindfulness training could even fit well with the shortcomings that criminals manifest in these areas, including criminals engaged in High Impact Crime. The process evaluation shows that the MBSR training has been slightly modified for the target group of detainees, but is broadly implemented in accordance with the manual. The detainees are motivated and positive about the training and report positive results.

Encouraging use of Online Job Application Training (UWV)

Jobseekers can take online job application training courses at UWV. Although participants rate the training courses highly, the number of participants is relatively low. Jobseekers' attention is drawn to the training courses with a tip in their online Work folder. A study was carried out into how the title of the tip can be modified so that people are more inclined to read it. Three variants of the tip were developed on the basis of behavioural insights. The effectiveness of the 4 tips was examined with a randomised controlled trial:

- standard: 'Do the online job application training course'
- gain framing: 'This will make you stand out to employers: do the online job application training course'
- loss framing: 'Avoid not standing out to employers: do the online job application training course'
- social norm: '600,000 jobseekers have already done it: do the online job application training course'.

These tips were sent on a randomised basis to approximately 90,000 jobseekers over a 4 month period. The results show that the message with the gain framing title was read twice as often as the other messages. The percentage of read messages rose from 14% (standard title) to 30% (gain frame title).

Nudging in public healthcare (Health, Welfare and Sport)

Many experiments are being carried out in the Health, Welfare & Sport domain at insurers, healthcare providers, municipal councils, via RIVM (National Institute for Public Health and the Environment) and ZonWM (Netherlands Organisation for Health Research and Development) etc. For example, on behalf of ZonMW a scientific framework has been developed for the application of nudging in public healthcare. The results of this have been used for the fifth Prevention programme. In addition, an overview of nudging in practice has been produced - once again on behalf of ZonMW - which lists various experiments.

RIVM also has nudging on its strategic agenda: the institute is developing knowledge and expertise about the possibilities of nudging to encourage a healthy lifestyle and good health. RIVM is also conducting various experiments. See the example among the show-case studies in Chapter 3.

More information can be found at:
https://www.zonmw.nl/nl/onderzoekresultaten/preventie/nudging/
htp://www.strategischprogrammarivm.nl/Gezondheidseconomie/Nudging
htp://www.loketgezondleven.nl

BIN NL and list of contacts

The Behavioural Insights Network Netherlands (BIN NL) is a collaboration between all ministries for the application of behavioural insights to policy, implementation, supervision and communication. Its main purpose is the exchange of knowledge and experience.

Behavioural insights

In response to reports from the Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid - WRR), the Social Development Council (Raad voor Maatschappelijke Ontwikkeling - RMO) and the Council for the Environment and Infrastructure (Raad voor de leefomgeving en infrastructuur - Rli), the government has indicated that it wants to encourage the application of behavioural insights in policy-making, including by carrying out pilots in all ministries and through an interdepartmental network which drives this process.[15]

Who are we?

The Behavioural Insights Network Netherlands (BIN NL) is the interdepartmental network for the application of behavioural knowledge in policy-making. Behavioural knowledge coordinators from all ministries are members of the network. Within the ministries, they advocate the application of behavioural insights in policy-making, and offer guidance and support when necessary.

What do we do?

BIN NL is set up for the exchange of knowledge and experience. In addition, BIN NL plays a supporting and encouraging role when it comes to the application of behavioural knowledge to policy-making, implementation, supervision and communication. BIN NL organises a series of activities aimed at sharing and developing knowledge and facilitating collaboration. These include our annual Dag van het gedrag (Behaviour Day) conference, the publication of this report, a monthly series of lectures and facilitating a module in the training programme for civil service trainees. Since 2015, BIN NL has also been managing the Gedragstoets (behavioural test) developed by Rli.

[15] Kamerstuk (Parliamentary Papers) 34000XIII no. 140.

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List of abbreviations

ACM	Authority for Consumers & Markets
AFM	Authority for Financial Markets
Anw	Algemene nabestaandenwet (Survivors Benefit Act)
BIN NL	Behavioural Insights Network Netherlands
CASI	Communication Activation Strategy Instrument
COA	Centraal orgaan Opvang Asielzoekers (Central Agency for the Reception of Asylum Seekers)
DUO	Dienst Uitvoering Onderwijs (Education Executive Agency)
PI	Penitentiary Institution
Rli	Raad voor de leefomgeving en infrastructuur (Council for the Environment and Infrastructure)
RMO	Raad voor Maatschappelijke Ontwikkeling (Social Development Council)
RVO	Rijksdienst voor Ondernemend Nederland (Netherlands Enterprise Agency)
UWV	Uitvoeringsinstituut Werknemersverzekeringen (Employee Insurance Executive Agency)
UN	United Nations
VNG	Vereniging Nederlandse Gemeenten (Association of Dutch Municipalities)
VU	VU Amsterdam University
WRR	Wetenschappelijke Raad voor het Regeringsbeleid (Scientific Council for Government Policy)
WUR	Wageningen University & Research

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