# COMPILATION OF NUDGES

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# NUDGE MY TOUR
## COMPILATION OF NUDGES - INTRODUCTION

The tourism ecosystem is a crucial contributor to the global economy: before the Covid-19 pandemic, it contributed to nearly 10% of GDP in Europe, and generated about 12% of European jobs. At the same time, tourism-related activities have an impact on global warming, greenhouse gas emissions, biodiversity degradation. If poorly managed, tourism can cause harm on the natural and cultural heritage, and on local communities.

In the current context of climate crisis, and uncertainty concerning the socio-economic stability, the tourism sector faces unprecedented challenges. A paradigm shift is needed to re-think the way tourism activities are planned and managed, and to re-balance priorities when it comes to tourism development.

Within this context, more and more people are becoming aware of the necessity to travel more sustainably. According to a report by Booking.com, most (81%) travellers declare that sustainable travel is important to them. However, when it comes to their actual travel choices, the percentage of those who choose sustainable travel options decreases greatly.

This intention/action gap can be explained by several factors, many of which are closely related to the way human beings think, decide and behave.

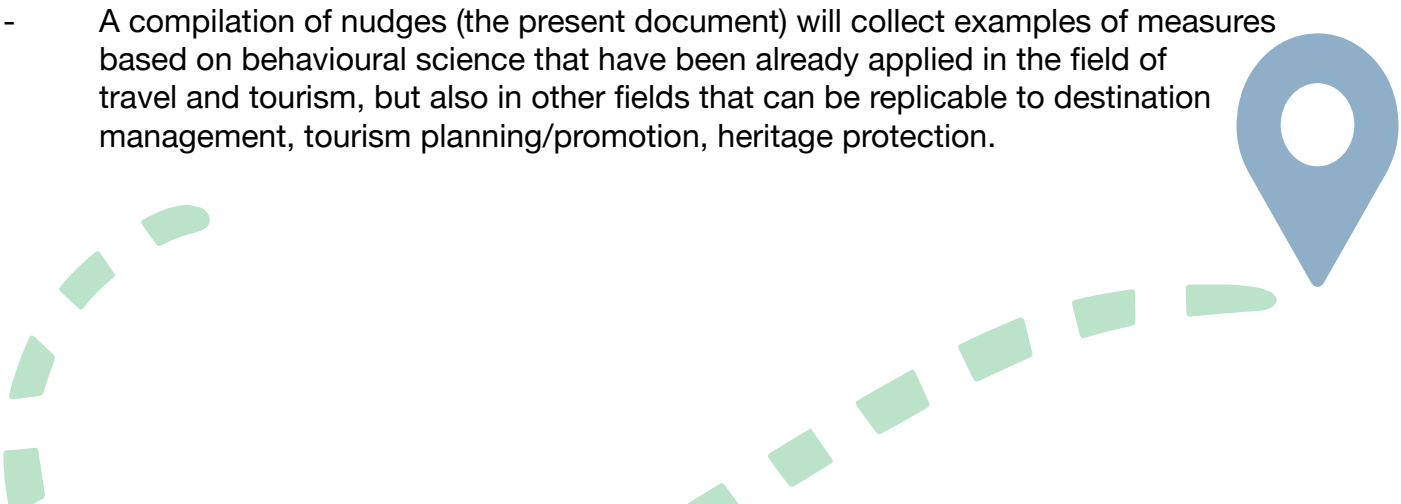
Behavioural science can play a crucial role in helping destinations, tourism policy makers and businesses to understand human behaviour, and to use this knowledge to developing better tourism activities and policies, towards a more sustainable sector.

The Nudge My Tour project aims to raise awareness and develop training tools  to illustrate the potential of applying behavioural science to tourism sustainability.

- A training methodology will provide teaching modules, discussion prompts and presentations aimed at building the capacity of destination managers and university students in tourism about the application of behavioural approaches to tourism sustainability.

- An informative toolkit will visually explain the fundamentals of behavioural science applied to tourism, in order to make this topic more accessible to a broader public, including a non-specialist audience.

- A compilation of nudges (the present document) will collect examples of measures based on behavioural science that have been already applied in the field of travel and tourism, but also in other fields that can be replicable to destination management, tourism planning/promotion, heritage protection.



# WHAT IS A NUDGE?

In the Nudge My Tour project we will use the definition of a nudge which is described in the report Tools and Ethics for Applied Behavioural Insights: The BASIC Toolkit (2019).

**Nudge as originally defined by Thaler and Sunstein**
"A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not" (Thaler and Sunstein, 2008).

**Mechanistic definition**
"A nudge is a function of any attempt at influencing people's judgment, choice or behaviour in a predictable way (1) that is made possible because of cognitive boundaries, biases, routines and habits in individual and social decision-making posing barriers for people to perform rationally in their own declared self-interests and which (2) works by making use of those boundaries, biases, routines, and habits as integral parts of such attempts" (Hansen, 2016).

In addition, nudging may be regarded as the systematic development, test and implementation of evidence-based nudges, where practitioners rely on psychological theories, such as dual and triple process theories, and make use of experimental methods for effect-and policy evaluation.

**Sources**
OECD (2019), Tools and Ethics for Applied Behavioural Insights: The BASIC Toolkit, OECD Publishing, Paris, https://doi.org/10.1787/9ea76a8f-en.

Thaler, R. and C. Sunstein (2008), Nudge: Improving Decisions about Health, Wealth, and Happiness, Yale University Press;

Hansen, P.G. (2016), "The definition of nudge and libertarian paternalism: Does the hand fit the glove?", European Journal of Risk Regulation, Vol. 7(1), pp. 155-174.

We will use the mechanistic definition as it is the most precise definition of a nudge. This definition will be the same through this compilation, but also the Informative Toolkit and the Training Methodology.

# PREFACE

What follows is a compilation of nudges that consist of a collection of initiatives and measures based on Behavioural Insights and Nudging. These examples are either applied directly to tourism or other domains with a justification for their tourism application.

The collection aims to target a broader audience including, but not limited to staff working in tourism boards, Destination Management Organizations (DMOs), municipalities and regional authorities, and university students.

The nudge-examples are organised by the type of behavioural problem they address and presented in the form of designed cards. Here, the compilation will rely on the use of the BASIC framework to structure and present the content of the nudge-examples.

BASIC is a toolkit that equips policymakers and practitioners with best practice tools, methods, and ethical guidelines for conducting Behavioural Insights projects from the beginning to the end of a public policy cycle. This approach is reflected in the five stages of BASIC: Behaviour, Analysis, Strategy, Intervention and Change.

The cards will contain clear delineation between two types of Nudges. It will show the difference between the ones already validated through an experiment, versus those that are promising but still need to be tested. It will be distinguishable using different colours the difference between the two types of Nudges:

1. Nudges that have been already carried out and tested in a real context (white background)
2. Nudges that have been either implemented without testing or are yet to be tested (yellow background)

Finally, a crucial note will be annexed to present the opportunities for and limits of replicating Nudges.

This Compilation of Nudges aims to contribute to increased knowledge about the application of behavioural science to tourism by showing practical implications and demonstrations of the usefulness of Nudge-based initiatives in this field.

# INDEX

# THE BASIC© APPROACH

**B**

The first stage, BEHAVIOUR, focuses on defining the behavioural problems. It focuses on ***what*** the behavioural problem is.

The purpose is to **identify, conceptualize** and **quantify** the relevant behavioural patterns and problems to address, and turn them into feasible Behavioural Insights projects.

**A**

The second stage, ANALYSIS, aims to examine, through the lens of Behavioural Insights, which psychological and cognitive factors are causing the targeted behaviours.

The aim is to understand ***why*** people act as they do.

**S**

Building on the behavioural analysis, the next step is to identify behaviourally informed strategies that will effectively change the identified behaviours at the root of the behavioural problem.

The third stage, STRATEGY, aims to **identify behavioural insights** that might be effective for informing behaviourally informed strategies that might effectively change target behaviours and can be tested in the subsequent stage of INTERVENTION.

**I**

At this point, a behavioural ANALYSIS has been conducted and, relevant behavioural insight STRATEGIES aimed at creating behaviour change have been identified.

The next stage, Stage 4: INTERVENTION, aims to actively participate in the design of an intervention that will test whether these strategies may be effective or not.

**C**

In the fifth and final stage, CHANGE, you look at the results of the behavioural project and think of its long-term implications. By this stage, you will know whether the (pilot)tests have produced promising results and if a solution can be scaled up into a full intervention – or whether repeated failure brings the project to an end and the community can learn from what did not work.

## DESIGNING AND TESTING A NUDGE: THE BASIC© FRAMEWORK

BEHAVIOURAL INSIGHTS FOCUS ON UNDERSTANDING WHAT ACTUALLY DRIVES HUMAN BEHAVIOUR AND DECISION-MAKING

THERE ARE SEVERAL FRAMEWORKS ON HOW TO APPLY BEHAVIOURAL INSIGHTS TO ANALYSE A PROBLEM AND DEFINE A POSSIBLE SOLUTION

THE BASIC FRAMEWORK IS A SET OF METHODS, TOOLS AND GUIDELINES FOR APPLYING BEHAVIOURAL INSIGHTS TO PUBLIC POLICIES

### B — BEHAVIOUR

IDENTIFYING A BEHAVIOURAL PROBLEM

WHO IS PERFORMING THE ACTION?
WHAT ARE THESE PEOPLE DOING? WHAT DO WE WANT THEM TO DO INSTEAD?
WHERE AND WHEN IS THE ACTION PERFORMED?

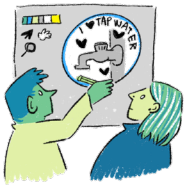
### A — ANALYSIS

IDENTIFYING THE COGNITIVE AND PSYCHOLOGICAL FACTORS CAUSING THE TARGETED BEHAVIOUR

WHY DOES THE PROBLEM OCCUR?

### S — STRATEGY

IDENTIFYING A BEHAVIOURALLY INFORMED STRATEGY TO CHANGE THE TARGET BEHAVIOUR




HOW DO WE SOLVE THE PROBLEM?

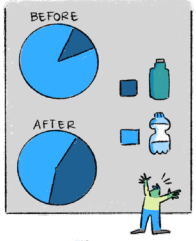
### I — INTERVENTION

TESTING WHETHER THE STRATEGIES ARE EFFECTIVE OR NOT


DOES THE STRATEGY WORK?

### C — CHANGE

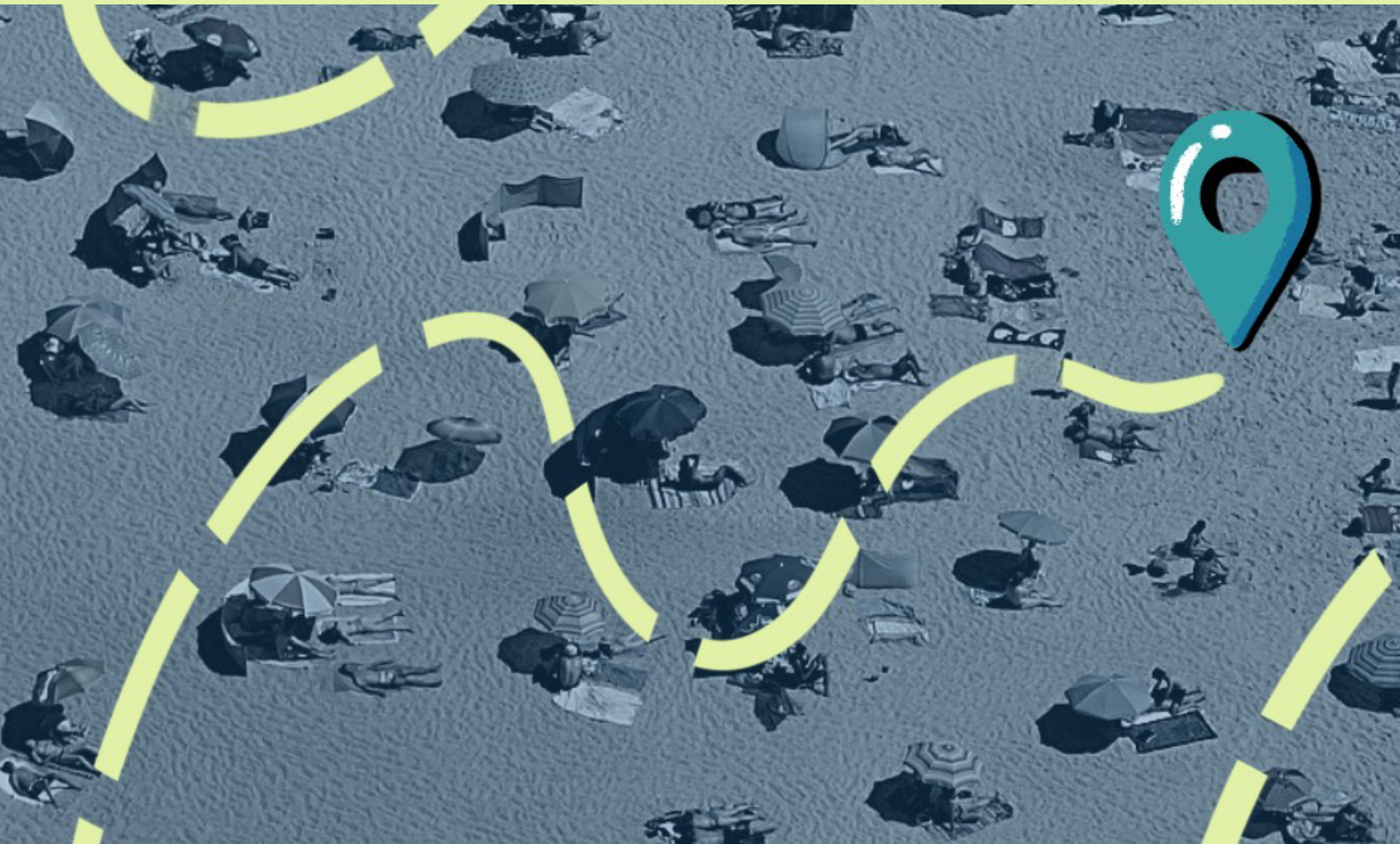
THINKING OF THE LONG-TERM IMPLICATIONS




HOW CAN THE BEHAVIOURAL STRATEGY BE SCALED UP?
HOW CAN WE LEARN FROM WHAT WORKED AND WHAT DID NOT WORK?

# TEMPLATE FOR CARDS

## Presentation of nudges applied to tourism



# [INSERT THE MAIN AREA]

*[Insert the main challenge formed as a question]*

INSERT IMAGE

## THE CHALLENGE

xxx[1].

xxx[2].

[1] xxx
[2] xxx

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# [INSERT THE SUB-AREA]

*[Insert the title of the nudge example]*

**B** [*What* is the behavioural problem, in which context does it occur, what is the preferred behaviour and non-preferred behaviour and how many people are doing what …]

**A** [*Why* does the problem occur seen through the lens of theories, insights and methodologies from the behavioural sciences …]

**S** [Which behavioural insights are tied to the problem and *how* will the problem be solved …]

**I** [How has the strategy been *tested* and *measured* …]

**C** [How has the intervention been *implemented, scaled, disseminated* and *maintained* after the experiment …]

## References

***Main article:*** *xxx*

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# COMPILATION

## Nudges applied to tourism

# CARBON OFFSET

*How can we compensate for the carbon emissions related to travel?*

# CARBON OFFSET

*How can we compensate for the carbon emissions related to travel?*

## THE CHALLENGE

The CO2 emission related to aviation is a major contributor to the carbon footprint of tourists, accounting for up to a fifth of the total carbon footprint of tourism[1]. It is necessary to utilize carbon offsetting programs to alleviate the carbon footprint of aviation in the short and medium term, as sustainable aviation fuel (SAF) is estimated to at most reduce the carbon footprint of aviation by 80%[2].

As technological solutions to make aviation truly carbon neutral are far away, travelers must be convinced to pay for carbon offsets in order to achieve carbon neutral transportation. With travelers being price sensitive, and a general perception of carbon offsets as purely optional additions to travel costs, making carbon offsets mandatory can result in reactance and dissatisfied travelers.

The tourism travel industry does not seem to be well-equipped currently with the right options to understand how tourists can best be persuaded to contribute to carbon offsets voluntarily.

There are several factors that contribute to the decision travelers make when paying for carbon offsets or not: for example, the default suggested price of carbon offsets and how information on carbon offsets is presented can heavily influence travelers' decisions.

The following descriptions of nudges will address options for persuading tourists to voluntarily pay for carbon offsets in relation to their travel.

[1] Debbage, K., Debbage, N., 2019. Aviation carbon emissions, route choice and tourist destinations: Are non-stop routes a remedy? Annals of Tourism Research
[2] https://www.bp.com/en/global/air-bp/news-and-views/views/what-is-sustainable-aviation-fuel-saf-and-why-is-it-important.html

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# DEFAULT CHOICES FOR CARBON OFFSETS

*Can defaults save the climate? Evidence from a field experiment on carbon offsetting programs.*

## B

When they choose their means of transportation, many travellers are much more attentive towards the price of a journey and do not pay much attention to the environmental cost. Many people choose to travel by plane, either because it's the cheaper option or because there are no other options to get to the destination. In any case, traveller choices do not typically align with the general wish that many have of wanting to be greener.

In order to offset the environmental cost of aviation, some travel agencies have given travellers the option to pay for carbon offsetting for their journey. This is presented as a choice during the booking process, where travellers can choose to pay an additional fee or not.

In this example, the desirable behaviour is the voluntary choice of a traveller to carbon offset their journey. The undesirable behaviour, on the contrary, is choosing not to compensate the emissions of the journey through carbon offset.

## A

There are several behavioural reasons that can explain why travellers who wish to be greener do not choose to pay for voluntary carbon offsets when the default is opt-in:.

1) Choosing the default option might imply less effort for the decision maker.
2) Defaults options might anchor decision makers to the existing status quo.
3) Defaults can be seen as recommended options.

## S

Based on the analysis above and previous research, it can be assumed that including carbon offsets as the default choice during travel booking can increase the number of travellers who will pay for carbon offsets.

Two solutions were therefore developed:

1) A fixed cost for carbon offsetting was included by default in the fee for the journey. Travellers had the choice to opt-out by deducting this cost, if they wished to.;
2) A general informative section was included to inform the traveller of the carbon emissions associated with the journey and the possibility of paying for a carbon offset to compensate these emissions.

## I

A field experiment was conducted in collaboration with a travel agency for conventions and conferences in Gran Canaria.

The intervention was included as a section in the payment process, with the carbon offsetting option being presented as part of a carbon offsetting program of the Conference Bureau.

The observations were carried out between September 2009 and September 2011. All travellers seeking to register for conferences during this period were randomly assigned to either the control treatment with carbon offsetting being an opt-in fee or the intervention with carbon offsetting being an opt-out fee.

## C

This experiment demonstrated that giving the travellers the choice to opt-out from carbon offsetting rather than opt-in led to an increase in the number of travellers paying for carbon offsets by almost 33%, with the effect decreasing as the fixed fee for carbon offsets increased.

Varying the cost for carbon offsets highlighted that for large fees (>40€) the difference between opt-in and opt-out decisions was not significant.

This study also highlights that similar interventions could be easily replicated in other travel booking settings.

## References

***Main article:*** *Araña, J. E., & León, C. L. (2013). Can defaults save the climate? Evidence from a field experiment on carbon offsetting programs. Environmental and Resource Economics, 54(4), 613–626.*

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# FOOD WASTE

*How can we reduce food waste at hotels, restaurants and food providers in tourism sites?*

# FOOD WASTE

*How can we reduce food waste?*

## THE CHALLENGE

Food waste is a major global issue: the World Food Program (WFP) estimates that about one third of the food produced each year is lost before it is consumed[1].

This issue is particularly significant in the hotel industry: it has been estimated that, in 2010, the EU food service sector produced 12 million ton of food waste, which represents 12% of the total food waste in the continent[2].

This volume reaches nearly 16 million ton in the United States, representing about 25% of the total food waste in the country. It is also estimated that food accounts for 20% of global greenhouse gas emissions.

Despite this, the hotel and food service industry does not seem to be enough equipped to face this issue, even though it largely contributes to climate change and to the waste of resources.

There are several factors that contribute to the waste of food in the hotel industry: for example, the food supply chain or the modalities for food delivery. However, the behavior of guests can also play a big role in preventing food waste.

The following descriptions of nudges will address this issue.

[1] Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R., Meybeck, A., 2011. Global food losses and food waste: extent, causes and prevention, In: FAO (Ed.), FAO, Rome.
[2] FUSIONS. Estimates of European Food Waste Levels; IVL Swedish Environmental Research Institute: Stockholm, Sweden, 2016.

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# REDUCING FOOD WASTE IN HOTEL RESTAURANTS

*'Nudging' hotel guests to reduce food waste as a win–win environmental measure.*

## B

Most hotel restaurants propose a buffet with the possibility for guests to choose among many different food options.

Hotel guests get access to a potentially unlimited amount of food, and in many cases they take more food than what they can actually eat. As a result, much of the food taken is not consumed, and therefore wasted.

In this example, the desirable behaviour is the intake of a reasonable amount of food that the guest is able to actually eat. The undesirable behaviour, on the contrary, is the excessive intake of food on the plate, which leads to food waste.

## A

There are several behavioural reasons that can explain the excessive intake of food by guests in hotel restaurants.

1) The display of food in large buffets creates the perception of an unlimited amount of food to which the guests can access.
2) In addition, the large size of the plate leads to the intake of a bigger amount of food, because it creates a biased perception of how much food is on the plate. Both the display of large buffets and the size or the plates can be categorized as social cues.

## S

Based on the analysis above and previous research, it can be assumed that the decrease of plate size could lead to a decreased food intake and therefore reduce food waste.

On the other hand, it is necessary to prevent the possible frustration that could result from a smaller plate.

Two solutions altering the social cues were therefore developed:

1) The reduction of plate size from 24 to 21 cm;
2) The displaying of a sign at the buffet, encouraging guests to help themselves more than once. The sign displayed the following text, in seven languages: "Welcome back! Again! And again! Visit our buffet many times. That's better than taking a lot once".

## I

A field experiment involving the 52 hotels was conducted. 38 of the hotels served as a control group, where no intervention was carried out; 7 hotels tested the reduction of the plate size and 7 hotels tested the sign encouraging people to help themselves again.

The observation was carried out between the 1st and the 15th August 2012. All 52 hotels collected and reported daily data about food waste during the whole period.

In the control group, the pre-existing differences in plates size was also considered.

Customer satisfaction was also monitored through an online survey.

## C

This experiment has demonstrated that the reduction of plate size has led to a reduction of food waste by 19,5%, and that the display of a sign encouraging guests to return to the buffet allowed to reduce food waste 20,5%.

The observational study carried out with the control group highlighted that plate size reduction has stronger effects on food waste reduction.

According to the study, a 1 cm reduction of the plate size can prevent 2,5 kg of food from being wasted.

Customer satisfaction remained essentially unchanged before and during the experimentation. This suggests that these interventions do not have negative effects on the visitors' experience.

This study also highlights that such interventions, especially the plate size reduction, could be easily replicated in other settings where meals are served with buffets

## References

***Main article:*** *Kallbekken, Steffen & Sælen, Håkon. (2013). 'Nudging' hotel guests to reduce food waste as a win–win environmental measure. Economics Letters. 119. 325–327.*

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# REDUCING FOOD WASTE IN HOTEL KITCHENS

*Evaluating materiality in food waste reduction interventions*

## B

Most restaurants waste a significant amount of food during the preparation of ingredients and cooking process.

With typical bins being opaque and largely aggregated in a kitchen, it is also difficult for staff to understand how much food is wasted every day, and in which specific areas of the kitchen there is the most food waste.

In this example, the desirable behaviour is a lower amount of food being wasted during the preparation of meals. The undesirable behaviour, on the contrary, is an excessive amount of edible food being thrown away in the kitchen, which leads to food waste.

## A

There are several behavioural reasons that can explain the excessive wastage of food by kitchen staff in restaurants.

1) The size of bins: large bins for food waste can normalize the behaviour of throwing away large quantities of ingredients during the preparation process.
2) The aggregation of all garbage areas in the kitchen lead to less knowledge of how much food is wasted by each area, practice and specific behaviour.
3) The opaqueness of the bins calls less attention to the amount of food being wasted, causing kitchen staff to not notice the amount of food being wasted.

## S

Based on the analysis above and previous research, it can be assumed that the decrease of bin size as well as making the bins transparent could lead to reduced food waste.

The solution to altering the social cues was therefore developed with the following characteristics:

1) The food waste bins were made smaller in size and transparent;
2) The bins were dispersed to have area, practice and behaviour specific placements so each type of prepared ingredient had its own bin.

## I

A field experiment involving three 5-star hotels was conducted. At these hotels the existing large food waste collection bins were replaced with small, transparent 20-l tubs for three months.

Two of these hotels were in the U.K. and the last was in Germany. The specific kitchens were purposefully selected because various food waste reduction interventions were trialed there in the past.

The observation study paid particular attention to how the intervention influenced staff practices and attitudes towards food waste.

## C

This experiment has demonstrated that the changes in bin size and transparency as well as strategic placement of the bins to be area and practice specific can lead to a reduction of food waste by 73% for the breakfast buffet, and 70% for the a-la-carte restaurant. Both effects were stronger 2 weeks after the implementation of the intervention compared to 1 week after.

The staff working with the new bins had mixed reactions to the intervention, with some welcoming the changes and applauding an enhanced ease of cleaning, and with others being confused about the placement of the bins and a lack of convenience in a limited kitchen space.

The size and transparency of the new bins promoted a higher level of attention towards the level of food waste, re-calibrating the staff's perceived acceptable level of food waste.

The placement of the bins allowed for social expectations and surveillance to naturally form, and thereby holding staff members accountable for their own level of food waste.

This study also highlights that such interventions could be easily replicated in other restaurant kitchens.

### References

***Main article:*** *G. Chawla, P. Lugosi, R. Hawkins (2020). Evaluating materiality in food waste reduction interventions.*

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# SAVING ENERGY & RESOURCES

*How can we reduce energy usage?*

# SAVING ENERGY & RESOURCES

*How can we reduce energy usage?*

## THE CHALLENGE

Energy is the largest individual contributor to global CO2 emissions: the Intergovernmental Panel on Climate Change (IPCC) estimates that about a quarter of global CO2 emissions stems from electricity and heat production[1].

This issue is particularly significant in the hotel and service industry. It is projected that the industry overall will increase total CO2 emission and energy usage in a time where reductions are necessary[2].

As travelers prioritize enjoyment during vacations, the presentation of energy saving choices is central. As such, hotels and restaurants prefer to change the behavior of guests through voluntary choices rather than forceful requirements. This is due to how forced choices can negatively affect the experience that guests have.

There are several factors that contribute to an increased energy use in the hotel industry: for example, cost effectiveness and the wish to create a great experience for guests. The behavior of guests can therefore play a big role in reducing energy usage by affecting their preferences for different services.

The following descriptions of nudges will address ways to increase the attractiveness of less energy intensive options for guests.

[1] IPCC (2014), Climate Change 2014: Mitigation of Climate Change.
[2] https://www.unwto.org/sustainable-development/climate-action

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# WATER AND ENERGY CONSERVATION IN HOTELS

*Real-time feedback promotes energy conservation in the absence of volunteer selection bias and monetary incentives*

## B

Most of hotel guests are less aware of their energy and water consumption during their stay, compared to when they are at home. This could result in a higher resource consumption and higher costs for the hotels.

This example describes a behavioural intervention based on the provision of real-time feedback about water and energy consumption related to a specific and energy-intensive habitual activity: showering.

Here, the desirable behaviour is the use of as little water as possible during the shower, and at a cooler temperature.

## A

When providing feedback about energy consumption, the majority of interventions tested so far provide aggregated data at the household level, which makes it difficult to realise how much energy is used during a specific activity, such as showering.

Moreover, when engaging in tourism activities most people are less incline to adopt environmentally friendly behaviours compared to everyday life. This can be caused by the fact that guests do not feel the financial pressure related to water and energy use, because they are not responsible to pay for the bills. Also, the majority of guests tend to feel less restricted with their daily routine while they are on a holiday.

## S

The study has focused on one specific energy-intensive activity performed on a habitual basis in hotel rooms: showering. A smart shower meter has been developed to be fitted to the shower in the bathroom of hotel rooms. This device measured the energy and water consumption of every shower taken and displayed feedback in real time.

A small screen on each shower meter was activated as soon as the water was turned on. It displayed the following information:

- Total water consumption in litres;
- Total energy use in kw-hours
- A dynamic rating of the current energy-efficiency class (A–G);
- A four-stage animation of a polar bear standing on a gradually melting ice floe with stage transitions at predefined energy-use thresholds.

## I

A field experiment was conducted in six Swiss hotels, between February and April 2016, with a total of 19,596 observations in 265 rooms.

The researchers carried out a randomised control trial, where 60% of the rooms were randomly assigned to the treatment group and received the shower meter that provided real-time feedback on water and energy use as described above. 40% of the rooms were assigned to the control group, where the devices only displayed water temperature.

Hotel guests were randomly selected and were unaware of the experiment. This has been done to prevent the “volunteer selection bias”, where the people voluntary opt-in to participate to the experiment, making the results potentially not indicative for the whole population.

## C

The study showed that hotel guests who received real-time feedback consumed 11,4% less energy per shower than the guests in the control group.

The experiment has demonstrated that activity-specific real-time feedback can be really effective to decrease energy consumption, not only among a sample of volunteers, but also among a random, uninformed sample of individuals.

A cost-benefit analysis of this intervention showed that the cost for installing the shower meter can be paid off in 2,2 years on average, which is a very low amortisation time compared to other energy efficiency measures.

## References

***Main article:*** *Tiefenbeck, V., Wörner, A., Schöb, S., Fleisch, E., & Staake, T. (2019). Real-time feedback promotes energy conservation in the absence of volunteer selection bias and monetary incentives. Nature Energy, 4(1), 35-41.*

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# REDUCING ROOM CLEANING IN HOTELS

*To Clean or Not to Clean?" Reducing Daily Routine Hotel Room Cleaning by Letting Tourists Answer This Question for Themselves*

## B

Hotel room cleaning is one of the areas where hotels are taking action to make their service provision more economically and environmentally sustainable. Some low cost hotels have stopped cleaning the rooms everyday by default, asking the guests to pay an additional fee if they want their room cleaned. Other standard or luxury hotels are proposing to guests the possibility to waive room cleaning in order to help protecting the environment. However, the majority of hotels present daily room cleaning as the default option.

This example shows an experiment that uses different default options with regards to room cleaning. Here, the preferred behaviour is that guests choose not to have their room cleaned everyday.

## A

Default option is defined as the behaviour that does not require any action when an individual is asked to make a choice. Many research works have demonstrated that defaults are very effective, because they require less physical, cognitive and emotional effort. In other words, when asked to choose among several options, an individual is much more likely to choose the one that is presented as the default. It is also useful to keep in mind that the default choice may be perceived as the recommended one, and therefore it ends up being the final decision.

When engaging in tourist activities, people are not making the active decision to harm the environment, however environment-friendly behaviours have proven to be less habitual during a holiday than in everyday life.

## S

The strategy tested in this study consisted in modifying the room-cleaning default option from a daily cleaning (with the choice of opting-out) to no daily cleaning (with the option to opt-in requesting a room clean for free every day).

Two types of door signs were designed: one displayed the message "Please do not clean my room" (opt-out option) and the other one displayed the message "Please clean my room today" (opt-in option). In addition, in the rooms where the opt-in option was presented, guests were also informed that the hotel was testing a new room cleaning programme, and therefore the rooms would not be automatically cleaned every day. However, the guests could ask for their room to be cleaned by displaying the "Please clean my room" sign on the door. In addition, a second type of message was also developed, providing the same information as the previous one, but adding an environmental argument for not cleaning the room when it is not necessary.

## I

A team of researchers conducted a quasi-experimental study in a three-star city hotel located in Ljubljana (Slovenia) during the months of July and August 2017. The room cleaning rates (number of room cleans divided by the length of stay) were measured under three different study conditions: In **group 1**, the control group, rooms were automatically cleaned on a daily basis, and guests could opt-out by using the "Please do not clean my room" door sign. In **group 2** the rooms were not cleaned every day and guests were given the choice to opt-in by displaying the "Please clean my room today" sign. In the same procedure as group 2 was adopted, but in addition guests were also given an environmental argument for not having their room cleaned everyday. The study only concerned leisure and business guests who stayed for at least two nights. Anonymous data about the guests' age, check-in/check-out dates, type of trip, and about the number of people in the room was also collected.

## C

For guests who stayed only two nights, in **group 1** (control group, where room cleaning was the default) 57% of guest parties had their rooms cleaned. This percentage dropped to 22% in **group 2**, where people needed to ask for their room to be cleaned (opt-in option) and to 28% for **group 3** (opt-in option plus environmental argument).

This difference is even more striking when observing guest parties that stayed more than two nights. In the control group, nearly all guest parties (98%) had their room cleaned every day. However, when no daily room cleaning was the default option, the proportion of guests who got their room cleaned was much lower. In **group 2**, 16% had their room cleaned every day, 26% had their room cleaned half of the time, and 42% never had their room cleaned. In **group 3** this percentage reached respectively 12%, 28% and 53%.

This suggests that changing the default option from daily cleaning to no cleaning, giving the freedom to ask for this service for free, can reduce the frequency of room cleaning without affecting customer satisfaction, with considerable benefits in terms of cost-effectiveness and environment protection.

### References

***Main article:*** *L. K. Cvelbar, B. Grün, S. Dolnicar (2019). "To Clean or Not to Clean?" Reducing Daily Routine Hotel Room Cleaning by Letting Tourists Answer This Question for Themselves.*

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# PROMOTING TOWEL REUSE IN HOTELS

*A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels*

## B

Many hotels are becoming increasingly conscious of the environmental and economic cost of their business practices. The replacement and cleaning of towels in the rooms is a particularly impactful activity, because of the required amounts of water, energy and time, and the release of detergent-related pollutants in nature.

Guests are being increasingly urged to reuse their towels more than once during their stay (preferred behaviour) rather than changing them every day (non-preferred behaviour).

## A

There are several factors that influence the choice of not reusing the towels more than once. For example, guests may be unaware of the possibility to keep the towel for more than one day, or they may not feel the financial pressure related to water and energy use, because they are not responsible to pay for the bills.

When inviting guests to reuse their towels, the hotels most often choose to focus their communication on the environmental benefits, based on the fact that most people consider themselves as environmentally conscious.

When framing their messages inviting to reuse towels, most hotels decide to do this in a purely informative way, by stating that towel reuse will help protect the environment.

## S

The research team developed five types of signs to be positioned on washroom towel racks. The signs were all inviting guests to participate in the hotel's environmental conservation programme by reusing their towels more than once during their stay. The first sign provided a standard information about the environmental impact: "HELP SAVE THE ENVIRONMENT. You can show your respect for nature and help save the environment by reusing your towels during your stay".

The other four signs framed the message in a slightly different way, providing information about social norms: indeed, they highlighted the behaviour of other previous guests. Each of these four signs focused on a different identity group, mentioning respectively guests in the whole hotel, guests in the specific room, guests defined to as citizens and guests defined to as men/women.

For example, the sign highlighting the social norm related to the other guests from the whole hotel stated the following: "JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. In a study conducted in Fall 2003, 75% of the guests participated in our new resource savings program by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay."

## I

Two separate field experiments were carried out in a midsized, midpriced hotel in the Southwest region of the United States.

Experiment 1 used only two types of signs: the one providing standard environmental information and the one mentioning the social norm at the hotel level. This experiment was carried out during 80 days, on 1058 instances of potential towel reuse, in 190 rooms.

Experiment 2 used all types of signs, highlighting the social norms of four different identity groups, and was carried out over a period of 53 days, in 1595 instances of potential towel reuse.
In both experiments, guests were not aware that they were participating in a study. The signs were placed randomly in the rooms by the hotel room attendant supervisors and the data about towel reuse was collected by room attendants through a form.

## C

Experiment 1 showed that social norms were a more powerful motivator to reuse towels than the mere environmental information. Indeed, guests that received the information about the behaviour of other guests in the same hotel reused their towels at a significantly higher rate (44,1%) than those who received only the information about the environmental conservation (35,1%). Experiment 2 demonstrated that the most effective message conveying social norms was the one highlighting the behaviour of former guests in the same room (49,3%), while in the rooms displaying the other types of messages the participation rate was 43,5% for the "citizens" identity group, 40,9% for the "men/women" identity group and 44% for the "whole hotel guests" identity group.

These experiments demonstrated the power of social norms to motivate people to engage in a certain behaviour. Experiment 2 also showed that individuals are more responsive to the social norms that apply to the setting they are currently occupying (in this case, their hotel room) rather than a particular identity (citizen or men/woman).

### References

***Main article:*** *L. K. Cvelbar, B. Grün, S. Dolnicar (2019). "To Clean or Not to Clean?" Reducing Daily Routine Hotel Room Cleaning by Letting Tourists Answer This Question for Themselves.*

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# CHANGING SERVIETTES IN HOTELS

*Changing service settings for the environment – How to reduce negative environmental impacts without sacrificing tourist satisfaction.*

## B

Many hotel restaurants provide guests with thick cotton serviettes during meals as a default in favour of recycled paper serviettes.

Hotel guests get free access to the resource intensive cotton serviettes instead of less water and CO2-emission intensive recycled paper serviettes without necessarily being aware or paying attention to the fact that cotton serviettes are far less green than paper serviettes.

In this example, the desirable behaviour is the use of recycled paper serviettes. The undesirable behaviour, on the contrary, is the use of thick cotton serviettes, which require higher amounts of water and CO2 to produce and clean.

## A

There are several behavioural reasons that can explain the choice of guests in hotel restaurants to use cotton serviettes in favour of paper serviettes.

1) The default included option of cotton serviettes at the tables may make guests instinctively use the most readily available option.
2) In addition, a lack of knowledge of the relative emissions and water requirements for each option may make guests either not know which option is greener or incorrectly think that cotton serviettes are greener.

## S

Based on the analysis above and previous research, it can be assumed that making recycled paper serviettes the default can make guests use fewer cotton serviettes.

Additionally, informing guests of the relative environmental impact of the serviette options can be necessary to prevent the possible frustration that could result from the change to paper serviettes.

The combined solution was therefore developed with two components:

1) Replacing thick cotton serviettes at the breakfast tables with recycled paper serviettes;
2) Each table had a sign, informing guests that the paper serviettes are offered for environmental purposes.

## I

A field experiment involving a 4-star rated hotel in Bohinj, Slovenia was conducted in 2016. The month of July served as the control with cotton serviettes as default, while August served as the intervention period with paper serviettes as default.

The observations were carried out between the 1st July and the 31st August 2016. Observations were collected and daily data was reported for the whole period.

In the intervention, both the default of paper serviettes as well as the table sign were shown together, as hotel management did not permit the green setting without table signs.

Customer satisfaction of the intervention was monitored in the routine hotel guest survey.

## C

This experiment has demonstrated that the change of default serviette together with the table sign can lead to a reduction of cotton serviette use by 96,8%.

According to the study, changing the default offered serviette type could reduce CO2 emissions by 265 kg in the field experiment period of July and August alone.

Customer satisfaction remained essentially unchanged before and during the experimentation. This suggests that these interventions do not have negative effects on the visitors' experience.

This study also highlights that guests under the cotton serviette default had different perceptions about the environmental friendliness of serviettes, but could not further explore the effect of this factor. The intervention could be replicated in similar service settings.

## References

***Main article:*** *Dolnicar, S., Kneževič Cvelbar, L., & Grün, B. (2018). Changing service settings for the environment – How to reduce negative environmental impacts without sacrificing tourist satisfaction. Annals of Tourism Research, 76, 301–304.*

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# CAMPOFELICE

## MAKING TAP WATER THE PREVALENT CHOICE

*Make it easy, salient, and reframe*

**B**

Many people when entering or at the campsite at Campofelice in Switzerland problematically buy single use plastic bottled waters for the duration of their stay.

Campers could have formed habits of bringing bottled waters from previous adventures. Also people could be fearful there won't be adequate or an easy accessible water supply upon arrival. These factors could contribute to this unpreferred behaviour.

It would be ideal for visitors to bring their own reusable bottles to be refilled by the taps throughout their stay.

**A**

We know from past work that simple information nudges can be helpful when people are unsure that a resource exists, in this case pristine tap water. It's not necessarily a lack of willpower but a lack of knowledge.

Also people appreciate a sure outcome especially when in an unfamiliar environment. Most camp goers know that bringing their own bottled water or buying some at a store nearby will ensure an adequate water supply.

Lastly, lack of salience in regards to where the taps are located and the issue of sustainability could be an issue here.

**S**

This problem could to some extend be an informational one. If people don't know for sure that the tap water is drinkable, then they will stick to bottled water. Therefore, a good strategy could be to inform the campers when they arrive (or even before), that the water is drinkable. They receive a branded water bottle, and the taps are made salient around the campsite with the same branding on it.

This should help to reduce ambiguity about the water quality.

**I**

This intervention was implemented without an experimental test during 2023. But during this year the effect will be be measured.

The way the nudge is tested will be through a measurement of recycled water bottles before and after the implementation of the nudge. In Switzerland they have a system for recycling bottles. This way the amount of recycled bottles at the campsite will be a good proxy for measuring the effect of the nudge.

**C**

The nudge is already implemented at Campofelice in Switzerland. Further scaling and implementation to other campsites and similar contexts could be possible if the nudge shows an effect.

### References

***Related literature:*** *Ellsberg, D. (1961). Risk, ambiguity, and the savage axioms. The Quarterly Journal of Economics. 75(4), 643–669.*

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# CONSUMPTION OF ANIMAL PRODUCTS

*How can we increase plant-based options?*

# CONSUMPTION OF ANIMAL PRODUCTS

*How can we reduce energy usage?*

## THE CHALLENGE

The production of animal products such as meat and dairy has been shown to both account for a significant percentage of global greenhouse gas emissions as well as using high amounts of water[1].

In 2015, the International Agency for Research on Cancer furthermore stated that consumption of red and processed meat can potentially cause cancer in humans[2]. The consumption of animal products therefore also likely results in negative health consequences.

With a growing focus on public health, protection of the environment, and the scarcity of water resources, there is an increasing pressure on the hotel and food service industry to push guests towards plant-based options. However, the hotel and food service industry does not seem to be well equipped to guide guests away from animal products while preserving the freedom of choice that can result in a great experience for many guests.

The choices of guests in the hotel and food service industry depend on several factors: for example, the taste, price and presentation of different plant-based options. However, the timing and context in which guests choose their meal options can also play a big role in how the different preferences of guests can affect their choices.

The following descriptions of nudges will address this issue.

[1] González, N., Marquès, M., Nadal, M., Domingo, J. L., 2020. Meat consumption: Which are the current global risks? A review of recent (2010–2020) evidences. In: Food Research International, Vol. 137, November 2020
[2] IARC, 2015. Red Meat and Processed Meat. In: IARC Monographs, Vol. (2015)

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# PROMOTING HEALTHY FOOD AT CONFERENCES

*Nudging healthy and sustainable food choices: three randomized controlled field experiments using a vegetarian lunch-default as a normative signal.*

## B

Many conferences allow guests to declare their preferred meal types during the conference at the time of booking, both to designate preferences and dietary restrictions.

Conference guests get access to a number of options, of which typically one is vegetarian. Many people declare a wish to eat less meat, but still choose menus composed with meat products. As a result, more meat products are consumed.

In this example, the desirable behaviour is for conference guests to choose the vegetarian option when booking their trip. The undesirable behaviour, on the contrary, is the booking of meat options, which leads to higher meat product consumption.

## A

There are several behavioural reasons that can explain the choice of meat products in spite of a wish to consume fewer meat products.

1) The typical booking experience relies on a default choice, or a choice that enters into force unless the guest actively chooses an alternative option. This may cause guests to choose the default option due to not paying attention to other choices that could be selected.
2) The default choice of meal options when booking may send a normative signal of what is expected by the conference organizers.

## S

Based on the analysis above and previous research on default choices, it can be assumed that switching the default option from a meat-based to a vegetarian meal could lead to a higher share of guests choosing vegetarian meals.

The solution developed was a default change in the electronic conference registration form sent out prior to the conference.

This change made the vegetarian option the default in favour of the otherwise standard meat option.

## I

Three field experiments involving three conferences were conducted. In each, conference participants were randomly assigned to two groups.

In both groups, everything in the conference form was identical except the default choice regarding food preferences for lunch during the conference.

The conferences were carried out between the 1st September 2017 and the 17th January 2019.

## C

This experiment has demonstrated that making the vegetarian meal the default option has led to 87% of guests choosing it against meat-based meal; in the control group, where the meat-based meal was the default option, only 6% chose the vegetarian meal.

In one of the field experiments highlighted the participants were informed in an individual questionnaire about the experiment, its result and that they had been a part of it. They were then asked whether they approved of the nudge or not, by answering either 'I approve of changing the default option to a vegetarian buffet' or 'I do not approve of changing the default option to a vegetarian buffet'." Results showed that the nudge acceptability rate was at 90%, much higher than the previously shown acceptability rate of 30%-60%. Additionally, it was also shown that men were much more likely to opt-out of the vegetarian default options than women.

This study also highlights that default choice interventions could easily be replicated in other settings where meal options are chosen in advance of the actual consumption of the meal.

## References

***Main article:*** *P. G. Hansen, M. Schilling, M. S. Malthesen (2021). Nudging healthy and sustainable food choices: three randomized controlled field experiments using a vegetarian lunch-default as a normative signal.*

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# FLOW MANAGEMENT

*How can we manage the flow of people?*

# FLOW MANAGEMENT

*How can we manage the flow of people?*


## THE CHALLENGE

The pressure on natural resources and infrastructure from tourists at popular destinations has received renewed attention in recent years under the new term 'Overtourism'[1]. In addition to challenging conservation efforts, it has been shown that overcrowding at popular tourist destinations can also increase feelings of anxiety and perception of danger for visitors[2].

Managing the flow of people in a particular destination and across multiple places over time is an important factor in ensuring the safety and sustainability of popular tourist destinations. Spreading out crowds effectively can both ensure safe evacuations in emergencies as well as limiting the strain that visitors put on the local environment.

Despite the importance of crowd management, the tourism industry does not seem to be well equipped to face the challenges with managing the flow of people without interrupting or negatively impacting the experience of visitors. Directing crowds in subtle and less forceful ways can help enhance the safety and preservation of locations without damaging the experience of visitors.

The following descriptions of nudges will address options to manage crowds without harming the experience of visitors.

[1] Dodds, R., Butler, R., 2019. The phenomena of overtourism: a review. In: International Journal of Tourism Cities
[2] Yu, J., Roman, E., 2021. Tourist Experiences at Overcrowded Attractions: A Text Analytics Approach. In: Information and Communication Technologies in Tourism 2021

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# NUDGING PASSENGER FLOWS IN AIRPORTS

*Nudging passenger flow in Copenhagen airports.*

## B

The flow of passengers throughout the Copenhagen airport is important to the more than 30 million annual passengers (in 2019) passing through the airport. To ensure safety and improve passenger experience, it is therefore necessary to limit natural bottlenecks throughout the airport.

One bottleneck in the airport is the exit located at the customs area. All passengers exiting the airport must pass through the two double-doors by this exit in order to reach connecting trains, buses and taxis. Observation data has shown that approximately 90% of passengers use the right door in this exit, thereby creating an artificial bottleneck.

In this example, the desirable behaviour is a balanced use between the left and right door of the exit. The undesirable behaviour, on the contrary, is the excessive use of the right door.

## A

Three behavioural reasons were found that can explain the excessive use of the right exit door by passengers in the airport.

1) The customs area poses an obstacle on the left side of the corridor for passengers with nothing to declare. This obstacle then forces more people to initially be in the right side of the corridor moving towards the exit and thus use the right door from the desire to walk in a straight line towards the exit.
2) Taxis are placed on the right side of the exit, which may lead many passengers to use the right door.
3) When very few passengers use the left exit, it may lead other passengers to think that the door is closed and thus purposefully avoid it.

## S

Based on the analysis above and previous research, it can be assumed that the excessive use of the right door is due to a lack of attention to the fact that the left door works equally as an exit path.

The solution to increase attention to the left door was developed and tested by creating two lanes in the floor that simulate driving lanes towards the exit. Each lane was also labelled to prompt people to use the corresponding exit.

The initial lane split was made so the left lane was wider than the right lane to accommodate the obstacle of the customs area.

The labels for the prompt and the lanes were made with duct tape.

To increase salience of the intervention, both muted and brightly green duct tape was used.

## I

A quasi-experiment with pre-post design was conducted at the entrance.

First, a control period was carried out a couple of days prior to the interventions. Second, the dark green lanes were deployed. Last, the neon green lanes were deployed. Both interventions were carried out over the same day.

A total of 10.895 passengers were observed over the test period.

Finally, the variable of interest in the experiment was the proportion of passengers using respectively the left and right exit doors.

## C

This experiment has demonstrated that the use of designated lanes to provide guidance for the flow of crowds, particularly with bright and more salient colours, led to a usage of the left exit door of 24,5% over the control usage of 10,75%.

The experiment with muted colours highlighted that more salient colours have stronger effects on the flow of crowds.

According to the study, helping to direct people through cheap guidance lanes can affect the flow of crowds in a cheap and effective manner.

This study also highlights that such interventions could be easily replicated in other settings where asymmetric obstacles create artificial bottlenecks for crowds.

## References

***Main article:*** *Hulgaard et al. (2016) Nudging passenger flow in Copenhagen airports*
*Located at: https://inudgeyou.com/wp-content/uploads/2017/08/OP-ENG-Passenger_Flow.pdf*

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# NUDGING SMOKERS IN AIRPORTS

*Nudging smokers in Copenhagen airports.*

## B

Airports deal with many travellers daily, of which many are smokers. In order to avoid the spread of secondhand smoke, most airports ban indoor smoking, resulting in smokers moving outside, often directly beside entrances.

Avoiding secondhand smoke from smoking crowds in front of entrances of buildings can therefore be difficult. It may be uninviting for new travellers as well as problematic for indoor ventilation, which often relies on natural ventilation through entrances and nearby open windows.

In this example, the desirable behaviour is for smokers to voluntarily smoke away from designated non-smoking areas. The undesirable behaviour, on the contrary, is when smokers stay within non-smoking areas such as by the entrances.

## A

There are several behavioural reasons that can explain the decision of smokers to smoke in designated non-smoke areas.

1) The decision of where to smoke typically happens after the cigarette has been lit, just after exiting the building. As such, the lowest effort choice of location for smoking is the place that is closest to them.
2) The readily available walls and benches in non-smoking areas also served as comforts for smokers that do not exist in other areas.
3) Smokers were also hypothesized to seek 'social proof', by imitating behaviour they saw. As such negative and positive patterns of behaviour could be self-reinforcing as smokers would imitate each other.

## S

Based on the analysis above, it can be assumed that the decisions of smokers can be altered through making smoking areas more comfortable and easier to reach. Three solutions altering the social cues were therefore developed:

1) Putting stickers on the ground to guide the search for a place to smoke;
2) Creating designated zones for smoking, thereby giving smokers a perceived recommended option for where to smoke;
3) Re-arranging the layout of the smoking areas to be more comfortable by moving benches into the previously barren areas.

## I

A field experiment applying the three solutions in three areas with a high concentration of smokers were conducted. An observation of these areas was carried out between March and May 2013. In total 3184 smokers were observed by observers dressed as travellers trying to blend in with the crowd.

Of these 1695 were observed during the control period, while 1489 were observed during the intervention period. Smokers who smoked the entirety of their cigarette outside the non-smoking zone were treated as compliant with the rest being non-compliant.

Multiple different areas were selected to introduce environmental noise to the observation data.

## C

This experiment has demonstrated that the combined three interventions led to a reduction in non-compliant smoker behaviour by 49,0%.

Later supplementary observations three years later showed that the intervention had a persistent effect when the interventions were visible and not too degraded by wear and tear.

The study also highlights that the mechanisms utilized in this intervention should be easily implementable in other settings.

However, this study also cautions that the target behaviour of the intervention is specifically smokers that search for a place to smoke. Similar interventions cannot be replicated in settings where people are on-the-go and do not have reason to stop and search for a place to smoke.

## References

***Main article:*** *Schmidt et al. (2016). Nudging smoke in airports.*
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# PROMOTING SAFE BOARDING AT AIRPORTS

*Brazil airline using floor projections to speed up safe boarding at airports.*

## B

All airlines must have a structure in place for the safe and hasty boarding of passengers onto their airplanes.

Passengers often are grouped in ways that can create bottlenecks in the process and contribute to a slower and more unorganized boarding. As a result, boarding takes a longer time. In addition, during the Covid-19 pandemic it was more difficult to keep a safe distance between passengers during the boarding process.

In this example, the desirable behaviour is the structured boarding of passengers onto airplanes. The undesirable behaviour, on the contrary, is the unstructured boarding of passengers onto airplanes, which leads to wasted time and a lowered sense of safety.

## A

There are several behavioural reasons that can explain the lack of structure during the boarding process.

1) Passengers do not know in which order boarding will be the most efficient and coordinated.
2) In the often stressful and confusing situation of an airplane boarding, many passengers prioritize their own hasty entry into the planes with a disregard for the creation of bottlenecks.
3) The process of boarding places attention on getting into the plane, leading inattentive passengers to not consider keeping a safe distance to other passengers during the process of boarding.

## S

Based on the analysis above and previous research, it can be assumed that giving passengers guidance and a structured order of boarding could lead to a decreased boarding time and a safe distance between all passengers.

The Azul air company has therefore developed a projection of a moving carpet visual onto the floor that passengers could follow while boarding. Each seat number would have a projected position, so passengers would see and know their boarding order and thereby give a structured and safe boarding process into the plane.

## I

This solution has been developed by an air company but has not been formally tested in an academic context. However, a video example form an airport shows how the solution works in practice. It can be found in the link below.

## C

The solution has been claimed by the Azul air company to reduce boarding time by up to 25%.

### References

***Main article:*** *Haynes, D. (2020). Brazil airline using floor projections to speed up safe boarding at airports. Located at: https://www.sixteen-nine.net/2020/09/16/brazil-airline-using-floor-projections-to-speed-up-safe-boarding-at-airports/*

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# TICINO TICKET

## DESTINATION-LEVEL EFFORT AT SCALE

*Economic incentives presented with nudging.*


The problem in this case is that not enough visitors to the Ticino region took public transport to enter the area through the duration of their stay. This cause major congestions issues on top of all the environmental issues that mass private transportation brings.

It would be ideal if visitors took more public transportation or “slow-travel” means to enter the region as well as during their stay.


People perceive renting a car as a part of their normal trip expenses. Even some travel companies offer deals on rental cars with plane or other travel tickets. This up front cost goes into a separate expected bucket or Mental Account.

The Mental Accounting for public transport is different as it usually requires paying for each trip. The sting of paying each times makes it seem more costly, but in reality could be cheaper on top of being better for the environment. This line of thinking is consistent with the literature on loss aversion. The sting of paying each time builds and becomes very difficult psychologically instead of a one time car purchase that was framed as a “deal”.


The Ticino Ticket allows travellers to freely visit every corner of the southernmost Canton of Switzerland. If staying overnight in a hotel, hostel or campsite there is a possibility to use, for free, public transport and to get discounts on mountain railways, boat trips on the Swiss part of the lakes and on the main tourist attractions of Ticino.

Although the Ticino Ticket being “free” public transport seems like a purely economic intervention, there are some behavioural strategies that can be used here. First off, in the way the ticket is being framed as “free” can be seen as a behavioural solution as surely it can’t be free in reality, but the cost is not paid at each point of purchase.


The Ticino Ticket was implemented and tested in the region. A communication effort was made to disseminate the new ticket. An app and a website was created. It was and still is widely advertised so any visitor to the area is sure to know about it.


The exact results of the test is hard to measure, as a lot of variables influences this. The test was not done as an RCT, or an experiment per se.

Anyhow, 60 % is said to have used public transportation more often, while 50 % of travellers visited more places than they would have without the ticket (measured by surveys probably). Furthermore, 40 % is said to have visited more remote areas, than they would not have considered a possibility without the Ticino Ticket. These numbers are based on ticket sales data and surveys.

### References


***Main references***

*BehaviorSMART*
*Ticino ticket*
*BeST – Behaviour Smart community for Tourism*

***Related literature***

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*Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. American Psychologist, 39(4), 341-350. https://doi.org/10.1037/0003-066x.39.4.341*
*Christina Gravert, Linus Olsson Collentine, When nudges aren’t enough: Norms, incentives and habit formation in public transport usage, Journal of Economic Behavior & Organization, Volume 190, 2021, Pages 1-14, ISSN 0167 2681,https://doi.org/10.1016/j.jebo.2021.07.012.*



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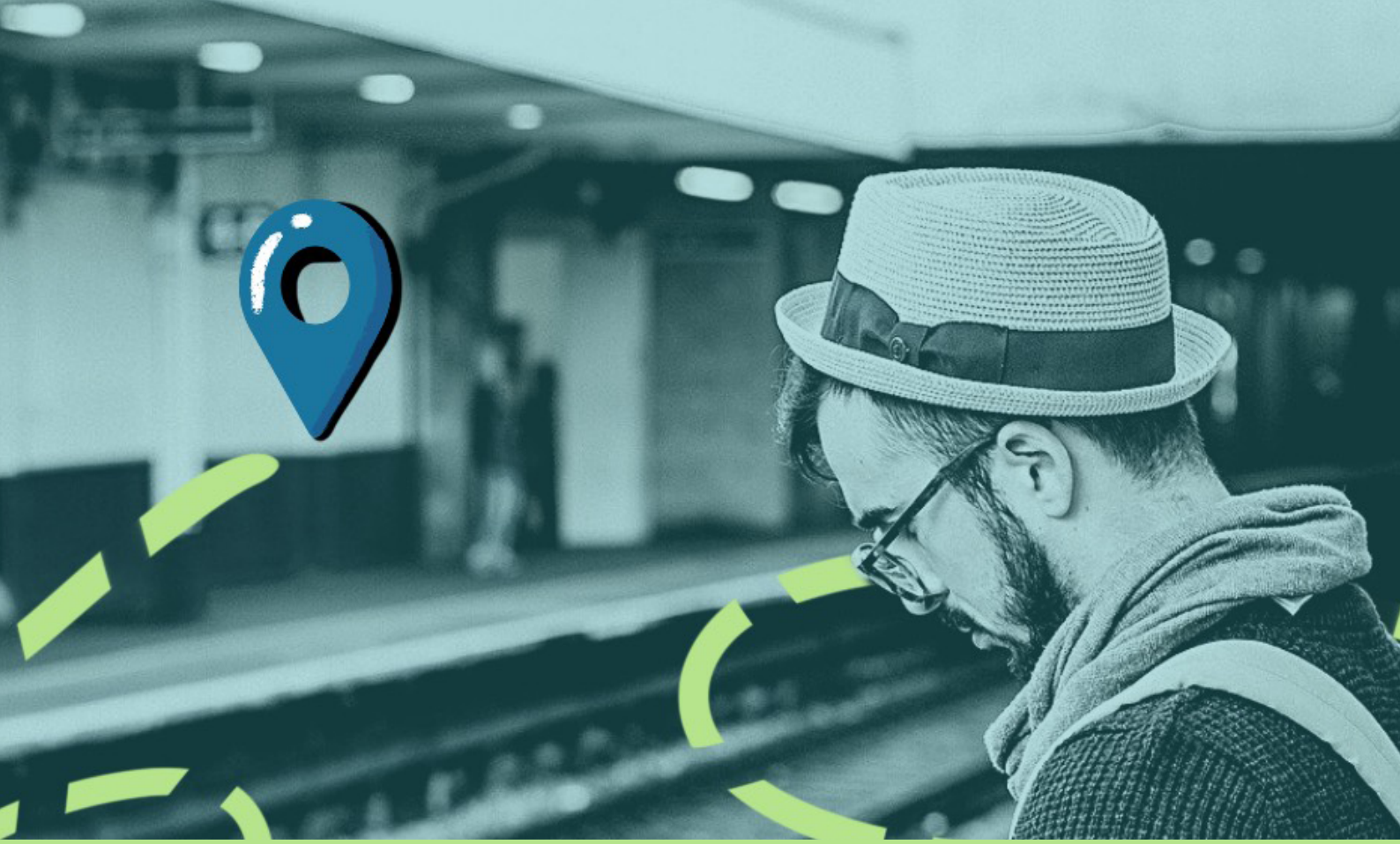

# OPPORTUNITIES AND CHALLENGES

## - with recreating nudges

# OPPORTUNITIES AND CHALLENGES WITH RECREATING NUDGES

## INTRODUCTION

By now we hope that the opportunity nudging provides to increase the uptake of desired behaviour is clear. But it is also important to note that these techniques have some challenges and remember, importantly, that they are not:

1. A silver bullet
2. One-size-fits-all
3. Only for behavioural experts

It would not be advised to blindly use a successful nudge in one context and immediately apply it to your context. It could work, but there are some steps to consider in between and testing that is needed. What follows is a brief explanation of what to consider when using components of a successful nudge elsewhere or designing your own from scratch.

## FIRST CONSIDERATION
### - IS IT A BEHAVIOURAL PROBLEM?

This is the most important step and legitimate question to ask. Plainly, a nudge will not work unless it is solving a behavioural problem. A behavioural problem is:

> *"a pattern in behaviour, whether regarded in terms of attention, belief formation, choice or determination, that occurs despite people having good reason to act otherwise. Hence a behavioural problem is not a problem of lack of: access to information; proper attitudes; right incentives or sanction; or a need for further regulation such as a ban or prohibition."*
>
> - Definition of a behavioural problem (OECD, 2019: 59).

An example is when you run a hot shower too long because it is so hard to resist the temptation, even though you know the negative impact on water conservation efforts.

# NUDGE REPLICATION AND SCALABILITY

To understand or design nudges that are replicable you need to think about their ability to be implemented more widely. It is important to start at the end to imagine the intervention in its full form, including necessary constraints or problems you will encounter.

The five steps below can help facilitate this crucial assessment:

1. **Be aware of potential false positives**
   - These are inaccurate signs that success will continue as you look to expand or implement an intervention.

2. **Representativeness of the population**
   - Understand the people whose behaviour you want to change, evaluate other previously successful nudges for similarities, and think about the impact of a new or slightly different intervention.

3. **Situation Context**
   - It is important to be critical and realistic about the decision environment, architecture, and context to identify key behavioural drivers.
   - Use the 4 categories of behavioural problems (OECD, 2019: 66)
     - *Attention*, Choice, Determination and Belief Formation BASIC.

4. **Unintended consequences**
   - When analyzing or designing interventions it is important to account for negative spillovers and look for mitigation strategies or counteracting actions.
   - Consider potential boomerang effects in which a persuasive message produces attitude change in the direction opposite to that intended.
   - A good place to consider morality.

5. **Factor in costs**
   - Project your upfront costs and ongoing operating expenses
   - Costs here can be a variety of different things not just monetary
     - Psychological, time, the talent of your team, etc.

# REPLICATE, CUSTOMIZE OR DEVELOP?

Thinking through the previous steps it can now be determined if a previous nudge can potentially be replicated, either directly or with modification, or developed from scratch. As a minimum you must consider the target behaviour and the context of the intervention, before you choose one of the following three strategies:

1. **Replicate**
   - If both the context and the cause of the behaviour are the same, then a more direct replication could be wise.

2. **Customize**
   - If the context differs but the cause of the behaviour is the same, you should make changes to the original intervention
     - Investigate the changes in the context to define what the tweaks should be.

3. **Develop**
   - If both the context and the root cause of the behaviour are different, then you should consider developing a new strategy, that would be much more effective in the new setting.

No matter the instance context needs to be at the top of mind. This is said best by two founding members of the original Behavioural Insights Team in the UK:

> *"[…] the contexts we live in fundamentally influence our decisions, meaning that even if a particular bias is universal, it will not always be possible to transplant an insight or intervention successfully from one setting into another."*
>
> (Hallsworth and Kirkman, 2020: 141)

It might be helpful to know some intervention scenarios that are more likely to stick or translate across different contexts. In general, nudges that automate some aspect of the decision-making process tend to have more impact. A possibility here would be defaulting or making it the standard that people's towels won't get replaced unless otherwise requested. In addition, salience has shown to be effective in the long term. For example, real-time feedback while showering has been shown to reduce the energy consumption of hotel guests.

# ALWAYS TEST!

A nudge should never be implemented without further testing, even if it was changed only slightly from a previously successful nudge or the exact same in a different context. It does not have to be a large test. Your testing goal can be accomplished with a simple pilot, creating an initial test at a small scale. This can give you evidence and confidence that your intervention could work when implemented widely or if further testing is needed.

The best part about all this is that anyone can run an experiment and test!

Here is a minimal checklist for carrying out an experiment:

- Define a valid measure – preferably the behaviour itself.
- Make sure the measure is reliable.
- Plan for how to collect data – both behavioural and background data.
- Consider how the data is going to be analysed.
- Write out your experimental design:
  - Describe how people are placed into groups.
  - Describe how data collection is done.
  - Describe the control group.
  - Describe the treatment groups.

The golden standard of testing would be conducting a Randomized Controlled Trial (RCT) (OECD, 2019: 34-35). This allows you to control the environment to help determine if your nudge truly caused a certain outcome. An RCT is not the only way to conduct a test and, in fact, can be hard given your situation. Instead, you may be able to do quasi-experiments that allow you to control different inputs (OECD, 2019: Intervention). If the experiment shows some promising results based on the defined measurements, you are ready to start implementing the nudge in the real world!

# CONCLUSION

You don't have to start from scratch, and it is possible to use one intervention in another situation, but only after careful analysis and some small tests in your context. Also, when designing from scratch have future scalability in mind as well to facilitate this step for other practitioners. If you do a small pilot test and the results do not replicate that is not a bad thing. This is now an exciting opportunity to learn something new about behaviour in your specific environment. This will add to the broader knowledge of applied behavioural science. So share your failures in addition to your successes!

## NUDGE IMPLEMENTATION CHECKLIST

- ✅ Is this problem a behavioural problem?
- ✅ Have you considered the situational context?
- ✅ Is it possible to replicate or customize an existing nudge? Or do you develop our own?
- ✅ Have you considered the target population and implementation costs?
- ✅ Have you made a pilot test of the nudge
- ✅ Are the results promising? If yes implement the nudge! If not, readjust and test again.

# HOTEL & SPA INTERNAZIONALE

*Improve environmental footprint and local economy. Make it easy, salient, and appealing.*

## B

Visitors often go shopping while on vacation in the area. With that comes the use of plastic or shopping bags for only 15-20 mins before throwing them away.

In the hotel rooms themselves people often use single use plastic cups or other plastic products with limited uses.

It would be nice to support the local shops and business while at the same time keeping in sustainability for the planet, but also local economy.

## A

There are so many things to remember when packing for a vacation that bringing along a reusable bag that is not seen as necessary can easily be forgotten.

When it comes to shopping locally it can be hard to determine what products come from nearby and what is imported.

In general, friction points cause cognitive strain and increased forgetting or inattention on pieces of information that are not vital.

## S

In this case it would be best to draw upon interventions that make the preferred behaviour easy. Instead of overloading visitors with more information it is best to provide them the necessary materials at crucial decision points or salient points in the hotel environment.

For example, local shops can use a symbol to denote something is from the region. That symbol can similarly be applied to things like restaurant menus when patrons are deciding what to eat.

Reusable shopping bags can be placed on a hook at the door of people's rooms or the exists of the hotels themselves. If other shops are on board they can even have an option to buy or rent a reusable bag.

## I

We do not know how the specifics of this testing, but the intervention was to have people use less plastic shopping bags by providing them with a reusable one.

Also to highlight local products on the restaurants menus at the several different eating points.

## C

This is unclear, but seems to have worked in theory.

## References


***Main references***

*BeST – Behaviour Smart community for Tourism*
*BehaviorSMART*

***Related literature***

*Thaler, R. H. (2015). Misbehaving: the making of behavioral economics. First edition. New York, W.W. Norton & Company.*



nudge my tour

Co-funded by the European Union

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